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REMEDIAL INVESTIGATION REPORT
FORMER INDUSTRIAL SERVICE CORPORATION
920-926 STOWELL STREET
ELMIRA, NEW YORK
NYSDEC SITE NO. 808045

Prepared For:

TRIPLE CITIES METALS FINISHING CORPORATION
AND
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Certification

I, Forrest C. Earl, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Remedial Investigation Report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10), dated May 2010 and that the activities completed were in accordance with Department-approved work plan(s) and Department-approved modifications.

Signature: _____

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1 INTRODUCTION

GeoLogic NY, P.C. (GeoLogic) was retained by Triple Cities Metal Finishing Corporation (TCMF) to complete a Remedial Investigation (RI) at the Former Industrial Service Corporation (Site). The Site is located at 920-926 Stowell Street in City of Elmira, Chemung County and State of New York (see Drawing No. 1, Appendix A).

1.1 PURPOSE AND SCOPE

The Site is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site No. 808045. TCMF entered into an Order on Consent and Administrative Settlement (Order), Index No. CO 8-20151022-133, dated September 25, 2017, with the New York State Department of Environmental Conservation (NYSDEC). This RI has been completed pursuant to the Order.

The scope of work completed during the RI was intended to assist in completing a conceptual site model that was initiated during the Site Characterization (SC) process. These elements included further defining the nature and extent of contamination and identifying appropriate remedial measures necessary to address hazardous constituents detected on-site that have the potential to adversely affect human health or cause significant off-site impact. The purpose of this RI report was to present the results of the RI completed, as well as selected past data from the Site.

The RI was completed in accordance with the *Remedial Investigation Work Plan* (RIWP), dated October 2017 and revised February 2019. The RIWP addressed elements, as appropriate, established within the NYSDEC Division of Environmental Remediation (DER) Program Policy guidance manual *Technical Guidance for Site Investigation and Remediation* (DER-10, May 2010). The RIWP was developed based on previously completed investigations at the Site as documented in the *Site Characterization Letter Report* (June 2014) and *Supplemental Site Characterization Letter Report* (December 2014)*, Triple Cities Metal Finishing, Site No. 808045, Chemung County, NY* prepared by URS Corporation for the NYSDEC.

1.2 SITE DESCRIPTION AND BACKGROUND

The Site consists of a 0.85-acre parcel with an address of 920-926 Stowell Street, tax map ID number 89.11-1-25. The Site is currently owned by Chemung County. The RI encompassed the Site as well as parts of four adjacent vacant tax parcels (see Drawing No. 2, Appendix A). Combined, the four adjacent tax parcels are approximately 1.51 acres in size. The Site and the four adjacent parcels are identified in this RI report as the Study Area. The Study Area (Site and four adjacent tax parcels combined) is approximately 2.36 acres in size.

The Site is currently zoned for industrial use. The main site features include an industrial building of approximately 25,000 square feet with a vegetated slope to the east of the building and a fenced, gravel and paved access area north of the building. An industrial building has been present on the Site since at least 1950 and possibly as early as 1931. The building has been occupied by metal plating businesses since at least 1950. The building footprint was expanded between 1950 and 1988. The Site is currently vacant and has been vacant since

around the 2000's. The building is in poor physical condition, especially in the northern half. The retaining wall located adjacent to the northeast portion of the building has collapsed. The structural integrity of the building will need to be evaluated prior to any additional investigative and/or remedial work.

The parcels immediately adjacent to the Study Area are currently occupied by the following: To the north and east is a Class 2 Inactive Hazardous Waste Site (Shulman's Salvage Yard, NYSDEC Site No.808013), to the northwest is an automotive repair business, to the south are residences, to the southwest is a furniture maker and a mission (former bus garage), to the west is a storge building, residences and railroad tracks. NYSDEC remediation sites in the vicinity of the Site are depicted on Drawing No. 3, Appendix A.

The Site has access to all major utilities including municipal potable water (Elmira Water Board), sanitary and storm sewers (Chemung County Sewer District) and electric and natural gas (NYSEG). The Site is currently vacant and none of the utilities are active.

1.3 HYDROGEOLOGIC & GEOLOGIC SETTING

The Site is located in the Susquehanna River Basin approximately one-mile north of the Chemung River, 3,500 feet west of Newtown Creek and 3,700 feet southwest of the Sullivan Street well field. The Site is positioned on a terrace that slopes steeply down to the east to the Newtown Creek valley floor. There is approximately a 30-foot change in surface elevation across the Study Area in a west to east direction.

No federal wetlands, state wetlands or significant natural communities are located at the Site or within half of a mile of the Site (NYSDEC, Environmental Resource Mapper, 2019).

The Site is mapped as being on a kame terrace (Randall & Miller, 1982). The soils observed in soil borings within the study area exhibited glaciofluvial characteristics consisting of fine grained sand and silts overlying a denser glacial till. The northern portion of the Site is noted as having approximately 20 feet of fill soils. Underlying bedrock is mapped as West Falls Group shale. Depth to bedrock on the terrace is anticipated to be at least 90 feet below ground surface (Randall & Miller, 1982).

The Site lies at the boundary of the Elmira-Horseheads-Big Flats primary aquifer (Randall & Miller, 1982). Direction of groundwater flow within the aquifer in the vicinity of the Site is mapped to the southeast (Randall & Miller, 1982).

Depth to groundwater within the Study Area ranges from approximately 2 to 37 feet below ground surface. Based on the static groundwater levels collected during the SC and the RI, the direction of groundwater flow at the Site has flow components to the northeast and southwest.

The direction of groundwater flow at NYSDEC Site No.808013 - Shulman's Salvage Yard which adjoins the Site to the north and east, has been mapped to the east and east-northeast (Malcolm Pirnie, 1987).

1.4 PREVIOUS INVESTIGATIONS

A Site Characterization (SC) was completed by URS Corporation for NYSDEC. The SC was performed in two stages between 2013 and 2014 (*Source: Site Characterization Letter Report (June 2014) and Supplemental Site Characterization Letter Report (December 2014), Triple Cities Metal Finishing, Site No. 808045, Chemung County, NY* prepared by URS Corporation for NYSDEC). The SC included the following:

- Performed and documented a building review for the Site;
- Installed (5) five groundwater monitoring wells and analyzed groundwater for volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) on the NYSDEC Target Compound List (TCL), Polychlorinated Biphenyls (PCBs), Target Analyte List (TAL) Metals, Pesticides TCL, Cyanide and Hexavalent Chromium;
- Collected surface soil samples and analyzed them for VOCs and SVOCs on the NYSDEC TCL, PCBs, TAL Metals, Pesticides TCL, Cyanide and Hexavalent Chromium;
- Collected subsurface soil samples and sub-slab soil samples that were analyzed for VOCs and SVOCs on the NYSDEC TCL, PCBs, TAL Metals, Pesticides TCL, Cyanide and Hexavalent Chromium. Additional subsurface soil samples and sub-slab soil samples were collected and analyzed for a reduced analytical scope that included VOCs on the NYSDEC TCL, TAL Metals, Cyanide and Hexavalent Chromium;
- Collected concrete chips from floors and analyzed them for SVOCs on the NYSDEC TCL, PCBs, TAL Metals, Pesticides TCL, Cyanide and Hexavalent Chromium;
- Collected sub-slab soil vapor samples and analyzed them for VOCs on the TO-14A List;
- Established monitoring well locations and reference elevations for the development of groundwater contour maps.

The conclusions reached from the SC initiated a NYSDEC notification letter to TCMF of the Department's intent to consider the Site for inclusion on the Registry of Inactive Hazardous Waste Disposal Sites in New York State. The Site is currently listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site No. 808045 with a Classification of 2 pursuant to ECL 27-135.

The SC identified a potential source area for chlorinated volatile organic compounds (CVOCs) located in the southeast portion of the Site building. Elevated CVOC and metal concentrations were detected in both soils and groundwater at the Site and off-site within the Study Area.

The data from the SC was utilized in developing the scope for the RIWP. The groundwater data, surface soil data, subsurface soil data and sub-slab soil data from the SC was included with the RI data and are summarized on Table Nos. 3, 4, 5 and 6 respectively, see Appendix B.

2 INVESTIGATION SCOPE

The RI scope of work for the Site was outlined in Exhibit B, an attachment to the Order on Consent, and the NYSDEC-approved RIWP. The objective of the RI was to further assess the nature and extent of site-related environmental impacts identified in the SC, and to evaluate the risks posed to human health and the environment by those impacts.

2.1 SUMMARY OF RI SCOPE

The following scope of work was completed:

- Evaluated groundwater quality by collecting and analyzing groundwater samples from the existing monitoring wells (MW-1 through MW-5).

- Collected and analyzed groundwater samples from selected monitoring wells (MW-1, MW-3 and MW-5) for Emerging Contaminants (ECs).

- Further evaluated a potential source area for CVOCs at the Site by advancing five (5) soil borings. The borings were located both inside the southeast section of the building and outside the building adjacent to this area. The soil borings were advanced to equipment refusal (approximately 10 feet below ground surface (bgs)). Continuous soil samples were collected to the termination depth and soils were visually characterized and screened using a photoionization detector (PID). Select samples were submitted for laboratory analysis.

- Installed two additional groundwater monitoring wells (MW-6 and MW-7) to assist in further evaluating direction of groundwater flow and water quality in the study area. Continuous soil samples were collected to the termination depth (approximately 40 feet below bgs) and soils were visually characterized and screened using a PID. Select samples were submitted for laboratory analysis.

- Collected another round of groundwater samples from all existing and the two newly installed monitoring wells (MW-1 through MW-7) for laboratory analysis.

- Completed in-situ hydraulic conductivity testing at selected monitoring wells (MW-1, MW-2, MW-4 & MW-5) to allow hydrogeologic characteristics to be assigned to soils.

- Laboratory analysis data were submitted for data validation and data usability summary reports (DUSRs) were prepared.

- The locations and elevations of the 2023 soil borings and all permanent monitoring wells were established by a licensed land surveyor.

- Developed this RI Report.

3 CONTAMINANTS OF CONCERN

The primary contaminants of concern for the Site were identified during the SC are summarized below:

- Chlorinated Volatile Organic Compounds (CVOCs) - 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, *cis*-1,2-dichloroethene (DCE), trichloroethene (TCE).

- Metals - Arsenic, Cadmium, Chromium, Copper, Nickel and Zinc.

Other classes of compounds were detected at the Site, above method detection limits, including semi-volatile petroleum-related compounds, pesticides, PCB and cyanide. Based on the contaminants, the concentrations, the locations, and the Site history, these compounds are not considered contaminants of concern for this Site.

4 RI WORK

The following subsections describe the field activities completed during the RI. The methods employed during the execution of the field tasks, as well as the procedures implemented to ensure the quality of the resulting field and laboratory data are summarized below.

4.1 2019 GROUNDWATER SAMPLES

On November 19 and 20, 2019, GeoLogic collected groundwater samples from groundwater monitoring wells MW-1 through MW-5. The locations of the monitoring wells are depicted on Drawing No. 4.1, in Appendix A.

The 2019 groundwater sample numbering and analyses completed are summarized in the table below:

Table 4.1
Analytical Testing Summary - November 2019 Groundwater Samples

Sample ID	Date(s)	Matrix	TCL VOCs	Metals	ECs
MW-01	11-20-19	GW	X	X	X
MW-02	11-20-19	GW	X	X	
MW-03	11-19 & 11-20-19	GW	X	X	X
MW-04	11-20-19	GW	X	X	
MW-05	11-19 & 11-20-19	GW	X	X	X

Notes:
GW = Groundwater
Metals = Arsenic, Barium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium & Silver
ECs = Emerging Contaminants = 1,4-Dioxane & PFAS

The depth to groundwater was measured in each well prior to collecting the groundwater samples. The depth to water and corresponding groundwater elevations are summarized on Table No. 1, Appendix B.

The monitoring wells were purged and sampled using new PFAS-free rope and bailers. Field parameters (Dissolved Oxygen (DO), Oxidation Reduction Potential (ORP), conductivity, pH and temperature) were measured and recorded for each well during the November 2019 groundwater sampling event. Field Parameters are summarized on Table No. 2, Appendix B. Groundwater Monitoring Well Sampling Records are included in Appendix C.

The groundwater samples were collected into laboratory-supplied containers and submitted for laboratory analysis of VOCs on the TCL and Metals (8 RCRA metals, Copper and Nickel). Note: The Analytical Matrix and Sampling and Analysis Plan of the RIWP did not include Zinc and therefore the 2019 groundwater samples were not analyzed for Zinc. Groundwater samples from monitoring wells MW-1, MW-3 and MW-5 were also submitted for analysis of Emerging Contaminants (ECs). For this report ECs are defined as Per- and Polyfluoroalkyl Substances (PFAS) and 1,4-Dioxane.

The results are discussed below in Section 5.0 and summarized and compared to past data in Table No. 3, in Appendix B. The complete laboratory analysis reports are in Appendix F.

4.2 2023 SOIL SAMPLES

On May 15, 2023, five (5) direct push (DP) soil borings were completed. These borings were completed within and around a CVOC potential source area identified during the SC. This CVOC potential source area was located in the southeast section of the Site Building. The purpose of these borings was to confirm the concentrations of CVOCs within this area and attempt to delineate the vertical and lateral extent of the CVOC contamination observed in this area during the SC.

Three of the five direct push soil borings, identified as DP-1, DP-2 and DP-3, were completed outside the building and the remaining two direct push borings, identified as DP-4 and DP-5, were completed inside the building. The locations of the 2023 soil borings are depicted on Drawing No. 5.1, in Appendix A.

The borings were advanced using a track-mounted Geoprobe® 6620 with 1.25-inch diameter probe rods. The probe rods were driven by a hydraulic hammer. The soil samples were obtained with a steel tube sampler. The sampler has single-use liners for sample preservation. Continuous soil samples were obtained until equipment refusal was encountered at approximately 10 feet bgs. The soils recovered from the direct push borings were visually classified and screened with a PID for indications of VOCs.

Fill consisting of miscellaneous silt, sand, gravel, and ceramics was encountered at all sample locations to depths of up to 4.5 feet bgs. The fill was underlain by a brown silt unit with varying amounts of fine to coarse sand and gravel and clay at all locations expect DP-5. At DP-5 the fill was underlain by a green silt unit with little clay. The green silt unit was underlain by a brown silt unit with varying amounts of fine to coarse sand and gravel and clay. PID readings of the

recovered soil were 0.0 parts per million (ppm) at all location except DP-5. The PID readings at DP-5 ranged from 0.2 ppm (at multiple intervals) to 2.3 ppm at 8 feet to 9 feet bgs. Refusal was encountered at all boring locations at depths ranging between 9.7 feet bgs at DP-4 and 11.8 feet bgs at DP-1. No free water was observed at any of the boring locations. Detailed descriptions of the recovered soil samples and PID readings are presented on the Subsurface Logs, in Appendix D.

In accordance with the RIWP, the surface soils and the sample interval identified as most impacted (i.e. highest PID readings, or evidence of visual or olfactory impact) were selected for laboratory analysis. If no evidence of contamination was observed in the recovered soil samples, then the soil from the termination depth was selected for analysis. Soil samples from the termination depths of direct push borings DP-4 and DP-5 were selected to aid in determining the vertical extent of CVOC concentrations observed in this area during the SC. Note: Only the surface intervals were collected from direct push borings DP-1, DP-2 and DP-3 due to encountering refusal around 10 feet bgs. On September 1, 2023, a rotary drill rig was mobilized to the Site and attempted to advance the soil borings beyond the geoprobe refusal depth. However, the drill rig broke down and no additional soil samples were able to be collected.

A total of seven soil samples were collected from the five direct push borings. The May 2023 soil sample numbering and analyses completed are summarized in the table below:

Table 4.2
Analytical Testing Summary – May 2023 Soil Samples

Sample ID	Date	Matrix	Depth (ft. bgs)	TCL VOCs	Metals
DP-01: 0’ – 1’	5-15-23	Soil	0’ – 1’	X	X
DP-02: 0’ – 1’	5-15-23	Soil	0’ – 1’	X	X
DP-03: 0’ – 1’	5-15-23	Soil	0’ – 1’	X	X
DP-04: 0’ – 1’	5-15-23	Soil	0’ – 1’	X	X
DP-04: 9’ – 9.7’	5-15-23	Soil	9’ – 9.7’	X	X
DP-05: 0’ – 2’	5-15-23	Soil	0’ – 2’	X	X
DP-05: 8.5’ – 9.5’	5-15-23	Soil	8.5’ – 9.5’	X	X

Notes:
ft. bgs = feet below ground surface
Metals = Arsenic, Barium, Cadmium, Chromium, Copper, Hexavalent Chromium, Lead, Mercury, Nickel, Selenium & Silver

The soil samples were collected into laboratory-supplied containers and submitted for laboratory analysis of VOCs on the TCL and Metals (8 RCRA metals, Copper and Nickel). Note: The Analytical Matrix and Sampling and Analysis Plan of the RIWP did not include Zinc and therefore the May 2023 soil samples were not analyzed for Zinc. The results were reviewed and compared to restricted use soil cleanup objectives (SCOs) listed in Table 375-6.8(b) for commercial use and protection of groundwater.

No metal concentrations were reported above the commercial use or protection of groundwater SCOs in any of the May 2023 soil samples. No VOC concentrations were reported above the commercial use or protection of groundwater SCOs in the samples from DP-1, DP-2 or DP-4. In

DP-3: 0'-1', the TCE concentration was reported at 500 micrograms per kilogram (µg/Kg). Two samples were submitted from boring location DP-5 (DP-5: 0'-2' and DP-5: 8.5'-9.5'). In DP-5: 0'-2', the TCE concentration was reported at 480 µg/Kg and the DCE concentration was reported at 2,000 µg/Kg. At DP-5: 8.5'-9.5', the DCE concentration was reported at 520 µg/Kg. These concentrations exceeded the protection of groundwater SCOs for TCE and DCE of 470 µg/Kg and 250 µg/Kg respectively, but are below the commercial use SCOs for TCE and DCE of 200,000 µg/Kg and 500,000 µg/Kg respectively.

The Site contaminants of concern detected in the 2023 soil samples are summarized in Tables No. 4 (Surface Soil Samples), No. 5 (Subsurface Soil Samples) and No. 6 (Sub-Slab Soil Samples), in Appendix B. The complete laboratory analysis reports are included in Appendix F.

4.3 2023 INSTALLATION OF ADDITIONAL MONITORING WELLS

On August 28, 29 and 30, 2023, two additional groundwater monitoring wells (MW-6 and MW-7) were installed. These wells were installed to assist in further evaluating direction of groundwater flow and groundwater quality in the study area. The locations of MW-6 and MW-7 are depicted on Drawing No. 4.1, in Appendix A.

The borings were advanced using a rotary drill rig with hollow stem augers. Representative samples of the overburden were obtained by driving a 2-inch O.D. split spoon sampler into the soil, through and beneath the augers, using a 140 pound hammer free-falling 30 inches (ASTM D 1586). Soil sampling was completed to the termination depths. Both borings were advanced to approximately 40 feet bgs. The recovered soils were visually characterized and screened using a PID for indications of VOCs.

At MW-6, top soil was encountered to a depth of 0.5 feet bgs. The top soil was underlain by a brown fine sand and silt unit with varying amounts of medium to coarse sand and gravel. The soils were grey between approximately 14.5 feet bgs and the termination depth of 40 feet bgs. The PID readings at MW-6 were all 0.0 ppm, except for the samples from 32 to 34 feet bgs (0.3 ppm) and 34 to 35.5 feet bgs (4.4ppm). Free water was first encountered at 30.5 feet bgs with the augers at 37 feet bgs.

At MW-7, fill consisting of miscellaneous sand, silt, ash, coal and gravel was encountered to a depth of approximately 9.2 feet bgs. The fill was underlain by a brown silt and fine sand unit with varying amounts of medium to coarse sand and gravel. The soils were grey between approximately 19 feet bgs and the termination depth of 40.3 feet bgs. A layer of grey gravel and fine to coarse sand with little silt was observed between 35 and 38 feet. The PID readings at MW-7 were all 0.0 ppm. No free water was encountered during drilling at MW-7. Detailed descriptions of the recovered soil samples and PID readings are presented on the Subsurface Logs, in Appendix D.

One soil sample was selected for laboratory analysis from each boring location. The sample interval identified as most impacted (i.e. highest PID readings, or evidence of visual or olfactory impact) was selected for analysis. If no evidence of contamination was observed in the recovered soil samples, then the soil from the top of the saturated zone or termination depth was selected for analyses. MW-6: 34' to 36' was selected due to the PID readings observed. MW-7: 35' to 40 feet

was selected since it was the termination depth (all PID readings were 0.0 ppm and no free water was encountered).

The August 2023 soil sample numbering and analyses completed are summarized in the table below:

Table 4.3
Analytical Testing Summary – August 2023 Soil Samples from Monitoring Wells

Sample ID	Date	Matrix	Depth (ft. bgs)	TCL VOCs	Metals
MW-6: 34' – 36'	8-28-23	Soil	34' – 36'	X	X
MW-7: 35' – 40'	8-30-23	Soil	35' – 40'	X	X

Notes:
ft. bgs = feet below ground surface
Metals = Arsenic, Barium, Cadmium, Chromium, Copper, Hexavalent Chromium, Lead, Mercury, Nickel, Selenium, Silver & Zinc

The soil samples were collected into laboratory-supplied containers and submitted for laboratory analysis of VOCs on the TCL and Metals (8 RCRA metals, Copper, Nickel and Zinc).

The results were reviewed and compared to restricted use SCOs listed in Table 375-6.8(b) for commercial use and protection of groundwater. No CVOC or metal concentrations were reported above the commercial use or protection of groundwater SCOs. The Site contaminants of concern detected in the August 2023 soil samples are summarized in Table No. 5, in Appendix B. The complete laboratory analysis reports are in Appendix F.

After the soil samples were collected, groundwater monitoring wells were installed in the borings. The wells were constructed of 2-inch diameter PVC well screen and solid riser pipe. At MW-6, the well screen was 15 feet long with 0.010-inch size slots. At MW-7, the well screen was 10 feet long with 0.010-inch size slots. The well screens were placed to straddle the water table at the time the borings were advanced or installed at the termination depth if no free water was encountered. A fine-grade sand filter pack was placed around the well screen from the bottom of the well screen to approximately two feet above the top of the well screen. An approximately 2-foot hydrated bentonite seal was placed above the sand filter pack and the remainder of the boring was filled with a cement/bentonite grout. The well casings were capped, and a flush-mounted curb box (at MW-6), and a guard pipe (at MW-7) were installed over the wells for protection.

On September 5, 2023, GeoLogic visited the Site to complete the monitoring well development. MW-7 was dry and therefore, was unable to be developed. MW-6 was developed using both a submersible pump and new a new bailer. The well was purged dry after approximately 6.1 gallons. The well was allowed to recover and then development continued. A total of approximately 8.25 gallons was purged from the well during development. Field parameters (Conductivity, pH, ORP, DO, temperature and turbidity) were periodically measured and recorded during well development. The groundwater removed from this well was turbid and lowest turbidity recorded was 360.9 nephelometric turbidity units (NTUs). Groundwater Monitoring Well Sampling Records are in Appendix C.

4.4 2023 SAMPLING OF MONITORING WELLS

On September 18 and 19, 2023, GeoLogic sampled all seven groundwater monitoring wells at the Site. The locations of the monitoring wells are depicted on Drawing No. 4.1, in Appendix A.

The depth to groundwater was measured in each well prior to collecting the groundwater samples. The depth to water and corresponding groundwater elevations are summarized on Table No. 1, Appendix B. Based on recorded water levels, a groundwater contour map was prepared, see Drawing No. 4.2 in Appendix A.

It is noted that MW-3 was found to be damaged during the September 2023 groundwater sampling event. It appeared that this well was hit by a roll-off dumpster associated with scrap yard operations. The destroyed guard pipe and associated concrete were found behind (southwest) the well. The PVC well casing was broken off at the ground surface and therefore it was not possible to determine the groundwater elevation at this well. However, a sample was able to be obtained from this well. GeoLogic repaired this well on December 4, 2023, prior to the completion of the survey. On March 18, 2024, GeoLogic collected water levels from all seven monitoring wells. Based on recorded water levels, a groundwater contour map was prepared, see Drawing No. 4.3 in Appendix A.

The monitoring wells were purged using a submersible pump and/or dedicated bailers. Field parameters (DO, ORP, conductivity, pH and temperature) were measured and recorded for each well during the September 2023 groundwater sampling event. Field Parameters are summarized on Table No. 2, Appendix B. Groundwater Monitoring Well Sampling Records are in Appendix C.

It is also noted that monitoring well MW-7 contained about 2 inches of water on September 18th. This well was purged dry on the 18th, allowed to recovery overnight, and a sample was collected on the 19th.

The 2023 groundwater sample numbering and analyses completed are summarized in the table below:

Table 4.4
Analytical Testing Summary – September 2023 Groundwater Samples

Sample ID	Date(s)	Matrix	TCL VOCs	Metals
MW-01	9-19-23	GW	X	X
MW-02	9-18-23	GW	X	X
MW-03	9-18-23	GW	X	X
MW-04	9-18-23	GW	X	X
MW-05	9-18-23	GW	X	X
MW-06	9-19-23	GW	X	X
MW-07	9-19-23	GW	X	X

Notes:
GW = Groundwater
Metals = Arsenic, Barium, Cadmium, Chromium, Copper, Hexavalent Chromium, Lead, Mercury, Nickel, Selenium & Silver

The groundwater samples were collected into laboratory-supplied containers and submitted for laboratory analysis of VOCs on the TCL and Metals (8 RCRA metals, Copper, Nickel and Zinc). The results are discussed below in Section 5.0 and summarized and compared to past data in Table No. 3, in Appendix B. The complete laboratory analysis reports are in Appendix F.

4.5 SURVEY OF MONITORING WELLS AND 2023 SOIL BORINGS

On December 4, 2023, Delta Engineers, Architects, and Land Surveyors, of 860 Hooper Road, Endwell, New York 13760 (Delta), completed a survey at the Site. Delta is a licensed land surveyor. The locations and elevations of the 2023 exterior soil borings and all seven groundwater monitoring wells were established by Delta. Horizontal locations were referenced to the New York State Plane Coordinate System using North American Datum (NAD) 83. Vertical elevations were referenced to North Atlantic Vertical Datum (NAVD) 88. A copy of Delta's survey is included as Appendix E.

Note, since two of the 2023 soil borings were completed inside the building their location could not be determined by Delta using GPS. However, two of the building corners were included in the survey. GeoLogic utilized measurements from the building corners to locate the interior direct push borings. The locations of all 2023 direct push soil borings are depicted on Drawing No. 5.1, in Appendix A.

4.6 HYDRAULIC CONDUCTIVITY TESTING

On December 14, 2023, GeoLogic completed slug tests on selected groundwater monitoring wells at the Site. The objective of the slug testing was to determine a range of hydraulic conductivity (K) values for the deposits screened by selected wells. The mechanics of slug testing involved inducing a sudden change in the water level (head) within a well and measuring the return to static water level conditions. Both falling head (slug in) and rising head (slug out) tests were completed.

The four wells selected for testing were MW-1, MW-2, MW-4 and MW-5. The logs for these wells were prepared by URS in 2013.

The slug testing consisted of recording the static depth to water in the well; and using a water level indicator to measure changes in water levels over time when inserting and removing a slug. The slug consisted of a solid 1.5-inch diameter, 3.5-feet long piece of PVC.

The time and change in water levels recorded were analyzed using the Aqtesolv for Windows program by HydroSOLVE, Inc. The input parameters of the program include the monitoring well construction details, measured water levels, and the saturated thickness of the aquifer. Note: the saturated thickness of the aquifer was assumed to be the saturated screened interval at each of the wells.

The Bouwer and Rice solution was used to evaluate the data. The estimated range hydraulic conductivity values are presented below:

Well ID	Hydraulic Conductivity K (ft./sec.)
MW-1	1.0×10^{-6}
MW-2	4.7×10^{-4}
MW-5	2.2×10^{-3}

These hydraulic conductivity values are consistent with the published range of values for fine sand, gravel and/or glacial till deposits encountered at the Site.

Note: Because the water levels recovered almost immediately upon inserting and retrieving the slug into and from well MW-4, an insufficient number of readings could be made to allow the hydraulic conductivity to be estimated. It is likely the hydraulic conductivity in the soil screened by MW-4 exceeds 5×10^{-3} ft./sec.

4.7 INVESTIGATIVE DERIVED WASTE

Soils generated during the advancement of the soil borings and water generated during decontamination of equipment was containerized in NYSDOT-approved 55-gallon drums. Discarded single-use equipment, decontamination pad materials and personal protective equipment was also placed into drums. These drums were labeled as investigative derived waste (IDW) with the NYSDEC site number and were staged inside the Site building pending future disposal.

In accordance with the RIWP, liquid derived waste generated during monitoring well development and purging was passed through an activated carbon canister and discharged to the ground surface on the Site. No visual/olfactory evidence of impact was observed in the water.

4.8 SAMPLE ANALYSIS AND DATA VALIDATION

4.8.1 Laboratory Analysis

Chemical analyses of the samples collected during the RI were completed by Pace Analytical Services, LLC. (Pace) and Eurofins Buffalo (Eurofins). Eurofins and Pace are accredited under the New York State Environmental Laboratory Approval Program (ELAP) Contract Laboratory Program (CLP). Samples collected during the RI were analyzed using the appliable methods prescribed by NYSDEC Analytical Services Protocol (ASP) of 2005. Category B deliverables were generated.

Laboratory analysis for TCL VOCs was completed by EPA Method 8260. Laboratory analysis for metals (arsenic, barium, cadmium, chromium, copper, lead, selenium, silver, nickel and zinc) was completed by EPA Method 6010. Laboratory analysis for mercury was completed by EPA Method 7471. Soil samples were also analyzed for hexavalent chromium by EPA Method 7196. Laboratory analysis of groundwater samples for ECs (i.e. PFAS & 1,4-Dioxane) was completed by EPA Method 537.1 and EPA Method 8270 SIM, respectively.

4.8.2 Quality Assurance/Quality Control Samples

In addition to field samples, Quality Assurance/Quality Control (QA/QC) samples were also collected to evaluate the effectiveness of the QA/QC procedures implemented during the field and laboratory activities associated with the project. The QA/QC samples included field duplicates, matrix spikes (MS), matrix spike duplicates (MSD) and trip blanks. The MS and MSD samples were referenced to a specific field sample.

4.8.3 Data Validation

The laboratory analytical packages for the RI samples prepared by Eurofins and Pace were reviewed by an independent data validator to assess the compliance with the analytical method protocols described in NYSDEC ASP. Data Usability Summary Report (DUSRs) were prepared for each sample set that compared the quality of the laboratory analyses to that described in the ASP. The DUSRS are included Appendix G. All analytical results from the RI have been validated and the analytical results summary tables incorporate the results of the data validation efforts.

5 NATURE AND EXTENT OF CONTAMINATION

The following section summarizes and discusses the analytical results generated during the RI and previously completed SC. During the RI, additional soil and groundwater samples were collected to further characterize the nature and extent of contamination. Tables have been prepared that summarize the Site contaminants on concern reported in all soil and groundwater samples collected during the RI (see Appendix B). The CVOC and metal concentrations reported at all seven groundwater monitoring wells are depicted on Drawing No. 6, Appendix A.

The primary contaminants of concern for the Site were identified during the SC are summarized below:

- Chlorinated Volatile Organic Compounds (CVOCs) - 1,1,1-trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, *cis*-1,2-dichloroethene (DCE), trichloroethene (TCE).

- Metals - Arsenic, Cadmium, Chromium, Copper, Nickel and Zinc.

Other classes of compounds were detected at the Site, above method detection limits, including semi-volatile petroleum-related compounds, pesticides, PCBs and cyanide. Based on the contaminants, the concentrations, the locations, and the Site history, these compounds are not considered contaminants of concern for the Site.

The following summary tables have been prepared for only the contaminants of concern for the Site, using the both the analytical results provided in the SC and RI. The standards, criteria and guidance (SCGs) utilized for evaluating groundwater results were the TOGS 1.1.1 NYS Water Quality Standards and Guidance Values for Class GA waters. The SCGs utilized for evaluating the soil results were the restricted used SCOs for Commercial Use and for the Protection of Groundwater as listed in NYCRR Part 375.

Surface Soils

During the SC, surface soil samples were collected from 0 to 6-inches bgs and 0 to 24-inches bgs. During the RI, surface soil samples were collected from 0 to 12-inches bgs. One surface soil sample was collected from each of the three direct push borings advanced outside the building, adjacent to the potential CVOC source area.

Concentrations of TCE, arsenic, cadmium, copper, nickel and zinc exceeding applicable SCGs were reported in surface soil samples collected within the Study Area during the SC and RI. The following table summarizes the surface soil analytical results generated during the SC and RI.

Table No. 5.1
Summary of Surface Soil Analytical Results

Contaminant	NYSDEC SCOs* (mg/kg)	SC Range (mg/kg)	RI Range (mg/kg)	No. of Samples	No. Exceeding SCOs Com| GW	
1,1,1-Trichloroethane	500/0.68	ND	ND	13	0	0
1,1-Dichloroethane	240/0.27	ND	ND	13	0	0
1,1-Dichloroethene	500/0.33	ND	ND	13	0	0
cis-1,2-Dichloroethene	500/0.25	ND	ND	13	0	0
Trichloroethene	200/0.47	ND to 2.9J	ND to 0.5	13	0	1
Arsenic	16/16	7.3 to 28.5J	9.9 to 13.5	13	3	3
Cadmium	9.3/7.5	0.72 to 64.3	1.8 to 3.1	13	3	4
Chromium	1,500/NS	17.4J to 1,220J	74.3 to 219	13	0	0
Hexavalent Chromium	400/19	Data Rejected/ND	ND to 2.3J	5	0	0
Copper	270/1,720	43.2 to 2,070	53.2 to 102	13	3	1
Nickel	310/130	23.0 to 1,320	37.8 to 109	13	2	3
Zinc	10,000/2,480	146J to 4,190	NA	10	0	2

Notes:
* NYSDEC SCOs - SCO for Commercial (COM) Use/SCO for the Protection of Groundwater (GW).
mg/kg – milligrams per kilogram (parts per million)
J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
NA – Not Analyzed.
ND – The analyte was analyzed for but was not detected above the reported sample quantitation limit.
NS – No Standard.

Surface soil concentrations exceeding NYSDEC SCGs are summarized in the table below:

Table No. 5.2
Summary of Surface Soil Concentrations Exceeding SCGs

Contaminant	SCO COM (mg/kg)	SCO GW (mg/kg)	Sample ID & Depth	Concentration (mg/kg)
Trichloroethene	200	0.47	DP-3: 0' – 1'	0.50
Arsenic	16	16	SS-03: 0' – 0.5'	28.5 J
			SS-04: 0' – 0.5'	18.0 J
			SS-05: 0' – 0.5'	23.5 J
Cadmium	9.3	7.5	SS-05: 0' – 0.5'	64.3
			SS-06: 0' – 0.5'	13.3
			MW-04: 0' – 0.2'	17.7
			MW-05: 0' – 0.2'	7.6
Copper	270	1,720	SS-05: 0' – 0.5'	640
			SS-06: 0' – 0.5'	819
			MW-04: 0' – 0.2'	2,070
Nickel	310	130	SS-05: 0' – 0.5'	423
			SS-06: 0' – 0.5'	1,320
			MW-04: 0' – 0.2'	278 J
Zinc	10,000	2,480	SS-05: 0' – 0.5'	3,260 J
			MW-04: 0' – 0.2'	4,190

Notes:
Restricted use SCOs for Commercial (Com) Use and Protection of Groundwater (GW).
mg/kg – milligrams per kilogram (parts per million)
J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

SC and RI Surface Soil analytical results are summarized on Table No. 4, Appendix B.

Subsurface Soils

During the SC, five subsurface soil samples were collected, one from each of the five monitoring wells installed (MW-1 through MW-5). The depths of these samples ranged from 3 to 46 feet bgs. During the RI, four subsurface soil samples were collected, two from the direct push soil borings and two from the monitoring wells installed (MW-6 and MW-7). The depths of these samples ranged from 8.5 to 40 feet bgs.

Concentrations of DCE, arsenic, hexavalent chromium and copper exceeding applicable SCGs were reported in subsurface soil samples collected within the Study Area during the SC and RI. The following table summarizes the subsurface soil analytical results generated during the SC and RI.

Table No. 5.3
Summary of Subsurface Soil Analytical Results

Contaminant	NYSDEC SCGs* (mg/kg)	SC Range (mg/kg)	RI Range (mg/kg)	No. of Samples	No. Exceeding SCOs Com | PoGW	
1,1,1-Trichloroethane	500/0.68	ND	ND	9	0	0
1,1-Dichloroethane	240/0.27	ND to 0.0036J	ND	9	0	0
1,1-Dichloroethene	500/0.33	ND	ND to 0.55	9	0	0
cis-1,2-Dichloroethene	500/0.25	ND to 0.0063J	ND to 0.52	9	0	1
Trichloroethene	200/0.47	ND to 0.014	ND to 0.15	9	0	0
Arsenic	16/16	6.6 to 18.7	5.3 to 21.2	9	2	2
Cadmium	9.3/7.5	0.28J to 1.7	0.043JB to 0.14J	9	0	0
Chromium	1,500/NS	12.3J to 793	12.5 to 15.9	9	0	0
Hexavalent Chromium	400/19	ND to 61.8	ND	9	0	1
Copper	270/1,720	15.3 to 486	18.1 to 24	9	1	0
Nickel	310/130	19.8 to 54.9	22.1 to 28.8	9	0	0
Zinc	10,000/2,480	48.7 to 231	47.4 to 55.1	7	0	0

Notes:
* NYSDEC SCGs - SCO for Commercial Use/SCO for the Protection of Groundwater.
mg/kg – milligrams per kilogram (parts per million)
J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B – Compound was found in the blank and sample. NA – Not Analyzed.
ND – The analyte was analyzed for but was not detected above the reported sample quantitation limit.
NS – No Standard.

Subsurface soil concentrations exceeding NYSDEC SCGs are summarized in the table below.

Table No. 5.4
Summary of Subsurface Soil Concentrations Exceeding SCGs

Contaminant	SCO COM (mg/kg)	SCO GW (mg/kg)	Sample ID & Depth	Concentration (mg/kg)
cis-1,2-Dichloroethene	500	0.25	DP-5: 8.5’ – 9.5’	0.52
Arsenic	16	16	MW-2: 23.0’ – 25.0’	18.7
			MW-7: 35’ – 40’	21.2

Table No. 5.4 Summary of Subsurface Soil Concentrations Exceeding SCGs				
Contaminant	**SCO COM (mg/kg)**	**SCO GW (mg/kg)**	**Sample ID & Depth**	**Concentration (mg/kg)**
Hexavalent Chromium	400	19	MW-5: 3.0' – 4.0'	61.8
Copper	270	1,720	MW-4: 4.0' – 5.0'	486
Notes: Restricted use SCOs for Commercial (Com) Use and Protection of Groundwater (GW). mg/kg – milligrams per kilogram (parts per million)				

SC and RI subsurface soil analytical results are summarized on Table No. 5, Appendix B.

Sub-Slab Soils

Sub-slab soils are located below the Site Building's concrete slab. During the SC, 12 sub-slab soil samples were collected, all at a depth of 0 to 4 feet bgs. During the RI, two direct push soil boring were completed inside the Site Building and two sub-slab soil samples were collected, one at a depth of 0 to 1 feet bgs and the other at a depth of 0 to 2 feet bgs.

Concentrations of TCE, DCE, cadmium, hexavalent chromium, copper and nickel exceeding applicable SCGs were reported in sub-slab soil samples collected at the Site during the SC and RI. The following table summarizes the sub-slab soil analytical results generated during the SC and RI.

Table No. 5.5 Summary of Sub-Slab Soil Analytical Results						
Contaminant	**NYSDEC SCGs*** (mg/kg)	**SC Range (mg/kg)**	**RI Range (mg/kg)**	**No. of Samples**	**No. Exceeding SCOs Com | PoGW**	
1,1,1-Trichloroethane	500/0.68	ND to 0.016	ND	14	0	0
1,1-Dichloroethane	240/0.27	ND to 0.035	ND	14	0	0
1,1-Dichloroethene	500/0.33	ND to 0.0054J	ND	14	0	0
cis-1,2-Dichloroethene	500/0.25	ND to 4.1	ND to 2.0	14	0	2
Trichloroethene	200/0.47	ND to 2.5	0.0019J to 0.48J	14	0	2
Arsenic	16/16	6.3 to 15.3	7.6 to 16.0	14	0	0
Cadmium	9.3/7.5	0.08B to 113	0.14J to 0.37	14	5	5

Table No. 5.5 Summary of Sub-Slab Soil Analytical Results						
Contaminant	**NYSDEC SCGs*** (mg/kg)	**SC Range (mg/kg)**	**RI Range (mg/kg)**	**No. of Samples**	**No. Exceeding SCOs Com | PoGW**	
Chromium	1,500/NS	16.3 to 1,190	26.3 to 27.3	14	0	0
Hexavalent Chromium	400/19	ND to 180	ND	14	0	1
Copper	270/1,720	19.3 to 332	23.0 to 26.6	14	2	0
Nickel	310/130	21.3 to 462	20.8 to 78.2	14	3	6
Zinc	10,000/2,480	56.3 to 2,110	NA	12	0	0

Notes:
* NYSDEC SCGs - SCO for Commercial Use/SCO for the Protection of Groundwater.
mg/kg – milligrams per kilogram (parts per million)
J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
B – Compound was found in the blank and sample.
D – The sample result is reported from a secondary dilution. NA – Not Analyzed.
ND – The analyte was analyzed for but was not detected above the reported sample quantitation limit.
NS – No Standard.

Sub-Slab soil concentrations exceeding NYSDEC SCGs are summarized in the table below.

Table No. 5.6 Summary of Sub-Slab Soil Concentrations Exceeding SCGs				
Contaminant	**SCO COM (mg/kg)**	**SCO GW (mg/kg)**	**Sample ID & Depth**	**Concentration (mg/kg)**
cis-1,2-Dichloroethene	500	0.25	GS-08: 0.0' – 4.0'	4.1 D
			DP-5: 0' – 1'	2.0
Trichloroethene	200	0.47	GS-08: 0.0' – 4.0'	2.5 D
			DP-5: 0' – 1'	0.48 J
Cadmium	9.3	7.5	GS-03: 0.0' – 4.0'	18.0
			GS-04: 0.0' – 4.0'	23.6
			GS-05: 0.0' – 4.0'	113
			GS-06: 0.0' – 4.0'	11.8
			SG-02: 0.0' – 4.0'	21.6
Hexavalent Chromium	400	19	GS-04: 0.0' – 4.0'	180
Copper	270	1,720	GS-03: 0.0' – 4.0'	330
			GS-05: 0.0' – 4.0'	332
Nickel	310	130	GS-03: 0.0' – 4.0'	434
			GS-04: 0.0' – 4.0'	231

Table No. 5.6 Summary of Sub-Slab Soil Concentrations Exceeding SCGs				
Contaminant	**SCO COM (mg/kg)**	**SCO GW (mg/kg)**	**Sample ID & Depth**	**Concentration (mg/kg)**
			GS-05: 0.0' – 4.0'	462
			GS-06: 0.0' – 4.0'	172
			GS-08: 0.0' – 4.0'	170
			SG-02: 0.0' – 4.0'	318
Notes: Restricted use SCOs for Commercial (Com) Use and Protection of Groundwater (GW). mg/kg – milligrams per kilogram (parts per million) J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. D – The sample result is reported from a secondary dilution.				

Sub-Slab Soil analytical results are summarized on Table No. 6, Appendix B.

Groundwater

During the SC, five groundwater samples were collected, one from each of the five monitoring wells installed (MW-1 through MW-5). During the RI, 12 groundwater samples were collected, two sample sets from MW-1 through MW-5 and one set from MW-6 and MW-7.

Concentrations of multiple CVOCs, cadmium, chromium and nickel exceeding applicable SCGs were reported in groundwater samples collected within the Study Area during the SC and RI. The following table summarizes the groundwater analytical results generated during the SC and RI.

Table No. 5.7 Summary of Groundwater Analytical Results					
Contaminant	**NYSDEC TOGS*** (µg/L)	**SC Range** (µg/L)	**RI Range** (µg/L)	**No. of Samples**	**No. Exceeding TOGS**
1,1,1-Trichloroethane	5	ND to 3,300	ND to 1,700	17	9
1,1-Dichloroethane	5	ND to 78	ND to 43	17	6
1,1-Dichloroethene	5	ND to 2,100	ND to 970	17	9
cis-1,2-Dichloroethene	5	ND to 220JD	ND to 200	17	8
Trichloroethene	5	1.0J to 5,400	ND to 3,300	17	12
Arsenic	25	ND to 9.7B	ND	17	0
Cadmium	5	ND to 3.3J	ND to 9.9	17	2

Table No. 5.7
Summary of Groundwater Analytical Results

Contaminant	NYSDEC TOGS* (µg/L)	SC Range (µg/L)	RI Range (µg/L)	No. of Samples	No. Exceeding TOGS
Chromium	50	5.5B to 883	ND to 1,700	17	5
Hexavalent Chromium	50	ND to 1.0	ND to 1,800	7	1
Copper	200	4.5J to 42.6	ND to 20	17	0
Nickel	100	ND to 317	ND to 42	17	2
Zinc	2,000	16.6J to 61.9	3.4JB to 15B	12	0

Notes:
* NYSDEC TOGS = TOGS 1.1.1 NYS Water Quality Standards and Guidance Values for Class GA waters.
µg/L – microgram per liter (parts per billion).
J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
D – The sample result is reported from a secondary dilution.
B – Compound detected in the associated laboratory method blank.
ND – The analyte was analyzed for but was not detected above the reported sample quantitation limit.

CVOC concentrations exceeding TOGS values were observed at four of the seven monitoring wells (MW-2, MW-3, MW-4 and MW-5). The highest concentrations of CVOCs in groundwater were observed in Monitoring Well MW-5. Metal concentrations exceeding TOGS values were observed at four of the seven monitoring wells (MW-1, MW-2, MW-3 and MW-5). The highest concentrations of metals in groundwater were observed in Monitoring Well MW-3. Groundwater analytical results are summarized on Table No. 3, Appendix B. The CVOC and metal concentrations reported at all seven groundwater monitoring wells are depicted on Drawing No. 6, Appendix A.

Sub-Slab Soil Vapor

Sub-slab soil vapor samples were not part of the RI scope of work.

During the SC, sub-slab soil vapor samples were collected at four locations in the southeast section of the Site building. These samples were collected over an 8-hour span and analyzed for volatile organic compounds by EPA Method TO-14A. Both chlorinated and petroleum-based compounds were detected in these soil vapor samples. Many of these compounds were not detected in the soils underlying the building or in the groundwater at the monitoring wells locations.

Concrete Flooring

Concrete flooring samples were not part of the RI scope of work.

During the SC, five samples were collected from the concrete floors inside the Site building and submitted for analyses for semi-volatile compounds on the NYSDEC TCL, PCB, TAL Metals,

Pesticides on the TCL, cyanide and hexavalent chromium.

Semi-volatile organic compounds, metals, cyanide and PCBs were detected in the concrete chips above the method detection limits, but below concentrations that would likely exhibit hazardous waste characteristics.

6 QUALITATIVE HUMAN HEALTH EXPOSURE ASSESSMENT

In order to assess any actual or potential exposure pathways associated with contaminants present at the Site and in the vicinity of the Site, a qualitative human health exposure assessment (QHHEA) was completed. The QHHEA was completed in general accordance with the guidance presented in DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010 (NYSDEC 2010).

6.1 POTENTIAL EXPOSURE PATHWAYS

In evaluating the potential for human exposure, a first step is to identify the potential for the existence of complete exposure pathways. An exposure pathway describes the mechanism in which an individual or population could be exposed to a chemical(s). A complete exposure pathway consists of five elements.

1. Contaminant Source
2. Contaminant Release and Transport Mechanisms
3. A Point of Exposure
4. A Route of Exposure
5. A Receptor Population

The absence of any one of these five factors results in an incomplete exposure pathway.

A direct exposure pathway is where the point of exposure is at the source, without a release to any other medium and without an intermediate biological transfer step. If the exposure is not at the source, then a transport or exposure medium or both must be present.

Typical exposure pathways include inhalation, ingestion, and dermal contact.

There is currently one identified contaminant source (Former Industrial Service Corporation) and two class of contaminants of concern (chlorinated volatile organic compounds and metals) that will be evaluated in this QHHEA.

6.2 EVALUATION FOR COCS AT THE FORMER INDUSTRIAL SERVICE CORP.

6.2.1 Potential Exposure Pathways for Community

Potential exposure pathways from the contaminants identified at the Former Industrial Service Corporation to the community include dermal exposure, inhalation and/or ingestion of soils and groundwater.

6.2.1.1 Exposure Pathway – Inhalation

Community exposure to metals and VOCs through inhalation of airborne contaminants from operations at the Site is considered an incomplete pathway since the Site is vacant and no metal processing takes place at the Site.

Soil vapor and/or sub-slab vapor samples within the community were not part of the RI scope of work. No comment can be made on community exposure to CVOCs through the inhalation exposure pathway.

6.2.1.2 Exposure Pathway – Surface Soils

The Former Industrial Service Corporation building occupies the majority of the Site parcel. A fenced gravel and paved area is located north of the building. The ground cover within the study area consists of a mixture of woods, shrubs, grass, gravel and pavement.

All CVOC concentrations in surface soil samples were below SCOs except one sample collected from DP-3. The soil sample collected at DP-3: 0' – 1' slightly exceeded the SCO for protection of groundwater and was well below the restricted SCO for commercial use. No exceedances were observed in the surface soils collected north and south of DP-3.

Metal concentrations (arsenic, cadmium, copper nickel, and zinc) exceeding SCOs were observed in multiple surface soil samples collected during the SC. These samples were primarily located along the west side of the Site Building, north of the Site Building (in the vicinity of MW-2) and northeast of the Site Building. Additional surface soil samples were collected during the RI and did not exceed the SCOs for metals.

Exposure to surface soils, either through direct ingestion through hand-mouthing of soils or through ingestion of airborne soil particles from the Site is unlikely given the current Site conditions. Potential receptor populations include future workers at the Site and trespassers. Although a receptor population does not currently exist, the surface soil exposure pathway is considered complete.

6.2.1.3 Exposure Pathway – Sub-Surface Soils

The subsurface soils were exceedances of contaminants of concern were reported are at least three feet below ground surface. There are no known exposure pathways to subsurface soils to the community. The sub-surface soil exposure pathway is incomplete.

6.2.1.4 Exposure Pathway – Groundwater

Groundwater within the Study Area has been impacted by metals (Cadmium, Chromium, and Nickel) and VOCs. The depth to water at the Site and parcels west of the Site is over 20 feet below ground surface. The depth to water at the parcels east of the Site is between approximately 2 and 5 feet below ground

surface. Direct dermal exposure to impacted groundwater is not considered a complete exposure pathway.

Direct ingestion of impacted groundwater is not considered a complete exposure pathway. It is GeoLogic's understanding that all properties in the vicinity of the Site, including the Site, are connected to the municipal drinking water supply system. Ingestion of, inhalation of or dermal contact with impacted groundwater is not considered a complete exposure pathway.

The Sullivan Street well field is the closest community water supply and is located approximately 3,700 feet northeast of the Site (see Drawing No. 1, Appendix A). The direction of groundwater flow at the Site has flow components to the northeast and southwest; however the direction of groundwater flow within the aquifer to the east of the Site is to the southeast. No impact from the Site is expected at the Sullivan Street well field. The Chemung County Health Department monitors community water supply wells.

6.2.2 Potential Exposure Pathways for Site Occupants

The Site is currently vacant and therefore a receptor population does not currently exist at the Site. All exposure pathways are incomplete.

6.2.3 Potential Exposure Pathways for Others

In general, municipal workers, utility workers, building contractors and environmental drilling contractors, as a group, have the potential of exposure to surface soils, subsurface soils, groundwater and soil vapor. Drilling contractors have the greatest potential for exposure. Buried utilities at the Site and within the Study Area include potable water, sanitary sewer, storm sewer and natural gas. Utility trenches are typically between 2 and 6 feet bgs when the surface topography is relatively flat. Groundwater at the Site and parcels west of the Site is over 20 feet below ground surface. However, groundwater at the parcels east of the Site is between approximately 2 and 5 feet below ground surface. Direct exposure to contaminated groundwater by construction, utility or municipal workers is possible if working at the parcels east of the Site where shallow groundwater is present. The groundwater potential exposure pathway for construction, utility or municipal workers is considered complete.

Concentrations of contaminants of concern exceeding SCGs were detected in soils outside of the building footprint. The depths of impacted soils are generally within the range encountered by construction, utility or municipal workers. The soil potential exposure pathway for construction, utility or municipal workers is considered complete.

Workers conducting environmental drilling and sampling activities at the Site are likely to encounter contamination in surface soils, subsurface soils, groundwater and soil vapor. While this represents a potential exposure pathway, this group would be the most aware of the potential for exposure, and apply the appropriate measures to mitigate or eliminate the exposure.

7 SUMMARY

GeoLogic was retained by TCMF to complete an RI at Former Industrial Service Corporation (Site). The Site is listed in the Registry of Inactive Hazardous Waste Disposal Sites in New York State as Site No. 808045. TCMF entered into an Order on Consent and Administrative Settlement (Order), Index No. CO 8-20151022-133, dated September 25, 2017, with the NYSDEC. This RI has been completed pursuant to the Order.

7.1 SITE SETTING

The Site is located at 920-926 Stowell Street in City of Elmira, Chemung County and State of New York (see Drawing No. 1, Appendix A). The Site is an 0.85-acre parcel with an address of 920-926 Stowell Street, tax map ID number 89.11-1-25. The Site is currently owned by Chemung County. The RI encompassed the Site as well as parts of four adjacent vacant tax parcels (see Drawing No. 2, Appendix A).

The Site is currently zoned for industrial use. The main site features include an industrial building of approximately 25,000 square feet with a vegetated slope to the east of the building and a fenced, gravel and paved access area north of the building. An industrial building has been present on the Site since at least 1950 and possibly as early as 1931. The building has been occupied by metal plating businesses since at least 1950. The Site is currently vacant and has been vacant since around the 2000's. The building is in poor physical condition, especially in the northern half. The retaining wall located adjacent to the northeast portion of the building has collapsed.

The parcels immediately adjacent to the Study Area are currently occupied by the following: To the north and east is a Class 2 Inactive Hazardous Waste Site (Shulman's Salvage Yard, NYSDEC Site No.808013), to the northwest is an automotive repair business, to the south are residences, to the southwest is a furniture maker and a mission (former bus garage), to the west is a storge building, residences and railroad tracks. NYSDEC remediation sites in the vicinity of the Site are depicted on Drawing No. 3, Appendix A.

The Site has access to all major public and private utilities including potable water (Elmira Water Boards), sanitary and storm sewers (Chemung County Sewer District) and electric and natural gas (NYSEG). The Site is currently vacant and none of the utilities are active.

7.2 GEOLOGY AND HYDROGEOLOGY

The Site is positioned on a terrace that slopes steeply down to the east to the Newtown Creek valley floor. There is approximately a 30-foot change in surface elevation across the Study Area in a west to east direction.

The Site is mapped as being on a kame terrace (Randall & Miller, 1982). The soils observed in soil borings within the study area exhibited glaciofluvial characteristics consisting of fine grained sand and silts overlying a denser glacial till. The northern portion of the Site is noted as having approximately 20 feet of fill soils. Underlying bedrock is mapped as West Falls Group shale.

Depth to bedrock on the terrace is anticipated to be at least 90 feet below ground surface (Randall & Miller, 1982).

The Site lies at the boundary of the Elmira-Horseheads-Big Flats primary aquifer (Randall & Miller, 1982). Direction of groundwater flow within the aquifer in the vicinity of the Site is mapped to the southeast (Randall & Miller, 1982).

Depth to groundwater within the Study Area ranges from approximately 2 to 37 feet below ground surface. Based on the static groundwater levels collected, during the SC and the RI, the direction of groundwater flow at the Site has flow components to the northeast and southwest.

7.3 SOIL QUALITY EVALUATION

The quality of soils within the Study Area was evaluated by comparing the analytical results to both Restricted SCOs for Commercial Use and for the Protection of Groundwater. Samples of both surface soils and sub-surface soils were analyzed.

Surface soils within the Study Area have been impacted by TCE, arsenic, cadmium, copper, nickel and zinc. TCE was observed in one exterior direct push boring (DP-3) that was located adjacent to the southeast portion of the Site Building. Metal exceedances were observed along the west side of the Site Building, north of the Site Building (in the vicinity of MW-2) and adjacent to the northeast corner of the Site Building.

Subsurface soils within the Study Area has been impacted by DCE, arsenic, hexavalent chromium and copper. Exceedances in subsurface soils were observed at MW-2 (arsenic), MW-7 (arsenic), MW-4 (copper), MW-5 (Hexavalent Chromium) and DP-5 (DCE).

Sub-Slab soils at the Stie have been impacted by DCE, TCE, cadmium, hexavalent chromium, copper and nickel. The CVOC exceedances were limited to two interior direct push borings (GS-08 and DP-5) located in the southeast portion of the Site Building. Metal exceedances were observed at six boring locations (GS-03, GS-04, GS-05, GS-06, GS-08 and SG-02).

7.4 GROUNDWATER QUALITY EVALUATION

Groundwater within the Study Area has been impacted by CVOCs and selected metals. Concentrations above the NYSDEC TOGS 1.1.1 criteria were reported for CVOCs, cadmium, chromium and nickel.

VOC concentrations exceeding NYSDEC standards were observed at four of the seven monitoring wells (MW-2, MW-3, MW-4 and MW-5). The highest concentrations of VOCs in groundwater were observed in Monitoring Well MW-5.

Metal concentrations exceeding NYSDEC standards were observed at four of the seven monitoring wells (MW-1, MW-2, MW-3 and MW-5). The highest concentrations of metals in groundwater were observed in Monitoring Well MW-3.

8 REFERENCES

Bouwer, H. and R.C. Rice, 1976. A slug test method for determining hydraulic conductivity of unconfined aquifers with complete or partially penetrating wells, Water Resources Research, vol. 12, no. 3, pp. 423-428.

Ernest H. Muller and Cadwell, Donald H. 1986, “Surficial Geologic Map of New York-Finger Lakes Sheet”, NYS Museum Map & Chart Series #40.

Ernest H. Muller and Cadwell, Donald H. 1970, “Geologic Map of New York-Finger Lakes Sheet”, NYS Museum Map & Chart Series #15.

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Randall, Alan D. and Todd S. Miller, et. al. Geohydrology of Valley-Fill Aquifer in the Elmira Area, Chemung County, New York. U.S.G.S. Open File Report 82-110. 1982.

Site Characterization Letter Report (June 2014), Triple Cities Metal Finishing, Site No. 808045, Chemung County, NY prepared by URS Corporation for NYSDEC.

Supplemental Field Investigation (April 1987), I. Shulman and Son Company, Inc., Elmira, New York prepared by Malcolm Pirnie.

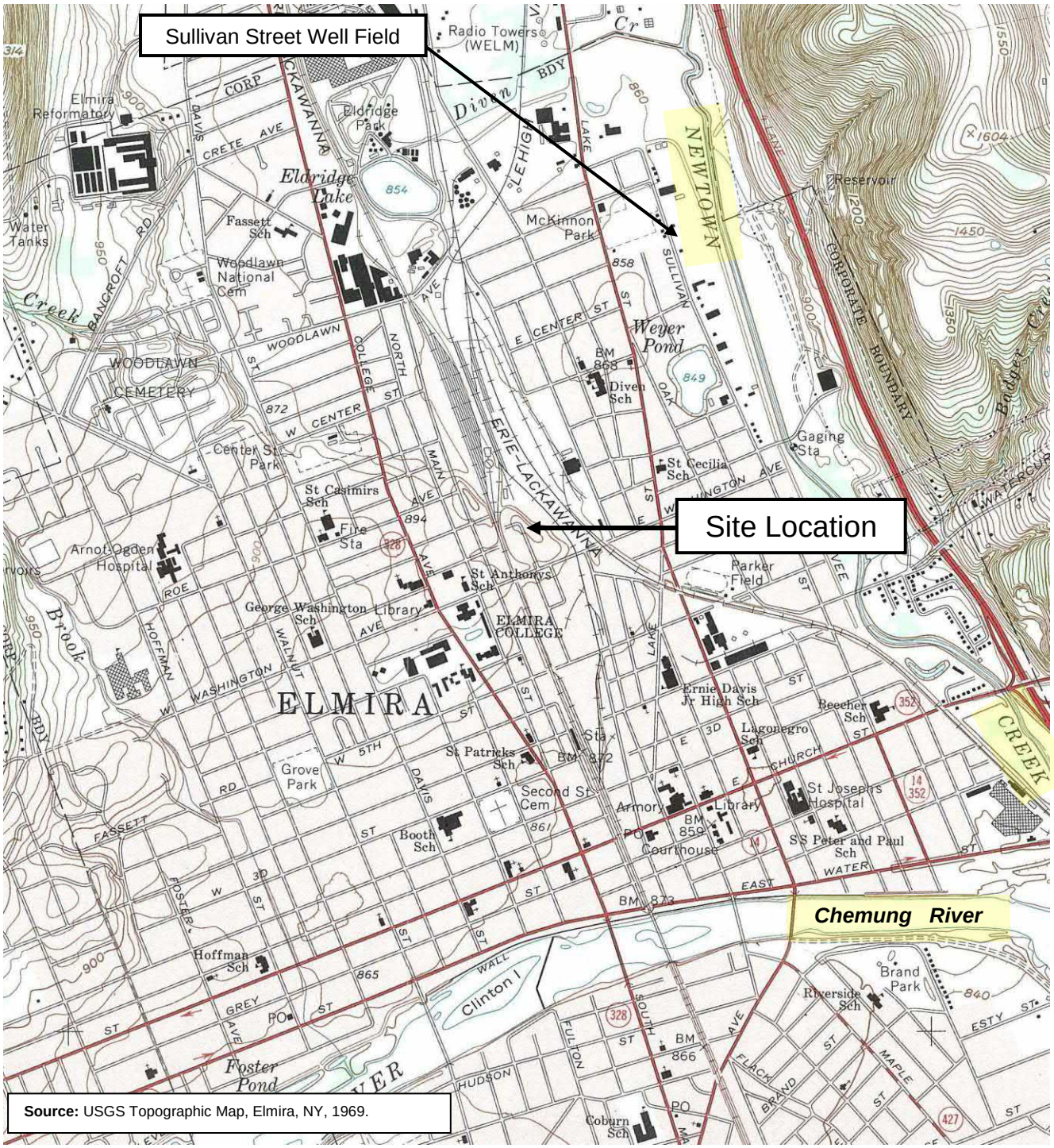
Supplemental Site Characterization Letter Report (December 2014), Triple Cities Metal Finishing, Site No. 808045, Chemung County, NY prepared by URS Corporation for NYSDEC.

USGS Topographic Map, Elmira, NY, 1969.

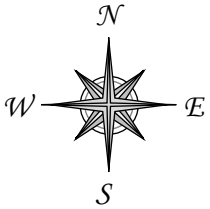
P:\PROJECTS\2015\215042 Former TCMF Elmira\REPORT\RI Report\RI Report Site No. 808045.doc

APPENDIX A

DRAWINGS



Source: USGS Topographic Map, Elmira, NY, 1969.



GeoLogic

GeoLogic NY, P.C., Homer, New York

SITE LOCATION PLAN
Former Industrial Service Corporation
920-926 Stowell Street, Elmira, NY
NYSDEC Site No. 808045

DRAWN BY:	SCALE:	PROJECT NO:
SC/CTG	Approx. 1"=2000'	215042
REVIEWED BY:	DATE:	DRAWING NO:
FCE	APRIL 2024	1

P:\PROJECTS\2015\215042 Former TCMF Elmira\REPORT\RI Report\Drawings\Drawing No. 1 Site Location Plan.docx

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GeoLogic

GeoLogic NY, P.C., Homer, New York

SITE & STUDY AREA TAX PARCEL PLAN
Former Industrial Service Corporation
920-926 Stowell Street, Elmira, New York
NYSDEC Site No. 808045

DRAWN BY:	SCALE:	PROJECT NO:
SC/CTG	Approx. as shown	205042
REVIEWED BY:	DATE:	DRAWING NO:
FCE	APRIL 2024	2

FILE:P:\PROJECTS\2015\215042 Former TCMF Elmira\REPORT\RI Report\Drawings\Drawing No. 2 Site & Study Area Tax Parcel Plan.docx

Legend:

Wastewater Facility

Aquatic Biological Monitoring

Permitted and Reclaimed Mines

Title V Air Permits

Remediation Site

- Brownfield Cleanup Program
- Environmental Restoration Program
- Resource Conservation and Recovery
- State Superfund Program
- Voluntary Cleanup Program

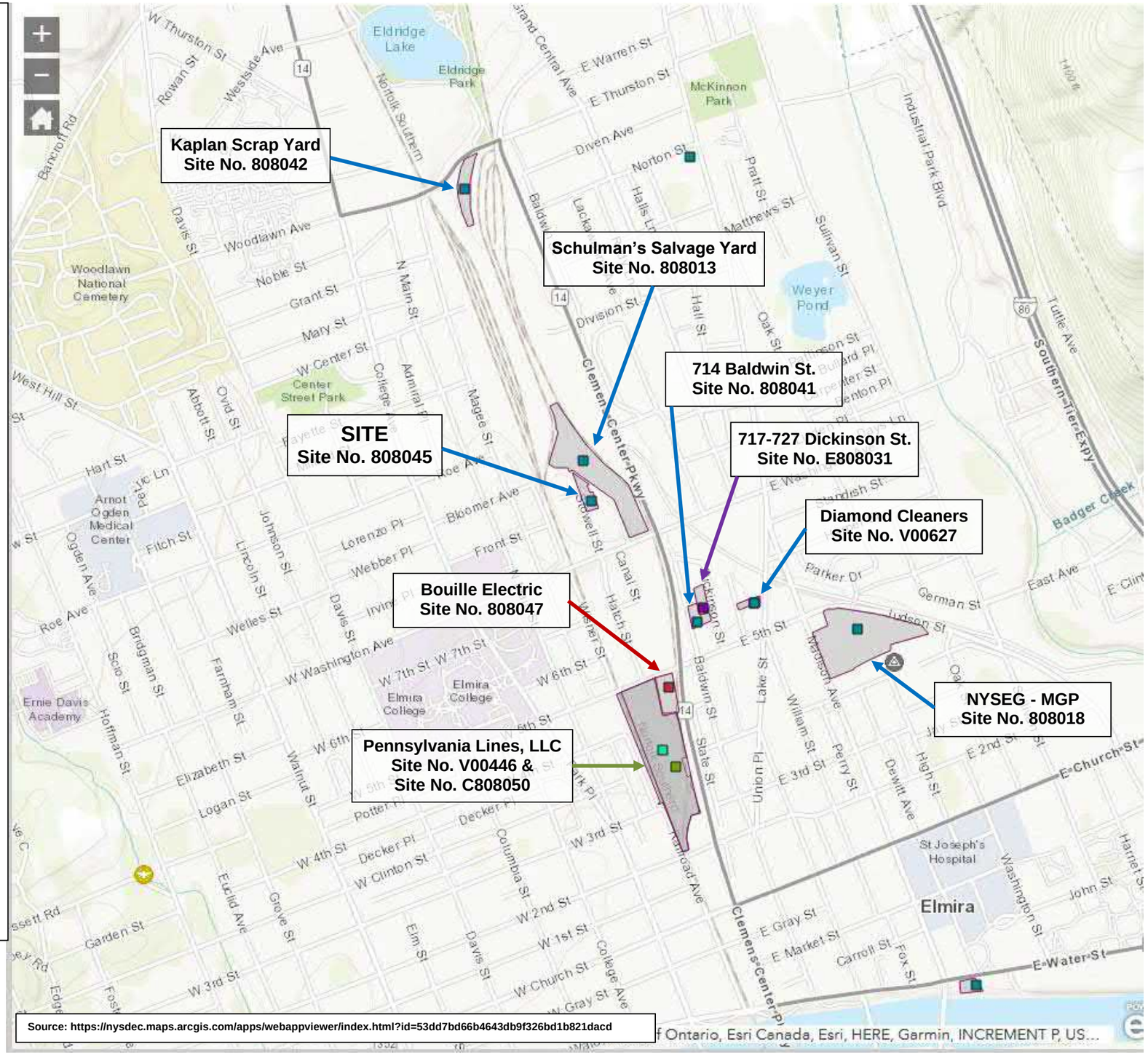
Major Oil Storage Facility

Chemical Bulk Storage

Remediation Site Boundary

Rivers, Streams, and Shorelines

Lakes, Reservoirs, and Estuaries



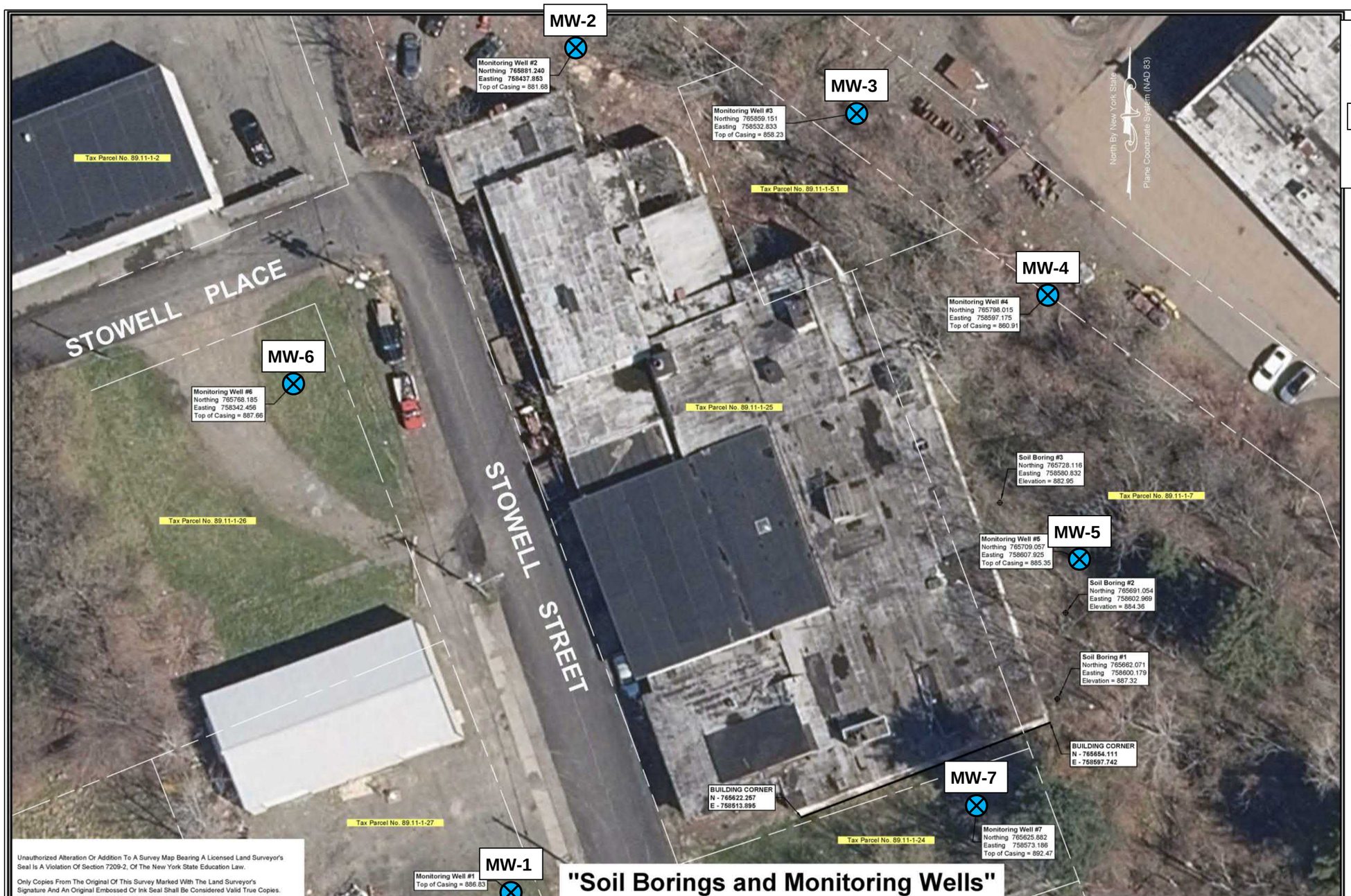
GeoLogic

GeoLogic NY, P.C., Homer, New York

REMEDIATION SITES LOCATION PLAN
Former Industrial Service Corporation
920-926 Stowell Street, Elmira, NY
NYSDEC Site No. 808045

DRAWN BY:	SCALE:	PROJECT NO:
CG	Not To Scale	215042
REVIEWED BY:	DATE:	DRAWING NO:
FCE	FEB. 2019	3

FILE:P:\PROJECTS\2015\215042 Former TCMF Elmira\REPORT\RI Report\Drawings\Drawing No. 3 Remediation Sites Location Plan.docx



Legend:

⊗ Monitoring Well Location

MW-3 Monitoring Well Number

Note:
All locations are approximate.

Unauthorized Alteration Or Addition To A Survey Map Bearing A Licensed Land Surveyor's Seal Is A Violation Of Section 7209-2, Of The New York State Education Law.

Only Copies From The Original Of This Survey Marked With The Land Surveyor's Signature And An Original Embossed Or Ink Seal Shall Be Considered Valid True Copies.

"Soil Borings and Monitoring Wells"

NO.	DATE	REVISION	BY
1	01-16-2024	To show Tax Map Information	SLP
2	03-20-2024	Revised Soil Boring and Monitoring Well Numbers	SLP

Source: As shown, Delta AES

SCALE: 1" = 20 FEET

20 0 20 40 60

Lands Of
New York State Department of Environmental Conservation
Site No. 808045
920-926 Stowell Street
Town of Elmira - Broome County
State Of New York

DELTA
ENGINEERS, ARCHITECTS, & LAND SURVEYORS
860 Hooper Road, Endwell, NY 13760
Tel: 607.231.6600
Fax: 607.231.6650
Website: www.delta-eas.com

Designed by:	N/A
Drawn by:	S. Pickett
Reviewed by:	M. Frailey
Date:	January 11, 2024
Last Revised:	March 20, 2024
Scale:	1"= 20 Feet
Project Number:	2023.713.001

GeoLogic
GeoLogic NY, PC, Homer, New York

MONITORING WELL LOCATION PLAN
SITE NO. 808045
FORMER INDUSTRIAL SERVICE CORP.
920 – 926 STOWELL STREET
ELMIRA, NEW YORK

DRAWN BY: CG	SCALE: Approx. As Shown	PROJECT NO: 215042
REVIEWED BY: FCE	DATE: APRIL 2024	DRAWING NO: 4.1

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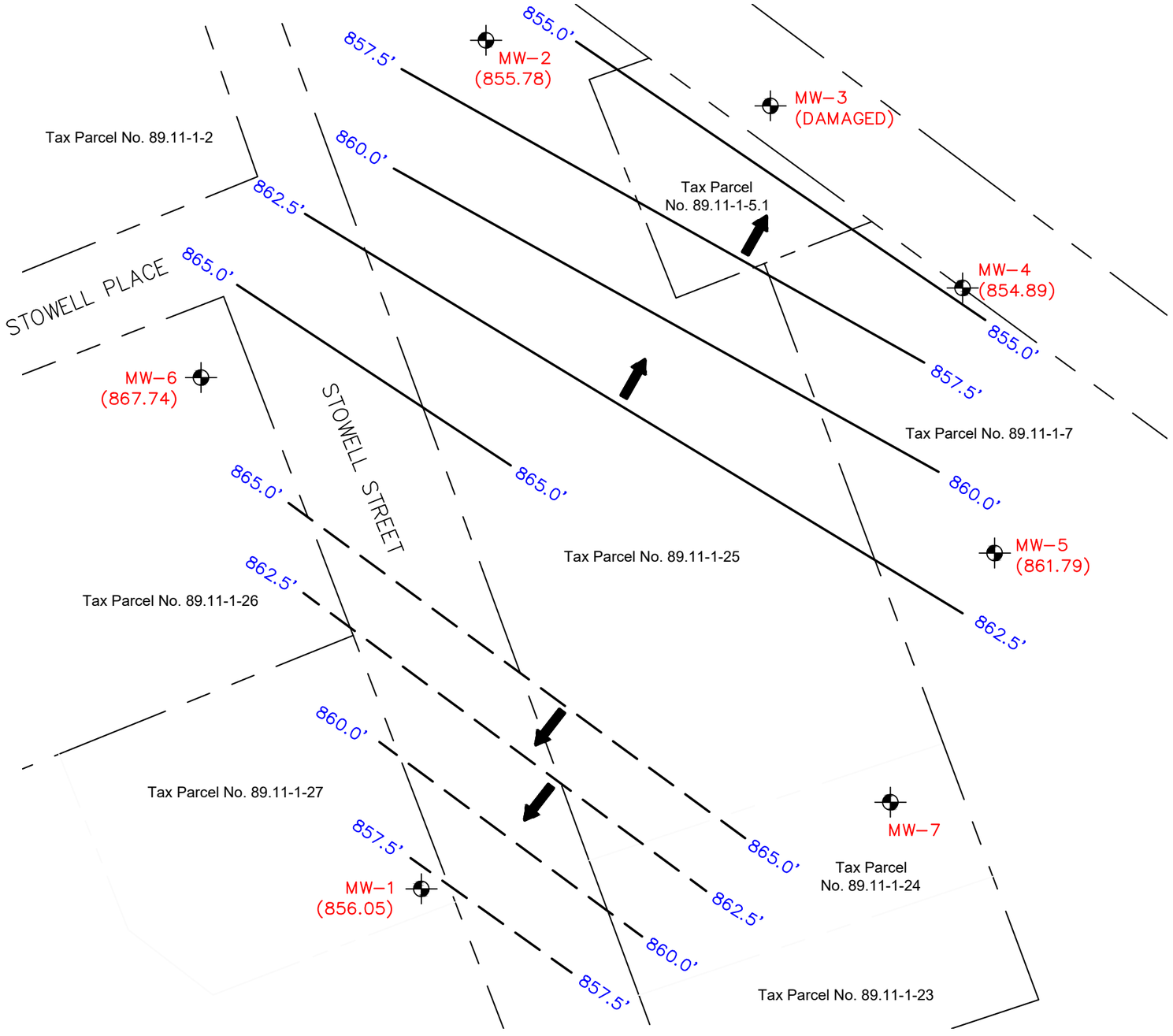


LEGEND

⊕	MONITORING WELL LOCATION
860.0	GROUNDWATER ELEVATION (FT.) FOR 9/18/2023 AND 9/19/2023.
1160.60	GROUNDWATER ELEVATION CONTOUR FOR 9/18/2023 AND 9/19/2023.
⬅	DIRECTION OF GROUNDWATER FLOW

40 0 40 80 120

SCALE: 1" = 40'

NOTE: Drawing based on Delta Engineers, Architects, & Surveyors, 860 Hooper Road, Endwell, NY.
Drawing dated 01/16/2024

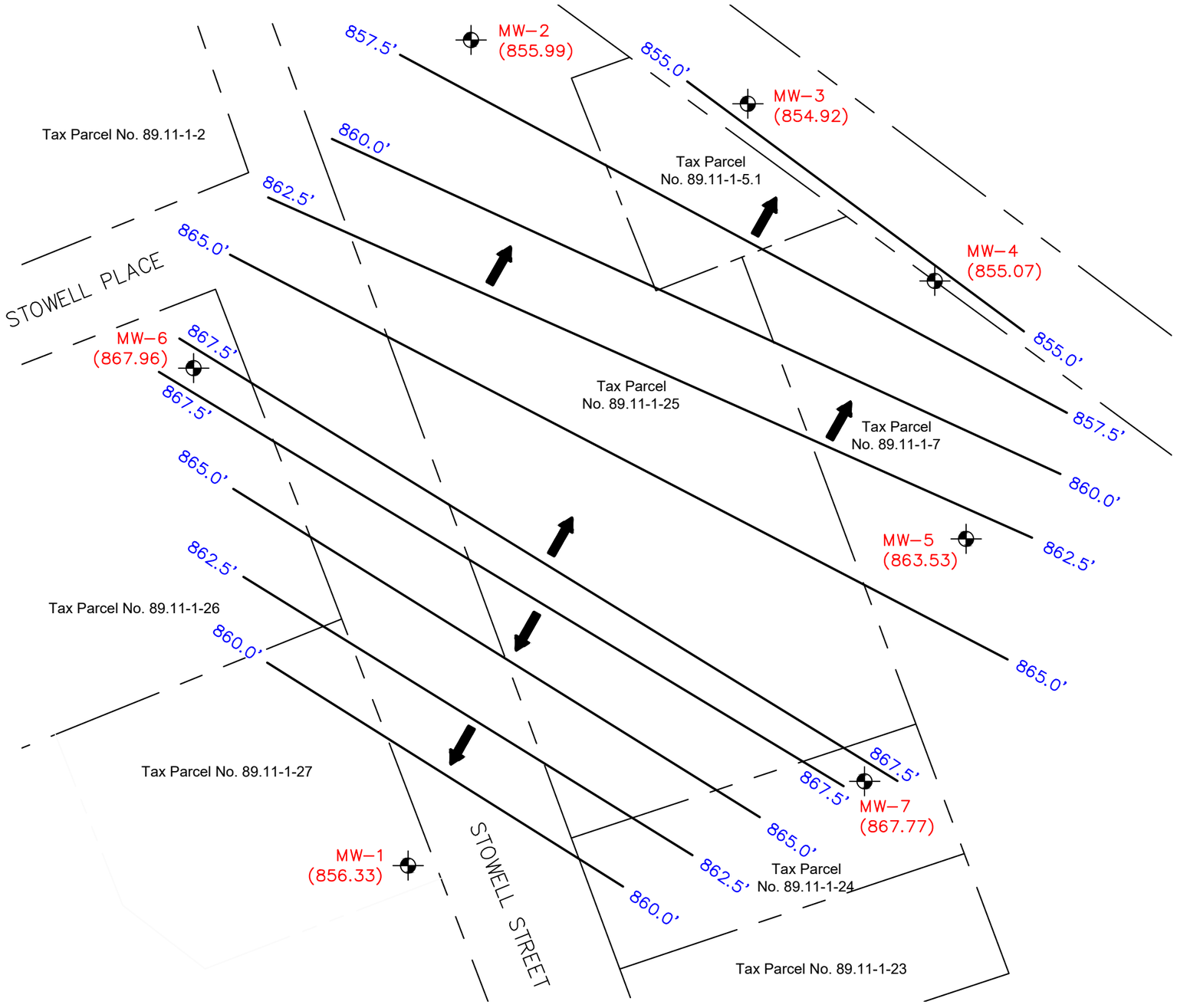
This map does not constitute a survey and is intended to convey approximate sample locations and site features.

GeoLogic

GeoLogic NY, PC, Homer, New York

GROUNDWATER CONTOUR MAP
FOR 9/18/2023 AND 9/19/2023.
FORMER INDUSTRIAL SERVICE CORPORATION
920 - 926 STOWELL STREET, ELMIRA, NEW YORK
NYSDEC SITE NO. 808045

DRAWN BY: RTS/CTG	SCALE: AS SHOWN	PROJECT NO.: 215042
REVIEWED BY: FCE	DATE: SEPT. 2023	DRAWING NO.: 4.2



LEGEND

⊕	MONITORING WELL LOCATION
860.0	GROUNDWATER ELEVATION (FT.) FOR 3/18/2024.
1160.60	GROUNDWATER ELEVATION CONTOUR FOR 3/18/2024.
⬅	DIRECTION OF GROUNDWATER FLOW

40 0 40 80 120

SCALE: 1" = 40'

NOTE: Drawing based on Delta Engineers, Architects, & Surveyors, 860 Hooper Road, Endwell, NY.
Drawing dated 01/16/2024

This map does not constitute a survey and is intended to convey approximate sample locations and site features.

GeoLogic

GeoLogic NY, PC, Homer, New York

GROUNDWATER CONTOUR MAP
FOR 3/18/2024.
FORMER INDUSTRIAL SERVICE CORPORATION
920 - 926 STOWELL STREET, ELMIRA, NEW YORK
NYSDEC SITE NO. 808045

DRAWN BY:	SCALE:	PROJECT NO.:
RTS/CTG	AS SHOWN	215042
REVIEWED BY: FCE	DATE: MARCH 2024	DRAWING NO.: 4.3

Source: Survey entitled "Soil Borings and Monitoring Wells", by Delta AES, dated March 20, 2024.

Legend:

⊕ Direct Push Soil Boring Location

DP-3 Direct Push Soil Boring Number

Note:
All locations are approximate.

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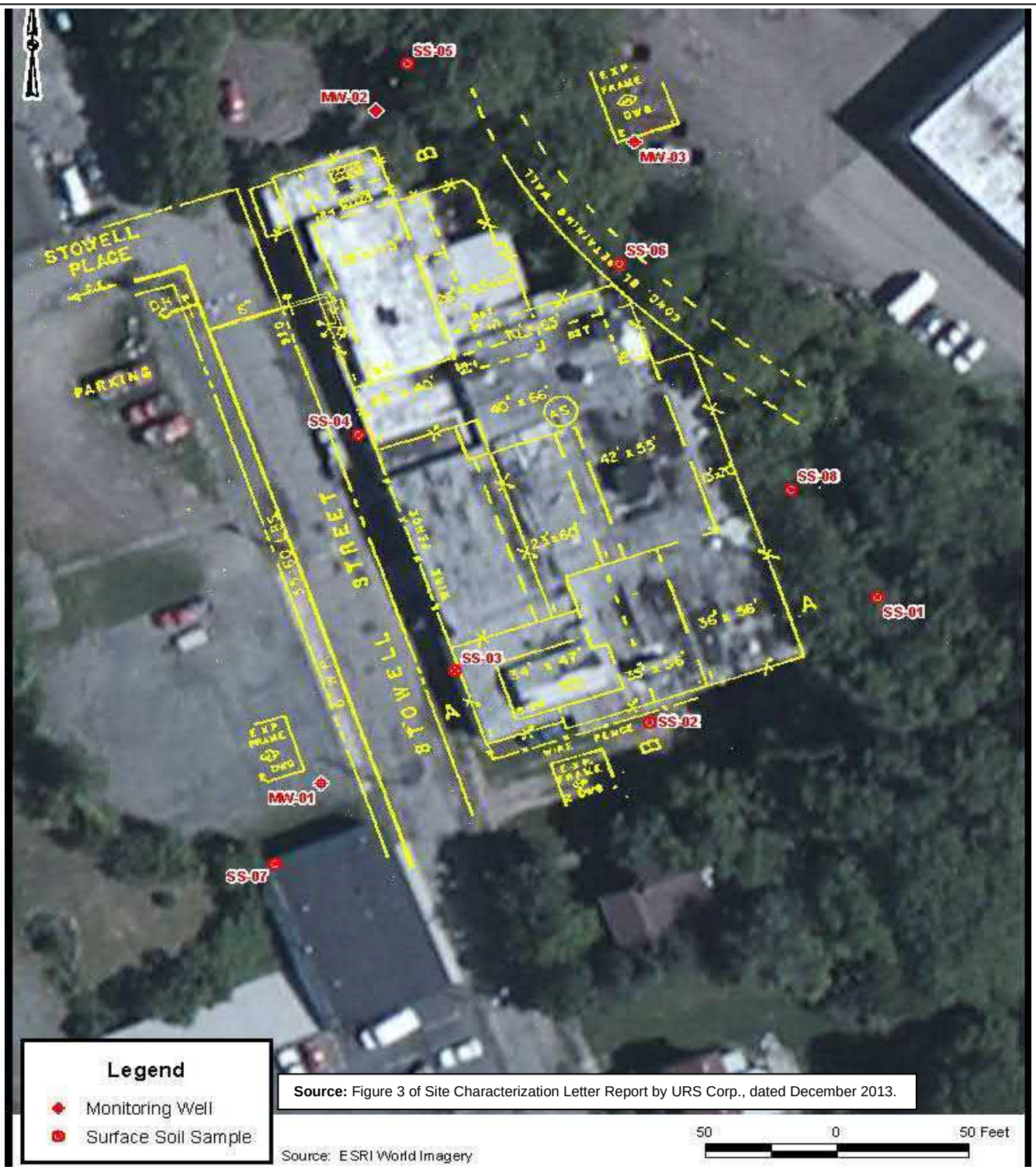
GeoLogic

GeoLogic NY, P.C.

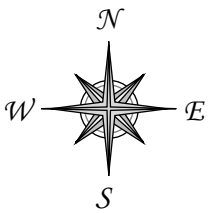
2023 SOIL BORING LOCATION PLAN
Former Industrial Service Corp.
920-926 Stowell Street, Elmira, NY
NYSDEC Site No. 808045

DRAWN BY:	SCALE:	PROJECT NO:
CTG	Approx. 1" = 20'	215042
REVIEWED BY:	DATE:	DRAWING NO:
FCE	APRIL 2024	5.1

FILE:P:\PROJECTS\2015\215042 Former TCMF Elmira\REPORT\RI Report\Drawings\Drawing No. 5.1 2023 Soil Boring Location Plan.docx



Source: Figure 3 of Site Characterization Letter Report by URS Corp., dated December 2013.



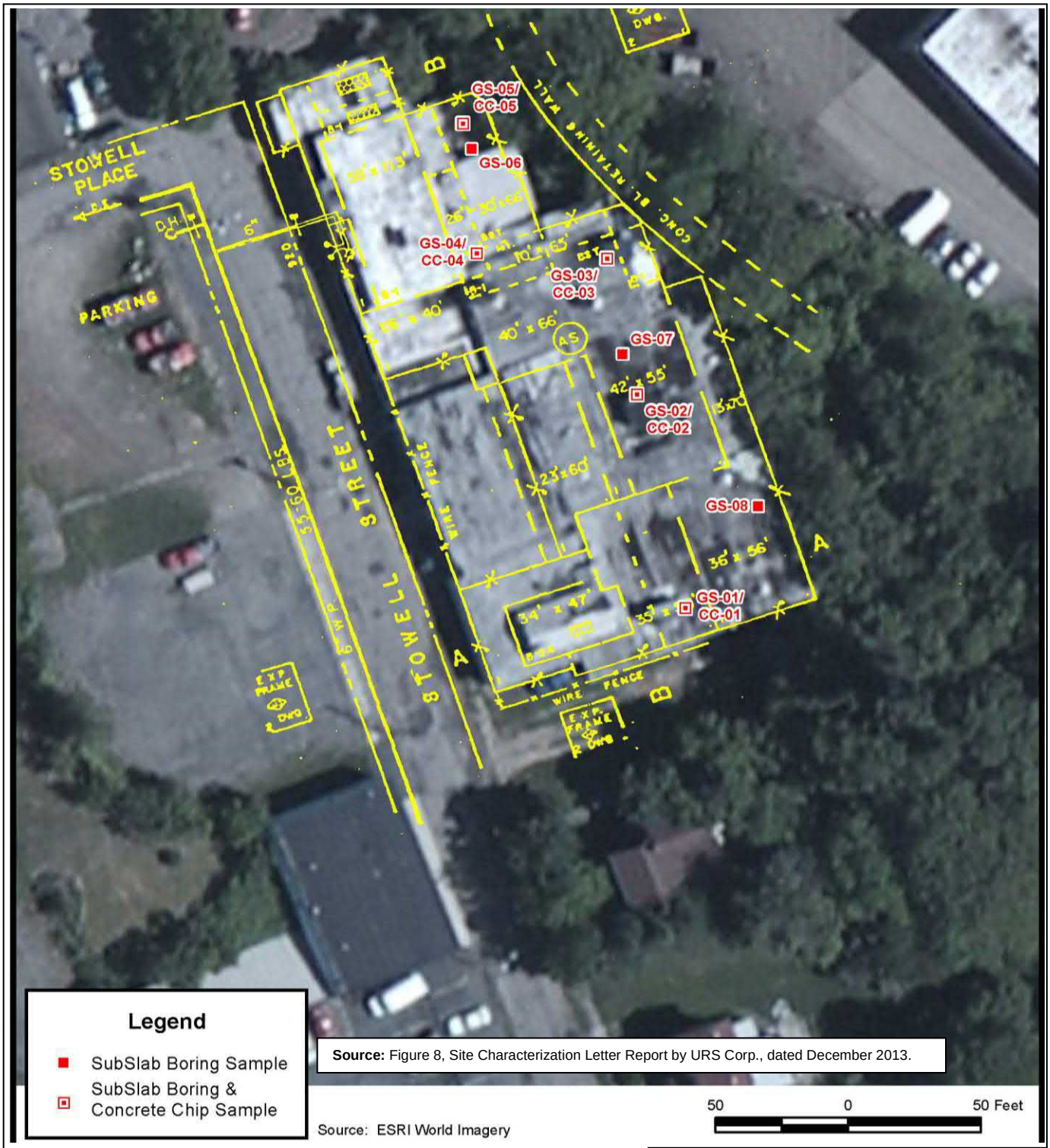
GeoLogic

GeoLogic NY, P.C., Homer, New York

SC SURFACE SOIL LOCATION PLAN
Former Industrial Service Corporation
920-926 Stowell Street, Elmira, NY
NYSDEC Site No. 808045

DRAWN BY:	SCALE:	PROJECT NO:
SC/CTG	Approx. as shown	215042
REVIEWED BY:	DATE:	DRAWING NO:
FCE	APRIL 2024	5.2

P:\PROJECTS\2015\215042 Former TCMF Elmira\REPORT\RI Report\Drawings\Drawing No. 5.2 SC Surface Soil Sample Location Plan.docx

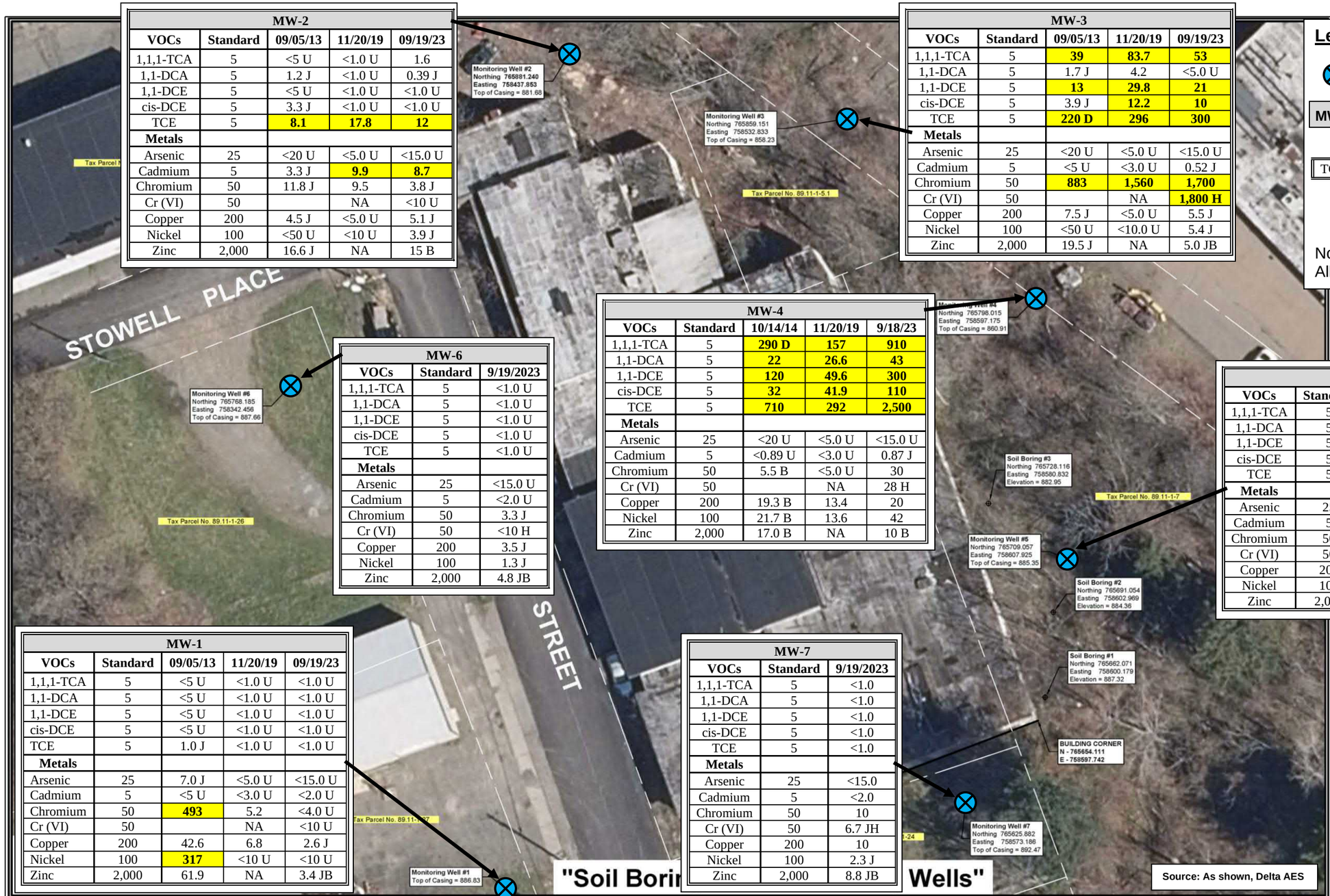


GeoLogic NY, P.C., Homer, New York

SC SUB-SLAB SOIL LOCATION PLAN
Former Industrial Service Corporation
920-926 Stowell Street, Elmira, NY
NYSDEC Site No. 808045

DRAWN BY:	SCALE:	PROJECT NO:
SC/CTG	Approx. as shown	215042
REVIEWED BY:	DATE:	DRAWING NO:
FCE	APRIL 2024	5.3

P:\PROJECTS\2015\215042 Former TCMF Elmira\REPORT\RI Report\Drawings\Drawing No. 5.3 SC Sub-Slab Sample Location Plan.docx



MW-2				
VOCs	**Standard**	**09/05/13**	**11/20/19**	**09/19/23**
1,1,1-TCA	5	<5 U	<1.0 U	1.6
1,1-DCA	5	1.2 J	<1.0 U	0.39 J
1,1-DCE	5	<5 U	<1.0 U	<1.0 U
cis-DCE	5	3.3 J	<1.0 U	<1.0 U
TCE	5	**8.1**	**17.8**	**12**
Metals				
Arsenic	25	<20 U	<5.0 U	<15.0 U
Cadmium	5	3.3 J	**9.9**	**8.7**
Chromium	50	11.8 J	9.5	3.8 J
Cr (VI)	50		NA	<10 U
Copper	200	4.5 J	<5.0 U	5.1 J
Nickel	100	<50 U	<10 U	3.9 J
Zinc	2,000	16.6 J	NA	15 B

MW-3				
VOCs	**Standard**	**09/05/13**	**11/20/19**	**09/19/23**
1,1,1-TCA	5	**39**	**83.7**	**53**
1,1-DCA	5	1.7 J	4.2	<5.0 U
1,1-DCE	5	**13**	**29.8**	**21**
cis-DCE	5	3.9 J	**12.2**	**10**
TCE	5	**220 D**	**296**	**300**
Metals				
Arsenic	25	<20 U	<5.0 U	<15.0 U
Cadmium	5	<5 U	<3.0 U	0.52 J
Chromium	50	**883**	**1,560**	**1,700**
Cr (VI)	50		NA	**1,800 H**
Copper	200	7.5 J	<5.0 U	5.5 J
Nickel	100	<50 U	<10.0 U	5.4 J
Zinc	2,000	19.5 J	NA	5.0 JB

MW-4				
VOCs	**Standard**	**10/14/14**	**11/20/19**	**9/18/23**
1,1,1-TCA	5	**290 D**	**157**	**910**
1,1-DCA	5	**22**	**26.6**	**43**
1,1-DCE	5	**120**	**49.6**	**300**
cis-DCE	5	**32**	**41.9**	**110**
TCE	5	**710**	**292**	**2,500**
Metals				
Arsenic	25	<20 U	<5.0 U	<15.0 U
Cadmium	5	<0.89 U	<3.0 U	0.87 J
Chromium	50	5.5 B	<5.0 U	30
Cr (VI)	50		NA	28 H
Copper	200	19.3 B	13.4	20
Nickel	100	21.7 B	13.6	42
Zinc	2,000	17.0 B	NA	10 B

MW-5				
VOCs	**Standard**	**10/14/14**	**11/20/19**	**9/18/23**
1,1,1-TCA	5	**3,300 D**	**1,580**	**1,700**
1,1-DCA	5	**78**	**37.2**	**38 J**
1,1-DCE	5	**2,100 D**	**735**	**970**
cis-DCE	5	**220 JD**	**88.2**	**200**
TCE	5	**5,400 D**	**2,200**	**3,300**
Metals				
Arsenic	25	9.7 B	<5.0 U	<15.0 U
Cadmium	5	<0.89 U	<3.0 U	<2.0 U
Chromium	50	**53.0 J**	<5.0 U	1.2 J
Cr (VI)	50		NA	6.7 JH
Copper	200	10.5 B	<5.0 U	5.2 J
Nickel	100	**116**	24.6	42
Zinc	2,000	16.8 B	NA	2.1 JB

MW-6		
VOCs	**Standard**	**9/19/2023**
1,1,1-TCA	5	<1.0 U
1,1-DCA	5	<1.0 U
1,1-DCE	5	<1.0 U
cis-DCE	5	<1.0 U
TCE	5	<1.0 U
Metals		
Arsenic	25	<15.0 U
Cadmium	5	<2.0 U
Chromium	50	3.3 J
Cr (VI)	50	<10 H
Copper	200	3.5 J
Nickel	100	1.3 J
Zinc	2,000	4.8 JB

MW-1				
VOCs	**Standard**	**09/05/13**	**11/20/19**	**09/19/23**
1,1,1-TCA	5	<5 U	<1.0 U	<1.0 U
1,1-DCA	5	<5 U	<1.0 U	<1.0 U
1,1-DCE	5	<5 U	<1.0 U	<1.0 U
cis-DCE	5	<5 U	<1.0 U	<1.0 U
TCE	5	1.0 J	<1.0 U	<1.0 U
Metals				
Arsenic	25	7.0 J	<5.0 U	<15.0 U
Cadmium	5	<5 U	<3.0 U	<2.0 U
Chromium	50	**493**	5.2	<4.0 U
Cr (VI)	50		NA	<10 U
Copper	200	42.6	6.8	2.6 J
Nickel	100	**317**	<10 U	<10 U
Zinc	2,000	61.9	NA	3.4 JB

MW-7		
VOCs	**Standard**	**9/19/2023**
1,1,1-TCA	5	<1.0
1,1-DCA	5	<1.0
1,1-DCE	5	<1.0
cis-DCE	5	<1.0
TCE	5	<1.0
Metals		
Arsenic	25	<15.0
Cadmium	5	<2.0
Chromium	50	10
Cr (VI)	50	6.7 JH
Copper	200	10
Nickel	100	2.3 J
Zinc	2,000	8.8 JB

Legend:

- ⊗ Monitoring Well Location
- MW-3 — Monitoring Well Number
- TCE | 8.1 — GW Contaminant Concentration in µg/L Highlighted value exceeds TOGS 1.1.1 Values

Note:
All locations are approximate.

Source: As shown, Delta AES

NO.	DATE	REVISION	BY
1	01-16-2024	To show Tax Map Information	SLP
2	03-20-2024	Revised Soil Boring and Monitoring Well Numbers	SLP

SCALE: 1" = 20 FEET

20 0 20 40 60

Lands Of
New York State Department of Environmental Conservation
Site No. 808045
920-926 Stowell Street
Town of Elmira - Broome County
State Of New York

DELTA
ENGINEERS, ARCHITECTS, & LAND SURVEYORS
860 Hooper Road, Endwell, NY 13760
Tel: 607.231.6600
Fax: 607.231.6650
Website: www.delta-eas.com

Designed by:	N/A
Drawn by:	S. Pickett
Reviewed by:	M. Frailey
Date:	January 11, 2024
Last Revised:	March 20, 2024
Scale:	1"= 20 Feet
Project Number:	2023.713.001

GeoLogic
GeoLogic NY, PC, Homer, New York

GW CVOC & METAL CONCENTRATIONS
SITE NO. 808045
FORMER INDUSTRIAL SERVICE CORP.
920 – 926 STOWELL STREET
ELMIRA, NEW YORK

DRAWN BY:	SCALE:	PROJECT NO:
CG	Approx. As Shown	215042
REVIEWED BY:	DATE:	DRAWING NO:
FCE	APRIL 2024	6

APPENDIX B

TABLES

TABLE 1
GROUNDWATER ELEVATIONS

Well	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
2023 TOC Ref. Elev.	**886.83**		**881.68**		**858.23**		**860.91**		**885.35**		**887.66**		**892.47**	
2015 TOC Ref. Elev.	**886.99**		**881.97**		**859.73**		**860.97**		**885.40**		**NA**		**NA**	
G.S. Elev.	887.30		878.86		856.44		858.46		883.16		887.98		890.18	
Top of Well Screen Elev.	852.30		858.86		851.44		853.46		857.16		862.98		860.18	
Bottom of Well Screen Elev.	837.30		843.86		836.44		838.46		842.16		847.98		850.18	
DATE	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**	**DtoW**	**Elev.**
8/28/2013	Installed		Installed		Installed									
8/29 & 8/30/2013	23.39	863.60	28.73	853.24	6.84	852.89								
9/5/2013	33.63	853.36	29.08	852.89	7.20	852.53								
10/2/2014							Installed		Installed					
10/3/2014							6.95	854.02	29.04	856.36				
10/14/2014							7.45	853.52	28.76	856.64				
11/19 & 11/20/2019	31.86	855.13	27.08	854.89	5.42	854.31	6.23	854.74	25.94	859.46				
8/28 - 8/30/2023											Installed		Installed	
9/18 & 9/19/2023	30.78	856.05	25.90	855.78	Well Damaged		6.02	854.89	23.56	861.79	19.92	867.74	40.11	852.36
3/18/2024	30.50	856.33	25.69	855.99	3.31	854.92	5.84	855.07	21.82	863.53	19.70	867.96	24.70	867.77

Notes:

All wells, except MW-7, are constructed of 2 inch diameter PVC with 15 feet of screen. The screen is 10 feet at MW-7.

TOC - Top of Casing Ref. - Reference G.S. - Ground Surface Elev. - Elevation

All elevations are feet above mean sea level (ft. AMSL)

DtoW - TOC Depth to Water NA - Not Applicable NM - Not Measured

TABLE 2
FIELD PARAMETERS

Well	Date	Temp. (°C)	Conductivity (mS/cm)	DO (mg/L)	pH	ORP (mV)
MW-1	9/5/2013	17.70	0.707	3.91	9.38	-254.0
	10/14/2014	NM	NM	NM	NM	NM
	11/20/2019	12.03	0.818	2.94	8.40	145.3
	9/18/2023	13.2	0.681	4.10	7.78	210.6
MW-2	9/5/2013	14.56	1.470	0.00	7.15	-163.0
	10/14/2014	NM	NM	NM	NM	NM
	11/19/2019	11.19	1.035	7.57	7.23	158.3
	9/18/2023	12.1	0.719	2.15	6.98	201.7
MW-3	9/5/2013	14.39	0.848	0.00	6.89	-176.0
	10/14/2014	NM	NM	NM	NM	NM
	11/19/2019	11.40	0.961	2.42	7.25	107.6
	9/18/2023	13.1	0.749	0.70	7.20	185.7
MW-4	9/5/2013	Not Installed Yet				
	10/14/2014	13.90	0.831	0.00	7.32	-38
	11/19/2019	11.53	1.273	2.55	7.25	5.2
	9/18/2023	13.4	1.156	0.51	7.06	158.3
MW-5	9/5/2013	Not Installed Yet				
	10/14/2014	13.15	3.270	1.70	7.02	-28
	11/19/2019	10.32	1.735	6.03	7.34	185.5
	9/18/2023	11.0	1.554	0.51	6.97	148.6
MW-6	9/5/2013	Not Installed Yet				
	10/14/2014					
	11/19/2019					
	9/18/2023	14.8	1.048	0.52	8.55	-7.1
MW-7	9/5/2013	Not Installed Yet				
	10/14/2014					
	11/19/2019					
	9/18/2023	11.4	1.116	4.65	8.07	147.2

Notes:
Field parameters measured using a YSI 556 or Pro DDS equipped with a multi-parameter sonde.
New HDPE bailers used to purge/sample wells. Field parameters collected by inserting YSI into well.
NM = Not Measured.

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
SITE CONTAMINANTS OF CONCERN

MW-1								
VOCs	**NYS Class GA Water Standard**	**Sample Date 9/5/2013**		**Sample Date 11/20/2019**		**Sample Date 9/19/2023**		
1,1,1-Trichloroethane	5	<5	U	<1.0	U	<1.0	U	
1,1-Dichloroethane	5	<5	U	<1.0	U	<1.0	U	
1,1-Dichloroethene	5	<5	U	<1.0	U	<1.0	U	
cis-1,2-Dichloroethene (DCE)	5	<5	U	<1.0	U	<1.0	U	
Trichloroethene (TCE)	5	1.0	J	<1.0	U	<1.0	U	
Metals								
Arsenic	25	7	J	<5.0	U	<15.0	U	
Cadmium	5	<5	U	<3.0	U	<2.0	U	
Chromium	50	**493**		5.2		<4.0	U	
Hexavalent Chromium	50	NA		NA		<10	U H H3	
Copper	200	42.6		6.8		2.6	J	
Nickel	100	**317**		<10	U	<10	U	
Zinc	2,000	61.9		NA		3.4	J B	

Notes:

All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).

VOCs = Volatile Organic Compounds.

U = Not detected above the method detection limit. D = Sample Results are from a dilution.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NA = Not analyzed. B = Compound was found in the blank and sample.

H = Sample was prepared or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 = Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Highlight value exceeds TOG 1.1.1 Water Quality Standard and/or Guidance for Class GA waters.

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
SITE CONTAMINANTS OF CONCERN

MW-2									
VOCs	**NYS Class GA Water Standard**	**Sample Date 9/5/2013**		**Sample Date 11/20/2019**		**Sample Date 9/18/2023**		
1,1,1-Trichloroethane	5	<5	U	<1.0	U	1.6		
1,1-Dichloroethane	5	1.2	J	<1.0	U	0.39	J	
1,1-Dichloroethene	5	<5	U	<1.0	U	<1.0	U	
cis-1,2-Dichloroethene (DCE)	5	3.3	J	<1.0	U	<1.0	U	
Trichloroethene (TCE)	5	**8.1**		**17.8**		**12**		
Metals								
Arsenic	25	<20	U	<5.0	U	<15.0	U	
Cadmium	5	3.3	J	**9.9**		**8.7**		
Chromium	50	11.8	J	9.5		3.8	J	
Hexavalent Chromium	50	NA		NA		<10	U H H3	
Copper	200	4.5	J	<5.0	U	5.1	J	
Nickel	100	<50	U	<10	U	3.9	J	
Zinc	2,000	16.6	J	NA		15	B	

Notes:

All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).

VOCs = Volatile Organic Compounds.

U = Not detected above the method detection limit. D = Sample Results are from a dilution.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NA = Not analyzed. B = Compound was found in the blank and sample.

H = Sample was prepared or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 = Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Highlight value exceeds TOG 1.1.1 Water Quality Standard and/or Guidance for Class GA waters.

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
SITE CONTAMINANTS OF CONCERN

MW-3								
VOCs	**NYS Class GA Water Standard**	**Sample Date 9/5/2013**		**Sample Date 11/20/2019**		**Sample Date 9/18/2023**		
1,1,1-Trichloroethane	5	**39**		**83.7**		**53**		
1,1-Dichloroethane	5	1.7	J	4.2		<5.0	U	
1,1-Dichloroethene	5	**13**		**29.8**		**21**		
cis-1,2-Dichloroethene (DCE)	5	3.9	J	**12.2**		**10**		
Trichloroethene (TCE)	5	**220**	**D**	**296**		**300**		
Metals								
Arsenic	25	<20	U	<5.0	U	<15.0	U	
Cadmium	5	<5	U	<3.0	U	0.52	J	
Chromium	50	**883**		**1,560**		**1,700**		
Hexavalent Chromium	50	NA		NA		**1,800**	**H H3**	
Copper	200	7.5	J	<5.0	U	5.5	J	
Nickel	100	<50	U	<10.0	U	5.4	J	
Zinc	2,000	19.5	J	NA		5.0	J B	

Notes:

All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).

VOCs = Volatile Organic Compounds.

U = Not detected above the method detection limit. D = Sample Results are from a dilution.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NA = Not analyzed. B = Compound was found in the blank and sample.

H = Sample was prepared or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 = Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Highlight value exceeds TOG 1.1.1 Water Quality Standard and/or Guidance for Class GA waters.

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
SITE CONTAMINANTS OF CONCERN

MW-4									
VOCs	**NYS Class GA Water Standard**	**Sample Date 10/14/2014**		**Sample Date 11/20/2019**		**Sample Date 9/18/2023**		
1,1,1-Trichloroethane	5	**290**	**D**	**157**	**MH**	**910**		
1,1-Dichloroethane	5	**22**		**26.6**		**43**		
1,1-Dichloroethene	5	**120**		**49.6**		**300**		
cis-1,2-Dichloroethene (DCE)	5	**32**		**41.9**		**110**		
Trichloroethene (TCE)	5	**710**		**292**	**MH**	**2,500**	**F1**	
Metals								
Arsenic	25	<20	U	<5.0	U	<15.0	U	
Cadmium	5	<0.89	U	<3.0	U	0.87	J	
Chromium	50	5.5	B	<5.0	U	30		
Hexavalent Chromium	50	NA		NA		28	H H3	
Copper	200	19.3	B	13.4		20		
Nickel	100	21.7	B	13.6		42		
Zinc	2,000	17.0	B	NA		10	B	

Notes:

All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).

VOCs = Volatile Organic Compounds.

U = Not detected above the method detection limit. D = Sample Results are from a dilution.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

F1 = MS and/or MSD recovery exceedes control limits.

NA = Not analyzed. B = Compound was found in the blank and sample.

MH = MS recovery and/or MSD recovery was above laboratory control limits. Results may be biased high.

H = Sample was prepared or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 = Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Highlight value exceeds TOG 1.1.1 Water Quality Standard and/or Guidance for Class GA waters.

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
SITE CONTAMINANTS OF CONCERN

MW-5									
VOCs	**NYS Class GA Water Standard**	**Sample Date 10/14/2014**		**Sample Date 11/20/2019**		**Sample Date 9/18/2023**		
1,1,1-Trichloroethane	5	**3,300**	**D**	**1,580**		**1,700**		
1,1-Dichloroethane	5	**78**		**37.2**		**38**	**J**	
1,1-Dichloroethene	5	**2,100**	**D**	**735**		**970**		
cis-1,2-Dichloroethene (DCE)	5	**220**	**J D**	**88.2**		**200**		
Trichloroethene (TCE)	5	**5,400**	**D**	**2,200**		**3,300**		
Metals								
Arsenic	25	9.7	B	<5.0	U	<15.0	U	
Cadmium	5	<0.89	U	<3.0	U	<2.0	U	
Chromium	50	**53.0**	**J**	<5.0	U	1.2	J	
Hexavalent Chromium	50	NA		NA		6.7	J H H3	
Copper	200	10.5	B	<5.0	U	5.2	J	
Nickel	100	**116**		24.6		42		
Zinc	2,000	16.8	B	NA		2.1	J B	

Notes:

All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).

VOCs = Volatile Organic Compounds.

U = Not detected above the method detection limit. D = Sample Results are from a dilution.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NA = Not analyzed. B = Compound was found in the blank and sample.

H = Sample was prepared or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 = Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Highlight value exceeds TOG 1.1.1 Water Quality Standard and/or Guidance for Class GA waters.

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
SITE CONTAMINANTS OF CONCERN

MW-6						
VOCs	**NYS Class GA Water Standard**	**Sample Date 9/19/2023**				
1,1,1-Trichloroethane	5	<1.0	U			
1,1-Dichloroethane	5	<1.0	U			
1,1-Dichloroethene	5	<1.0	U			
cis-1,2-Dichloroethene (DCE)	5	<1.0	U			
Trichloroethene (TCE)	5	<1.0	U			
Metals						
Arsenic	25	<15.0	U			
Cadmium	5	<2.0	U			
Chromium	50	3.3	J			
Hexavalent Chromium	50	<10	H H3			
Copper	200	3.5	J			
Nickel	100	1.3	J			
Zinc	2,000	4.8	J B			

Notes:

All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).

VOCs = Volatile Organic Compounds.

U = Not detected above the method detection limit. D = Sample Results are from a dilution.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NA = Not analyzed. B = Compound was found in the blank and sample.

H = Sample was prepared or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 = Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Highlight value exceeds TOG 1.1.1 Water Quality Standard and/or Guidance for Class GA waters.

TABLE 3
GROUNDWATER ANALYTICAL SUMMARY
SITE CONTAMINANTS OF CONCERN

MW-7						
VOCs	**NYS Class GA Water Standard**	**Sample Date 9/19/2023**				
1,1,1-Trichloroethane	5	<1.0	U			
1,1-Dichloroethane	5	<1.0	U			
1,1-Dichloroethene	5	<1.0	U			
cis-1,2-Dichloroethene (DCE)	5	<1.0	U			
Trichloroethene (TCE)	5	<1.0	U			
Metals						
Arsenic	25	<15.0	U			
Cadmium	5	<2.0	U			
Chromium	50	10				
Hexavalent Chromium	50	6.7	J H H3			
Copper	200	10				
Nickel	100	2.3	J			
Zinc	2,000	8.8	J B			

Notes:

All concentrations in micrograms per liter (µg/L) = parts per billion (ppb).

VOCs = Volatile Organic Compounds.

U = Not detected above the method detection limit. D = Sample Results are from a dilution.

J = Result is less than the Reporting Limit (RL) but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NA = Not analyzed. B = Compound was found in the blank and sample.

H = Sample was prepared or analyzed beyond the specified holding time. This does not meet regulatory requirements.

H3 = Sample was received and analyzed past holding time. This does not meet regulatory requirements.

Highlight value exceeds TOG 1.1.1 Water Quality Standard and/or Guidance for Class GA waters.

Table No. 4
Surface Soil Samples Analytical Summary
Site Contaminants of Concern

cVOCs (ppb)	NYSDEC SCOs Table 375-6.8(b) Com / GW	SS-01 0.0'-0.5' 8/26/2013	SS-02 0.0'-0.5' 8/26/2013	SS-03 0.0'-0.5' 8/26/2013	SS-04 0.0'-0.5' 8/26/2013	SS-05 0.0'-0.5' 8/26/2013	SS-06 0.0'-0.5' 8/26/2013	SS-07 0.0'-0.5' 8/28/2013	SS-08 0.0'-0.5' 8/28/2013	MW-04 0'-0.2' 9/24/2014	MW-05 0'-0.2' 9/24/2014	DP-1 0' - 1' 5/15/2023	DP-2 0' - 1' 5/15/2023	DP-3 0' - 1' 5/15/2023
1,1,1-Trichloroethane	500,000 / 680	<6.1 U	<5.8 U	<6.8 U	<5.1 U	<5.0 U	<5.5 U	<6.0 U	<6.2 U	<5.1 U	<9.0 U	<4.9 ND	<5.3 ND	<60 ND
1,1-Dichloroethane	240,000 / 270	<6.1 U	<5.8 U	<6.8 U	<5.1 U	<5.0 U	<5.5 U	<6.0 U	<6.2 U	<5.1 U	<9.0 U	<4.9 ND	<5.3 ND	<60 ND
1,1-Dichloroethene	500,000 / 330	<6.1 U	<5.8 U	<6.8 U	<5.1 U	<5.0 U	<5.5 U	<6.0 U	<6.2 U	<5.1 U	<9.0 U	<4.9 ND	<5.3 ND	<60 ND
cis-1,2-Dichloroethene (DCE)	500,000 / 250	<6.1 U	<5.8 U	<6.8 U	<5.1 U	<5.0 U	<5.5 U	<6.0 U	<6.2 U	<5.1 U	<9.0 U	<4.9 ND	<5.3 ND	<60 ND
Trichloroethene (TCE)	200,000 / 470	<6.1 U	<5.8 U	<6.8 U	<5.1 U	<5.0 U	<5.5 U	<6.0 U	2.9 J	<5.1 U	<9.0 U	<4.9 ND	2.6 J	**500**
Metals (ppm)														
Arsenic	16 / 16	13.9 J	13.3 J	**28.5 J**	**18.0 J**	**23.5 J**	11.3 J	10.1 J	13.3 J	2.28 J	7.3	9.9	13.5	11.5
Cadmium	9.3 / 7.5	1.2	1.9	2.9	1.5	**64.3**	**13.3**	0.72	4.7	**17.7**	**7.6**	3.1	1.8	1.9
Chromium	1,500 / NS	33.5 J-	62.0 J-	189 J-	50.6 J-	1,220 J-	298 J-	17.4 J-	544 J-	360	611	74.3	219 F2	152
Chromium, hexavalent	400 / 19	? R	? R	? R	? R	? R	? R	? R	? R	<0.47 U	<0.61 U	<2.4 ND	2.3 J	2.1 J
Copper	270 / 1,720	72.9	99.8	78.0	73.4	**640**	**819**	43.2	211	**2,070**	168	53.2	95.9 F1	102
Nickel	310 / 130	26.2	58.9	54.0	29.3	**423**	**1,320**	23.0	73.1	**278 J**	121	37.8	65.9 F1 F2	109
Zinc	10,000 / 2,480	1,300 J	285 J	283 J	326 J	**3,260 J**	1,390 J	146 J	603 J	**4,190**	620	NA	NA	NA

Notes:

VOC concentrations in micrograms per kilogram (µg/Kg) = parts per billion (ppb). Metal concentrations in milligrams per kilogram (mg/Kg) = parts per milltion (ppm).

2013 and 2014 data from URS Site Characterization & Supplemental Site Characterization Letter Report, June 2014 and December 2015.

cVOCs = Chlorinated Volatile Organic Compounds.

ND = Not detected above the reporting limit (RL). D = Sample Results are from a dilution.

J = Result is less than the RL but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

F1 = MS and/or MSD recovery exceeds control limits. F2 = MS/MSD RPD exceeds control limits.

J- = The result is an estimated quantity. The assocated numerical value is biased low. ? - MDL or RL unknown.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence/absence of analyte cannot be verified.

NA = Not analyzed. See laboratory analytical report for additional qualifers and complete results.

Compound Above SCOs

NYSDEC Soil Cleanup Objectives (SCOs) per Table 375-6.8(b): Restricted Use SCOs, Com = Commercial, GW = Protection of Groundwater

Table No. 5
Subsurface Soil Samples Analytical Summary
Site Contaminants of Concern

cVOCs (ppb)	NYSDEC SCOs Table 375-6.8(b) Com / GW	MW-01 44.0'-46.0' 8/28/2013	MW-02 23.0'-25.0' 8/28/2013	MW-03 6.0'-7.0' 8/29/2013	MW-04 4.0'-5.0' 10/2/2014	MW-05 3.0'-4.0' 9/22/2014	DP-4 9' - 9.7' 5/15/2023	DP-5 8.5' - 9.5' 5/15/2023	MW-6 34' - 36' 8/28/2023	MW-7 35' - 40' 8/30/2023
1,1,1-Trichloroethane	500,000 / 680	<5.7 U	<5.9 U	<5.8 U	<6.7 U	<5.6 U	<4.2 ND	<45 ND	<3.7 ND	<3.9 ND
1,1-Dichloroethane	240,000 / 270	<5.7 U	<5.9 U	<5.8 U	3.6 J	<5.6 U	<4.2 ND	<45 ND	<3.7 ND	<3.9 ND
1,1-Dichloroethene	500,000 / 330	<5.7 U	<5.9 U	<5.8 U	<6.7 U	<5.6 U	<4.2 ND	55	<3.7 ND	<3.9 ND
cis-1,2-Dichloroethene (DCE)	500,000 / 250	<5.7 U	<5.9 U	<5.8 U	6.3 J	<5.6 U	1.1 J	**520**	<3.7 ND	<3.9 ND
Trichloroethene (TCE)	200,000 / 470	<5.7 U	<5.9 U	<5.8 U	14	<5.6 U	<4.2 ND	150	<3.7 ND	<3.9 ND
Metals (ppm)										
Arsenic	16 / 16	6.6	**18.7**	7.4	9.0	12.6	6.3	5.7	5.3	**21.2**
Cadmium	9.3 / 7.5	0.28 J	0.58 J	1.7	1.6	0.58	0.14 J	0.099 J	0.098 J	0.043 J B
Chromium	1,500 / NS	12.3 J	16.4 J	18.3 J	96.9	793	14	12.5	15.8	15.9
Chromium, hexavalent	400 / 19	<4.5 U	<4.6 U	<4.8 U	<0.69 U	**61.8**	<2.1 ND	<2.2 ND	<2.1 ND	<2.3 ND
Copper	270 / 1,720	18.6	35.6	15.3	**486**	73.8	18.9	18.1	24.0	22.8
Nickel	310 / 130	19.8	33.1	24.5 J	54.9	36.2	25.9	28.8	22.1	24.9
Zinc	10,000 / 2,480	48.7 J	137	58.0 J	231	94.7	NA	NA	47.4	55.1 B

Notes:

VOC concentrations in micrograms per kilogram (µg/Kg) = parts per billion (ppb).

Metal concentrations in milligrams per kilogram (mg/Kg) = parts per milltion (ppm).

cVOCs = Chlorinated Volatile Organic Compounds.

ND = Not detected above the reporting limit (RL). D = Sample Results are from a dilution.

J = Result is less than the RL but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

NA = Not analyzed. See laboratory analytical report for additional qualifers and complete results.

Compound Above SCOs

NYSDEC Soil Cleanup Objectives (SCOs) per Table 375-6.8(b): Restricted Use SCOs, Com = Commercial, GW = Protection of Groundwater

Table No. 6
Sub-Slab Soil Samples Analytical Summary
Site Contaminants of Concern

cVOCs (ppb)	NYSDEC SCOs Table 375-6.8(b) Com / GW	GS-01 0.0'-4.0' 8/29/2013	GS-02 0.0'-4.0' 8/29/2013	GS-03 0.0'-4.0' 8/29/2013	GS-04 0.0'-4.0' 8/29/2013	GS-05 0.0'-4.0' 8/29/2013	GS-06 0.0'-4.0' 8/29/2013	GS-07 0.0'-4.0' 8/29/2013	GS-08 0.0'-4.0' 8/29/2013	SG-01 0.0'-4.0' 9/23/2014	SG-02 0.0'-4.0' 9/23/2014	SG-03 0.0'-4.0' 9/23/2014	SG-04 0.0'-4.0' 9/23/2014	DP-4 0' - 1' 5/15/2023	DP-5 0' - 2' 5/15/2023
1,1,1-Trichloroethane	500,000 / 680	<5.3 ND	<5.9 ND	<5.7 ND	<5.3 ND	<5.2 ND	<5.6 ND	<10 ND	16	<4.8 ND	<5.6 ND	<6.6 ND	<4.9 ND	<4.3 ND	<560 ND
1,1-Dichloroethane	240,000 / 270	<5.3 ND	<5.9 ND	<5.7 ND	<5.3 ND	<5.2 ND	<5.6 ND	<10 ND	35	2.2 J	9.8	<6.6 ND	<4.9 ND	<4.3 ND	<560 ND
1,1-Dichloroethene	500,000 / 330	<5.3 ND	<5.9 ND	<5.7 ND	<5.3 ND	<5.2 ND	<5.6 ND	<10 ND	5.4 J	<4.8 ND	<5.6 ND	<6.6 ND	<4.9 ND	<4.3 ND	<560 ND
cis-1,2-Dichloroethene (DCE)	500,000 / 250	<5.3 ND	59	<5.7 ND	<5.3 ND	<5.2 ND	<5.6 ND	<10 ND	**4,100 D**	40	78	2.4 J	<4.9 ND	<4.3 ND	**2,000**
Trichloroethene (TCE)	200,000 / 470	<5.3 ND	170	23	3.1 J	5.5	<5.6 ND	410	**2,500 D**	3.5 J	160	87	2.3 J	1.9 J	**480 J**
Metals (ppm)															
Arsenic	16 / 16	12.6	9.2	7.8	6.3	9.9	15.3	14.5	11.7	9.8	13.2	12.7	12.4	7.6	16.0
Cadmium	9.3 / 7.5	0.35	0.92	**18.0**	**23.6**	**113**	**11.8**	1.5	2.7	0.080 B	**21.6**	1.9	<0.28 U	0.14 J	0.37
Chromium	1,500 / NS	24.2	111	456	1,190	288	171	38.9	39.4	16.3	121	28.8	23.7	26.3	27.3
Chromium, hexavalent	400 / 19	<4.6 ND	<4.9 ND	<4.6 ND	**180**	<4.6 ND	<4.6 ND	<5.1 ND	<4.9 ND	<0.49 U	1.62	<0.53 ND	0.730	<2.4 ND	<2.4 ND
Copper	270 / 1,720	25.7	111	**330**	260	**332**	151	138	59.6	19.3	115	131	26.1	23.0	26.6
Nickel	310 / 130	38.2	40.9	**434**	**231**	**462**	**172**	33.9	**170**	21.3	**318**	108	37.8	20.8	78.2
Zinc	10,000 / 2,480	106	484	524	469	2,110	1,490	290	714	56.3	936	180	105	NA	NA

Notes:

VOC concentrations in micrograms per kilogram (µg/Kg) = parts per billion (ppb). Metal concentrations in milligrams per kilogram (mg/Kg) = parts per milltion (ppm).

2013 and 2014 data from URS Site Characterization & Supplemental Site Characterization Letter Report, June 2014 and December 2015.

cVOCs = Chlorinated Volatile Organic Compounds.

ND = Not detected above the reporting limit (RL). D = Sample Results are from a dilution.

J = Result is less than the RL but greater than or equal to the Method Detection Limit (MDL) and the concentration is an approximate value.

J- = The result is an estimated quantity. The assocated numerical value is biased low. ? - MDL or RL unknown.

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence/absence of analyte cannot be verified.

NA = Not analyzed. See laboratory analytical report for additional qualifers and complete results.

Compound Above SCOs

NYSDEC Soil Cleanup Objectives (SCOs) per Table 375-6.8(b): Restricted Use SCOs, Com = Commercial, GW = Protection of Groundwater

APPENDIX C

GROUNDWATER MONITORING WELL SAMPLING RECORDS

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-1
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 11-20-19

TOC Depth of Well (ft.)	50				
TOC Depth to GW (ft.)	31.86				
1 Well Volume (gal.)	3.0				
Volume Purged (gal.)	.25	2.8 dry			
Purging Method	Dedicated bailer.				
FIELD PARAMETERS:	Time	Time	Time	Time	Time
	9:58	10:09			
Temperature (°C)	8.78	12.03			
Conductivity (mS/cm)	0.893	0.818			
Dissolved Oxygen (DO) (mg/L)	5.13	2.94			
pH	8.28	8.40			
Oxidation Reduction Potential (ORP)	156.5	145.3			
OBSERVATIONS					
Color	Tan Silty	White Silty			
Sheen or Odor	No	No			
LABORATORY ANALYSIS	Metals by EPA 6010/7470	VOCs - TCL by EPA 8260			QA/QC
Time Sampled	14:00	14:00			

Comments (including field procedures): PFAA Sample 11-20-19 @ 12:00

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni).

GeoLogic

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-2
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 11-19-19

TOC Depth of Well (ft.)	35.				
TOC Depth to GW (ft.)	27.08				
1 Well Volume (gal.)	1.3				
Volume Purged (gal.)	1.3				
Purging Method	Dedicated bailer.				
FIELD PARAMETERS:	Time 13:28	Time 13:31	Time 13:35	Time 13:39	Time
Temperature (°C)	10.64	11.11	11.19	11.19	
Conductivity (mS/cm)	0.820	0.936	1.002	1.035	
Dissolved Oxygen (DO) (mg/L)	3.75	5.84	6.83	7.57	
pH	7.55	7.17	7.15	7.23	
Oxidation Reduction Potential (ORP)	142.2	153.7	158.0	158.3	
OBSERVATIONS					
Color	Br Silty	Br. Very Silty	Br very Silty		
Sheen or Odor	ND	ND	ND		
LABORATORY ANALYSIS	Metals by EPA 6010/7470	VOCs - TCL by EPA 8260			QA/QC
Time Sampled	11:45	11:45			

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni).

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-03
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 11-19-19

TOC Depth of Well (ft.)	20				
TOC Depth to GW (ft.)	5.42				
1 Well Volume (gal.)	2.5				
Volume Purged (gal.)	2.5	5	7.5	10	12.5
Purging Method	Dedicated bailer.				
FIELD PARAMETERS:	**Time**	**Time**	**Time**	**Time**	**Time**
	12:33	12:37	12:41	12:45	12:49
Temperature (°C)	10.76	11.23	11.43	11.39	11.40
Conductivity (mS/cm)	0.907	0.932	0.984	0.943	0.961
Dissolved Oxygen (DO) (mg/L)	2.49	2.23	9.02	2.69	2.42
pH	7.52	7.38	7.40	7.30	7.25
Oxidation Reduction Potential (ORP)	84.3	95.0	103.0	105.3	10.76
OBSERVATIONS					
Color	Brown very silty	Br silty	Dr Silty	Tan silt	silty
Sheen or Odor	NO	NO	NO	NO	NO
LABORATORY ANALYSIS	**Metals by EPA 6010/7470**	**VOCs - TCL by EPA 8260**			**QA/QC**
Time Sampled	11:30	11:30			

Comments (including field procedures): 16:15 PFAA MS/MSD

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni).

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-04
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 11-19-17

TOC Depth of Well (ft.)	20.				
TOC Depth to GW (ft.)	6.23				
1 Well Volume (gal.)	2.3				
Volume Purged (gal.)	2.5	5.0	7.5	10	12.5
Purging Method	Dedicated bailer.				
FIELD PARAMETERS:	Time 11:55	Time 11:59	Time 12:03	Time 12:07	Time 12:12
Temperature (°C)	10.72	11:43	11.52	11.67	11.53
Conductivity (mS/cm)	1.255	1248	1.271	1.306	1.273
Dissolved Oxygen (DO) (mg/L)	3.01	2.06	2.54	4.61	2.55
pH	7.80	7.37	7.30	7.25	7.25
Oxidation Reduction Potential (ORP)	45.3	12.5	1.9	2.5	5.2
OBSERVATIONS					
Color	Tan Silty	Tan Silty	Tan Silty	Tan Silty	Tan Silty
Sheen or Odor	ND	ND	ND	ND	ND
LABORATORY ANALYSIS	Metals by EPA 6010/7470	VOCs - TCL by EPA 8260			QA/QC MS/MSD
Time Sampled	11:00	11:02			11:05

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni).

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-05
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 11-19-19

TOC Depth of Well (ft.)	41.00				
TOC Depth to GW (ft.)	25.94				
1 Well Volume (gal.)	2.55				
Volume Purged (gal.)	2.5	5	7.5	10	12.5
Purging Method	Dedicated bailer.				
FIELD PARAMETERS:	Time	Time	Time	Time	Time
	10:58	11:04	11:09	11:13	11:18
Temperature (°C)	10.23	10.31	10.36	10.29	10.32
Conductivity (mS/cm)	1.310	1.639	1.719	1.721	1.733
Dissolved Oxygen (DO) (mg/L)	9.47	5.79	10.06	9.40	6.03
pH	7.93	7.48	7.34	7.44	7.34
Oxidation Reduction Potential (ORP)	190.9	188.9	186.7	184.9	185.5
OBSERVATIONS					
Color	Tan silty	Tan silt	Tan Little silty	Tan Little silt	Little silt
Sheen or Odor	ND	ND	ND	ND	ND
LABORATORY ANALYSIS	Metals by EPA 6010/7470	VOCs - TCL by EPA 8260			QA/QC DUP
Time Sampled	15:15	15:15			15:15

Comments (including field procedures): ← PFAA

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni).

sample well on 11-20-19 for Metals + 8260 Time 10:30

GeoLogic

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-6
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9-5-23

TOC Depth of Well (ft.)	40.0		Purged dry @ 4.1 gals								
TOC Depth to GW (ft.)	19.88										
1 Well Volume (gal.)	3.4										
Volume Purged (gal.)	0	1.2	2.5	4	6.1	7	7.5	7.7	8.0	8.25	
Purging Method	**Dedicated bailer.**										
FIELD PARAMETERS:	**Time** 9:55	9:58	**Time** 10:02	10:12	**Time** 10:29	11:10	**Time** 11:20	11:40	**Time** 12:10	12:35	
Temperature (°C)	14.6	14.2	14.6	14.7	14.7	14.7	14.0	15.0	14.3	14.7	
Conductivity (mS/cm)	1.511	1.893	1.382	1.502	1.430	1.460	1.132	1.434	1.455	1.464	
Dissolved Oxygen (DO) (mg/L)	2.00	1.04	1.20	0.70	1.52	4.20	3.14	2.66	2.93	3.13	
pH	7.29	7.30	7.59	7.35	7.57	7.58	7.53	7.53	7.60	7.57	
Oxidation Reduction Potential (ORP)	-173.3	-208.9	-229.5	-208.2	-83.4	-190.3	-211.9	-262.8	-302.1	-290.3	
OBSERVATIONS											
Color	Silty Gray	Silty Gray	Silty Gray →		Very Silty →	→	→	→	→	→	
Sheen or Odor	No	No	No	No	Slight No	→	→	→	→	→	
LABORATORY ANALYSIS	**Metals by EPA 6010/7470**		**VOCs - TCL by EPA 8260**						**QA/QC**		
Time Sampled MTL	1985	8365	693	496	360.9	644	663	986	1355	1446	

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni).

GeoLogic

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-1
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9-18-23

obstruction @ 35'
Left Bailer in well

TOC Depth of Well (ft.)	49.5										
TOC Depth to GW (ft.)	30.78										
1 Well Volume (gal.)	3.2										
Volume Purged (gal.)		1 gal	2 gal	3 gals	4 gal	5	6	7 gals	8 gals	9 gal	10 gal
Purging Method	Dedicated bailer or Submersible Pump										
FIELD PARAMETERS:	Time										
	~~12:55~~ 4:55	~~16:58~~ 13:4	16:59	17:01	17:04	17:08	15:15	17:19	17:25	17:28	17:30
Temperature (°C)	15.5	13.4	13.6	13.4	13.2	13.1	13.1	13.1	13.2	13.2	13.2
Conductivity (mS/cm)	0.409	0.260	0.004	0.413	0.353	0.590	0.630	0.641	0.654	0.661	0.681
Dissolved Oxygen (DO) (mg/L)	8.58	7.94	8.20	6.66	5.36	4.52	5.52	4.17	4.14	4.09	4.10
pH	8.98	9.45	9.24	8.81	8.29	7.87	8.08	7.62	7.82	7.79	7.78
Oxidation Reduction Potential (ORP)	206.1	193.1	192.2	111.7	180.1	205.5	173.0	216.7	199.1	207.1	210.6
Turbitity (NTU)	24.85	205.77	12.6	137.45	76.37	80.1	87.44	68.1	117.2	162.4	208.1
OBSERVATIONS											
Color	CL	cloudy	→	→	→	clear	→	→	→	→	→
Sheen or Odor	NO	→	→	→	→	NO	→	→	→	→	→
LABORATORY ANALYSIS	Metals by EPA 6010/7471		VOCs - TCL by EPA 8260						QA/QC		
Time Sampled 9-19-23	7:50		7:50								

12.7
0.590
4.54
0.86
217.1
69.1

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni), Zinc (Zn).

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-2
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9-18-23

Flow Rate 700 ml/min
Geopump (28)

TOC Depth of Well (ft.)	38.35									
TOC Depth to GW (ft.)	25.90	26.14	26.18	26.18	26.20	26.20	26.18	26.18	16.18	16.18
1 Well Volume (gal.) Flow Rate	700									
Volume Purged (gal.) MLS	700	3500	7000	10,500	14000	17500	21000	24500	28000	31500
Purging Method	**Dedicated bailer or Submersible Pump**									
FIELD PARAMETERS:	**Time**									
	11:07	11:12	11:17	11:22	11:27	11:32	11:37	11:42	11:47	11:52
Temperature (°C)	15.4	12.4	12.3	12.2	12.3	12.2	12.1	12.1	12.1	12.1
Conductivity (mS/cm)	0.548	0.436	0.611	0.640	0.496	0.670	0.682	0.692	0.713	0.719
Dissolved Oxygen (DO) (mg/L)	8.26	4.80	3.82 3.82	3.20	2.89	2.64	2.46	2.32	2.22	2.15
pH	7.61	6.96	6.88	6.90	6.93	6.95	6.96	6.97	7.00	6.98
Oxidation Reduction Potential (ORP)	244.0	261.7	242.6	259.6	255.6	249.8	242.0	232.6	192.7	201.7
Turbitity (NTU)	71.1	19.17	8.29	5.07	3.82	2.96	2.42	2.32	2.24	2.10
OBSERVATIONS										
Color	clear	clear	clear	clear	clear	clear	clear	clear	clear	
Sheen or Odor	NO	NO	NO	NO	NO	NO	NO	NO	NO	
LABORATORY ANALYSIS	**Metals by EPA 6010/7471**		**VOCs - TCL by EPA 8260**						**QA/QC Dup**	
Time Sampled	12:10		12:10						12:15	

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni), Zinc (Zn).

GeoLogic

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-3 snapped off @ ground surface
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9-18-23 1010 1000 mL/min

TOC Depth of Well (ft.)	23.10	19.8								
TOC Depth to GW (ft.)	1.15	2.45	2.45	2.46	2.46	2.46	2.46	2.46		
1 Well Volume (gal.) Rate	1010	→	→	→	→	→	→	→		
Volume Purged (gal.)	1010	5050	10100	11110	12120	13130	14140	15150		
Purging Method	**Dedicated bailer or Submersible Pump**									
FIELD PARAMETERS:	**Time**									
	2:41	14:46	14:51	14:56	15:01	15:06	15:11	15:16		
Temperature (°C)	13.6	13.2	13.2	13.2	13.2	13.2	13.1	13.1		
Conductivity (mS/cm)	0.753	0.757	0.756	0.754	0.753	0.751	0.749	0.749		
Dissolved Oxygen (DO) (mg/L)	2.16	0.89	0.81	0.76	0.73	0.71	0.70	0.70		
pH	7.37	7.27	7.23	7.22	7.24	7.20	7.20	7.20		
Oxidation Reduction Potential (ORP)	267.7	160.7	193.6	150.0	101.3	165.5	180.1	185.7		
Turbitity (NTU)	25.70	25.0	2.06	1.92	1.92	2.08	2.29	2.48		
OBSERVATIONS										
Color	clear	clear	Clear	clear	clear	→	→	→		
Sheen or Odor	NO	NO	NO	NO	NO	→	→	→		
LABORATORY ANALYSIS	**Metals by EPA 6010/7471**		**VOCs - TCL by EPA 8260**						**QA/QC**	
Time Sampled	15:20		15:20							

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni), Zinc (Zn).

GeoLogic

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-4
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9-18-23

950 mL Pump placed @ mdpt of screen

TOC Depth of Well (ft.)	23.2									
TOC Depth to GW (ft.)	6.02	6.08	6.09	6.08	6.08	6.08	6.08			
1 Well Volume (gal.) flow rate	950	→	→	→	→	→	→			
Volume Purged (gal.)	950	4750	9500	14250	19000	23750	28500			
Purging Method	Dedicated bailer or Submersible Pump									
FIELD PARAMETERS:	Time									
	15:40	15:45	15:50	15:55	16:00	16:05	16:10			
Temperature (°C)	13.5	13.4	13.4	13.4	13.4	13.4	13.4			
Conductivity (mS/cm)	1.179	1.186	1.177	1.165	1.161	1.158	1.156			
Dissolved Oxygen (DO) (mg/L)	1.40	0.81	0.66	0.58	0.54	0.51	0.51			
pH	7.11	7.08	7.07	7.09	7.07	7.06	7.06			
Oxidation Reduction Potential (ORP)	290.1	281.0	270.0	168.6	175.2	165.7	158.3			
Turbitity (NTU)	24.25	10.54	5.11	3.67	3.02	2.56	2.36			
OBSERVATIONS										
Color	clear	clear	clear	→	→	→	→			
Sheen or Odor	NO	NO	NO	→	→	→	→			
LABORATORY ANALYSIS	Metals by EPA 6010/7471		VOCs - TCL by EPA 8260						QA/QC	
Time Sampled	16:12		16:12						16:12	

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni), Zinc (Zn).

GeoLogic

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-5
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9/18-23

700 mL/m
Pump set @ m.d screen

TOC Depth of Well (ft.) ↑	23.56	23.96	24.01	24.05	24.11	24.11	24.12	24.16	24.10	24.10
TOC Depth to GW (ft.) ↓										
1 Well Volume (gal.) Flow Rate	700ml	→	→	→	→	→	→	→	→	→
Volume Purged (gal.)	700	3500	7000	10500	14000	17500	21000	24500	28000	31500
Purging Method	Dedicated bailer or Submersible Pump									
FIELD PARAMETERS:	Time									
	12:49	12:54	12:59	13:04	13:09	13:14	13:19	13:24	13:29	13:34
Temperature (°C)	13.7	11.1	11.0	11.0	10.9	11.0	11.0	11.0	11.0	11.0
Conductivity (mS/cm)	1.077	1.215	1.459	1.456	1.490	1.517	1.535	1.554	1.555	1.554
Dissolved Oxygen (DO) (mg/L)	5.42	0.96	0.72	0.63	0.59	0.56	0.54	0.53	0.51	0.51
pH	7.53	7.14	7.00	7.02	6.99	6.98	6.97	6.97	7.00	6.97
Oxidation Reduction Potential (ORP)	285.2	288.4	282.5	168.8	194.1	201.8	205.6	207.0	112.7	148.6
Turbitity (NTU)	11.02	2.28	3.94	4.45	6.09	11.78	12.19	13.25	9.35	10.82
OBSERVATIONS										
Color	clear	clear	clear	clear	clear	clear	clear	clear	clear	clear
Sheen or Odor	ND	NO	NO	NO	NO	NO	NO	NO	clear	clear
LABORATORY ANALYSIS	Metals by EPA 6010/7471		VOCs - TCL by EPA 8260						QA/QC MS	
Time Sampled	13:45		13:45						13:45	

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni), Zinc (Zn).

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-6
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9-18-21

flow # on Geopump #27 for 400 ml/min Lowest I could get it to pump.

TOC Depth of Well (ft.)	40										
TOC Depth to GW (ft.)	19.92										
1 Well Volume (gal.) Flowpot		650	650	650	400	400	400	400	400	200	200
Volume Purged (gal.)	0	1300	3250	5200	6000	6800	7600	8400	9200	9400	9600
Purging Method	Dedicated bailer. 650				400					200	
FIELD PARAMETERS:	Time										
	9:52	9:54	9:57	10:00	10:02	10:04	10:06	10:08	10:12	10:17	10:22
Temperature (°C)	15.2	14.0	14.2	14.0	14.0	14.3	14.2	14.2	14.5	14.8	14.8
Conductivity (mS/cm)	.009	1.159	0.613	1.153	1.141	1.135	1.120	1.101	1.042	1.035	1.048
Dissolved Oxygen (DO) (mg/L)	9.50	2.59	1.28	1.06	0.79	0.73	0.67	0.65	0.61	0.64	0.52
pH	7.96	7.81	7.68	7.72	7.74	7.76	7.82	7.90	8.42	8.66	8.55
Oxidation Reduction Potential (ORP)	245.1	85.8	117.8	65.2	31.5	28.1	14.2	8.2	-4.0	-8.9	-7.1
Turbitity (NTU)	6.62	73.60	12.62	84.5	97.25	98.4	106.3	100.0	106.3	299.1	307.3
OBSERVATIONS											
Color	clear			cloudy	cloudy	cloudy →		clear	clear →	→	→
Sheen or Odor	clear	no	no	no	no	no	→	no	no →	→	→
LABORATORY ANALYSIS	Metals by EPA 6010/7471		VOCs - TCL by EPA 8260						QA/QC		
Time Sampled 9/19/23	7:20		7:20								

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni), Zinc (Zn).

GeoLogic

GROUNDWATER MONITORING WELL FIELD SAMPLING RECORD
FIELD PARAMETERS, OBSERVATIONS & LABORATORY ANALYSIS LOG

PROJECT NO: 215042
SITE: Former Industrial Service Corp. (Site No. 808045)
WELL: MW-7
SAMPLER: GeoLogic NY, PC: J. Menzel
DATE(S): 9-18-23 stickup used bailer. Notenough water for pump

TOC Depth of Well (ft.)	40	42.5'								
TOC Depth to GW (ft.)	40.11									
1 Well Volume (gal.)	.4									
Volume Purged (gal.)	0¾	1½gal	2gal	2.5gals	2.75gal	3gal.				
Purging Method	**Dedicated bailer or Submersible Pump**									
FIELD PARAMETERS:	**Time**									
	17:49	17:51	17:53	17:56	17:58	17:59	18:02			
Temperature (°C)	11.7	11.4	11.4	11.5	11.3	11.3	11.4			
Conductivity (mS/cm)	1.445	1.276	1.208	1.173	1.170	1.118	1.116			
Dissolved Oxygen (DO) (mg/L)	4.17	4.20	4.34	4.86	4.73	4.91	4.65			
pH	8.0	8.05	7.97	8.04	8.19	8.16	8.07			
Oxidation Reduction Potential (ORP)	235.4	209.7	204.8	119.2	120.1	145.0	147.2			
Turbitity (NTU)	416.3	331.3	556.8	823.1	1165.1	1854.	2909.			
OBSERVATIONS										
Color	Br. Silty	→	→	→	→	→	→			
Sheen or Odor	NO	→	→	→	→	→	→			
LABORATORY ANALYSIS	**Metals by EPA 6010/7471**		**VOCs - TCL by EPA 8260**						**QA/QC**	
Time Sampled 9-19-23	8:15									

Comments (including field procedures):

Field parameters were measured using a YSI 556 Display equipped with a YSI 556 multi-parameter sonde.
A dedicated bailer was used to purge water. Field parameters were measured by inserting YSI into well.
Disposable gloves were worn by sampler. Field parameter equipment was decontaminated between wells.
A minimum of 1 well volume was purged from the well and the field parameters stabilized prior to sample collection.
Metals = Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag) & Nickel (Ni), Zinc (Zn).

APPENDIX D

SUBSURFACE LOGS

GeoLogic
PO Box 350
Homer, New York 13077
(607) 749-5000

SUBSURFACE LOG

Boring No.: B-1
Project No.: 218001
Date Started: 01/04/18
Date Completed: 1/4/2018
Sheet 1 of 1

Project:
Location:

Surface Elevation: 100.00
Top of Well Elevation: 100.00

Depth (ft.)	Sample	Sample No.	Blows on Soil Sampler 0.0-0.5'	0.5-1.0'	1.0-1.5'	1.5-2.0'	N	Recovery (ft.)	MATERIAL DESCRIPTION	REMARKS
		1	2	2	3	5	5	2.0	Topsoil - 0.3' Brown SILT, Some fine-coarse Sand, trace clay (Moist-Loose)	Water level at 2.0' with augers at 7.5'. At completion water level at 2.2' with augers at 10.0'.
5									Grey SHALE, medium hard weathered, thin bedded, some fractures	Run #1: 3.0'-5.0' 95% Recovery, 50% RQD

1 2 3 4 5 6 7 8 9 10

TABLE I

- Split Spoon or Direct Push Sample
- Shelby Tube Sample
- Auger or Test Pit Sample
- Rock Core

TABLE II

Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine grained soils also on basis of plasticity.

Soil Type		Soil Particle	
Boulder		> 12"	
Cobble		12" - 3"	
Gravel	- Coarse	3" - 3/4"	Coarse Grained
	- Fine	3/4" - #4	(Granular)
Sand	- Coarse	#4 - #10	
	- Medium	#10 - #40	
	- Fine	#40 - #200	
Silt-Non Plastic (Granular)		< #200	Fine Grained
Clay-Plastic (Cohesive)			

TABLE III

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.

Term	Percent of Total Sample
"and"	35 - 50
"some"	20 - 35
"little"	10 - 20
"trace"	1 - 10

(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

TABLE IV

The relative compactness or consistency is described in accord with the following terms.

Granular Soils		Cohesive Soils	
Term	**Blows per Foot, N**	**Term**	**Blows per Foot, N**
Loose	< 11	Very Soft	< 2
Firm	11 - 30	Soft	2 - 4
Compact	31 - 50	Medium	4 - 8
Very Compact	> 51	Stiff	8 - 15
		Very Stiff	15 - 30
		Hard	>30

(Large particles in the soils will often significantly influence the blows per foot recorded during the Penetration Test.)

TABLE V

Stratified Soils - Alternating, thick, thin with:

Descriptive Term	Thickness
Parting	- 0" - 1/16"
Seam	- 1/16" - 1/2"
Layer	- 1/2" - 12"
Stratum	- >12"
Varved Clay	- Alternating seams or layers of sand, silt & clay
Pocket	- small, erratic deposit, usually <12"
Lens	- lenticular deposit
Occasional	- one or less per foot of thickness
Frequent	- more than one per foot of thickness

F:\template\logkey.sdw

TABLE VI

Rock Classification Terms

Term		Meaning	
Hardness	Soft	Scratched by fingernail	
	Medium Hard	Scratched easily by penknife	
	Hard	Scratched with difficulty by penknife	
	Very Hard	Cannot be scratched by penknife	
Weathering	Very Weathered	Judged from the relative amounts of disintegration	
	Weathered	iron staining, core recovery, clay seams, etc.	
	Sound		
Bedding	Laminated	Natural breaks in	<1"
	Thin bedded	Rock Layers	1"-4"
	Bedded		4"-12"
	Thick bedded		12"-36"
	Massive		>36"
(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers.)			

GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The information presented in the following defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered.

1. The figures in the Depth column defines the scale of the Subsurface Log.
2. The sample column shows, graphically, the depth range from which a sample was recovered. See Table I for a description of the symbols used to signify the various types of samples.
3. The Sample No. is used for identification on sample containers.
4. Blows on Sampler - shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches of penetration is recorded. The first 6 inches of penetration is considered to be a seating drive. The number of blows required for the second and third 6 inches of penetration is termed the penetration resistance, N. The outside diameter of the sampler, the hammer weight and the length of drop are noted at the bottom of the Subsurface Log.
5. Recovery shows the length of the recovered soil sample for the sample devise noted.
6. All recovered soil samples are reviewed in the office by a technical specialist, geologist or geotechnical engineer, unless noted otherwise. The visual descriptions are made on the basis of a combination of the field descriptions and observations and the sample as received in the office. The method of visual classification is based primarily on the Unified Soil Classification (ASTM D 2487-83) with regard to the particle size and plasticity. (See Table No. II) Additionally, the relative portion, by weight, of two or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Technical Publication 479, June 1970. (See Table No. III) The description of the relative soil density or consistency is based upon the penetration records as defined on Table No. IV. The description of the soil moisture is based upon the relative wetness of the soil as recovered and is described as damp, moist, wet and saturated. Water introduced in the boring either naturally or during drilling may have affected the moisture condition of the recovered sample. Special terms are used as required to describe materials in greater detail; several such terms are listed in Table V. When sampling gravelly soils with a standard two inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing/hollow stem augers and samplers blows or through the "action" of the drill rig.
7. The description of the rock shown is based on the recovered rock core and the field observations. The terms frequently used in the description are included in Table VI.
8. The stratification lines represent the approximate boundary between soil types and the transition may be gradual. Solid stratification lines are based on the field observations.
9. Miscellaneous observations and procedures noted in the field are shown in this column, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils), and that drill water used to advance the boring may have influenced the observations. The groundwater level typically will fluctuate seasonally. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusions cannot be made, it is often prudent to examine the conditions more thoroughly through test pit excavations or monitoring wells.
10. The length of core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total pieces of NX core exceeding 4 inches in length divided by the core run. The size of the core barrel used is also noted.

The Subsurface Logs attached to this report present the observations and mechanical data collected at the site, supplemented by classification of material removed from the borings as determined through visual identification. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples will provide a basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and the recovered samples must be performed by knowledgeable Professionals.

GeoLogic
PO Box 350
Homer, New York 13077
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SUBSURFACE LOG
DIRECT PUSH

Boring No.: DP-1
Project No.: 215042
Date Started: 05/15/23
Date Completed: 05/15/23
Sheet 1 of 1

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation: 887.32

Depth (ft.)	Soil Sample	Sample No.	Recovery (ft.)	PID Reading (ppm)	MATERIAL DESCRIPTION	REMARKS
		1	3.1	0.0	Fill: Brown silt, sand, gravel, ceramic, moist	
				0.0		
				0.0		
				0.0		
				0.0		
5		2	4.9	0.0	Brown SILT, trace clay, moist	
				0.0		
				0.0	Grades to	
				0.0	Brown SILT, little fine to coarse sand, little fine	
				0.0	gravel, moist	
10		3	0.9	0.0	Brown SILT, some fine to coarse Sand, little gravel,	
				0.0	moist	
					Drill Refusal at 11.8'	No Free Water
					Boring Terminated at 11.8'	
15						
20						
25						
30						Boring Backfilled with Cuttings
35						

Sampling Method: Macrocore
Visually Classified by: Geologist
Notes: Drill Rig: Geoprobe 6620DT

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SUBSURFACE LOG
DIRECT PUSH

Boring No.: DP-2
Project No.: 215042
Date Started: 05/15/23
Date Completed: 05/15/23
Sheet 1 of 1

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation: 884.36

Depth (ft.)	Soil Sample	Sample No.	Recovery (ft.)	PID Reading (ppm)	MATERIAL DESCRIPTION	REMARKS
		1	2.8	0.0	Fill: Brown silt, sand, gravel, moist	
				0.0		
				0.0		
				0.0		
				0.0	Brown SILT, trace clay, moist	
5		2	3.3	0.0		
				0.0	Grades to	
				0.0	Brown SILT, little fine to coarse sand, little fine	
				0.0	gravel, moist	
				0.0		
10					Drill Refusal at 9.8'	No Free Water
					Boring Terminated at 9.8'	
15						
20						
25						
30						
						Boring Backfilled with Cuttings
35						

Sampling Method: Macrocore
Visually Classified by: Geologist
Notes: Drill Rig: Geoprobe 6620DT

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SUBSURFACE LOG
DIRECT PUSH

Boring No.: DP-3
Project No.: 215042
Date Started: 05/15/23
Date Completed: 05/15/23
Sheet 1 of 1

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation: 882.95

Depth (ft.)	Soil Sample	Sample No.	Recovery (ft.)	PID Reading (ppm)	MATERIAL DESCRIPTION	REMARKS
				0.0	Fill: Brown silt, sand, gravel, moist	
				0.0	1.5'	
		1	3.2	0.0	Brown SILT, trace clay, moist	
				0.0	3.5'	
				0.0	Brown SILT and fine to coarse SAND, trace gravel	
5				0.0	moist	
				0.0	Brown similar, moist to wet	
		2	4.2	0.0		
				0.0		
				0.0		
10					Drill Refusal at 10.0'	No Free Water
					Boring Terminated at 10.0'	
15						
20						
25						
30						
						Boring Backfilled with Drill Cuttings
35						

Sampling Method: Macrocore
Visually Classified by: Geologist
Notes: Drill Rig: Geoprobe 6620DT

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SUBSURFACE LOG
DIRECT PUSH

Boring No.: DP-4
Project No.: 215042
Date Started: 05/15/23
Date Completed: 05/15/23
Sheet 1 of 1

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation:

Depth (ft.)	Soil Sample	Sample No.	Recovery (ft.)	PID Reading (ppm)	MATERIAL DESCRIPTION	REMARKS
				0.0	0.4' Concrete	
				0.0	Fill: Brown sand, gravel, moist 1.8'	
		1	2.5	0.0	Brown SILT, some fine to coarse Sand, wet	
				0.0		
				0.0	4.5'	
5				0.0	Brown SILT, little fine to coarse sand, moist	
				0.0	Grades to	
		2	3.9	0.0	Brown SILT and fine SAND, little medium to coarse	
				0.0	sand, wet 9.0'	
				0.0	Brown SILT, little fine to coarse sand, trace gravel,	
10					moist, dense	No Free Water
					Drill Refusal at 9.7'	
					Boring Terminated at 9.7'	
15						
20						
25						
30						
						Boring Backfilled with Cuttings
35						

Sampling Method: Macrocore
Visually Classified by: Geologist
Notes: Drill Rig: Geoprobe 6620DT

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SUBSURFACE LOG
DIRECT PUSH

Boring No.: DP-5
Project No.: 215042
Date Started: 05/15/23
Date Completed: 05/15/23
Sheet 1 of 1

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation:

Depth (ft.)	Soil Sample	Sample No.	Recovery (ft.)	PID Reading (ppm)	MATERIAL DESCRIPTION	REMARKS
				0.4	0.4' Concrete	
				0.4	Fill: Green sand, gravel, moist 1.8'	
		1	1.9	0.6	Green SILT, little clay, moist to wet	
				0.3		
				0.9		
5				0.2	Brown-Green SILT, little clay, moist to wet	
				0.2	Grades to	
		2	5.0	1.4	Brown SILT, little to some fine to coarse Sand,	
				2.3	moist	
				0.2	Brown SILT, some fine to coarse Sand, little gravel,	
10					moist	No Free Water
					Drill Refusal at 9.8'	
					Boring Terminated at 9.8'	
15						
20						
25						
30						Boring Backfilled with Cuttings
35						

Sampling Method: Macrocore
Visually Classified by: Geologist
Notes: Drill Rig: Geoprobe 6620DT

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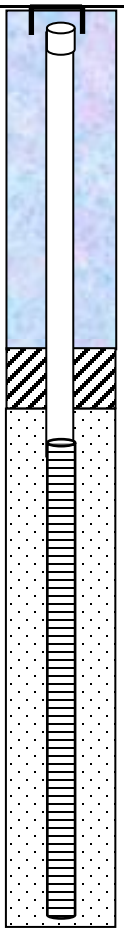
SUBSURFACE LOG

Boring No.: MW-6
Project No.: 215042
Date Started: 08/28/23
Date Completed: 08/29/23

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation: 887.98
Top of Well Elevation: 887.66

Depth (ft.)	PID (ppm)	Sample Type	Sample No.	Blows on Soil Sampler 0.0-0.5	0.5-1.0	1.0-1.5	1.5-2.0	N	Recovery (ft.)	MATERIAL DESCRIPTION	REMARKS
	0.0		01	5	8	9	10	17	1.1	0.5' Top Soil Brown fine SAND and SILT, little medium to coarse	Curb Box w/Lock Grout:
	0.0		02	8	8	8	8	16	1.5	sand, little gravel, moist, dense	Portland Cement 1.0' - 21.0'
5	0.0		03	12	12	10	8	22	NR		
	0.0		04	10	12	18	24	30	0.8		2" Dia. PVC Riser 0.0' - 25.0'
	0.0		05	12	24	31	27	55	1.2		
10	0.0		06	5	42	50/.3	-	-	0.6		Bentonite Seal: 21.0' - 23.0'
	0.0		07	13	32	50/.2	-	-	0.5		
15	0.0		08	10	48	50/.3	-	-	0.8	Gray similar, moist, dense (at 14.5')	Clean, Fine.-Grade Sand:
	0.0		09	25	23	41	44	64	0.9		23.0 - 40.0'
	0.0		10	20	33	38	49	71	NR	Gray fine SAND and SILT, some medium to coarse sand, little to some gravel, moist, dense	
20	0.0		11	12	35	24	30	59	1.8		2 " Dia. PVC Well Screen, 0.010 Slot 25.0' - 40.0'
	0.0		12	32	28	50/.2	-	-	1.1		
25	0.0		13	35	50/.2	-	-	-	0.4		
	0.0		14	30	22	30	45	52	2.0		Free water level first encountered at 30.5' with augers at 37'
	0.0		15	12	25	50/.4	-	-	1.4		
30	0.0		16	18	50/.1	-	-	-	0.4	Gray fine SAND and SILT, little medium to coarse sand, little gravel, moist, dense	Upon completion water level at 30.5' with augers at 40'
	0.3		17	28	50	58	55	108	2.0		With augers withdrawn water level at 30.1'
35	4.4		18	42	58	61/.5	-	-	1.3		



Notes: 4 1/4" Hollow Stem Augers, Diedrick D-50 ATV
Visually Classified by: Geologist
Sampling Method: ASTM D-1586, unless otherwise noted.

GeoLogic
PO Box 350
Homer, New York 13077
(607) 749-5000

SUBSURFACE LOG

Boring No.: MW-6
Project No.: 215042
Date Started: 08/28/23
Date Completed: 08/29/23
Sheet 2 of 2

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation: 887.98
Top of Well Elevation: 887.66

Depth (ft.)	PID (ppm)	Sample Type	Sample No.	Blows on Soil Sampler 0.0-0.5	0.5-1.0	1.0-1.5	1.5-2.0	N	Recovery (ft.)	MATERIAL DESCRIPTION	REMARKS
35										Gray fine SAND and SILT, little medium - coarse	
	0.0		19	45	58	61/.3	-	-	1.3	sand, little gravel, wet, dense	
	0.0		20	21	20	41	45	61	1.1	Gray fine to medium SAND, little silt, little coarse sand, saturated.	
40										Bottom of Boring 40'	
45											
50											
55											
60											
65											
70											

Notes: 4 1/4" Hollow Stem Augers, Diedrick D-50 ATV
Visually Classified by: Geologist
Sampling Method: ASTM D-1586, unless otherwise noted.

GeoLogic
PO Box 350
Homer, New York 13077
(607) 749-5000

SUBSURFACE LOG

Boring No.:
Project No.:
Date Started:
Date Completed:

Project:
Location:
Surface Elevation:
Top of Well Elevation:

Depth (ft.)	Sample	Sample No.	Blows on Soil Sampler 0.0-0.5'	0.5-1.0'	1.0-1.5'	1.5-2.0'	N	Recovery (ft.)	MATERIAL DESCRIPTION	REMARKS
		9	8	13	15	14	28	1.7	Brown Similar, moist Gray SILT Some fine to coarse Sand some gravel moist	
40		10	6	8	12	13	20	0	Gray Simular, wet	
									42.3'	
		11	49	50/.2				0.7	Gray fine SAND, saturated Possible Bedrock - Shale Bottom of Boring 42.7'	
45										
50										
55										
60										Free water level first enountered @ 38.7' with augers @ 40' Water Level: 31.0' upon completion
65										
70										

Notes: 4 1/4" Hollow Stem Augers
Visually Classified by: Geologist
Sampling Method: ASTM D-1586, unless otherwise noted.

P:/

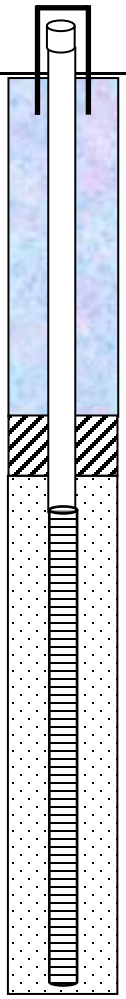
GeoLogic
PO Box 350
Homer, New York 13077
(607) 749-5000

SUBSURFACE LOG

Boring No.: MW-7
Project No.: 215042
Date Started: 08/29/23
Date Completed: 08/30/23
Sheet 1 of 2

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York
Surface Elevation: 890.18
Top of Well Elevation: 892.47

Depth (ft.)	PID (ppm)	Sample Type	Sample No.	Blows on Soil Sampler 0.0-0.5	0.5-1.0	1.0-1.5	1.5-2.0	N	Recovery (ft.)	MATERIAL DESCRIPTION	REMARKS
	0.0		01	2	4	5	6	9	0.7	0.4' Top Soil	Guard Pipe
										Fill: Sand, silt, ash, coal, gravel, moist	Grout:
	0.0		02	10	15	25	36	40	1.2	Fill: Silt, sand, gravel, moist	Portland Cement
											1.0' - 26.0'
5	0.0		03	6	24	30	50/.2	19	0.6		
	0.0		04	11	11	8	11	19	0.6		2" Dia. PVC Riser
										9.2'	2.5' stick up - 30.0'
	0.0		05	12	16	18	14	34	2		
										Brown SILT and fine SAND, little medium - coarse	Bentonite Seal:
10	0.0		06	8	9	16	40	25	1.2	sand, trace gravel, moist, dense	26.0' - 28.0'
	0.0		07	50	50/.3	-	-	-	1.3		
15	0.0		08	16	31	50/.2	-	-	1.2	Brown SILT and fine - coarse SAND, little to some	Clean, Fine.-Grade
										gravel, moist, dense	Sand:
	0.0		09	60/.1	-	-	-	-	NR		28.0 - 40.0'
	0.0		10	10	31	38	42	69	1.7		
										Gray similar, moist, dense (at 19')	2 " Dia. PVC Well
20	0.0		11	13	26	27	27	43	1.6	Gray SILT and fine SAND, some medium - coarse	Screen, 0.010 Slot
										sand, little gravel, moist, dense	30.0' - 40.0'
	0.0		12	24	50/.4	-	-	-	0.9		
25	0.0		13	10	11	44	26	55	1.6		
	0.0		14	41	34	32	38	66	2.0		
	0.0		15	23	22	38	26	60	1.6		
30											
	0.0		16	15	26	29	55	40	2		Water Level: No Free Water
	0.0		17	29	60/.1	-	-	-	0.6		
35	0.0		18	36	52	50/.1			0.9	Gray GRAVEL and fine to coarse SAND, little silt, moist	



Notes: 4 1/4" Hollow Stem Augers, Diedrick D-50 ATV
Visually Classified by: Geologist
Sampling Method: ASTM D-1586, unless otherwise noted.

GeoLogic
PO Box 350
Homer, New York 13077
(607) 749-5000

SUBSURFACE LOG

Boring No.: MW-7
Project No.: 215042
Date Started: 08/28/23
Date Completed: 08/29/23
Sheet 2 of 2

Project: NYSDEC Site No. 808045 - Former Industrial Service Corp.
Location: 920 - 926 Stowell Street, Elmira, New York

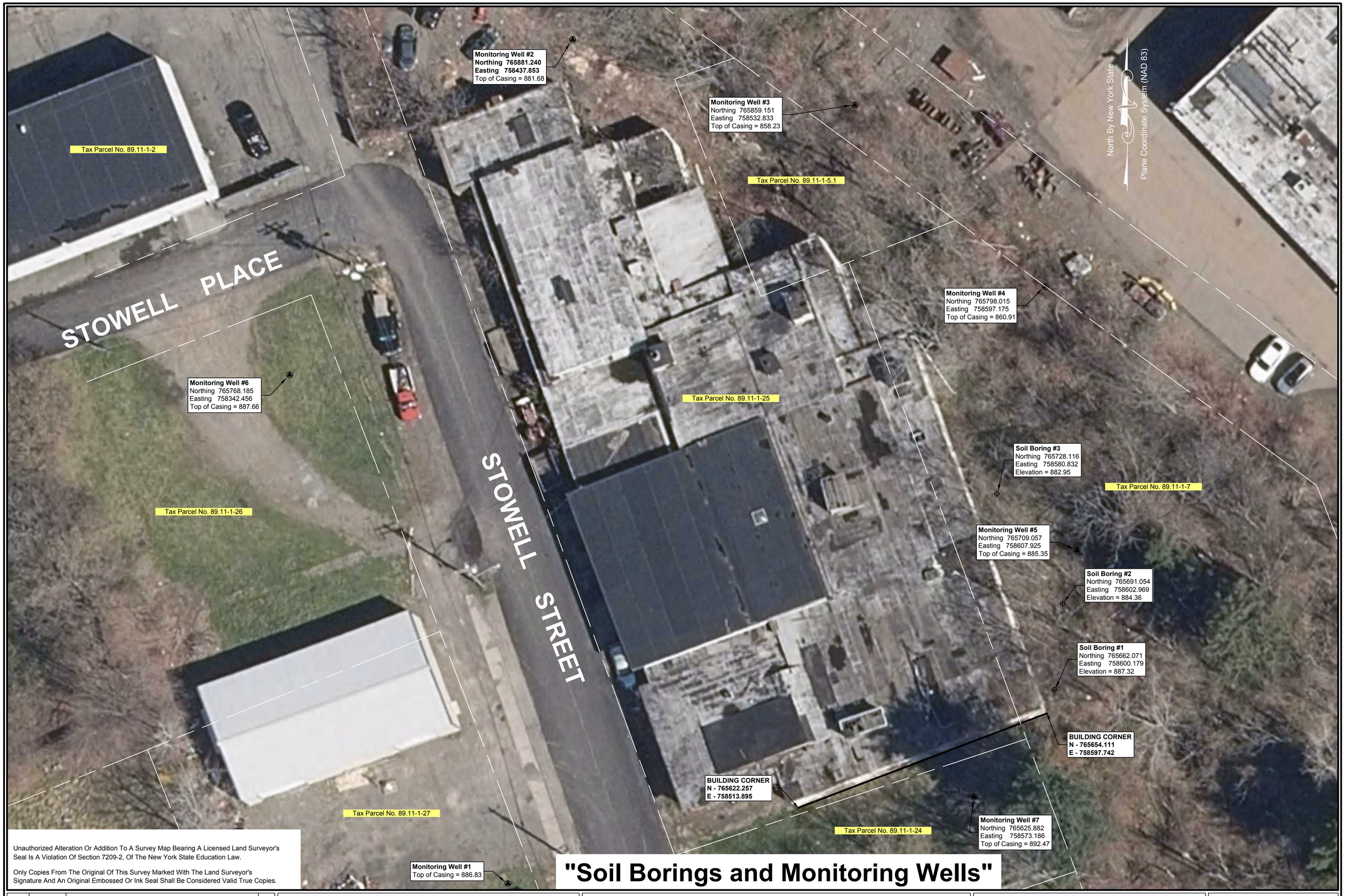
Surface Elevation: 890.18
Top of Well Elevation: 892.47

Depth (ft.)	PID (ppm)	Sample Type	Sample No.	Blows on Soil Sampler 0.0-0.5	0.5-1.0	1.0-1.5	1.5-2.0	N	Recovery (ft.)	MATERIAL DESCRIPTION	REMARKS
35										Gray GRAVEL, some fine to coarse Sand, some Silt	
	0.0		19	37	45	47	42	92	1.0	moist	
	0.0		20	23	26	64	58	90	1.9	Gray SILT, some fine to coarse Sand, some Gravel wet	
40	0.0		21	85/.3				-	0.1		
										Bottom Of Boring 40.3'	
45											
50											
55											
60											
65											
70											

Notes: 4 1/4" Hollow Stem Augers, Diedrick D-50 ATV
Visually Classified by: Geologist
Sampling Method: ASTM D-1586, unless otherwise noted.

APPENDIX E

SURVEY



"Soil Borings and Monitoring Wells"

Unauthorized Alteration Or Addition To A Survey Map Bearing A Licensed Land Surveyor's Seal Is A Violation Of Section 7209-2, Of The New York State Education Law.

Only Copies From The Original Of This Survey Marked With The Land Surveyor's Signature And An Original Embossed Or Ink Seal Shall Be Considered Valid True Copies.

NO.	DATE	REVISION	BY
1	01-16-2024	To show Tax Map Information	SLP
2	03-20-2024	Revised Soil Boring and Monitoring Well Numbers	SLP

SCALE: 1" = 20 FEET

20 0 20 40 60

Lands Of

New York State Department of Environmental Conservation

Site No. 808045

920-926 Stowell Street

Town of Elmira - Broome County

State Of New York

DELTA
ENGINEERS, ARCHITECTS, & LAND SURVEYORS
860 Hooper Road, Endwell, NY 13760
Tel: 607.231.6600
Fax: 607.231.6650
Website: www.delta-eas.com

Designed by:	N/A
Drawn by:	S. Pickett
Reviewed by:	M. Frailey
Date:	January 11, 2024
Last Revised:	March 20, 2024
Scale:	1"= 20 Feet
Project Number:	2023.713.001

APPENDIX F

LABORATORY ANALYSIS REPORTS

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Christopher T Gabriel
Geologic NY Inc
PO BOX 350
37 Copeland Ave
Homer, New York 13077

Generated 9/27/2023 7:45:04 AM

JOB DESCRIPTION

NYSDEC Remedial Investigation - 215042

JOB NUMBER

480-212892-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

myEOL

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.

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

Authorization

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Authorized for release by
John Beninati, Project Manager I
John.Beninati@et.eurofinsus.com
(716)504-9874

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Definitions/Glossary

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
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.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
H3	Sample was received and analyzed past holding time. This does not meet regulatory requirements.
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

Case Narrative

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Job ID: 480-212892-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-212892-1

Receipt
The samples were received on 9/20/2023 10:30 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 3.1º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-03 (480-212892-3), MW-04 (480-212892-4), MW-04 (480-212892-4[MS]), MW-04 (480-212892-4[MSD]) and MW-05 (480-212892-5). Elevated reporting limits (RLs) are provided.

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

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

General Chemistry
Method 7196A: The following samples were received outside of holding time: MW-01 (480-212892-1), MW-02 (480-212892-2), MW-03 (480-212892-3), MW-04 (480-212892-4), MW-04 (480-212892-4[MS]), MW-04 (480-212892-4[MSD]), MW-05 (480-212892-5), MW-06 (480-212892-6), MW-07 (480-212892-7) and DUP (480-212892-8).

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

Detection Summary

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-01 — Lab Sample ID: 480-212892-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.037		0.0020	0.00070	mg/L	1		6010C	Total/NA
Copper	0.0026	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.013		0.010	0.0030	mg/L	1		6010C	Total/NA
Zinc	0.0034	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: MW-02 — Lab Sample ID: 480-212892-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.6		1.0	0.82	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.39	J	1.0	0.38	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.68	J	1.0	0.16	ug/L	1		8260C	Total/NA
Trichloroethene	12		1.0	0.46	ug/L	1		8260C	Total/NA
Barium	0.078		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.0087		0.0020	0.00050	mg/L	1		6010C	Total/NA
Chromium	0.0038	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.0051	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.018		0.010	0.0030	mg/L	1		6010C	Total/NA
Nickel	0.0039	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Zinc	0.015	B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: MW-03 — Lab Sample ID: 480-212892-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	53		5.0	4.1	ug/L	5		8260C	Total/NA
1,1-Dichloroethene	21		5.0	1.5	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	10		5.0	4.1	ug/L	5		8260C	Total/NA
Methylene Chloride	13		5.0	2.2	ug/L	5		8260C	Total/NA
Tetrachloroethene	3.9	J	5.0	1.8	ug/L	5		8260C	Total/NA
Trichloroethene	300		5.0	2.3	ug/L	5		8260C	Total/NA
Barium	0.092		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00052	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Chromium	1.7		0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.0055	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.012		0.010	0.0030	mg/L	1		6010C	Total/NA
Nickel	0.0054	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Zinc	0.0050	J B	0.010	0.0015	mg/L	1		6010C	Total/NA
Chromium, hexavalent	1.8	H H3	0.050	0.025	mg/L	5		7196A	Total/NA

Client Sample ID: MW-04 — Lab Sample ID: 480-212892-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	910		40	33	ug/L	40		8260C	Total/NA
1,1-Dichloroethane	43		40	15	ug/L	40		8260C	Total/NA
1,1-Dichloroethene	300		40	12	ug/L	40		8260C	Total/NA
cis-1,2-Dichloroethene	110		40	32	ug/L	40		8260C	Total/NA
Methylene Chloride	120		40	18	ug/L	40		8260C	Total/NA
Trichloroethene	2500	F1	40	18	ug/L	40		8260C	Total/NA
Barium	0.080		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.00087	J	0.0020	0.00050	mg/L	1		6010C	Total/NA
Chromium	0.030		0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.020		0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.015		0.010	0.0030	mg/L	1		6010C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-04 (Continued)
Lab Sample ID: 480-212892-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.042		0.010	0.0013	mg/L	1		6010C	Total/NA
Zinc	0.010	B	0.010	0.0015	mg/L	1		6010C	Total/NA
Chromium, hexavalent	0.028	H H3	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: MW-05
Lab Sample ID: 480-212892-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1700		50	41	ug/L	50		8260C	Total/NA
1,1-Dichloroethane	38	J	50	19	ug/L	50		8260C	Total/NA
1,1-Dichloroethene	970		50	15	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	200		50	41	ug/L	50		8260C	Total/NA
Trichloroethene	3300		50	23	ug/L	50		8260C	Total/NA
Barium	0.023		0.0020	0.00070	mg/L	1		6010C	Total/NA
Chromium	0.0012	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.0052	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.012		0.010	0.0030	mg/L	1		6010C	Total/NA
Nickel	0.042		0.010	0.0013	mg/L	1		6010C	Total/NA
Zinc	0.0021	J B	0.010	0.0015	mg/L	1		6010C	Total/NA
Chromium, hexavalent	0.0067	J H H3	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: MW-06
Lab Sample ID: 480-212892-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	2.4	J	10	1.3	ug/L	1		8260C	Total/NA
Acetone	12		10	3.0	ug/L	1		8260C	Total/NA
Carbon disulfide	2.3		1.0	0.19	ug/L	1		8260C	Total/NA
Barium	0.070		0.0020	0.00070	mg/L	1		6010C	Total/NA
Chromium	0.0033	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.0035	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.0094	J	0.010	0.0030	mg/L	1		6010C	Total/NA
Nickel	0.0013	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Zinc	0.0048	J B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: MW-07
Lab Sample ID: 480-212892-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	5.1	J	10	1.3	ug/L	1		8260C	Total/NA
Acetone	32		10	3.0	ug/L	1		8260C	Total/NA
Carbon disulfide	1.2		1.0	0.19	ug/L	1		8260C	Total/NA
Barium	0.14		0.0020	0.00070	mg/L	1		6010C	Total/NA
Chromium	0.010		0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.010		0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.016		0.010	0.0030	mg/L	1		6010C	Total/NA
Nickel	0.0023	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Zinc	0.0088	J B	0.010	0.0015	mg/L	1		6010C	Total/NA
Chromium, hexavalent	0.0067	J H H3	0.010	0.0050	mg/L	1		7196A	Total/NA

Client Sample ID: DUP
Lab Sample ID: 480-212892-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.5		1.0	0.82	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.42	J	1.0	0.38	ug/L	1		8260C	Total/NA
Methyl tert-butyl ether	0.67	J	1.0	0.16	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Buffalo

Client Sample ID: DUP (Continued)
Lab Sample ID: 480-212892-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	12		1.0	0.46	ug/L	1		8260C	Total/NA
Barium	0.071		0.0020	0.00070	mg/L	1		6010C	Total/NA
Cadmium	0.0085		0.0020	0.00050	mg/L	1		6010C	Total/NA
Chromium	0.0034	J	0.0040	0.0010	mg/L	1		6010C	Total/NA
Copper	0.0056	J	0.010	0.0016	mg/L	1		6010C	Total/NA
Lead	0.017		0.010	0.0030	mg/L	1		6010C	Total/NA
Nickel	0.0040	J	0.010	0.0013	mg/L	1		6010C	Total/NA
Zinc	0.014	B	0.010	0.0015	mg/L	1		6010C	Total/NA

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-212892-9

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-01
Lab Sample ID: 480-212892-1
Date Collected: 09/19/23 07:50
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 13:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 13:43	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 13:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 13:43	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 13:43	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 13:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 13:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 13:43	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 13:43	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 13:43	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 13:43	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 13:43	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 13:43	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 13:43	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 13:43	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 13:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 13:43	1
Acetone	ND		10	3.0	ug/L			09/21/23 13:43	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 13:43	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 13:43	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 13:43	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 13:43	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 13:43	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 13:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 13:43	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 13:43	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 13:43	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 13:43	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 13:43	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 13:43	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 13:43	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 13:43	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 13:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 13:43	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 13:43	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 13:43	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 13:43	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 13:43	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 13:43	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 13:43	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 13:43	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 13:43	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 13:43	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 13:43	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 13:43	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 13:43	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 13:43	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 13:43	1

Client Sample ID: MW-01
Lab Sample ID: 480-212892-1

Date Collected: 09/19/23 07:50
Matrix: Water
Date Received: 09/20/23 10:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*09/21/23 13:43*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/21/23 13:43*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*09/21/23 13:43*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*09/21/23 13:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:06	1
Barium	**0.037**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:06	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:06	1
Chromium	ND		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:06	1
Copper	**0.0026**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:06	1
Lead	**0.013**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:06	1
Nickel	ND		0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:06	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:06	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:06	1
Zinc	**0.0034**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-02
Lab Sample ID: 480-212892-2

Date Collected: 09/18/23 12:10
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.6**		1.0	0.82	ug/L			09/21/23 14:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 14:05	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 14:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 14:05	1
1,1-Dichloroethane	**0.39**	**J**	1.0	0.38	ug/L			09/21/23 14:05	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 14:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 14:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 14:05	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 14:05	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 14:05	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 14:05	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 14:05	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 14:05	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 14:05	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 14:05	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 14:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 14:05	1
Acetone	ND		10	3.0	ug/L			09/21/23 14:05	1

Client Sample ID: MW-02
Lab Sample ID: 480-212892-2
Date Collected: 09/18/23 12:10
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			09/21/23 14:05	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 14:05	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 14:05	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 14:05	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 14:05	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 14:05	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 14:05	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 14:05	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 14:05	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 14:05	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 14:05	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 14:05	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 14:05	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 14:05	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 14:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 14:05	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 14:05	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 14:05	1
Methyl tert-butyl ether	**0.68**	**J**	1.0	0.16	ug/L			09/21/23 14:05	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 14:05	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 14:05	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 14:05	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 14:05	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 14:05	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 14:05	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 14:05	1
Trichloroethene	**12**		1.0	0.46	ug/L			09/21/23 14:05	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 14:05	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 14:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*77 - 120*		*09/21/23 14:05*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/21/23 14:05*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*09/21/23 14:05*	*1*
Dibromofluoromethane (Surr)	*120*		*75 - 123*		*09/21/23 14:05*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:21	1
Barium	**0.078**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:21	1
Cadmium	**0.0087**		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:21	1
Chromium	**0.0038**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:21	1
Copper	**0.0051**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:21	1
Lead	**0.018**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:21	1
Nickel	**0.0039**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:21	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:21	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:21	1
Zinc	**0.015**	**B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:21	1

Client Sample ID: MW-02
Lab Sample ID: 480-212892-2

Date Collected: 09/18/23 12:10
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-03
Lab Sample ID: 480-212892-3

Date Collected: 09/18/23 15:20
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**53**		5.0	4.1	ug/L			09/21/23 14:27	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			09/21/23 14:27	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			09/21/23 14:27	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			09/21/23 14:27	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			09/21/23 14:27	5
1,1-Dichloroethene	**21**		5.0	1.5	ug/L			09/21/23 14:27	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			09/21/23 14:27	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			09/21/23 14:27	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			09/21/23 14:27	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			09/21/23 14:27	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			09/21/23 14:27	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			09/21/23 14:27	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			09/21/23 14:27	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			09/21/23 14:27	5
2-Hexanone	ND		25	6.2	ug/L			09/21/23 14:27	5
2-Butanone (MEK)	ND		50	6.6	ug/L			09/21/23 14:27	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			09/21/23 14:27	5
Acetone	ND		50	15	ug/L			09/21/23 14:27	5
Benzene	ND		5.0	2.1	ug/L			09/21/23 14:27	5
Bromodichloromethane	ND		5.0	2.0	ug/L			09/21/23 14:27	5
Bromoform	ND		5.0	1.3	ug/L			09/21/23 14:27	5
Bromomethane	ND		5.0	3.5	ug/L			09/21/23 14:27	5
Carbon disulfide	ND		5.0	0.95	ug/L			09/21/23 14:27	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			09/21/23 14:27	5
Chlorobenzene	ND		5.0	3.8	ug/L			09/21/23 14:27	5
Dibromochloromethane	ND		5.0	1.6	ug/L			09/21/23 14:27	5
Chloroethane	ND		5.0	1.6	ug/L			09/21/23 14:27	5
Chloroform	ND		5.0	1.7	ug/L			09/21/23 14:27	5
Chloromethane	ND		5.0	1.8	ug/L			09/21/23 14:27	5
cis-1,2-Dichloroethene	**10**		5.0	4.1	ug/L			09/21/23 14:27	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			09/21/23 14:27	5
Cyclohexane	ND		5.0	0.90	ug/L			09/21/23 14:27	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			09/21/23 14:27	5
Ethylbenzene	ND		5.0	3.7	ug/L			09/21/23 14:27	5
Isopropylbenzene	ND		5.0	4.0	ug/L			09/21/23 14:27	5
Methyl acetate	ND		13	6.5	ug/L			09/21/23 14:27	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			09/21/23 14:27	5

Client Sample ID: MW-03
Lab Sample ID: 480-212892-3
Date Collected: 09/18/23 15:20
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		5.0	0.80	ug/L			09/21/23 14:27	5
Methylene Chloride	**13**		5.0	2.2	ug/L			09/21/23 14:27	5
Styrene	ND		5.0	3.7	ug/L			09/21/23 14:27	5
Tetrachloroethene	**3.9**	**J**	5.0	1.8	ug/L			09/21/23 14:27	5
Toluene	ND		5.0	2.6	ug/L			09/21/23 14:27	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			09/21/23 14:27	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			09/21/23 14:27	5
Trichloroethene	**300**		5.0	2.3	ug/L			09/21/23 14:27	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			09/21/23 14:27	5
Vinyl chloride	ND		5.0	4.5	ug/L			09/21/23 14:27	5
Xylenes, Total	ND		10	3.3	ug/L			09/21/23 14:27	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*09/21/23 14:27*	*5*
Toluene-d8 (Surr)	*94*		*80 - 120*		*09/21/23 14:27*	*5*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*09/21/23 14:27*	*5*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*09/21/23 14:27*	*5*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:25	1
Barium	**0.092**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:25	1
Cadmium	**0.00052**	**J**	0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:25	1
Chromium	**1.7**		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:25	1
Copper	**0.0055**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:25	1
Lead	**0.012**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:25	1
Nickel	**0.0054**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:25	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:25	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:25	1
Zinc	**0.0050**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**1.8**	**H H3**	0.050	0.025	mg/L			09/20/23 12:02	5

Client Sample ID: MW-04
Lab Sample ID: 480-212892-4
Date Collected: 09/18/23 16:12
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**910**		40	33	ug/L			09/21/23 14:52	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			09/21/23 14:52	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			09/21/23 14:52	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	12	ug/L			09/21/23 14:52	40
1,1-Dichloroethane	**43**		40	15	ug/L			09/21/23 14:52	40

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation - 215042

Job ID: 480-212892-1

Client Sample ID: MW-04
Date Collected: 09/18/23 16:12
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**300**		40	12	ug/L			09/21/23 14:52	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			09/21/23 14:52	40
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			09/21/23 14:52	40
1,2-Dibromoethane	ND		40	29	ug/L			09/21/23 14:52	40
1,2-Dichlorobenzene	ND		40	32	ug/L			09/21/23 14:52	40
1,2-Dichloroethane	ND		40	8.4	ug/L			09/21/23 14:52	40
1,2-Dichloropropane	ND		40	29	ug/L			09/21/23 14:52	40
1,3-Dichlorobenzene	ND		40	31	ug/L			09/21/23 14:52	40
1,4-Dichlorobenzene	ND		40	34	ug/L			09/21/23 14:52	40
2-Hexanone	ND		200	50	ug/L			09/21/23 14:52	40
2-Butanone (MEK)	ND		400	53	ug/L			09/21/23 14:52	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			09/21/23 14:52	40
Acetone	ND	F2	400	120	ug/L			09/21/23 14:52	40
Benzene	ND		40	16	ug/L			09/21/23 14:52	40
Bromodichloromethane	ND		40	16	ug/L			09/21/23 14:52	40
Bromoform	ND		40	10	ug/L			09/21/23 14:52	40
Bromomethane	ND		40	28	ug/L			09/21/23 14:52	40
Carbon disulfide	ND		40	7.6	ug/L			09/21/23 14:52	40
Carbon tetrachloride	ND		40	11	ug/L			09/21/23 14:52	40
Chlorobenzene	ND		40	30	ug/L			09/21/23 14:52	40
Dibromochloromethane	ND		40	13	ug/L			09/21/23 14:52	40
Chloroethane	ND	F1	40	13	ug/L			09/21/23 14:52	40
Chloroform	ND		40	14	ug/L			09/21/23 14:52	40
Chloromethane	ND	F1	40	14	ug/L			09/21/23 14:52	40
cis-1,2-Dichloroethene	**110**		40	32	ug/L			09/21/23 14:52	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			09/21/23 14:52	40
Cyclohexane	ND		40	7.2	ug/L			09/21/23 14:52	40
Dichlorodifluoromethane	ND	F1	40	27	ug/L			09/21/23 14:52	40
Ethylbenzene	ND		40	30	ug/L			09/21/23 14:52	40
Isopropylbenzene	ND		40	32	ug/L			09/21/23 14:52	40
Methyl acetate	ND		100	52	ug/L			09/21/23 14:52	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			09/21/23 14:52	40
Methylcyclohexane	ND		40	6.4	ug/L			09/21/23 14:52	40
Methylene Chloride	**120**		40	18	ug/L			09/21/23 14:52	40
Styrene	ND		40	29	ug/L			09/21/23 14:52	40
Tetrachloroethene	ND		40	14	ug/L			09/21/23 14:52	40
Toluene	ND		40	20	ug/L			09/21/23 14:52	40
trans-1,2-Dichloroethene	ND		40	36	ug/L			09/21/23 14:52	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			09/21/23 14:52	40
Trichloroethene	**2500**	**F1**	40	18	ug/L			09/21/23 14:52	40
Trichlorofluoromethane	ND		40	35	ug/L			09/21/23 14:52	40
Vinyl chloride	ND	F1	40	36	ug/L			09/21/23 14:52	40
Xylenes, Total	ND		80	26	ug/L			09/21/23 14:52	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*09/21/23 14:52*	*40*
Toluene-d8 (Surr)	*95*		*80 - 120*		*09/21/23 14:52*	*40*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*09/21/23 14:52*	*40*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*09/21/23 14:52*	*40*

Client Sample ID: MW-04

Lab Sample ID: 480-212892-4

Date Collected: 09/18/23 16:12

Matrix: Water

Date Received: 09/20/23 10:30

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:29	1
Barium	**0.080**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:29	1
Cadmium	**0.00087**	**J**	0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:29	1
Chromium	**0.030**		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:29	1
Copper	**0.020**		0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:29	1
Lead	**0.015**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:29	1
Nickel	**0.042**		0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:29	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:29	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:29	1
Zinc	**0.010**	**B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**0.028**	**H H3**	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-05

Lab Sample ID: 480-212892-5

Date Collected: 09/18/23 13:45

Matrix: Water

Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1700**		50	41	ug/L			09/21/23 15:14	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			09/21/23 15:14	50
1,1,2-Trichloroethane	ND		50	12	ug/L			09/21/23 15:14	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			09/21/23 15:14	50
1,1-Dichloroethane	**38**	**J**	50	19	ug/L			09/21/23 15:14	50
1,1-Dichloroethene	**970**		50	15	ug/L			09/21/23 15:14	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			09/21/23 15:14	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			09/21/23 15:14	50
1,2-Dibromoethane	ND		50	37	ug/L			09/21/23 15:14	50
1,2-Dichlorobenzene	ND		50	40	ug/L			09/21/23 15:14	50
1,2-Dichloroethane	ND		50	11	ug/L			09/21/23 15:14	50
1,2-Dichloropropane	ND		50	36	ug/L			09/21/23 15:14	50
1,3-Dichlorobenzene	ND		50	39	ug/L			09/21/23 15:14	50
1,4-Dichlorobenzene	ND		50	42	ug/L			09/21/23 15:14	50
2-Hexanone	ND		250	62	ug/L			09/21/23 15:14	50
2-Butanone (MEK)	ND		500	66	ug/L			09/21/23 15:14	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			09/21/23 15:14	50
Acetone	ND		500	150	ug/L			09/21/23 15:14	50
Benzene	ND		50	21	ug/L			09/21/23 15:14	50
Bromodichloromethane	ND		50	20	ug/L			09/21/23 15:14	50
Bromoform	ND		50	13	ug/L			09/21/23 15:14	50
Bromomethane	ND		50	35	ug/L			09/21/23 15:14	50
Carbon disulfide	ND		50	9.5	ug/L			09/21/23 15:14	50
Carbon tetrachloride	ND		50	14	ug/L			09/21/23 15:14	50
Chlorobenzene	ND		50	38	ug/L			09/21/23 15:14	50

Client Sample ID: MW-05
Lab Sample ID: 480-212892-5
Date Collected: 09/18/23 13:45
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		50	16	ug/L			09/21/23 15:14	50
Chloroethane	ND		50	16	ug/L			09/21/23 15:14	50
Chloroform	ND		50	17	ug/L			09/21/23 15:14	50
Chloromethane	ND		50	18	ug/L			09/21/23 15:14	50
cis-1,2-Dichloroethene	**200**		50	41	ug/L			09/21/23 15:14	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			09/21/23 15:14	50
Cyclohexane	ND		50	9.0	ug/L			09/21/23 15:14	50
Dichlorodifluoromethane	ND		50	34	ug/L			09/21/23 15:14	50
Ethylbenzene	ND		50	37	ug/L			09/21/23 15:14	50
Isopropylbenzene	ND		50	40	ug/L			09/21/23 15:14	50
Methyl acetate	ND		130	65	ug/L			09/21/23 15:14	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			09/21/23 15:14	50
Methylcyclohexane	ND		50	8.0	ug/L			09/21/23 15:14	50
Methylene Chloride	ND		50	22	ug/L			09/21/23 15:14	50
Styrene	ND		50	37	ug/L			09/21/23 15:14	50
Tetrachloroethene	ND		50	18	ug/L			09/21/23 15:14	50
Toluene	ND		50	26	ug/L			09/21/23 15:14	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			09/21/23 15:14	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			09/21/23 15:14	50
Trichloroethene	**3300**		50	23	ug/L			09/21/23 15:14	50
Trichlorofluoromethane	ND		50	44	ug/L			09/21/23 15:14	50
Vinyl chloride	ND		50	45	ug/L			09/21/23 15:14	50
Xylenes, Total	ND		100	33	ug/L			09/21/23 15:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*09/21/23 15:14*	*50*
Toluene-d8 (Surr)	*97*		*80 - 120*		*09/21/23 15:14*	*50*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*09/21/23 15:14*	*50*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*09/21/23 15:14*	*50*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:47	1
Barium	**0.023**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:47	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:47	1
Chromium	**0.0012**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:47	1
Copper	**0.0052**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:47	1
Lead	**0.012**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:47	1
Nickel	**0.042**		0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:47	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:47	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:47	1
Zinc	**0.0021**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**0.0067**	**J H H3**	0.010	0.0050	mg/L			09/20/23 12:02	1

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-06
Lab Sample ID: 480-212892-6
Date Collected: 09/19/23 07:20
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 15:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 15:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 15:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 15:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 15:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 15:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 15:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 15:36	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 15:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 15:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 15:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 15:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 15:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 15:36	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 15:36	1
2-Butanone (MEK)	**2.4**	**J**	10	1.3	ug/L			09/21/23 15:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 15:36	1
Acetone	**12**		10	3.0	ug/L			09/21/23 15:36	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 15:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 15:36	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 15:36	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 15:36	1
Carbon disulfide	**2.3**		1.0	0.19	ug/L			09/21/23 15:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 15:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 15:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 15:36	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 15:36	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 15:36	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 15:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 15:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 15:36	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 15:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 15:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 15:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 15:36	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 15:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 15:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 15:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 15:36	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 15:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 15:36	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 15:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 15:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 15:36	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 15:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 15:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 15:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 15:36	1

Client Sample ID: MW-06
Lab Sample ID: 480-212892-6
Date Collected: 09/19/23 07:20
Matrix: Water
Date Received: 09/20/23 10:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	110		77 - 120		09/21/23 15:36	1
Toluene-d8 (Surr)	96		80 - 120		09/21/23 15:36	1
4-Bromofluorobenzene (Surr)	99		73 - 120		09/21/23 15:36	1
Dibromofluoromethane (Surr)	117		75 - 123		09/21/23 15:36	1

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:51	1
Barium	**0.070**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:51	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:51	1
Chromium	**0.0033**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:51	1
Copper	**0.0035**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:51	1
Lead	**0.0094**	**J**	0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:51	1
Nickel	**0.0013**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:51	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:51	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:51	1
Zinc	**0.0048**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-07
Lab Sample ID: 480-212892-7
Date Collected: 09/19/23 08:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 15:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 15:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 15:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 15:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 15:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 15:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 15:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 15:58	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 15:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 15:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 15:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 15:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 15:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 15:58	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 15:58	1
2-Butanone (MEK)	**5.1**	**J**	10	1.3	ug/L			09/21/23 15:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 15:58	1
Acetone	**32**		10	3.0	ug/L			09/21/23 15:58	1

Client Sample ID: MW-07
Lab Sample ID: 480-212892-7
Date Collected: 09/19/23 08:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			09/21/23 15:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 15:58	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 15:58	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 15:58	1
Carbon disulfide	**1.2**		1.0	0.19	ug/L			09/21/23 15:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 15:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 15:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 15:58	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 15:58	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 15:58	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 15:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 15:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 15:58	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 15:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 15:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 15:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 15:58	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 15:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 15:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 15:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 15:58	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 15:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 15:58	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 15:58	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 15:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 15:58	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 15:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 15:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 15:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*09/21/23 15:58*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*09/21/23 15:58*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*09/21/23 15:58*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*09/21/23 15:58*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 21:24	1
Barium	**0.14**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 21:24	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 21:24	1
Chromium	**0.010**		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 21:24	1
Copper	**0.010**		0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 21:24	1
Lead	**0.016**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 21:24	1
Nickel	**0.0023**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 21:24	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 21:24	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 21:24	1
Zinc	**0.0088**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 21:24	1

Client Sample ID: MW-07
Lab Sample ID: 480-212892-7

Date Collected: 09/19/23 08:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**0.0067**	**J H H3**	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: DUP
Lab Sample ID: 480-212892-8

Date Collected: 09/18/23 12:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.5**		1.0	0.82	ug/L			09/21/23 16:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 16:20	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 16:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 16:20	1
1,1-Dichloroethane	**0.42**	**J**	1.0	0.38	ug/L			09/21/23 16:20	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 16:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 16:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 16:20	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 16:20	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 16:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 16:20	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 16:20	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 16:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 16:20	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 16:20	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 16:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 16:20	1
Acetone	ND		10	3.0	ug/L			09/21/23 16:20	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 16:20	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 16:20	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 16:20	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 16:20	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 16:20	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 16:20	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 16:20	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 16:20	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 16:20	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 16:20	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 16:20	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 16:20	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 16:20	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 16:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 16:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 16:20	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 16:20	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 16:20	1
Methyl tert-butyl ether	**0.67**	**J**	1.0	0.16	ug/L			09/21/23 16:20	1

Client Sample ID: DUP
Lab Sample ID: 480-212892-8
Date Collected: 09/18/23 12:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 16:20	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 16:20	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 16:20	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 16:20	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 16:20	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 16:20	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 16:20	1
Trichloroethene	**12**		1.0	0.46	ug/L			09/21/23 16:20	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 16:20	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 16:20	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*09/21/23 16:20*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*09/21/23 16:20*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*09/21/23 16:20*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*09/21/23 16:20*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 21:28	1
Barium	**0.071**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 21:28	1
Cadmium	**0.0085**		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 21:28	1
Chromium	**0.0034**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 21:28	1
Copper	**0.0056**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 21:28	1
Lead	**0.017**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 21:28	1
Nickel	**0.0040**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 21:28	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 21:28	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 21:28	1
Zinc	**0.014**	**B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 21:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-212892-9
Date Collected: 09/18/23 00:00
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 16:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 16:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 16:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 16:42	1

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation - 215042

Job ID: 480-212892-1

Client Sample ID: TRIP BLANK
Date Collected: 09/18/23 00:00
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-9
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 16:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 16:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 16:42	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 16:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 16:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 16:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 16:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 16:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 16:42	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 16:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 16:42	1
Acetone	ND		10	3.0	ug/L			09/21/23 16:42	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 16:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 16:42	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 16:42	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 16:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 16:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 16:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 16:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 16:42	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 16:42	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 16:42	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 16:42	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 16:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 16:42	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 16:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 16:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 16:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 16:42	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 16:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 16:42	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 16:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 16:42	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 16:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 16:42	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 16:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 16:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 16:42	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 16:42	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 16:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 16:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*09/21/23 16:42*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*09/21/23 16:42*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*09/21/23 16:42*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*09/21/23 16:42*	*1*

Surrogate Summary

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water
Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	TOL	BFB	DBFM
Lab Sample ID	Client Sample ID	(77-120)	(80-120)	(73-120)	(75-123)
480-212892-1	MW-01	112	98	107	108
480-212892-2	MW-02	119	100	104	120
480-212892-3	MW-03	110	94	99	110
480-212892-4	MW-04	110	95	101	111
480-212892-4 MS	MW-04	109	97	101	117
480-212892-4 MSD	MW-04	109	94	97	111
480-212892-5	MW-05	106	97	101	106
480-212892-6	MW-06	110	96	99	117
480-212892-7	MW-07	109	91	96	112
480-212892-8	DUP	109	97	102	109
480-212892-9	TRIP BLANK	102	92	97	104
LCS 480-684391/6	Lab Control Sample	111	99	107	111
MB 480-684391/8	Method Blank	109	97	105	113

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-684391/8
Matrix: Water
Analysis Batch: 684391

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 12:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 12:35	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 12:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 12:35	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 12:35	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 12:35	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 12:35	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 12:35	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 12:35	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 12:35	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 12:35	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 12:35	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 12:35	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 12:35	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 12:35	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 12:35	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 12:35	1
Acetone	ND		10	3.0	ug/L			09/21/23 12:35	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 12:35	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 12:35	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 12:35	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 12:35	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 12:35	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 12:35	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 12:35	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 12:35	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 12:35	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 12:35	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 12:35	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 12:35	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 12:35	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 12:35	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 12:35	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 12:35	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 12:35	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 12:35	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 12:35	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 12:35	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 12:35	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 12:35	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 12:35	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 12:35	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 12:35	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 12:35	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 12:35	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 12:35	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 12:35	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 12:35	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-684391/8
Matrix: Water
Analysis Batch: 684391

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

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		77 - 120		09/21/23 12:35	1
Toluene-d8 (Surr)	97		80 - 120		09/21/23 12:35	1
4-Bromofluorobenzene (Surr)	105		73 - 120		09/21/23 12:35	1
Dibromofluoromethane (Surr)	113		75 - 123		09/21/23 12:35	1

Lab Sample ID: LCS 480-684391/6
Matrix: Water
Analysis Batch: 684391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	25.0	26.3		ug/L		105	73 - 126
1,1,2,2-Tetrachloroethane	25.0	22.9		ug/L		92	76 - 120
1,1,2-Trichloroethane	25.0	23.4		ug/L		94	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	25.0	24.1		ug/L		96	61 - 148
1,1-Dichloroethane	25.0	24.0		ug/L		96	77 - 120
1,1-Dichloroethene	25.0	24.7		ug/L		99	66 - 127
1,2,4-Trichlorobenzene	25.0	24.7		ug/L		99	79 - 122
1,2-Dibromo-3-Chloropropane	25.0	22.1		ug/L		88	56 - 134
1,2-Dibromoethane	25.0	24.4		ug/L		98	77 - 120
1,2-Dichlorobenzene	25.0	24.5		ug/L		98	80 - 124
1,2-Dichloroethane	25.0	25.5		ug/L		102	75 - 120
1,2-Dichloropropane	25.0	24.3		ug/L		97	76 - 120
1,3-Dichlorobenzene	25.0	24.1		ug/L		96	77 - 120
1,4-Dichlorobenzene	25.0	23.6		ug/L		94	80 - 120
2-Hexanone	125	119		ug/L		95	65 - 127
2-Butanone (MEK)	125	133		ug/L		106	57 - 140
4-Methyl-2-pentanone (MIBK)	125	117		ug/L		94	71 - 125
Acetone	125	144		ug/L		115	56 - 142
Benzene	25.0	24.4		ug/L		97	71 - 124
Bromodichloromethane	25.0	25.7		ug/L		103	80 - 122
Bromoform	25.0	23.6		ug/L		94	61 - 132
Bromomethane	25.0	19.8		ug/L		79	55 - 144
Carbon disulfide	25.0	23.4		ug/L		94	59 - 134
Carbon tetrachloride	25.0	27.5		ug/L		110	72 - 134
Chlorobenzene	25.0	24.7		ug/L		99	80 - 120
Dibromochloromethane	25.0	25.1		ug/L		100	75 - 125
Chloroethane	25.0	19.2		ug/L		77	69 - 136
Chloroform	25.0	25.3		ug/L		101	73 - 127
Chloromethane	25.0	20.4		ug/L		82	68 - 124
cis-1,2-Dichloroethene	25.0	25.8		ug/L		103	74 - 124
cis-1,3-Dichloropropene	25.0	23.5		ug/L		94	74 - 124
Cyclohexane	25.0	25.5		ug/L		102	59 - 135
Dichlorodifluoromethane	25.0	17.6		ug/L		70	59 - 135
Ethylbenzene	25.0	23.9		ug/L		96	77 - 123
Isopropylbenzene	25.0	23.7		ug/L		95	77 - 122
Methyl acetate	50.0	50.1		ug/L		100	74 - 133
Methyl tert-butyl ether	25.0	25.4		ug/L		102	77 - 120
Methylcyclohexane	25.0	25.9		ug/L		104	68 - 134

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-684391/6
Matrix: Water
Analysis Batch: 684391

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	25.0	25.9		ug/L		104	75 - 124
Styrene	25.0	24.2		ug/L		97	80 - 120
Tetrachloroethene	25.0	27.9		ug/L		112	74 - 122
Toluene	25.0	25.3		ug/L		101	80 - 122
trans-1,2-Dichloroethene	25.0	26.0		ug/L		104	73 - 127
Trichloroethene	25.0	25.8		ug/L		103	74 - 123
Trichlorofluoromethane	25.0	26.7		ug/L		107	62 - 150
Vinyl chloride	25.0	21.1		ug/L		84	65 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*111*		*77 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*
Dibromofluoromethane (Surr)	*111*		*75 - 123*

Lab Sample ID: 480-212892-4 MS
Matrix: Water
Analysis Batch: 684391

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	910		1000	1820		ug/L		91	73 - 126
1,1,2,2-Tetrachloroethane	ND		1000	925		ug/L		93	76 - 120
1,1,2-Trichloroethane	ND		1000	916		ug/L		92	76 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1000	1150		ug/L		115	61 - 148
1,1-Dichloroethane	43		1000	1080		ug/L		104	77 - 120
1,1-Dichloroethene	300		1000	1290		ug/L		98	66 - 127
1,2,4-Trichlorobenzene	ND		1000	972		ug/L		97	79 - 122
1,2-Dibromo-3-Chloropropane	ND		1000	904		ug/L		90	56 - 134
1,2-Dibromoethane	ND		1000	1010		ug/L		101	77 - 120
1,2-Dichlorobenzene	ND		1000	997		ug/L		100	80 - 124
1,2-Dichloroethane	ND		1000	1060		ug/L		106	75 - 120
1,2-Dichloropropane	ND		1000	1000		ug/L		100	76 - 120
1,3-Dichlorobenzene	ND		1000	977		ug/L		98	77 - 120
1,4-Dichlorobenzene	ND		1000	975		ug/L		97	78 - 124
2-Hexanone	ND		5000	5030		ug/L		101	65 - 127
2-Butanone (MEK)	ND		5000	5150		ug/L		103	57 - 140
4-Methyl-2-pentanone (MIBK)	ND		5000	4900		ug/L		98	71 - 125
Acetone	ND	F2	5000	5800		ug/L		116	56 - 142
Benzene	ND		1000	1030		ug/L		103	71 - 124
Bromodichloromethane	ND		1000	1030		ug/L		103	80 - 122
Bromoform	ND		1000	971		ug/L		97	61 - 132
Bromomethane	ND		1000	727		ug/L		73	55 - 144
Carbon disulfide	ND		1000	1020		ug/L		102	59 - 134
Carbon tetrachloride	ND		1000	1220		ug/L		122	72 - 134
Chlorobenzene	ND		1000	976		ug/L		98	80 - 120
Dibromochloromethane	ND		1000	992		ug/L		99	75 - 125
Chloroethane	ND	F1	1000	723		ug/L		72	69 - 136
Chloroform	ND		1000	1080		ug/L		108	73 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-212892-4 MS
Matrix: Water
Analysis Batch: 684391

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloromethane	ND	F1	1000	703		ug/L		70	68 - 124
cis-1,2-Dichloroethene	110		1000	1170		ug/L		106	74 - 124
cis-1,3-Dichloropropene	ND		1000	962		ug/L		96	74 - 124
Cyclohexane	ND		1000	1120		ug/L		112	59 - 135
Dichlorodifluoromethane	ND	F1	1000	278	F1	ug/L		28	59 - 135
Ethylbenzene	ND		1000	962		ug/L		96	77 - 123
Isopropylbenzene	ND		1000	958		ug/L		96	77 - 122
Methyl acetate	ND		2000	1970		ug/L		99	74 - 133
Methyl tert-butyl ether	ND		1000	1060		ug/L		106	77 - 120
Methylcyclohexane	ND		1000	1080		ug/L		108	68 - 134
Methylene Chloride	120		1000	1100		ug/L		99	75 - 124
Styrene	ND		1000	967		ug/L		97	80 - 120
Tetrachloroethene	ND		1000	1110		ug/L		111	74 - 122
Toluene	ND		1000	965		ug/L		97	80 - 122
trans-1,2-Dichloroethene	ND		1000	1110		ug/L		111	73 - 127
Trichloroethene	2500	F1	1000	2970	F1	ug/L		47	74 - 123
Trichlorofluoromethane	ND		1000	690		ug/L		69	62 - 150
Vinyl chloride	ND	F1	1000	623	F1	ug/L		62	65 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*
Toluene-d8 (Surr)	*97*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*
Dibromofluoromethane (Surr)	*117*		*75 - 123*

Lab Sample ID: 480-212892-4 MSD
Matrix: Water
Analysis Batch: 684391

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	910		1000	1780		ug/L		86	73 - 126	3	15
1,1,2,2-Tetrachloroethane	ND		1000	934		ug/L		93	76 - 120	1	15
1,1,2-Trichloroethane	ND		1000	915		ug/L		92	76 - 122	0	15
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1000	1060		ug/L		106	61 - 148	8	20
1,1-Dichloroethane	43		1000	1030		ug/L		99	77 - 120	5	20
1,1-Dichloroethene	300		1000	1230		ug/L		92	66 - 127	5	16
1,2,4-Trichlorobenzene	ND		1000	918		ug/L		92	79 - 122	6	20
1,2-Dibromo-3-Chloropropane	ND		1000	881		ug/L		88	56 - 134	3	15
1,2-Dibromoethane	ND		1000	928		ug/L		93	77 - 120	8	15
1,2-Dichlorobenzene	ND		1000	976		ug/L		98	80 - 124	2	20
1,2-Dichloroethane	ND		1000	1030		ug/L		103	75 - 120	3	20
1,2-Dichloropropane	ND		1000	1010		ug/L		101	76 - 120	1	20
1,3-Dichlorobenzene	ND		1000	936		ug/L		94	77 - 120	4	20
1,4-Dichlorobenzene	ND		1000	924		ug/L		92	78 - 124	5	20
2-Hexanone	ND		5000	5060		ug/L		101	65 - 127	1	15
2-Butanone (MEK)	ND		5000	5210		ug/L		104	57 - 140	1	20
4-Methyl-2-pentanone (MIBK)	ND		5000	4840		ug/L		97	71 - 125	1	35
Acetone	ND	F2	5000	4450	F2	ug/L		89	56 - 142	26	15

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 480-212892-4 MSD
Matrix: Water
Analysis Batch: 684391

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		1000	986		ug/L		99	71 - 124	4	13
Bromodichloromethane	ND		1000	992		ug/L		99	80 - 122	4	15
Bromoform	ND		1000	929		ug/L		93	61 - 132	4	15
Bromomethane	ND		1000	721		ug/L		72	55 - 144	1	15
Carbon disulfide	ND		1000	964		ug/L		96	59 - 134	6	15
Carbon tetrachloride	ND		1000	1140		ug/L		114	72 - 134	6	15
Chlorobenzene	ND		1000	944		ug/L		94	80 - 120	3	25
Dibromochloromethane	ND		1000	981		ug/L		98	75 - 125	1	15
Chloroethane	ND	F1	1000	676	F1	ug/L		68	69 - 136	7	15
Chloroform	ND		1000	1040		ug/L		104	73 - 127	4	20
Chloromethane	ND	F1	1000	654	F1	ug/L		65	68 - 124	7	15
cis-1,2-Dichloroethene	110		1000	1170		ug/L		106	74 - 124	0	15
cis-1,3-Dichloropropene	ND		1000	944		ug/L		94	74 - 124	2	15
Cyclohexane	ND		1000	1080		ug/L		108	59 - 135	4	20
Dichlorodifluoromethane	ND	F1	1000	257	F1	ug/L		26	59 - 135	8	20
Ethylbenzene	ND		1000	934		ug/L		93	77 - 123	3	15
Isopropylbenzene	ND		1000	937		ug/L		94	77 - 122	2	20
Methyl acetate	ND		2000	1870		ug/L		94	74 - 133	5	20
Methyl tert-butyl ether	ND		1000	1030		ug/L		103	77 - 120	2	37
Methylcyclohexane	ND		1000	1060		ug/L		106	68 - 134	3	20
Methylene Chloride	120		1000	1090		ug/L		97	75 - 124	1	15
Styrene	ND		1000	952		ug/L		95	80 - 120	2	20
Tetrachloroethene	ND		1000	1030		ug/L		103	74 - 122	8	20
Toluene	ND		1000	932		ug/L		93	80 - 122	3	15
trans-1,2-Dichloroethene	ND		1000	1080		ug/L		108	73 - 127	2	20
Trichloroethene	2500	F1	1000	2710	F1	ug/L		21	74 - 123	9	16
Trichlorofluoromethane	ND		1000	638		ug/L		64	62 - 150	8	20
Vinyl chloride	ND	F1	1000	576	F1	ug/L		58	65 - 133	8	15

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*
Toluene-d8 (Surr)	*94*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*
Dibromofluoromethane (Surr)	*111*		*75 - 123*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-684307/1-A
Matrix: Water
Analysis Batch: 684582

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684307

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 19:58	1
Barium	ND		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 19:58	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 19:58	1
Chromium	ND		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 19:58	1
Copper	ND		0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 19:58	1
Lead	ND		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 19:58	1
Nickel	ND		0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 19:58	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-684307/1-A
Matrix: Water
Analysis Batch: 684582

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 684307

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 19:58	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 19:58	1
Zinc	0.00180	J	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 19:58	1

Lab Sample ID: LCS 480-684307/2-A
Matrix: Water
Analysis Batch: 684582

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 684307

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	0.200	0.195		mg/L		98	80 - 120
Barium	0.200	0.198		mg/L		99	80 - 120
Cadmium	0.200	0.194		mg/L		97	80 - 120
Chromium	0.200	0.194		mg/L		97	80 - 120
Copper	0.201	0.197		mg/L		98	80 - 120
Lead	0.200	0.207		mg/L		104	80 - 120
Nickel	0.200	0.188		mg/L		94	80 - 120
Selenium	0.200	0.195		mg/L		98	80 - 120
Silver	0.0500	0.0455		mg/L		91	80 - 120
Zinc	0.200	0.185		mg/L		92	80 - 120

Lab Sample ID: 480-212892-4 MS
Matrix: Water
Analysis Batch: 684582

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 684307

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	ND		0.200	0.195		mg/L		97	75 - 125
Barium	0.080		0.200	0.256		mg/L		88	75 - 125
Cadmium	0.00087	J	0.200	0.190		mg/L		94	75 - 125
Chromium	0.030		0.200	0.209		mg/L		89	75 - 125
Copper	0.020		0.201	0.206		mg/L		93	75 - 125
Lead	0.015		0.200	0.212		mg/L		98	75 - 125
Nickel	0.042		0.200	0.220		mg/L		89	75 - 125
Selenium	ND		0.200	0.192		mg/L		96	75 - 125
Silver	ND		0.0500	0.0422		mg/L		84	75 - 125
Zinc	0.010	B	0.200	0.176		mg/L		83	75 - 125

Lab Sample ID: 480-212892-4 MSD
Matrix: Water
Analysis Batch: 684582

Client Sample ID: MW-04
Prep Type: Total/NA
Prep Batch: 684307

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		0.200	0.207		mg/L		104	75 - 125	6	20
Barium	0.080		0.200	0.284		mg/L		102	75 - 125	10	20
Cadmium	0.00087	J	0.200	0.199		mg/L		99	75 - 125	5	20
Chromium	0.030		0.200	0.229		mg/L		100	75 - 125	9	20
Copper	0.020		0.201	0.220		mg/L		100	75 - 125	6	20
Lead	0.015		0.200	0.226		mg/L		105	75 - 125	6	20
Nickel	0.042		0.200	0.235		mg/L		97	75 - 125	7	20
Selenium	ND		0.200	0.199		mg/L		100	75 - 125	4	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-212892-4 MSD — **Client Sample ID: MW-04**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 684582 — **Prep Batch: 684307**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Silver	ND		0.0500	0.0473		mg/L		95	75 - 125	11	20
Zinc	0.010	B	0.200	0.193		mg/L		91	75 - 125	9	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 480-685024/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 685107 — **Prep Batch: 685024**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:29	1

Lab Sample ID: LCS 480-685024/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 685107 — **Prep Batch: 685024**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.00669	0.00635		mg/L		95	80 - 120

Lab Sample ID: 480-212892-4 MS — **Client Sample ID: MW-04**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 685107 — **Prep Batch: 685024**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	ND		0.00669	0.00663		mg/L		99	80 - 120

Lab Sample ID: 480-212892-4 MSD — **Client Sample ID: MW-04**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 685107 — **Prep Batch: 685024**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	ND		0.00669	0.00670		mg/L		100	80 - 120	1	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 480-684239/27 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 684239

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			09/20/23 12:02	1

Lab Sample ID: MB 480-684239/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 684239

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent	ND		0.010	0.0050	mg/L			09/20/23 12:02	1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCS 480-684239/28
Matrix: Water
Analysis Batch: 684239

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.0500	0.0535		mg/L		107	85 - 115

Lab Sample ID: LCS 480-684239/4
Matrix: Water
Analysis Batch: 684239

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.0500	0.0497		mg/L		99	85 - 115

Lab Sample ID: 480-212892-4 MS
Matrix: Water
Analysis Batch: 684239

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	0.028	H H3	0.0500	0.0775	H H3	mg/L		99	85 - 115

Lab Sample ID: 480-212892-4 MSD
Matrix: Water
Analysis Batch: 684239

Client Sample ID: MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium, hexavalent	0.028	H H3	0.0500	0.0787	H H3	mg/L		101	85 - 115	2	20

Lab Sample ID: 480-212892-8 MS
Matrix: Water
Analysis Batch: 684239

Client Sample ID: DUP
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chromium, hexavalent	ND	H H3	0.0500	0.0509		mg/L		102	85 - 115

Lab Sample ID: 480-212892-7 DU
Matrix: Water
Analysis Batch: 684239

Client Sample ID: MW-07
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium, hexavalent	0.0067	J H H3	ND		mg/L		NC	20

GC/MS VOA

Analysis Batch: 684391

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212892-1	MW-01	Total/NA	Water	8260C	
480-212892-2	MW-02	Total/NA	Water	8260C	
480-212892-3	MW-03	Total/NA	Water	8260C	
480-212892-4	MW-04	Total/NA	Water	8260C	
480-212892-5	MW-05	Total/NA	Water	8260C	
480-212892-6	MW-06	Total/NA	Water	8260C	
480-212892-7	MW-07	Total/NA	Water	8260C	
480-212892-8	DUP	Total/NA	Water	8260C	
480-212892-9	TRIP BLANK	Total/NA	Water	8260C	
MB 480-684391/8	Method Blank	Total/NA	Water	8260C	
LCS 480-684391/6	Lab Control Sample	Total/NA	Water	8260C	
480-212892-4 MS	MW-04	Total/NA	Water	8260C	
480-212892-4 MSD	MW-04	Total/NA	Water	8260C	

Metals

Prep Batch: 684307

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212892-1	MW-01	Total/NA	Water	3005A	
480-212892-2	MW-02	Total/NA	Water	3005A	
480-212892-3	MW-03	Total/NA	Water	3005A	
480-212892-4	MW-04	Total/NA	Water	3005A	
480-212892-5	MW-05	Total/NA	Water	3005A	
480-212892-6	MW-06	Total/NA	Water	3005A	
480-212892-7	MW-07	Total/NA	Water	3005A	
480-212892-8	DUP	Total/NA	Water	3005A	
MB 480-684307/1-A	Method Blank	Total/NA	Water	3005A	
LCS 480-684307/2-A	Lab Control Sample	Total/NA	Water	3005A	
480-212892-4 MS	MW-04	Total/NA	Water	3005A	
480-212892-4 MSD	MW-04	Total/NA	Water	3005A	

Analysis Batch: 684582

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212892-1	MW-01	Total/NA	Water	6010C	684307
480-212892-2	MW-02	Total/NA	Water	6010C	684307
480-212892-3	MW-03	Total/NA	Water	6010C	684307
480-212892-4	MW-04	Total/NA	Water	6010C	684307
480-212892-5	MW-05	Total/NA	Water	6010C	684307
480-212892-6	MW-06	Total/NA	Water	6010C	684307
480-212892-7	MW-07	Total/NA	Water	6010C	684307
480-212892-8	DUP	Total/NA	Water	6010C	684307
MB 480-684307/1-A	Method Blank	Total/NA	Water	6010C	684307
LCS 480-684307/2-A	Lab Control Sample	Total/NA	Water	6010C	684307
480-212892-4 MS	MW-04	Total/NA	Water	6010C	684307
480-212892-4 MSD	MW-04	Total/NA	Water	6010C	684307

Prep Batch: 685024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212892-1	MW-01	Total/NA	Water	7470A	
480-212892-2	MW-02	Total/NA	Water	7470A	
480-212892-3	MW-03	Total/NA	Water	7470A	

Metals (Continued)

Prep Batch: 685024 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212892-4	MW-04	Total/NA	Water	7470A	
480-212892-5	MW-05	Total/NA	Water	7470A	
480-212892-6	MW-06	Total/NA	Water	7470A	
480-212892-7	MW-07	Total/NA	Water	7470A	
480-212892-8	DUP	Total/NA	Water	7470A	
MB 480-685024/1-A	Method Blank	Total/NA	Water	7470A	
LCS 480-685024/2-A	Lab Control Sample	Total/NA	Water	7470A	
480-212892-4 MS	MW-04	Total/NA	Water	7470A	
480-212892-4 MSD	MW-04	Total/NA	Water	7470A	

Analysis Batch: 685107

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212892-1	MW-01	Total/NA	Water	7470A	685024
480-212892-2	MW-02	Total/NA	Water	7470A	685024
480-212892-3	MW-03	Total/NA	Water	7470A	685024
480-212892-4	MW-04	Total/NA	Water	7470A	685024
480-212892-5	MW-05	Total/NA	Water	7470A	685024
480-212892-6	MW-06	Total/NA	Water	7470A	685024
480-212892-7	MW-07	Total/NA	Water	7470A	685024
480-212892-8	DUP	Total/NA	Water	7470A	685024
MB 480-685024/1-A	Method Blank	Total/NA	Water	7470A	685024
LCS 480-685024/2-A	Lab Control Sample	Total/NA	Water	7470A	685024
480-212892-4 MS	MW-04	Total/NA	Water	7470A	685024
480-212892-4 MSD	MW-04	Total/NA	Water	7470A	685024

General Chemistry

Analysis Batch: 684239

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212892-1	MW-01	Total/NA	Water	7196A	
480-212892-2	MW-02	Total/NA	Water	7196A	
480-212892-3	MW-03	Total/NA	Water	7196A	
480-212892-4	MW-04	Total/NA	Water	7196A	
480-212892-5	MW-05	Total/NA	Water	7196A	
480-212892-6	MW-06	Total/NA	Water	7196A	
480-212892-7	MW-07	Total/NA	Water	7196A	
480-212892-8	DUP	Total/NA	Water	7196A	
MB 480-684239/27	Method Blank	Total/NA	Water	7196A	
MB 480-684239/3	Method Blank	Total/NA	Water	7196A	
LCS 480-684239/28	Lab Control Sample	Total/NA	Water	7196A	
LCS 480-684239/4	Lab Control Sample	Total/NA	Water	7196A	
480-212892-4 MS	MW-04	Total/NA	Water	7196A	
480-212892-4 MSD	MW-04	Total/NA	Water	7196A	
480-212892-8 MS	DUP	Total/NA	Water	7196A	
480-212892-7 DU	MW-07	Total/NA	Water	7196A	

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-01
Lab Sample ID: 480-212892-1
Date Collected: 09/19/23 07:50
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	684391	AXK	EET BUF	09/21/23 13:43
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 20:06
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:32
Total/NA	Analysis	7196A		1	684239	GW	EET BUF	09/20/23 12:02

Client Sample ID: MW-02
Lab Sample ID: 480-212892-2
Date Collected: 09/18/23 12:10
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	684391	AXK	EET BUF	09/21/23 14:05
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 20:21
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:33
Total/NA	Analysis	7196A		1	684239	GW	EET BUF	09/20/23 12:02

Client Sample ID: MW-03
Lab Sample ID: 480-212892-3
Date Collected: 09/18/23 15:20
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		5	684391	AXK	EET BUF	09/21/23 14:27
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 20:25
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:34
Total/NA	Analysis	7196A		5	684239	GW	EET BUF	09/20/23 12:02

Client Sample ID: MW-04
Lab Sample ID: 480-212892-4
Date Collected: 09/18/23 16:12
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		40	684391	AXK	EET BUF	09/21/23 14:52
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 20:29
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:35
Total/NA	Analysis	7196A		1	684239	GW	EET BUF	09/20/23 12:02

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-05
Lab Sample ID: 480-212892-5
Date Collected: 09/18/23 13:45
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		50	684391	AXK	EET BUF	09/21/23 15:14
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 20:47
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:45
Total/NA	Analysis	7196A		1	684239	GW	EET BUF	09/20/23 12:02

Client Sample ID: MW-06
Lab Sample ID: 480-212892-6
Date Collected: 09/19/23 07:20
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	684391	AXK	EET BUF	09/21/23 15:36
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 20:51
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:46
Total/NA	Analysis	7196A		1	684239	GW	EET BUF	09/20/23 12:02

Client Sample ID: MW-07
Lab Sample ID: 480-212892-7
Date Collected: 09/19/23 08:15
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	684391	AXK	EET BUF	09/21/23 15:58
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 21:24
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:48
Total/NA	Analysis	7196A		1	684239	GW	EET BUF	09/20/23 12:02

Client Sample ID: DUP
Lab Sample ID: 480-212892-8
Date Collected: 09/18/23 12:15
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	684391	AXK	EET BUF	09/21/23 16:20
Total/NA	Prep	3005A			684307	NVK	EET BUF	09/21/23 08:19
Total/NA	Analysis	6010C		1	684582	LMH	EET BUF	09/21/23 21:28
Total/NA	Prep	7470A			685024	NVK	EET BUF	09/26/23 12:08
Total/NA	Analysis	7470A		1	685107	NVK	EET BUF	09/26/23 16:49
Total/NA	Analysis	7196A		1	684239	GW	EET BUF	09/20/23 12:02

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-212892-9
Date Collected: 09/18/23 00:00
Matrix: Water
Date Received: 09/20/23 10:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260C		1	684391	AXK	EET BUF	09/21/23 16:42

Laboratory References:

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

Accreditation/Certification Summary

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

Method Summary

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7470A	Mercury (CVAA)	SW846	EET BUF
7196A	Chromium, Hexavalent	SW846	EET BUF
3005A	Preparation, Total Metals	SW846	EET BUF
5030C	Purge and Trap	SW846	EET BUF
7470A	Preparation, Mercury	SW846	EET BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: Geologic NY Inc
Job ID: 480-212892-1
Project/Site: NYSDEC Remedial Investigation - 215042

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-212892-1	MW-01	Water	09/19/23 07:50	09/20/23 10:30
480-212892-2	MW-02	Water	09/18/23 12:10	09/20/23 10:30
480-212892-3	MW-03	Water	09/18/23 15:20	09/20/23 10:30
480-212892-4	MW-04	Water	09/18/23 16:12	09/20/23 10:30
480-212892-5	MW-05	Water	09/18/23 13:45	09/20/23 10:30
480-212892-6	MW-06	Water	09/19/23 07:20	09/20/23 10:30
480-212892-7	MW-07	Water	09/19/23 08:15	09/20/23 10:30
480-212892-8	DUP	Water	09/18/23 12:15	09/20/23 10:30
480-212892-9	TRIP BLANK	Water	09/18/23 00:00	09/20/23 10:30

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Syracuse #225

Client Information	Sampler: Joseph Menzel	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-188388-39718.1
Client Contact: Mr. Christopher Gabriel	Phone: 607-749-5000	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Geologic NY Inc	PWSID:			Job #:
Address: PO BOX 350 37 Copeland Ave	Due Date Requested: Standard			
City: Homer	TAT Requested (days): Standard			
State, Zip: NY, 13077	Compliance Project: Δ Yes Δ No			
Phone: 607-749-5000(Tel)	PO #: Purchase Order not required			
Email: ChrisG@geologic.net	WO #: PN# 215042			
Project Name: NYSDEC Remedial Investigation	Project #: 48026438			
Site: 215042	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, Y - Trizma, 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)	MS/MSD	6010C, 7470A - D	8260C - TCL VOCs - A	7196A - Chromium, Hexavalent - N	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	A	N		
MW-01	9-19-23	7:50	G	Water	N		x	x	x		
MW-02	9-18-23	12:10	G	Water	N		x	x	x		
MW-03	9-18-23	15:20	G	Water	N		x	x	x		
MW-04	9-18-23	16:12	G	Water	N		x	x	x		
MW-04 MS/MSD	9-18-23	16:12	G	Water	N		x	x	x		
MW-05	9-18-23	13:45	G	Water	N		x	x	x		
~~MW-05 MS/MSD~~	~~9-18-23~~	~~13:45~~	~~G~~	~~Water~~	~~N~~		~~x~~	~~x~~	~~x~~		
MW-06	9-19-23	7:20	G	Water	N		x	x	x		
MW-07	9-19-23	8:15	G	Water	N		x	x	x		
DUP	9-18-23	12:15	G	Water	N		x	x	x		
TRIP Blank				Water							

480-212892 Chain of Custody

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)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	9-19-23, 13:15		[signature]	9-19-23, 1315	Jyn
2	[signature]	9-19-23, 1900	Jyn	[signature]	9/20/23 1030	TAB
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 3.1

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-212892-1

Login Number: 212892
List Number: 1
Creator: Wallace, Cameron

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GEOLOGIC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Christopher T Gabriel
Geologic NY Inc
PO BOX 350
37 Copeland Ave
Homer, New York 13077

Generated 9/14/2023 9:27:00 AM

JOB DESCRIPTION

NYSDEC Remedial Investigation - 215042

JOB NUMBER

480-212302-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

myEOL

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.

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

Authorization

Generated
9/14/2023 9:27:00 AM

Authorized for release by
John Beninati, Project Manager
John.Beninati@et.eurofinsus.com
(716)504-9874

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Definitions/Glossary

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Qualifiers

GC/MS VOA

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.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
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

Case Narrative

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Job ID: 480-212302-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-212302-1

Comments
No additional comments.

Receipt
The samples were received on 8/31/2023 10:45 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 2.7º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-682096 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated samples are impacted: MW-7 35`-40` (480-212302-1) and MW-7 35`-40` DUP (480-212302-2).

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

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

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

Detection Summary

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation - 215042

Job ID: 480-212302-1

Client Sample ID: MW-7 35`-40` — Lab Sample ID: 480-212302-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	6.3	J	19	3.3	ug/Kg	1	☼	8260C	Total/NA
Arsenic	21.2		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	75.4		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.043	J B	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.9		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Copper	22.8		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Lead	11.4		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Nickel	24.9		5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Silver	0.36	J	0.65	0.22	mg/Kg	1	☼	6010C	Total/NA
Zinc	55.1	B	2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.032		0.023	0.0054	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: MW-7 35`-40` DUP — Lab Sample ID: 480-212302-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.5	J	17	2.8	ug/Kg	1	☼	8260C	Total/NA
Arsenic	6.1		2.3	0.47	mg/Kg	1	☼	6010C	Total/NA
Barium	91.8		0.58	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.077	J B	0.23	0.035	mg/Kg	1	☼	6010C	Total/NA
Chromium	22.1		0.58	0.23	mg/Kg	1	☼	6010C	Total/NA
Copper	21.4		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Lead	12.6		1.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Nickel	26.5		5.8	0.27	mg/Kg	1	☼	6010C	Total/NA
Silver	0.41	J	0.70	0.23	mg/Kg	1	☼	6010C	Total/NA
Zinc	59.1	B	2.3	0.75	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.016	J	0.021	0.0048	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-7 35`-40`
Lab Sample ID: 480-212302-1
Date Collected: 08/30/23 12:30
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 88.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.9	0.28	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dichlorobenzene	ND		3.9	0.30	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1,2,2-Tetrachloroethane	ND		3.9	0.63	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1,2-Trichloroethane	ND		3.9	0.51	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.9	0.89	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1-Dichloroethane	ND		3.9	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1-Dichloroethene	ND		3.9	0.48	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2,4-Trichlorobenzene	ND		3.9	0.24	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dibromo-3-Chloropropane	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dichloroethane	ND		3.9	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dichloropropane	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,3-Dichlorobenzene	ND		3.9	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,4-Dichlorobenzene	ND		3.9	0.54	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
2-Butanone (MEK)	ND		19	1.4	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
2-Hexanone	ND		19	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
4-Methyl-2-pentanone (MIBK)	ND		19	1.3	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Acetone	**6.3**	**J**	19	3.3	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Benzene	ND		3.9	0.19	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Bromodichloromethane	ND		3.9	0.52	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Bromoform	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Bromomethane	ND		3.9	0.35	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Carbon disulfide	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Carbon tetrachloride	ND		3.9	0.38	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chlorobenzene	ND		3.9	0.51	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Dibromochloromethane	ND		3.9	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chloroethane	ND		3.9	0.88	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chloroform	ND		3.9	0.24	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chloromethane	ND		3.9	0.23	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
cis-1,2-Dichloroethene	ND		3.9	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
cis-1,3-Dichloropropene	ND		3.9	0.56	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Cyclohexane	ND		3.9	0.54	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Dichlorodifluoromethane	ND		3.9	0.32	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Ethylbenzene	ND		3.9	0.27	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dibromoethane	ND		3.9	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Isopropylbenzene	ND		3.9	0.59	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methyl acetate	ND		19	2.3	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methyl tert-butyl ether	ND		3.9	0.38	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methylcyclohexane	ND		3.9	0.59	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methylene Chloride	ND		3.9	1.8	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Styrene	ND		3.9	0.19	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Tetrachloroethene	ND		3.9	0.52	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Toluene	ND		3.9	0.29	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
trans-1,2-Dichloroethene	ND		3.9	0.40	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
trans-1,3-Dichloropropene	ND		3.9	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Trichloroethene	ND		3.9	0.86	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Trichlorofluoromethane	ND		3.9	0.37	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Vinyl chloride	ND		3.9	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Xylenes, Total	ND		7.8	0.65	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1

Client Sample ID: MW-7 35`-40`
Lab Sample ID: 480-212302-1

Date Collected: 08/30/23 12:30
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 88.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*71 - 125*	*08/31/23 12:00*	*09/01/23 01:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 126*	*08/31/23 12:00*	*09/01/23 01:49*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 126*	*08/31/23 12:00*	*09/01/23 01:49*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*08/31/23 12:00*	*09/01/23 01:49*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**21.2**		2.2	0.43	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Barium	**75.4**		0.54	0.12	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Cadmium	**0.043**	**J B**	0.22	0.033	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Chromium	**15.9**		0.54	0.22	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Copper	**22.8**		1.1	0.23	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Lead	**11.4**		1.1	0.26	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Nickel	**24.9**		5.4	0.25	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Selenium	ND		4.3	0.43	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Silver	**0.36**	**J**	0.65	0.22	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Zinc	**55.1**	**B**	2.2	0.69	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.032**		0.023	0.0054	mg/Kg	☼	09/11/23 10:18	09/11/23 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.3	0.96	mg/Kg	☼	09/13/23 07:00	09/13/23 16:50	1

Client Sample ID: MW-7 35`-40` DUP
Lab Sample ID: 480-212302-2

Date Collected: 08/30/23 12:45
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 89.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.3	0.24	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dichlorobenzene	ND		3.3	0.26	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1,2,2-Tetrachloroethane	ND		3.3	0.54	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1,2-Trichloroethane	ND		3.3	0.44	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.3	0.76	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1-Dichloroethane	ND		3.3	0.41	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1-Dichloroethene	ND		3.3	0.41	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2,4-Trichlorobenzene	ND		3.3	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dibromo-3-Chloropropane	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dichloroethane	ND		3.3	0.17	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dichloropropane	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,3-Dichlorobenzene	ND		3.3	0.17	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,4-Dichlorobenzene	ND		3.3	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
2-Butanone (MEK)	ND		17	1.2	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
2-Hexanone	ND		17	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
4-Methyl-2-pentanone (MIBK)	ND		17	1.1	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Acetone	**3.5**	**J**	17	2.8	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Benzene	ND		3.3	0.16	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Bromodichloromethane	ND		3.3	0.45	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1

Client Sample ID: MW-7 35`-40` DUP
Lab Sample ID: 480-212302-2

Date Collected: 08/30/23 12:45
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 89.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Bromomethane	ND		3.3	0.30	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Carbon disulfide	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Carbon tetrachloride	ND		3.3	0.32	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chlorobenzene	ND		3.3	0.44	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Dibromochloromethane	ND		3.3	0.43	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chloroethane	ND		3.3	0.76	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chloroform	ND		3.3	0.21	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chloromethane	ND		3.3	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
cis-1,2-Dichloroethene	ND		3.3	0.43	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
cis-1,3-Dichloropropene	ND		3.3	0.48	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Cyclohexane	ND		3.3	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Dichlorodifluoromethane	ND		3.3	0.28	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Ethylbenzene	ND		3.3	0.23	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dibromoethane	ND		3.3	0.43	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Isopropylbenzene	ND		3.3	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methyl acetate	ND		17	2.0	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methyl tert-butyl ether	ND		3.3	0.33	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methylcyclohexane	ND		3.3	0.51	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methylene Chloride	ND		3.3	1.5	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Styrene	ND		3.3	0.17	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Tetrachloroethene	ND		3.3	0.45	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Toluene	ND		3.3	0.25	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
trans-1,2-Dichloroethene	ND		3.3	0.35	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
trans-1,3-Dichloropropene	ND		3.3	1.5	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Trichloroethene	ND		3.3	0.74	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Trichlorofluoromethane	ND		3.3	0.32	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Vinyl chloride	ND		3.3	0.41	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Xylenes, Total	ND		6.7	0.56	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*71 - 125*	*08/31/23 12:00*	*09/01/23 02:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*	*08/31/23 12:00*	*09/01/23 02:13*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*08/31/23 12:00*	*09/01/23 02:13*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*	*08/31/23 12:00*	*09/01/23 02:13*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.1**		2.3	0.47	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Barium	**91.8**		0.58	0.13	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Cadmium	**0.077**	**J B**	0.23	0.035	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Chromium	**22.1**		0.58	0.23	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Copper	**21.4**		1.2	0.25	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Lead	**12.6**		1.2	0.28	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Nickel	**26.5**		5.8	0.27	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Selenium	ND		4.7	0.47	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Silver	**0.41**	**J**	0.70	0.23	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Zinc	**59.1**	**B**	2.3	0.75	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1

Client Sample Results

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-7 35`-40` DUP
Lab Sample ID: 480-212302-2
Date Collected: 08/30/23 12:45
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 89.6

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.016	J	0.021	0.0048	mg/Kg	☼	09/11/23 10:18	09/11/23 13:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.2	0.92	mg/Kg	☼	09/13/23 07:00	09/13/23 16:50	1

Surrogate Summary

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-125)	(64-126)	(72-126)	(60-140)
480-212302-1	MW-7 35`-40`	102	107	94	104
480-212302-2	MW-7 35`-40` DUP	101	106	93	101
LCS 480-682094/1-A	Lab Control Sample	102	99	96	101
MB 480-682094/2-A	Method Blank	101	101	101	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-682094/2-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
2-Hexanone	ND		25	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Acetone	ND		25	4.2	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Benzene	ND		5.0	0.25	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Bromoform	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Bromomethane	ND		5.0	0.45	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chloroethane	ND		5.0	1.1	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chloroform	ND		5.0	0.31	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chloromethane	ND		5.0	0.30	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Cyclohexane	ND		5.0	0.70	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methyl acetate	ND		25	3.0	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Styrene	ND		5.0	0.25	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Toluene	ND		5.0	0.38	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Trichloroethene	ND		5.0	1.1	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Xylenes, Total	ND		10	0.84	ug/Kg		08/31/23 18:07	08/31/23 21:44	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-682094/2-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682094

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*101*		*71 - 125*	*08/31/23 18:07*	*08/31/23 21:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*08/31/23 18:07*	*08/31/23 21:44*	*1*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*	*08/31/23 18:07*	*08/31/23 21:44*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*08/31/23 18:07*	*08/31/23 21:44*	*1*

Lab Sample ID: LCS 480-682094/1-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	52.8		ug/Kg		106	77 - 121
1,2-Dichlorobenzene	50.0	48.7		ug/Kg		97	75 - 120
1,1,2,2-Tetrachloroethane	50.0	50.1		ug/Kg		100	80 - 120
1,1,2-Trichloroethane	50.0	48.5		ug/Kg		97	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.4		ug/Kg		101	60 - 140
1,1-Dichloroethane	50.0	50.1		ug/Kg		100	73 - 126
1,1-Dichloroethene	50.0	50.5		ug/Kg		101	59 - 125
1,2,4-Trichlorobenzene	50.0	49.5		ug/Kg		99	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	59.5		ug/Kg		119	63 - 124
1,2-Dichloroethane	50.0	48.2		ug/Kg		96	77 - 122
1,2-Dichloropropane	50.0	49.0		ug/Kg		98	75 - 124
1,3-Dichlorobenzene	50.0	48.5		ug/Kg		97	74 - 120
1,4-Dichlorobenzene	50.0	47.8		ug/Kg		96	73 - 120
2-Butanone (MEK)	250	265		ug/Kg		106	70 - 134
2-Hexanone	250	262		ug/Kg		105	59 - 130
4-Methyl-2-pentanone (MIBK)	250	266		ug/Kg		106	65 - 133
Acetone	250	264		ug/Kg		106	61 - 137
Benzene	50.0	49.0		ug/Kg		98	79 - 127
Bromodichloromethane	50.0	52.2		ug/Kg		104	80 - 122
Bromoform	50.0	58.0		ug/Kg		116	68 - 126
Bromomethane	50.0	48.3		ug/Kg		97	37 - 149
Carbon disulfide	50.0	51.3		ug/Kg		103	64 - 131
Carbon tetrachloride	50.0	56.7		ug/Kg		113	75 - 135
Chlorobenzene	50.0	48.5		ug/Kg		97	76 - 124
Dibromochloromethane	50.0	55.8		ug/Kg		112	76 - 125
Chloroethane	50.0	53.7		ug/Kg		107	69 - 135
Chloroform	50.0	48.7		ug/Kg		97	80 - 120
Chloromethane	50.0	52.9		ug/Kg		106	63 - 127
cis-1,2-Dichloroethene	50.0	49.8		ug/Kg		100	81 - 120
cis-1,3-Dichloropropene	50.0	50.4		ug/Kg		101	80 - 120
Cyclohexane	50.0	53.5		ug/Kg		107	65 - 120
Dichlorodifluoromethane	50.0	50.0		ug/Kg		100	57 - 142
Ethylbenzene	50.0	49.6		ug/Kg		99	80 - 120
1,2-Dibromoethane	50.0	50.3		ug/Kg		101	78 - 120
Isopropylbenzene	50.0	51.2		ug/Kg		102	72 - 120
Methyl acetate	100	106		ug/Kg		106	55 - 136
Methyl tert-butyl ether	50.0	49.1		ug/Kg		98	63 - 125
Methylcyclohexane	50.0	51.6		ug/Kg		103	60 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-682094/1-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	50.0	51.5		ug/Kg		103	61 - 127
Styrene	50.0	49.0		ug/Kg		98	80 - 120
Tetrachloroethene	50.0	48.8		ug/Kg		98	74 - 122
Toluene	50.0	49.7		ug/Kg		99	74 - 128
trans-1,2-Dichloroethene	50.0	51.5		ug/Kg		103	78 - 126
Trichloroethene	50.0	49.7		ug/Kg		99	77 - 129
Trichlorofluoromethane	50.0	51.9		ug/Kg		104	65 - 146
Vinyl chloride	50.0	50.6		ug/Kg		101	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*71 - 125*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*
4-Bromofluorobenzene (Surr)	*96*		*72 - 126*
Dibromofluoromethane (Surr)	*101*		*60 - 140*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-681996/1-A
Matrix: Solid
Analysis Batch: 682354

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 681996

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.1	0.41	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Barium	ND		0.52	0.11	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Cadmium	0.0557	J	0.21	0.031	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Chromium	ND		0.52	0.21	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Copper	ND		1.0	0.22	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Lead	ND		1.0	0.25	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Nickel	ND		5.2	0.24	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Selenium	ND		4.1	0.41	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Silver	ND		0.62	0.21	mg/Kg		08/31/23 14:52	09/01/23 16:45	1
Zinc	0.747	J	2.1	0.66	mg/Kg		08/31/23 14:52	09/01/23 16:45	1

Lab Sample ID: LCSSRM 480-681996/2-A
Matrix: Solid
Analysis Batch: 682354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681996

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	183	158.7		mg/Kg		86.7	69.9 - 130.1
Barium	297	262.5		mg/Kg		88.4	75.1 - 125.3
Cadmium	221	197.5		mg/Kg		89.4	75.1 - 124.9
Chromium	200	176.0		mg/Kg		88.0	70.0 - 130.0
Copper	136	116.6		mg/Kg		85.7	75.0 - 125.0
Lead	257	246.1		mg/Kg		95.7	73.9 - 126.1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-681996/2-A
Matrix: Solid
Analysis Batch: 682354

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 681996

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	169	170.0		mg/Kg		100.6	69.8 - 129.6
Selenium	217	189.7		mg/Kg		87.4	69.1 - 131.3
Silver	67.8	57.93		mg/Kg		85.4	70.6 - 129.2
Zinc	224	188.7		mg/Kg		84.2	70.1 - 130.4

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-682975/1-A
Matrix: Solid
Analysis Batch: 683052

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682975

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.021	0.0048	mg/Kg		09/11/23 10:18	09/11/23 12:40	1

Lab Sample ID: LCDSRM 480-682975/3-A ^10
Matrix: Solid
Analysis Batch: 683052

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 682975

Analyte	Spike Added	LCDSRM Result	LCDSRM Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	17.1	9.57		mg/Kg		56.0	36.0 - 109.9	4	20

Lab Sample ID: LCSSRM 480-682975/2-A ^10
Matrix: Solid
Analysis Batch: 683052

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682975

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	17.1	9.94		mg/Kg		58.2	36.0 - 109.9

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-931831/1-A
Matrix: Solid
Analysis Batch: 931942

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 931831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0	0.85	mg/Kg		09/13/23 07:00	09/13/23 15:20	1

Lab Sample ID: LCSI 460-931831/3-A
Matrix: Solid
Analysis Batch: 931942

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 931831

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	737.3		mg/Kg		104	80 - 120

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSSRM 460-931831/2-A
Matrix: Solid
Analysis Batch: 931942

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 931831

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	11.1	11.02		mg/Kg		99.1	83.8 - 114.7

QC Association Summary

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

GC/MS VOA

Prep Batch: 682094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	5035A_L	
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	5035A_L	
MB 480-682094/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-682094/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 682096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	8260C	682094
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	8260C	682094
MB 480-682094/2-A	Method Blank	Total/NA	Solid	8260C	682094
LCS 480-682094/1-A	Lab Control Sample	Total/NA	Solid	8260C	682094

Metals

Prep Batch: 681996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	3050B	
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	3050B	
MB 480-681996/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-681996/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 682354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	6010C	681996
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	6010C	681996
MB 480-681996/1-A	Method Blank	Total/NA	Solid	6010C	681996
LCSSRM 480-681996/2-A	Lab Control Sample	Total/NA	Solid	6010C	681996

Prep Batch: 682975

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	7471B	
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	7471B	
MB 480-682975/1-A	Method Blank	Total/NA	Solid	7471B	
LCDSRM 480-682975/3-A ^1	Lab Control Sample Dup	Total/NA	Solid	7471B	
LCSSRM 480-682975/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Analysis Batch: 683052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	7471B	682975
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	7471B	682975
MB 480-682975/1-A	Method Blank	Total/NA	Solid	7471B	682975
LCDSRM 480-682975/3-A ^1	Lab Control Sample Dup	Total/NA	Solid	7471B	682975
LCSSRM 480-682975/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	682975

General Chemistry

Analysis Batch: 682054

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	Moisture	
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	Moisture	

QC Association Summary

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

General Chemistry

Prep Batch: 931831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	3060A	
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	3060A	
MB 460-931831/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-931831/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-931831/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 931942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212302-1	MW-7 35`-40`	Total/NA	Solid	7196A	931831
480-212302-2	MW-7 35`-40` DUP	Total/NA	Solid	7196A	931831
MB 460-931831/1-A	Method Blank	Total/NA	Solid	7196A	931831
LCSI 460-931831/3-A	Lab Control Sample	Total/NA	Solid	7196A	931831
LCSSRM 460-931831/2-A	Lab Control Sample	Total/NA	Solid	7196A	931831

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-7 35`-40`
Lab Sample ID: 480-212302-1
Date Collected: 08/30/23 12:30
Matrix: Solid
Date Received: 08/31/23 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	682054	AF	EET BUF	08/31/23 15:17

Client Sample ID: MW-7 35`-40`
Lab Sample ID: 480-212302-1
Date Collected: 08/30/23 12:30
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			682094	CDC	EET BUF	08/31/23 12:00
Total/NA	Analysis	8260C		1	682096	CDC	EET BUF	09/01/23 01:49
Total/NA	Prep	3050B			681996	MP	EET BUF	08/31/23 14:52
Total/NA	Analysis	6010C		1	682354	LMH	EET BUF	09/01/23 17:49
Total/NA	Prep	7471B			682975	NVK	EET BUF	09/11/23 10:18
Total/NA	Analysis	7471B		1	683052	NVK	EET BUF	09/11/23 13:02
Total/NA	Prep	3060A			931831	AMN	EET EDI	09/13/23 07:00 - 09/13/23 08:00 [1]
Total/NA	Analysis	7196A		1	931942	GSM	EET EDI	09/13/23 16:50

Client Sample ID: MW-7 35`-40` DUP
Lab Sample ID: 480-212302-2
Date Collected: 08/30/23 12:45
Matrix: Solid
Date Received: 08/31/23 10:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	682054	AF	EET BUF	08/31/23 15:17

Client Sample ID: MW-7 35`-40` DUP
Lab Sample ID: 480-212302-2
Date Collected: 08/30/23 12:45
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 89.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			682094	CDC	EET BUF	08/31/23 12:00
Total/NA	Analysis	8260C		1	682096	CDC	EET BUF	09/01/23 02:13
Total/NA	Prep	3050B			681996	MP	EET BUF	08/31/23 14:52
Total/NA	Analysis	6010C		1	682354	LMH	EET BUF	09/01/23 17:53
Total/NA	Prep	7471B			682975	NVK	EET BUF	09/11/23 10:18
Total/NA	Analysis	7471B		1	683052	NVK	EET BUF	09/11/23 13:03
Total/NA	Prep	3060A			931831	AMN	EET EDI	09/13/23 07:00 - 09/13/23 08:00 [1]
Total/NA	Analysis	7196A		1	931942	GSM	EET EDI	09/13/23 16:50

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	01-30-24
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-01-24
Georgia	State	12028 (NJ)	06-30-24
Massachusetts	State	M-NJ312	06-30-24
New Jersey	NELAP	12028	06-30-24
New York	NELAP	11452	04-01-24
Pennsylvania	NELAP	68-00522	03-01-24
Rhode Island	State	LAO00376	12-30-23
USDA	US Federal Programs	P330-20-00244	11-03-23

Method Summary

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
7196A	Chromium, Hexavalent	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET EDI
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF

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:

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

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Geologic NY Inc
Job ID: 480-212302-1
Project/Site: NYSDEC Remedial Investigation - 215042

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-212302-1	MW-7 35`-40`	Solid	08/30/23 12:30	08/31/23 10:45
480-212302-2	MW-7 35`-40` DUP	Solid	08/30/23 12:45	08/31/23 10:45

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Syracuse #225

Client Information	Sampler: Joseph Menzel	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-187986-39095.1
Client Contact: Mr. Christopher Gabriel	Phone: (607-749-5000)	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Geologic NY Inc	PWSID:			Job #:
Address: PO BOX 350 37 Copeland Ave	Due Date Requested: standard	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; Y - Trizma; Z - other (specify); Other:
City: Homer	TAT Requested (days): standard			
State, Zip: NY, 13077	Compliance Project: Δ Yes Δ No			
Phone: 607-749-5000(Tel)	PO #: Purchase Order not required			
Email: ChrisG@geologic.net	WO #: PN# 215042			
Project Name: NYSDEC Remedial Investigation	Project #: 48026438			
Site: 215042	SSOW#:			

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)	7196A - Hexavalent Chromium - 7196	8260C - TCL VOCs	6010C, 7471B	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	N	N	N	X	
MW-7 35'-40'	8-30-23	12:30	G	Solid			X	X	X		
MW-7 35:40 Dup	8-30-23	12:45	G	Solid			X	X	X		
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

480-212302 Chain of Custody

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)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	Joseph Menzel	8-30-23 / 15:00	GNY	Fedex	8-30-23 15:00	GNY
2		Date/Time:	Company	Received by: Walthe	Date/Time: 8/31/23 1045	Company: TB
3	Relinquished by:	Date/Time	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: #1 2.7

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati John	Carrier Tracking No(s):	COC No: 480-82451 1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP New York		Job #: 480-212302-1
Address: 777 New Durham Road,	Due Date Requested: 9/14/2023			
City: Edison	TAT Requested (days):			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: NYSDEC Remedial Investigation	Project #: 48026438			
Site:	SSOW#:			

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	Y	Trizma
		Z	other (specify)

Other

Analysis Requested

Sample Identification Client ID (Lab ID)	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)	7196A/3060A Hexavalent Chromium 7196	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-7 35'-40' (480-212302-1)	8/30/23	12:30 Eastern		Solid			X	1	
MW-7 35'-40' DUP (480-212302-2)	8/30/23	12:45 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements.

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	8/31-23 1600	TAS	[signature]	9/1/23 10 10	FedEx
2	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
3	Relinquished by:	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ☑ Yes ☐ No	Custody Seal No.: 222534	Cooler Temperature(s) °C and Other Remarks: 1.2 / 1.3 IR9

Ver 06/08/2021

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-212302-1

Login Number: 212302
List Number: 1
Creator: Sabuda, Brendan D

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.7 #1 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	TERRACORES FROZEN @ 1200 8/31/23
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-212302-1

Login Number: 212302
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 09/01/23 11:44 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Christopher T Gabriel
Geologic NY Inc
PO BOX 350
37 Copeland Ave
Homer, New York 13077

Generated 9/14/2023 10:29:56 AM Revision 1

JOB DESCRIPTION

NYSDEC Remedial Investigation - 215042

JOB NUMBER

480-212261-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

myEOL

Job Notes

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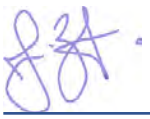
The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed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

Authorization



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Revision 1

Authorized for release by
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Definitions/Glossary

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Qualifiers

GC/MS VOA

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.

Metals

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

Case Narrative

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Job ID: 480-212261-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-212261-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 9/14/2023. This report (Revision 1) was revised to include Total Zinc via method 6010C.

Receipt
The sample was received on 8/30/2023 11:00 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-682096 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated sample is impacted: MW-6 34`-36` (480-212261-1).

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

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

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

Detection Summary

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation - 215042

Job ID: 480-212261-1

Client Sample ID: MW-6 34`-36`

Lab Sample ID: 480-212261-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	5.9	J	18	3.1	ug/Kg	1	☼	8260C	Total/NA
Arsenic	5.3		2.2	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	69.4		0.54	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.098	J	0.22	0.032	mg/Kg	1	☼	6010C	Total/NA
Chromium	15.8		0.54	0.22	mg/Kg	1	☼	6010C	Total/NA
Copper	24.0		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Lead	8.7		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Nickel	22.1		5.4	0.25	mg/Kg	1	☼	6010C	Total/NA
Zinc	47.4		2.2	0.69	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.0063	J	0.019	0.0043	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-6 34`-36`
Lab Sample ID: 480-212261-1
Date Collected: 08/28/23 16:50
Matrix: Solid
Date Received: 08/30/23 11:00
Percent Solids: 96.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.7	0.27	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dichlorobenzene	ND		3.7	0.29	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1,2,2-Tetrachloroethane	ND		3.7	0.60	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1,2-Trichloroethane	ND		3.7	0.48	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.7	0.84	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1-Dichloroethane	ND		3.7	0.45	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1-Dichloroethene	ND		3.7	0.45	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2,4-Trichlorobenzene	ND		3.7	0.22	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dibromo-3-Chloropropane	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dichloroethane	ND		3.7	0.19	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dichloropropane	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,3-Dichlorobenzene	ND		3.7	0.19	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,4-Dichlorobenzene	ND		3.7	0.52	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
2-Butanone (MEK)	ND		18	1.4	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
2-Hexanone	ND		18	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
4-Methyl-2-pentanone (MIBK)	ND		18	1.2	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Acetone	**5.9**	**J**	18	3.1	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Benzene	ND		3.7	0.18	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Bromodichloromethane	ND		3.7	0.50	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Bromoform	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Bromomethane	ND		3.7	0.33	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Carbon disulfide	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Carbon tetrachloride	ND		3.7	0.36	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chlorobenzene	ND		3.7	0.49	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Dibromochloromethane	ND		3.7	0.47	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chloroethane	ND		3.7	0.84	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chloroform	ND		3.7	0.23	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chloromethane	ND		3.7	0.22	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
cis-1,2-Dichloroethene	ND		3.7	0.47	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
cis-1,3-Dichloropropene	ND		3.7	0.53	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Cyclohexane	ND		3.7	0.52	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Dichlorodifluoromethane	ND		3.7	0.31	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Ethylbenzene	ND		3.7	0.26	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dibromoethane	ND		3.7	0.47	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Isopropylbenzene	ND		3.7	0.56	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methyl acetate	ND		18	2.2	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methyl tert-butyl ether	ND		3.7	0.36	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methylcyclohexane	ND		3.7	0.56	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methylene Chloride	ND		3.7	1.7	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Styrene	ND		3.7	0.18	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Tetrachloroethene	ND		3.7	0.50	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Toluene	ND		3.7	0.28	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
trans-1,2-Dichloroethene	ND		3.7	0.38	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
trans-1,3-Dichloropropene	ND		3.7	1.6	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Trichloroethene	ND		3.7	0.81	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Trichlorofluoromethane	ND		3.7	0.35	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Vinyl chloride	ND		3.7	0.45	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Xylenes, Total	ND		7.4	0.62	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-6 34`-36`
Lab Sample ID: 480-212261-1
Date Collected: 08/28/23 16:50
Matrix: Solid
Date Received: 08/30/23 11:00
Percent Solids: 96.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*71 - 125*	*08/30/23 11:30*	*08/31/23 22:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*08/30/23 11:30*	*08/31/23 22:33*	*1*
4-Bromofluorobenzene (Surr)	*90*		*72 - 126*	*08/30/23 11:30*	*08/31/23 22:33*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*08/30/23 11:30*	*08/31/23 22:33*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.3**		2.2	0.43	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Barium	**69.4**		0.54	0.12	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Cadmium	**0.098**	**J**	0.22	0.032	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Chromium	**15.8**		0.54	0.22	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Copper	**24.0**		1.1	0.23	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Lead	**8.7**		1.1	0.26	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Nickel	**22.1**		5.4	0.25	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Selenium	ND		4.3	0.43	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Silver	ND		0.65	0.22	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Zinc	**47.4**		2.2	0.69	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0063**	**J**	0.019	0.0043	mg/Kg	☼	09/05/23 11:21	09/05/23 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.1	0.88	mg/Kg	☼	09/13/23 07:00	09/13/23 16:50	1

Surrogate Summary

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-125)	(64-126)	(72-126)	(60-140)
480-212261-1	MW-6 34`-36`	109	105	90	102
LCS 480-682094/1-A	Lab Control Sample	102	99	96	101
MB 480-682094/2-A	Method Blank	101	101	101	102

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-682094/2-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
2-Hexanone	ND		25	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Acetone	ND		25	4.2	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Benzene	ND		5.0	0.25	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Bromoform	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Bromomethane	ND		5.0	0.45	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chloroethane	ND		5.0	1.1	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chloroform	ND		5.0	0.31	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Chloromethane	ND		5.0	0.30	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Cyclohexane	ND		5.0	0.70	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methyl acetate	ND		25	3.0	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Styrene	ND		5.0	0.25	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Toluene	ND		5.0	0.38	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Trichloroethene	ND		5.0	1.1	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		08/31/23 18:07	08/31/23 21:44	1
Xylenes, Total	ND		10	0.84	ug/Kg		08/31/23 18:07	08/31/23 21:44	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-682094/2-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682094

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*101*		*71 - 125*	*08/31/23 18:07*	*08/31/23 21:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 126*	*08/31/23 18:07*	*08/31/23 21:44*	*1*
4-Bromofluorobenzene (Surr)	*101*		*72 - 126*	*08/31/23 18:07*	*08/31/23 21:44*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*08/31/23 18:07*	*08/31/23 21:44*	*1*

Lab Sample ID: LCS 480-682094/1-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	52.8		ug/Kg		106	77 - 121
1,2-Dichlorobenzene	50.0	48.7		ug/Kg		97	75 - 120
1,1,2,2-Tetrachloroethane	50.0	50.1		ug/Kg		100	80 - 120
1,1,2-Trichloroethane	50.0	48.5		ug/Kg		97	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	50.4		ug/Kg		101	60 - 140
1,1-Dichloroethane	50.0	50.1		ug/Kg		100	73 - 126
1,1-Dichloroethene	50.0	50.5		ug/Kg		101	59 - 125
1,2,4-Trichlorobenzene	50.0	49.5		ug/Kg		99	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	59.5		ug/Kg		119	63 - 124
1,2-Dichloroethane	50.0	48.2		ug/Kg		96	77 - 122
1,2-Dichloropropane	50.0	49.0		ug/Kg		98	75 - 124
1,3-Dichlorobenzene	50.0	48.5		ug/Kg		97	74 - 120
1,4-Dichlorobenzene	50.0	47.8		ug/Kg		96	73 - 120
2-Butanone (MEK)	250	265		ug/Kg		106	70 - 134
2-Hexanone	250	262		ug/Kg		105	59 - 130
4-Methyl-2-pentanone (MIBK)	250	266		ug/Kg		106	65 - 133
Acetone	250	264		ug/Kg		106	61 - 137
Benzene	50.0	49.0		ug/Kg		98	79 - 127
Bromodichloromethane	50.0	52.2		ug/Kg		104	80 - 122
Bromoform	50.0	58.0		ug/Kg		116	68 - 126
Bromomethane	50.0	48.3		ug/Kg		97	37 - 149
Carbon disulfide	50.0	51.3		ug/Kg		103	64 - 131
Carbon tetrachloride	50.0	56.7		ug/Kg		113	75 - 135
Chlorobenzene	50.0	48.5		ug/Kg		97	76 - 124
Dibromochloromethane	50.0	55.8		ug/Kg		112	76 - 125
Chloroethane	50.0	53.7		ug/Kg		107	69 - 135
Chloroform	50.0	48.7		ug/Kg		97	80 - 120
Chloromethane	50.0	52.9		ug/Kg		106	63 - 127
cis-1,2-Dichloroethene	50.0	49.8		ug/Kg		100	81 - 120
cis-1,3-Dichloropropene	50.0	50.4		ug/Kg		101	80 - 120
Cyclohexane	50.0	53.5		ug/Kg		107	65 - 120
Dichlorodifluoromethane	50.0	50.0		ug/Kg		100	57 - 142
Ethylbenzene	50.0	49.6		ug/Kg		99	80 - 120
1,2-Dibromoethane	50.0	50.3		ug/Kg		101	78 - 120
Isopropylbenzene	50.0	51.2		ug/Kg		102	72 - 120
Methyl acetate	100	106		ug/Kg		106	55 - 136
Methyl tert-butyl ether	50.0	49.1		ug/Kg		98	63 - 125
Methylcyclohexane	50.0	51.6		ug/Kg		103	60 - 140

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-682094/1-A
Matrix: Solid
Analysis Batch: 682096

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	50.0	51.5		ug/Kg		103	61 - 127
Styrene	50.0	49.0		ug/Kg		98	80 - 120
Tetrachloroethene	50.0	48.8		ug/Kg		98	74 - 122
Toluene	50.0	49.7		ug/Kg		99	74 - 128
trans-1,2-Dichloroethene	50.0	51.5		ug/Kg		103	78 - 126
Trichloroethene	50.0	49.7		ug/Kg		99	77 - 129
Trichlorofluoromethane	50.0	51.9		ug/Kg		104	65 - 146
Vinyl chloride	50.0	50.6		ug/Kg		101	61 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*102*		*71 - 125*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*
4-Bromofluorobenzene (Surr)	*96*		*72 - 126*
Dibromofluoromethane (Surr)	*101*		*60 - 140*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-682339/1-A
Matrix: Solid
Analysis Batch: 682645

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682339

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		1.9	0.38	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Barium	ND		0.48	0.10	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Cadmium	ND		0.19	0.029	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Chromium	ND		0.48	0.19	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Copper	ND		0.95	0.20	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Lead	ND		0.95	0.23	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Nickel	ND		4.8	0.22	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Selenium	ND		3.8	0.38	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Silver	ND		0.57	0.19	mg/Kg		09/05/23 11:56	09/06/23 15:57	1
Zinc	ND		1.9	0.61	mg/Kg		09/05/23 11:56	09/06/23 15:57	1

Lab Sample ID: LCSSRM 480-682339/2-A
Matrix: Solid
Analysis Batch: 682645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682339

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	218	168.2		mg/Kg		77.1	57.8 - 110.1
Barium	388	328.2		mg/Kg		84.6	68.3 - 113.9
Cadmium	118	95.32		mg/Kg		80.8	67.0 - 111.9
Chromium	255	224.5		mg/Kg		88.0	63.5 - 118.4
Copper	135	118.1		mg/Kg		87.5	69.0 - 114.8
Lead	155	151.8		mg/Kg		97.9	67.7 - 119.4

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 480-682339/2-A
Matrix: Solid
Analysis Batch: 682645

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682339

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Nickel	120	111.5		mg/Kg		92.9	63.2 - 117.5
Selenium	107	89.01		mg/Kg		83.2	58.3 - 121.5
Silver	51.0	43.35		mg/Kg		85.0	64.7 - 120.8
Zinc	406	333.0		mg/Kg		82.0	63.8 - 118.2

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-682290/1-A
Matrix: Solid
Analysis Batch: 682402

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 682290

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0046	mg/Kg		09/05/23 11:21	09/05/23 15:10	1

Lab Sample ID: LCSSRM 480-682290/2-A ^10
Matrix: Solid
Analysis Batch: 682402

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 682290

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	18.2	17.26		mg/Kg		94.8	59.9 - 140.1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-931831/1-A
Matrix: Solid
Analysis Batch: 931942

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 931831

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0	0.85	mg/Kg		09/13/23 07:00	09/13/23 15:20	1

Lab Sample ID: LCSI 460-931831/3-A
Matrix: Solid
Analysis Batch: 931942

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 931831

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	737.3		mg/Kg		104	80 - 120

Lab Sample ID: LCSSRM 460-931831/2-A
Matrix: Solid
Analysis Batch: 931942

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 931831

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	11.1	11.02		mg/Kg		99.1	83.8 - 114.7

QC Association Summary

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

GC/MS VOA

Prep Batch: 682094

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	5035A_L	
MB 480-682094/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-682094/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 682096

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	8260C	682094
MB 480-682094/2-A	Method Blank	Total/NA	Solid	8260C	682094
LCS 480-682094/1-A	Lab Control Sample	Total/NA	Solid	8260C	682094

Metals

Prep Batch: 682290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	7471B	
MB 480-682290/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-682290/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 682339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	3050B	
MB 480-682339/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-682339/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Analysis Batch: 682402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	7471B	682290
MB 480-682290/1-A	Method Blank	Total/NA	Solid	7471B	682290
LCSSRM 480-682290/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	682290

Analysis Batch: 682645

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	6010C	682339
MB 480-682339/1-A	Method Blank	Total/NA	Solid	6010C	682339
LCSSRM 480-682339/2-A	Lab Control Sample	Total/NA	Solid	6010C	682339

General Chemistry

Analysis Batch: 681897

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	Moisture	

Prep Batch: 931831

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	3060A	
MB 460-931831/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-931831/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-931831/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 931942

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-212261-1	MW-6 34`-36`	Total/NA	Solid	7196A	931831

General Chemistry (Continued)

Analysis Batch: 931942 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-931831/1-A	Method Blank	Total/NA	Solid	7196A	931831
LCSI 460-931831/3-A	Lab Control Sample	Total/NA	Solid	7196A	931831
LCSSRM 460-931831/2-A	Lab Control Sample	Total/NA	Solid	7196A	931831

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-6 34`-36`
Lab Sample ID: 480-212261-1
Date Collected: 08/28/23 16:50
Matrix: Solid
Date Received: 08/30/23 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	681897	JMM	EET BUF	08/30/23 15:58

Client Sample ID: MW-6 34`-36`
Lab Sample ID: 480-212261-1
Date Collected: 08/28/23 16:50
Matrix: Solid
Date Received: 08/30/23 11:00
Percent Solids: 96.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			682094	CDC	EET BUF	08/30/23 11:30
Total/NA	Analysis	8260C		1	682096	CDC	EET BUF	08/31/23 22:33
Total/NA	Prep	3050B			682339	MP	EET BUF	09/05/23 11:56
Total/NA	Analysis	6010C		1	682645	LMH	EET BUF	09/06/23 17:34
Total/NA	Prep	7471B			682290	NVK	EET BUF	09/05/23 11:21
Total/NA	Analysis	7471B		1	682402	NVK	EET BUF	09/05/23 15:40
Total/NA	Prep	3060A			931831	AMN	EET EDI	09/13/23 07:00 - 09/13/23 08:00 [1]
Total/NA	Analysis	7196A		1	931942	GSM	EET EDI	09/13/23 16:50

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

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

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	01-30-24
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-01-24
Georgia	State	12028 (NJ)	06-30-24
Massachusetts	State	M-NJ312	06-30-24
New Jersey	NELAP	12028	06-30-24
New York	NELAP	11452	04-01-24
Pennsylvania	NELAP	68-00522	03-01-24
Rhode Island	State	LAO00376	12-30-23
USDA	US Federal Programs	P330-20-00244	11-03-23

Method Summary

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
7196A	Chromium, Hexavalent	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET EDI
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF

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:

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

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-212261-1	MW-6 34`-36`	Solid	08/28/23 16:50	08/30/23 11:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

eurofins Environment Testing

Syracuse #225

Client Information	Sampler: Joe Menzel	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-187986-39095.1
Client Contact: Mr. Christopher Gabriel	Phone: 607-749-5000	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin:	Page: Page 1 of 1
Company: Geologic NY Inc	PWSID:			Job #:
Address: PO BOX 350 37 Copeland Ave	Due Date Requested: Standard			
City: Homer	TAT Requested (days): standard			
State, Zip: NY, 13077	Compliance Project: Δ Yes Δ No			
Phone: 607-749-5000(Tel)	PO #: Purchase Order not required			
Email: ChrisG@geologic.net	WO #: PN# 215042			
Project Name: NYSDEC Remedial Investigation	Project #: 48026438			
Site: 215042	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, Y - Trizma, 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)	7196A - Hexavalent Chromium - 7196	8260C - TCL VOCs	6010C, 7471B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N			
MW-6 34'-36'	8-28-23	16:50	G	Solid			X	X	X		
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

480-212261 Chain of Custody

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)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	Joseph A. Mogel	8-29-23 16:00	GNY	Fedex	8-29-23 16:00	FedEx
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
				Ewalker	8/30/23 1100	TAB
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 1586311

Cooler Temperature(s) °C and Other Remarks: #1 2.8

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691 7991

Chain of Custody Record

eurofins
Environment Testing

Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-82420.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP New York		Job #: 480-212261 1
Address: 777 New Durham Road,	Due Date Requested: 9/13/2023			
City: Edison	TAT Requested (days):			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: NYSDEC Remedial Investigation	Project #: 48026438			
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, Y Trizma, Z other (specify)

Other

Sample Identification Client ID (Lab ID)	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)	7196A/3060A Hexavalent Chromium 7196	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
MW-6 34 -36` (480-212261 1)	8/28/23	16:50 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:			
Relinquished by:	Date/Time: 8-30-23 1600	Company TAS	Received by: Fedex	Date/Time: 8/31/23 0730	Company ETA	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	

Custody Seals Intact: Δ Yes Δ No	Custody Seal No. 225508	Cooler Temperature(s) °C and Other Remarks: 0210 3 IR9

Ver: 06/08/2021

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-212261-1

Login Number: 212261
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	FREEZE 8-3-23 11:30
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GNY
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-212261-1

Login Number: 212261
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 08/31/23 12:04 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Christopher T Gabriel
Geologic NY Inc
PO BOX 350
37 Copeland Ave
Homer, New York 13077

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JOB DESCRIPTION

NYSDEC Remedial Investigation

JOB NUMBER

480-208969-1

Eurofins Buffalo
10 Hazelwood Drive
Amherst NY 14228-2298

See page two for job notes and contact information.

Job Notes

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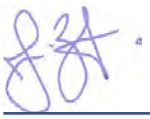
The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed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

Authorization



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Authorized for release by
John Beninati, Project Manager
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(716)504-9874

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Definitions/Glossary

Client: Geologic NY Inc
Job ID: 480-208969-1
Project/Site: NYSDEC Remedial Investigation

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
H	Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F1	MS and/or MSD recovery exceeds control limits.
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.

General Chemistry

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 ID: 480-208969-1

Laboratory: Eurofins Buffalo

Narrative

Job Narrative
480-208969-1

Comments
No additional comments.

Receipt
The samples were received on 5/17/2023 10:00 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 3.0º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-670065 recovered above the upper control limit for Chloromethane, Cyclohexane and Vinyl chloride. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: DP-1 0'-1' (480-208969-1), DP-2 0'-1' (480-208969-2), DP-4 0'-1' (480-208969-4) and DP-4 9'-9.7' (480-208969-5).

Method 8260C: The following sample was preserved via freezing on 5/17/2023 at 11:10: DP-1 0'-1' (480-208969-1) . This is outside the 48 hour time frame required by the method.

Method 8260C: The following samples were analyzed using medium level soil analysis due to the nature of the sample matrix: DP-3 0'-1' (480-208969-3) and DP-5 8.5'-9.5' (480-208969-7). Elevated reporting limits (RLs) are provided.

Method 8260C: The following sample was analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: DP-5 0'-2' (480-208969-6). Elevated reporting limits (RLs) are provided.

Method 8260C: The continuing calibration verification (CCV) associated with batch 670205 recovered above the upper control limit for 1,1,2-Trichloro-1,2,2-trifluoroethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: DP-3 0'-1' (480-208969-3), DP-5 0'-2' (480-208969-6) and DP-5 8.5'-9.5' (480-208969-7).

Method 8260C: The following sample was analyzed using medium level soil analysis and diluted to bring the concentration of target analytes within the calibration range: DP-5 0'-2' (480-208969-6). Elevated reporting limits (RLs) are provided.

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

Metals
Method 6010C: The recovery of post spike, (480-208969-B-2-A PDS), associated with batch 480-670509, exhibited a result outside quality control limits for Total Chromium. However, the serial dilution (SD) of this sample was compliant, therefore no corrective action was necessary.

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

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

Detection Summary

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-1 0'-1' — Lab Sample ID: 480-208969-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	9.9		2.4	0.48	mg/Kg	1	☼	6010C	Total/NA
Barium	105		0.60	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	3.1		0.24	0.036	mg/Kg	1	☼	6010C	Total/NA
Chromium	74.3		0.60	0.24	mg/Kg	1	☼	6010C	Total/NA
Copper	53.2		1.2	0.25	mg/Kg	1	☼	6010C	Total/NA
Lead	293		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Nickel	37.8		6.0	0.27	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.10		0.024	0.0055	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: DP-2 0'-1' — Lab Sample ID: 480-208969-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.6	J	5.3	1.2	ug/Kg	1	☼	8260C	Total/NA
Arsenic	13.5		2.5	0.51	mg/Kg	1	☼	6010C	Total/NA
Barium	102	F1	0.64	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.8		0.25	0.038	mg/Kg	1	☼	6010C	Total/NA
Chromium	219	F2	0.64	0.25	mg/Kg	1	☼	6010C	Total/NA
Copper	95.9	F1	1.3	0.27	mg/Kg	1	☼	6010C	Total/NA
Lead	84.8	F1 F2	1.3	0.31	mg/Kg	1	☼	6010C	Total/NA
Nickel	65.9	F1 F2	6.4	0.29	mg/Kg	1	☼	6010C	Total/NA
Selenium	0.82	J	5.1	0.51	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.13		0.026	0.0060	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	2.3	J	2.5	1.1	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DP-3 0'-1' — Lab Sample ID: 480-208969-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	500		60	17	ug/Kg	1	☼	8260C	Total/NA
Arsenic	11.5		2.4	0.49	mg/Kg	1	☼	6010C	Total/NA
Barium	170		0.61	0.13	mg/Kg	1	☼	6010C	Total/NA
Cadmium	1.9		0.24	0.037	mg/Kg	1	☼	6010C	Total/NA
Chromium	152		0.61	0.24	mg/Kg	1	☼	6010C	Total/NA
Copper	102		1.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Lead	300		1.2	0.29	mg/Kg	1	☼	6010C	Total/NA
Nickel	109		6.1	0.28	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.086		0.025	0.0058	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	2.1	J	2.5	1.1	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DP-4 0'-1' — Lab Sample ID: 480-208969-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.9	J	4.3	0.94	ug/Kg	1	☼	8260C	Total/NA
Arsenic	7.6		2.5	0.49	mg/Kg	1	☼	6010C	Total/NA
Barium	55.8		0.62	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J	0.25	0.037	mg/Kg	1	☼	6010C	Total/NA
Chromium	26.3		0.62	0.25	mg/Kg	1	☼	6010C	Total/NA
Copper	23.0		1.2	0.26	mg/Kg	1	☼	6010C	Total/NA
Lead	21.7		1.2	0.30	mg/Kg	1	☼	6010C	Total/NA
Nickel	20.8		6.2	0.28	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.052		0.022	0.0050	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-4 9'-9.7'

Lab Sample ID: 480-208969-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.1	J	4.2	0.53	ug/Kg	1	☼	8260C	Total/NA
Arsenic	6.3		2.2	0.44	mg/Kg	1	☼	6010C	Total/NA
Barium	77.7		0.55	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.14	J	0.22	0.033	mg/Kg	1	☼	6010C	Total/NA
Chromium	14.0		0.55	0.22	mg/Kg	1	☼	6010C	Total/NA
Copper	18.9		1.1	0.23	mg/Kg	1	☼	6010C	Total/NA
Lead	12.2		1.1	0.27	mg/Kg	1	☼	6010C	Total/NA
Nickel	25.9		5.5	0.25	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.013	J	0.019	0.0045	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: DP-5 0'-2'

Lab Sample ID: 480-208969-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	1300	J	2800	180	ug/Kg	10	☼	8260C	Total/NA
cis-1,2-Dichloroethene	2000		560	150	ug/Kg	10	☼	8260C	Total/NA
Ethylbenzene	16000		560	160	ug/Kg	10	☼	8260C	Total/NA
Isopropylbenzene	340	J	560	84	ug/Kg	10	☼	8260C	Total/NA
Trichloroethene	480	J	560	160	ug/Kg	10	☼	8260C	Total/NA
Xylenes, Total	80000	E	1100	310	ug/Kg	10	☼	8260C	Total/NA
4-Methyl-2-pentanone (MIBK) - DL	1600	J	5600	360	ug/Kg	20	☼	8260C	Total/NA
cis-1,2-Dichloroethene - DL	1800		1100	310	ug/Kg	20	☼	8260C	Total/NA
Ethylbenzene - DL	17000		1100	330	ug/Kg	20	☼	8260C	Total/NA
Isopropylbenzene - DL	390	J	1100	170	ug/Kg	20	☼	8260C	Total/NA
Trichloroethene - DL	490	J	1100	310	ug/Kg	20	☼	8260C	Total/NA
Xylenes, Total - DL	88000		2200	620	ug/Kg	20	☼	8260C	Total/NA
Arsenic	16.0		2.6	0.51	mg/Kg	1	☼	6010C	Total/NA
Barium	110		0.64	0.14	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.37		0.26	0.039	mg/Kg	1	☼	6010C	Total/NA
Chromium	27.3		0.64	0.26	mg/Kg	1	☼	6010C	Total/NA
Copper	26.6		1.3	0.27	mg/Kg	1	☼	6010C	Total/NA
Lead	22.4		1.3	0.31	mg/Kg	1	☼	6010C	Total/NA
Nickel	78.2		6.4	0.30	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.028		0.020	0.0046	mg/Kg	1	☼	7471B	Total/NA

Client Sample ID: DP-5 8.5'-9.5'

Lab Sample ID: 480-208969-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	55		45	14	ug/Kg	1	☼	8260C	Total/NA
cis-1,2-Dichloroethene	520		45	12	ug/Kg	1	☼	8260C	Total/NA
Trichloroethene	150		45	13	ug/Kg	1	☼	8260C	Total/NA
Arsenic	5.7		2.1	0.43	mg/Kg	1	☼	6010C	Total/NA
Barium	62.6		0.53	0.12	mg/Kg	1	☼	6010C	Total/NA
Cadmium	0.099	J	0.21	0.032	mg/Kg	1	☼	6010C	Total/NA
Chromium	12.5		0.53	0.21	mg/Kg	1	☼	6010C	Total/NA
Copper	18.1		1.1	0.22	mg/Kg	1	☼	6010C	Total/NA
Lead	10.5		1.1	0.26	mg/Kg	1	☼	6010C	Total/NA
Nickel	28.8		5.3	0.25	mg/Kg	1	☼	6010C	Total/NA
Mercury	0.0069	J	0.021	0.0049	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-1 0'-1'
Date Collected: 05/15/23 10:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-1
Matrix: Solid
Percent Solids: 81.4

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	H	4.9	0.36	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,2-Dichlorobenzene	ND	H	4.9	0.38	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,1,2,2-Tetrachloroethane	ND	H	4.9	0.80	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,1,2-Trichloroethane	ND	H	4.9	0.64	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	H	4.9	1.1	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,1-Dichloroethane	ND	H	4.9	0.60	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,1-Dichloroethene	ND	H	4.9	0.60	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,2,4-Trichlorobenzene	ND	H	4.9	0.30	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,2-Dibromo-3-Chloropropane	ND	H	4.9	2.5	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,2-Dichloroethane	ND	H	4.9	0.25	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,2-Dichloropropane	ND	H	4.9	2.5	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,3-Dichlorobenzene	ND	H	4.9	0.25	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,4-Dichlorobenzene	ND	H	4.9	0.69	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
2-Butanone (MEK)	ND	H	25	1.8	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
2-Hexanone	ND	H	25	2.5	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
4-Methyl-2-pentanone (MIBK)	ND	H	25	1.6	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Acetone	ND	H	25	4.1	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Benzene	ND	H	4.9	0.24	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Bromodichloromethane	ND	H	4.9	0.66	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Bromoform	ND	H	4.9	2.5	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Bromomethane	ND	H	4.9	0.44	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Carbon disulfide	ND	H	4.9	2.5	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Carbon tetrachloride	ND	H	4.9	0.47	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Chlorobenzene	ND	H	4.9	0.65	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Dibromochloromethane	ND	H	4.9	0.63	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Chloroethane	ND	H	4.9	1.1	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Chloroform	ND	H	4.9	0.30	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Chloromethane	ND	H	4.9	0.30	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
cis-1,2-Dichloroethene	ND	H	4.9	0.63	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
cis-1,3-Dichloropropene	ND	H	4.9	0.71	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Cyclohexane	ND	H	4.9	0.69	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Dichlorodifluoromethane	ND	H	4.9	0.41	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Ethylbenzene	ND	H	4.9	0.34	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
1,2-Dibromoethane	ND	H	4.9	0.63	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Isopropylbenzene	ND	H	4.9	0.74	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Methyl acetate	ND	H	25	3.0	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Methyl tert-butyl ether	ND	H	4.9	0.48	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Methylcyclohexane	ND	H	4.9	0.75	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Methylene Chloride	ND	H	4.9	2.3	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Styrene	ND	H	4.9	0.25	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Tetrachloroethene	ND	H	4.9	0.66	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Toluene	ND	H	4.9	0.37	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
trans-1,2-Dichloroethene	ND	H	4.9	0.51	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
trans-1,3-Dichloropropene	ND	H	4.9	2.2	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Trichloroethene	ND	H	4.9	1.1	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Trichlorofluoromethane	ND	H	4.9	0.46	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Vinyl chloride	ND	H	4.9	0.60	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1
Xylenes, Total	ND	H	9.8	0.82	ug/Kg	☼	05/17/23 11:10	05/18/23 22:58	1

Client Sample ID: DP-1 0'-1'

Date Collected: 05/15/23 10:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-1

Matrix: Solid
Percent Solids: 81.4

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*89*		*71 - 125*	*05/17/23 11:10*	*05/18/23 22:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*05/17/23 11:10*	*05/18/23 22:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*05/17/23 11:10*	*05/18/23 22:58*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*	*05/17/23 11:10*	*05/18/23 22:58*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.9**		2.4	0.48	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Barium	**105**		0.60	0.13	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Cadmium	**3.1**		0.24	0.036	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Chromium	**74.3**		0.60	0.24	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Copper	**53.2**		1.2	0.25	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Lead	**293**		1.2	0.29	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Nickel	**37.8**		6.0	0.27	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Selenium	ND		4.8	0.48	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1
Silver	ND		0.72	0.24	mg/Kg	☼	05/19/23 11:18	05/22/23 21:15	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.10**		0.024	0.0055	mg/Kg	☼	05/24/23 09:50	05/24/23 12:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.4	1.0	mg/Kg	☼	05/31/23 07:30	05/31/23 12:05	1

Client Sample ID: DP-2 0'-1'

Date Collected: 05/15/23 11:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-2

Matrix: Solid
Percent Solids: 78.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.3	0.38	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,2-Dichlorobenzene	ND		5.3	0.41	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,1,2,2-Tetrachloroethane	ND		5.3	0.85	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,1,2-Trichloroethane	ND		5.3	0.68	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.3	1.2	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,1-Dichloroethane	ND		5.3	0.64	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,1-Dichloroethene	ND		5.3	0.64	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,2,4-Trichlorobenzene	ND		5.3	0.32	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,2-Dibromo-3-Chloropropane	ND		5.3	2.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,2-Dichloroethane	ND		5.3	0.26	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,2-Dichloropropane	ND		5.3	2.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,3-Dichlorobenzene	ND		5.3	0.27	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,4-Dichlorobenzene	ND		5.3	0.74	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
2-Butanone (MEK)	ND		26	1.9	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
2-Hexanone	ND		26	2.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
4-Methyl-2-pentanone (MIBK)	ND		26	1.7	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Acetone	ND		26	4.4	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Benzene	ND		5.3	0.26	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Bromodichloromethane	ND		5.3	0.71	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Bromoform	ND		5.3	2.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1

Client Sample ID: DP-2 0'-1'
Date Collected: 05/15/23 11:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-2
Matrix: Solid
Percent Solids: 78.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		5.3	0.47	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Carbon disulfide	ND		5.3	2.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Carbon tetrachloride	ND		5.3	0.51	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Chlorobenzene	ND		5.3	0.70	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Dibromochloromethane	ND		5.3	0.67	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Chloroethane	ND		5.3	1.2	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Chloroform	ND		5.3	0.33	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Chloromethane	ND		5.3	0.32	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
cis-1,2-Dichloroethene	ND		5.3	0.67	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
cis-1,3-Dichloropropene	ND		5.3	0.76	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Cyclohexane	ND		5.3	0.74	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Dichlorodifluoromethane	ND		5.3	0.43	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Ethylbenzene	ND		5.3	0.36	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
1,2-Dibromoethane	ND		5.3	0.68	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Isopropylbenzene	ND		5.3	0.79	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Methyl acetate	ND		26	3.2	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Methyl tert-butyl ether	ND		5.3	0.52	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Methylcyclohexane	ND		5.3	0.80	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Methylene Chloride	ND		5.3	2.4	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Styrene	ND		5.3	0.26	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Tetrachloroethene	ND		5.3	0.71	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Toluene	ND		5.3	0.40	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
trans-1,2-Dichloroethene	ND		5.3	0.54	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
trans-1,3-Dichloropropene	ND		5.3	2.3	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Trichloroethene	**2.6**	**J**	5.3	1.2	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Trichlorofluoromethane	ND		5.3	0.50	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Vinyl chloride	ND		5.3	0.64	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1
Xylenes, Total	ND		11	0.88	ug/Kg	☼	05/17/23 11:10	05/18/23 23:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*90*		*71 - 125*	*05/17/23 11:10*	*05/18/23 23:22*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 126*	*05/17/23 11:10*	*05/18/23 23:22*	*1*
4-Bromofluorobenzene (Surr)	*91*		*72 - 126*	*05/17/23 11:10*	*05/18/23 23:22*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*	*05/17/23 11:10*	*05/18/23 23:22*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**13.5**		2.5	0.51	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Barium	**102**	**F1**	0.64	0.14	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Cadmium	**1.8**		0.25	0.038	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Chromium	**219**	**F2**	0.64	0.25	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Copper	**95.9**	**F1**	1.3	0.27	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Lead	**84.8**	**F1 F2**	1.3	0.31	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Nickel	**65.9**	**F1 F2**	6.4	0.29	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Selenium	**0.82**	**J**	5.1	0.51	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1
Silver	ND		0.76	0.25	mg/Kg	☼	05/19/23 11:18	05/22/23 21:19	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.13**		0.026	0.0060	mg/Kg	☼	05/24/23 09:50	05/24/23 12:54	1

Client Sample ID: DP-2 0'-1'

Lab Sample ID: 480-208969-2
Date Collected: 05/15/23 11:45
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 78.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	2.3	J	2.5	1.1	mg/Kg	☼	05/31/23 07:30	05/31/23 12:05	1

Client Sample ID: DP-3 0'-1'

Lab Sample ID: 480-208969-3
Date Collected: 05/15/23 12:35
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 79.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		60	17	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,1,2,2-Tetrachloroethane	ND		60	9.8	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		60	30	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,1,2-Trichloroethane	ND		60	13	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,1-Dichloroethane	ND		60	19	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,1-Dichloroethene	ND		60	21	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,2,4-Trichlorobenzene	ND		60	23	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,2-Dibromo-3-Chloropropane	ND		60	30	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,2-Dichlorobenzene	ND		60	15	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,2-Dichloroethane	ND		60	25	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,2-Dichloropropane	ND		60	9.7	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,3-Dichlorobenzene	ND		60	16	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,4-Dichlorobenzene	ND		60	8.4	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
2-Butanone (MEK)	ND		300	180	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
2-Hexanone	ND		300	120	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
4-Methyl-2-pentanone (MIBK)	ND		300	19	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Acetone	ND		300	250	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Benzene	ND		60	11	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Bromoform	ND		60	30	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Bromomethane	ND		60	13	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Carbon disulfide	ND		60	27	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Carbon tetrachloride	ND		60	15	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Chlorobenzene	ND		60	7.9	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Dibromochloromethane	ND		60	29	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Chloroethane	ND		60	12	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Chloroform	ND		60	41	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Chloromethane	ND		60	14	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
cis-1,2-Dichloroethene	ND		60	17	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Cyclohexane	ND		60	13	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Bromodichloromethane	ND		60	12	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Dichlorodifluoromethane	ND		60	26	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Ethylbenzene	ND		60	17	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
1,2-Dibromoethane	ND		60	11	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Isopropylbenzene	ND		60	9.0	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Methyl acetate	ND		300	29	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Methyl tert-butyl ether	ND		60	23	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Methylcyclohexane	ND		60	28	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Methylene Chloride	ND		60	12	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Tetrachloroethene	ND		60	8.1	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Toluene	ND		60	16	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
trans-1,2-Dichloroethene	ND		60	14	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
trans-1,3-Dichloropropene	ND		60	5.9	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1

Client Sample ID: DP-3 0'-1'
Lab Sample ID: 480-208969-3
Date Collected: 05/15/23 12:35
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 79.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**500**		60	17	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Trichlorofluoromethane	ND		60	28	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Vinyl chloride	ND		60	20	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Xylenes, Total	ND		120	33	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
cis-1,3-Dichloropropene	ND		60	14	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1
Styrene	ND		60	14	ug/Kg	☼	05/18/23 19:32	05/19/23 20:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*53 - 146*	*05/18/23 19:32*	*05/19/23 20:35*	*1*
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*	*05/18/23 19:32*	*05/19/23 20:35*	*1*
Toluene-d8 (Surr)	*102*		*50 - 149*	*05/18/23 19:32*	*05/19/23 20:35*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*	*05/18/23 19:32*	*05/19/23 20:35*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**11.5**		2.4	0.49	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Barium	**170**		0.61	0.13	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Cadmium	**1.9**		0.24	0.037	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Chromium	**152**		0.61	0.24	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Copper	**102**		1.2	0.26	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Lead	**300**		1.2	0.29	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Nickel	**109**		6.1	0.28	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Selenium	ND		4.9	0.49	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1
Silver	ND		0.73	0.24	mg/Kg	☼	05/19/23 11:18	05/22/23 21:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.086**		0.025	0.0058	mg/Kg	☼	05/24/23 09:50	05/24/23 12:55	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	**2.1**	**J**	2.5	1.1	mg/Kg	☼	05/31/23 07:30	05/31/23 12:05	1

Client Sample ID: DP-4 0'-1'
Lab Sample ID: 480-208969-4
Date Collected: 05/15/23 13:15
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 84.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.3	0.31	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,2-Dichlorobenzene	ND		4.3	0.33	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,1,2,2-Tetrachloroethane	ND		4.3	0.69	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,1,2-Trichloroethane	ND		4.3	0.56	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.3	0.98	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,1-Dichloroethane	ND		4.3	0.52	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,1-Dichloroethene	ND		4.3	0.52	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,2,4-Trichlorobenzene	ND		4.3	0.26	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,2-Dibromo-3-Chloropropane	ND		4.3	2.1	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,2-Dichloroethane	ND		4.3	0.22	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,2-Dichloropropane	ND		4.3	2.1	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,3-Dichlorobenzene	ND		4.3	0.22	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-4 0'-1'
Date Collected: 05/15/23 13:15
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-4
Matrix: Solid
Percent Solids: 84.0

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		4.3	0.60	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
2-Butanone (MEK)	ND		21	1.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Acetone	ND		21	3.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Benzene	ND		4.3	0.21	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Bromodichloromethane	ND		4.3	0.57	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Bromoform	ND		4.3	2.1	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Bromomethane	ND		4.3	0.39	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Carbon disulfide	ND		4.3	2.1	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Carbon tetrachloride	ND		4.3	0.41	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Chlorobenzene	ND		4.3	0.57	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Dibromochloromethane	ND		4.3	0.55	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Chloroethane	ND		4.3	0.97	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Chloroform	ND		4.3	0.26	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Chloromethane	ND		4.3	0.26	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
cis-1,2-Dichloroethene	ND		4.3	0.55	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
cis-1,3-Dichloropropene	ND		4.3	0.62	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Cyclohexane	ND		4.3	0.60	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Dichlorodifluoromethane	ND		4.3	0.35	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Ethylbenzene	ND		4.3	0.30	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
1,2-Dibromoethane	ND		4.3	0.55	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Isopropylbenzene	ND		4.3	0.65	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Methyl acetate	ND		21	2.6	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Methyl tert-butyl ether	ND		4.3	0.42	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Methylcyclohexane	ND		4.3	0.65	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Methylene Chloride	ND		4.3	2.0	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Styrene	ND		4.3	0.21	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Tetrachloroethene	ND		4.3	0.57	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Toluene	ND		4.3	0.32	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
trans-1,2-Dichloroethene	ND		4.3	0.44	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
trans-1,3-Dichloropropene	ND		4.3	1.9	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Trichloroethene	**1.9**	**J**	4.3	0.94	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Trichlorofluoromethane	ND		4.3	0.41	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Vinyl chloride	ND		4.3	0.52	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1
Xylenes, Total	ND		8.6	0.72	ug/Kg	☼	05/17/23 11:10	05/18/23 23:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*88*		*71 - 125*	*05/17/23 11:10*	*05/18/23 23:47*	*1*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 126*	*05/17/23 11:10*	*05/18/23 23:47*	*1*
4-Bromofluorobenzene (Surr)	*92*		*72 - 126*	*05/17/23 11:10*	*05/18/23 23:47*	*1*
Dibromofluoromethane (Surr)	*98*		*60 - 140*	*05/17/23 11:10*	*05/18/23 23:47*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**7.6**		2.5	0.49	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1
Barium	**55.8**		0.62	0.14	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1
Cadmium	**0.14**	**J**	0.25	0.037	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1
Chromium	**26.3**		0.62	0.25	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1
Copper	**23.0**		1.2	0.26	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1

Client Sample ID: DP-4 0'-1'

Lab Sample ID: 480-208969-4
Date Collected: 05/15/23 13:15
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 84.0

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**21.7**		1.2	0.30	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1
Nickel	**20.8**		6.2	0.28	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1
Selenium	ND		4.9	0.49	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1
Silver	ND		0.74	0.25	mg/Kg	☼	05/19/23 11:18	05/22/23 21:53	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.052**		0.022	0.0050	mg/Kg	☼	05/24/23 09:50	05/24/23 12:57	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.4	1.0	mg/Kg	☼	05/31/23 07:30	05/31/23 12:05	1

Client Sample ID: DP-4 9'-9.7'

Lab Sample ID: 480-208969-5
Date Collected: 05/15/23 13:25
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 91.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.2	0.30	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,2-Dichlorobenzene	ND		4.2	0.33	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,1,2,2-Tetrachloroethane	ND		4.2	0.68	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,1,2-Trichloroethane	ND		4.2	0.54	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		4.2	0.95	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,1-Dichloroethane	ND		4.2	0.51	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,1-Dichloroethene	ND		4.2	0.51	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,2,4-Trichlorobenzene	ND		4.2	0.25	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,2-Dibromo-3-Chloropropane	ND		4.2	2.1	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,2-Dichloroethane	ND		4.2	0.21	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,2-Dichloropropane	ND		4.2	2.1	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,3-Dichlorobenzene	ND		4.2	0.21	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,4-Dichlorobenzene	ND		4.2	0.59	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
2-Butanone (MEK)	ND		21	1.5	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
2-Hexanone	ND		21	2.1	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
4-Methyl-2-pentanone (MIBK)	ND		21	1.4	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Acetone	ND		21	3.5	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Benzene	ND		4.2	0.20	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Bromodichloromethane	ND		4.2	0.56	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Bromoform	ND		4.2	2.1	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Bromomethane	ND		4.2	0.38	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Carbon disulfide	ND		4.2	2.1	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Carbon tetrachloride	ND		4.2	0.40	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Chlorobenzene	ND		4.2	0.55	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Dibromochloromethane	ND		4.2	0.53	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Chloroethane	ND		4.2	0.94	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Chloroform	ND		4.2	0.26	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Chloromethane	ND		4.2	0.25	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
cis-1,2-Dichloroethene	**1.1**	**J**	4.2	0.53	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
cis-1,3-Dichloropropene	ND		4.2	0.60	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Cyclohexane	ND		4.2	0.59	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1

Client Sample ID: DP-4 9'-9.7'

Date Collected: 05/15/23 13:25
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-5
Matrix: Solid
Percent Solids: 91.8

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		4.2	0.35	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Ethylbenzene	ND		4.2	0.29	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
1,2-Dibromoethane	ND		4.2	0.54	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Isopropylbenzene	ND		4.2	0.63	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Methyl acetate	ND		21	2.5	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Methyl tert-butyl ether	ND		4.2	0.41	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Methylcyclohexane	ND		4.2	0.64	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Methylene Chloride	ND		4.2	1.9	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Styrene	ND		4.2	0.21	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Tetrachloroethene	ND		4.2	0.56	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Toluene	ND		4.2	0.32	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
trans-1,2-Dichloroethene	ND		4.2	0.43	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
trans-1,3-Dichloropropene	ND		4.2	1.8	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Trichloroethene	ND		4.2	0.92	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Trichlorofluoromethane	ND		4.2	0.40	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Vinyl chloride	ND		4.2	0.51	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1
Xylenes, Total	ND		8.4	0.70	ug/Kg	☼	05/17/23 11:10	05/19/23 00:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*88*		*71 - 125*	*05/17/23 11:10*	*05/19/23 00:11*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*05/17/23 11:10*	*05/19/23 00:11*	*1*
4-Bromofluorobenzene (Surr)	*92*		*72 - 126*	*05/17/23 11:10*	*05/19/23 00:11*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*	*05/17/23 11:10*	*05/19/23 00:11*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.3**		2.2	0.44	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Barium	**77.7**		0.55	0.12	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Cadmium	**0.14**	**J**	0.22	0.033	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Chromium	**14.0**		0.55	0.22	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Copper	**18.9**		1.1	0.23	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Lead	**12.2**		1.1	0.27	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Nickel	**25.9**		5.5	0.25	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Selenium	ND		4.4	0.44	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1
Silver	ND		0.66	0.22	mg/Kg	☼	05/19/23 11:18	05/22/23 21:57	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.013**	**J**	0.019	0.0045	mg/Kg	☼	05/24/23 09:50	05/24/23 12:58	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.1	0.91	mg/Kg	☼	05/31/23 09:55	05/31/23 14:30	1

Client Sample ID: DP-5 0'-2'

Date Collected: 05/15/23 14:00
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-6
Matrix: Solid
Percent Solids: 81.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		560	150	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10

Client Sample ID: DP-5 0'-2'
Date Collected: 05/15/23 14:00
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-6
Matrix: Solid
Percent Solids: 81.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		560	91	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		560	280	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,1,2-Trichloroethane	ND		560	120	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,1-Dichloroethane	ND		560	170	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,1-Dichloroethene	ND		560	190	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,2,4-Trichlorobenzene	ND		560	210	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,2-Dibromo-3-Chloropropane	ND		560	280	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,2-Dichlorobenzene	ND		560	140	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,2-Dichloroethane	ND		560	230	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,2-Dichloropropane	ND		560	90	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,3-Dichlorobenzene	ND		560	150	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,4-Dichlorobenzene	ND		560	78	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
2-Butanone (MEK)	ND		2800	1700	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
2-Hexanone	ND		2800	1100	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
4-Methyl-2-pentanone (MIBK)	**1300**	**J**	2800	180	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Acetone	ND		2800	2300	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Benzene	ND		560	110	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Bromoform	ND		560	280	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Bromomethane	ND		560	120	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Carbon disulfide	ND		560	250	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Carbon tetrachloride	ND		560	140	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Chlorobenzene	ND		560	74	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Dibromochloromethane	ND		560	270	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Chloroethane	ND		560	120	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Chloroform	ND		560	380	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Chloromethane	ND		560	130	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
cis-1,2-Dichloroethene	**2000**		560	150	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Cyclohexane	ND		560	120	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Bromodichloromethane	ND		560	110	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Dichlorodifluoromethane	ND		560	240	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Ethylbenzene	**16000**		560	160	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
1,2-Dibromoethane	ND		560	98	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Isopropylbenzene	**340**	**J**	560	84	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Methyl acetate	ND		2800	270	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Methyl tert-butyl ether	ND		560	210	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Methylcyclohexane	ND		560	260	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Methylene Chloride	ND		560	110	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Tetrachloroethene	ND		560	75	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Toluene	ND		560	150	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
trans-1,2-Dichloroethene	ND		560	130	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
trans-1,3-Dichloropropene	ND		560	55	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Trichloroethene	**480**	**J**	560	160	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Trichlorofluoromethane	ND		560	260	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Vinyl chloride	ND		560	190	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Xylenes, Total	**80000**	**E**	1100	310	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
cis-1,3-Dichloropropene	ND		560	130	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10
Styrene	ND		560	130	ug/Kg	☼	05/18/23 19:32	05/19/23 20:58	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*53 - 146*	*05/18/23 19:32*	*05/19/23 20:58*	*10*

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-5 0'-2'
Date Collected: 05/15/23 14:00
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-6
Matrix: Solid
Percent Solids: 81.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*	*05/18/23 19:32*	*05/19/23 20:58*	*10*
Toluene-d8 (Surr)	*105*		*50 - 149*	*05/18/23 19:32*	*05/19/23 20:58*	*10*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*05/18/23 19:32*	*05/19/23 20:58*	*10*

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1100	310	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,1,2,2-Tetrachloroethane	ND		1100	180	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1100	560	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,1,2-Trichloroethane	ND		1100	230	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,1-Dichloroethane	ND		1100	350	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,1-Dichloroethene	ND		1100	390	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,2,4-Trichlorobenzene	ND		1100	420	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,2-Dibromo-3-Chloropropane	ND		1100	560	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,2-Dichlorobenzene	ND		1100	280	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,2-Dichloroethane	ND		1100	460	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,2-Dichloropropane	ND		1100	180	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,3-Dichlorobenzene	ND		1100	300	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,4-Dichlorobenzene	ND		1100	160	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
2-Butanone (MEK)	ND		5600	3300	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
2-Hexanone	ND		5600	2300	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
4-Methyl-2-pentanone (MIBK)	**1600**	**J**	5600	360	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Acetone	ND		5600	4600	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Benzene	ND		1100	210	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Bromoform	ND		1100	560	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Bromomethane	ND		1100	250	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Carbon disulfide	ND		1100	510	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Carbon tetrachloride	ND		1100	280	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Chlorobenzene	ND		1100	150	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Dibromochloromethane	ND		1100	540	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Chloroethane	ND		1100	230	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Chloroform	ND		1100	770	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Chloromethane	ND		1100	270	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
cis-1,2-Dichloroethene	**1800**		1100	310	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Cyclohexane	ND		1100	250	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Bromodichloromethane	ND		1100	220	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Dichlorodifluoromethane	ND		1100	490	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Ethylbenzene	**17000**		1100	330	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
1,2-Dibromoethane	ND		1100	200	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Isopropylbenzene	**390**	**J**	1100	170	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Methyl acetate	ND		5600	530	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Methyl tert-butyl ether	ND		1100	420	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Methylcyclohexane	ND		1100	520	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Methylene Chloride	ND		1100	220	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Tetrachloroethene	ND		1100	150	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Toluene	ND		1100	300	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
trans-1,2-Dichloroethene	ND		1100	260	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
trans-1,3-Dichloropropene	ND		1100	110	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Trichloroethene	**490**	**J**	1100	310	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20

Client Sample ID: DP-5 0'-2'

Lab Sample ID: 480-208969-6
Date Collected: 05/15/23 14:00
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 81.5

Method: SW846 8260C - Volatile Organic Compounds by GC/MS - DL (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1100	520	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Vinyl chloride	ND		1100	370	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Xylenes, Total	**88000**		2200	620	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
cis-1,3-Dichloropropene	ND		1100	270	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20
Styrene	ND		1100	270	ug/Kg	☼	05/18/23 19:32	05/22/23 21:16	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*53 - 146*	*05/18/23 19:32*	*05/22/23 21:16*	*20*
4-Bromofluorobenzene (Surr)	*100*		*49 - 148*	*05/18/23 19:32*	*05/22/23 21:16*	*20*
Toluene-d8 (Surr)	*101*		*50 - 149*	*05/18/23 19:32*	*05/22/23 21:16*	*20*
Dibromofluoromethane (Surr)	*96*		*60 - 140*	*05/18/23 19:32*	*05/22/23 21:16*	*20*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**16.0**		2.6	0.51	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Barium	**110**		0.64	0.14	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Cadmium	**0.37**		0.26	0.039	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Chromium	**27.3**		0.64	0.26	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Copper	**26.6**		1.3	0.27	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Lead	**22.4**		1.3	0.31	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Nickel	**78.2**		6.4	0.30	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Selenium	ND		5.1	0.51	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1
Silver	ND		0.77	0.26	mg/Kg	☼	05/19/23 11:18	05/22/23 22:01	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.028**		0.020	0.0046	mg/Kg	☼	05/24/23 09:50	05/24/23 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.4	1.0	mg/Kg	☼	05/31/23 09:55	05/31/23 14:30	1

Client Sample ID: DP-5 8.5'-9.5'

Lab Sample ID: 480-208969-7
Date Collected: 05/15/23 14:25
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 90.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		45	13	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,1,2,2-Tetrachloroethane	ND		45	7.4	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		45	23	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,1,2-Trichloroethane	ND		45	9.5	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,1-Dichloroethane	**55**		45	14	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,1-Dichloroethene	ND		45	16	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,2,4-Trichlorobenzene	ND		45	17	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,2-Dibromo-3-Chloropropane	ND		45	23	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,2-Dichlorobenzene	ND		45	12	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,2-Dichloroethane	ND		45	19	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,2-Dichloropropane	ND		45	7.3	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,3-Dichlorobenzene	ND		45	12	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,4-Dichlorobenzene	ND		45	6.3	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1

Client Sample ID: DP-5 8.5'-9.5'
Date Collected: 05/15/23 14:25
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-7
Matrix: Solid
Percent Solids: 90.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		230	130	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
2-Hexanone	ND		230	93	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
4-Methyl-2-pentanone (MIBK)	ND		230	14	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Acetone	ND		230	190	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Benzene	ND		45	8.6	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Bromoform	ND		45	23	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Bromomethane	ND		45	10	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Carbon disulfide	ND		45	21	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Carbon tetrachloride	ND		45	12	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Chlorobenzene	ND		45	6.0	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Dibromochloromethane	ND		45	22	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Chloroethane	ND		45	9.4	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Chloroform	ND		45	31	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Chloromethane	ND		45	11	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
cis-1,2-Dichloroethene	**520**		45	12	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Cyclohexane	ND		45	10	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Bromodichloromethane	ND		45	9.1	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Dichlorodifluoromethane	ND		45	20	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Ethylbenzene	ND		45	13	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
1,2-Dibromoethane	ND		45	7.9	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Isopropylbenzene	ND		45	6.8	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Methyl acetate	ND		230	22	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Methyl tert-butyl ether	ND		45	17	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Methylcyclohexane	ND		45	21	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Methylene Chloride	ND		45	9.0	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Tetrachloroethene	ND		45	6.1	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Toluene	ND		45	12	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
trans-1,2-Dichloroethene	ND		45	11	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
trans-1,3-Dichloropropene	ND		45	4.5	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Trichloroethene	**150**		45	13	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Trichlorofluoromethane	ND		45	21	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Vinyl chloride	ND		45	15	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Xylenes, Total	ND		91	25	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
cis-1,3-Dichloropropene	ND		45	11	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1
Styrene	ND		45	11	ug/Kg	☼	05/18/23 19:32	05/19/23 21:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*53 - 146*	*05/18/23 19:32*	*05/19/23 21:22*	*1*
4-Bromofluorobenzene (Surr)	*105*		*49 - 148*	*05/18/23 19:32*	*05/19/23 21:22*	*1*
Toluene-d8 (Surr)	*107*		*50 - 149*	*05/18/23 19:32*	*05/19/23 21:22*	*1*
Dibromofluoromethane (Surr)	*100*		*60 - 140*	*05/18/23 19:32*	*05/19/23 21:22*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.7**		2.1	0.43	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1
Barium	**62.6**		0.53	0.12	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1
Cadmium	**0.099**	**J**	0.21	0.032	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1
Chromium	**12.5**		0.53	0.21	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1
Copper	**18.1**		1.1	0.22	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1
Lead	**10.5**		1.1	0.26	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-5 8.5'-9.5'
Date Collected: 05/15/23 14:25
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-7
Matrix: Solid
Percent Solids: 90.6

Method: SW846 6010C - Metals (ICP) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	**28.8**		5.3	0.25	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1
Selenium	ND		4.3	0.43	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1
Silver	ND		0.64	0.21	mg/Kg	☼	05/19/23 11:18	05/22/23 22:05	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0069**	**J**	0.021	0.0049	mg/Kg	☼	05/24/23 09:50	05/24/23 13:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.2	0.91	mg/Kg	☼	05/31/23 09:55	05/31/23 14:30	1

Surrogate Summary

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		TOL	DCA	BFB	DBFM
Lab Sample ID	Client Sample ID	(71-125)	(64-126)	(72-126)	(60-140)
480-208969-1	DP-1 0'-1'	89	102	93	100
480-208969-2	DP-2 0'-1'	90	102	91	98
480-208969-4	DP-4 0'-1'	88	98	92	98
480-208969-5	DP-4 9'-9.7'	88	105	92	100
LCS 480-670064/1-A	Lab Control Sample	91	99	92	96
MB 480-670064/2-A	Method Blank	89	97	92	97

Surrogate Legend

TOL = Toluene-d8 (Surr)
DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

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

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	TOL	DBFM
Lab Sample ID	Client Sample ID	(53-146)	(49-148)	(50-149)	(60-140)
480-208969-3	DP-3 0'-1'	100	100	102	100
480-208969-6	DP-5 0'-2'	97	100	105	102
480-208969-6 - DL	DP-5 0'-2'	98	100	101	96
480-208969-7	DP-5 8.5'-9.5'	104	105	107	100
LCS 480-670071/1-A	Lab Control Sample	98	99	106	102
MB 480-670071/3-A	Method Blank	101	98	103	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
TOL = Toluene-d8 (Surr)
DBFM = Dibromofluoromethane (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 480-670064/2-A
Matrix: Solid
Analysis Batch: 670065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670064

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.36	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.81	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,1,2-Trichloroethane	ND		5.0	0.65	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.1	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,1-Dichloroethane	ND		5.0	0.61	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,1-Dichloroethene	ND		5.0	0.61	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0	2.5	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,2-Dichlorobenzene	ND		5.0	0.39	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,2-Dichloroethane	ND		5.0	0.25	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,2-Dichloropropane	ND		5.0	2.5	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,3-Dichlorobenzene	ND		5.0	0.26	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,4-Dichlorobenzene	ND		5.0	0.70	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
2-Butanone (MEK)	ND		25	1.8	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
2-Hexanone	ND		25	2.5	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
4-Methyl-2-pentanone (MIBK)	ND		25	1.6	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Acetone	ND		25	4.2	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Benzene	ND		5.0	0.25	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Bromoform	ND		5.0	2.5	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Bromomethane	ND		5.0	0.45	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Carbon disulfide	ND		5.0	2.5	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Carbon tetrachloride	ND		5.0	0.48	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Chlorobenzene	ND		5.0	0.66	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Dibromochloromethane	ND		5.0	0.64	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Chloroethane	ND		5.0	1.1	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Chloroform	ND		5.0	0.31	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Chloromethane	ND		5.0	0.30	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
cis-1,2-Dichloroethene	ND		5.0	0.64	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Cyclohexane	ND		5.0	0.70	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Bromodichloromethane	ND		5.0	0.67	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Dichlorodifluoromethane	ND		5.0	0.41	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Ethylbenzene	ND		5.0	0.35	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
1,2-Dibromoethane	ND		5.0	0.64	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Isopropylbenzene	ND		5.0	0.75	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Methyl acetate	ND		25	3.0	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Methyl tert-butyl ether	ND		5.0	0.49	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Methylcyclohexane	ND		5.0	0.76	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Methylene Chloride	ND		5.0	2.3	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Tetrachloroethene	ND		5.0	0.67	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Toluene	ND		5.0	0.38	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
trans-1,2-Dichloroethene	ND		5.0	0.52	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
trans-1,3-Dichloropropene	ND		5.0	2.2	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Trichloroethene	ND		5.0	1.1	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Trichlorofluoromethane	ND		5.0	0.47	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Vinyl chloride	ND		5.0	0.61	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Xylenes, Total	ND		10	0.84	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
cis-1,3-Dichloropropene	ND		5.0	0.72	ug/Kg		05/18/23 17:27	05/18/23 21:20	1
Styrene	ND		5.0	0.25	ug/Kg		05/18/23 17:27	05/18/23 21:20	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-670064/2-A
Matrix: Solid
Analysis Batch: 670065

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670064

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	*89*		*71 - 125*	*05/18/23 17:27*	*05/18/23 21:20*	*1*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 126*	*05/18/23 17:27*	*05/18/23 21:20*	*1*
4-Bromofluorobenzene (Surr)	*92*		*72 - 126*	*05/18/23 17:27*	*05/18/23 21:20*	*1*
Dibromofluoromethane (Surr)	*97*		*60 - 140*	*05/18/23 17:27*	*05/18/23 21:20*	*1*

Lab Sample ID: LCS 480-670064/1-A
Matrix: Solid
Analysis Batch: 670065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670064

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	50.0	50.3		ug/Kg		101	77 - 121
1,1,2,2-Tetrachloroethane	50.0	46.5		ug/Kg		93	80 - 120
1,1,2-Trichloroethane	50.0	45.7		ug/Kg		91	78 - 122
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	54.8		ug/Kg		110	60 - 140
1,1-Dichloroethane	50.0	53.8		ug/Kg		108	73 - 126
1,1-Dichloroethene	50.0	50.7		ug/Kg		101	59 - 125
1,2,4-Trichlorobenzene	50.0	40.3		ug/Kg		81	64 - 120
1,2-Dibromo-3-Chloropropane	50.0	43.3		ug/Kg		87	63 - 124
1,2-Dichlorobenzene	50.0	41.7		ug/Kg		83	75 - 120
1,2-Dichloroethane	50.0	49.5		ug/Kg		99	77 - 122
1,2-Dichloropropane	50.0	55.1		ug/Kg		110	75 - 124
1,3-Dichlorobenzene	50.0	42.0		ug/Kg		84	74 - 120
1,4-Dichlorobenzene	50.0	41.7		ug/Kg		83	73 - 120
2-Butanone (MEK)	250	298		ug/Kg		119	70 - 134
2-Hexanone	250	266		ug/Kg		106	59 - 130
4-Methyl-2-pentanone (MIBK)	250	260		ug/Kg		104	65 - 133
Acetone	250	278		ug/Kg		111	61 - 137
Benzene	50.0	52.0		ug/Kg		104	79 - 127
Bromoform	50.0	40.6		ug/Kg		81	68 - 126
Bromomethane	50.0	50.4		ug/Kg		101	37 - 149
Carbon disulfide	50.0	51.4		ug/Kg		103	64 - 131
Carbon tetrachloride	50.0	43.8		ug/Kg		88	75 - 135
Chlorobenzene	50.0	42.7		ug/Kg		85	76 - 124
Dibromochloromethane	50.0	43.0		ug/Kg		86	76 - 125
Chloroethane	50.0	54.1		ug/Kg		108	69 - 135
Chloroform	50.0	48.4		ug/Kg		97	80 - 120
Chloromethane	50.0	57.5		ug/Kg		115	63 - 127
cis-1,2-Dichloroethene	50.0	51.1		ug/Kg		102	81 - 120
Cyclohexane	50.0	60.2		ug/Kg		120	65 - 120
Bromodichloromethane	50.0	50.9		ug/Kg		102	80 - 122
Dichlorodifluoromethane	50.0	49.5		ug/Kg		99	57 - 142
Ethylbenzene	50.0	44.3		ug/Kg		89	80 - 120
1,2-Dibromoethane	50.0	42.9		ug/Kg		86	78 - 120
Isopropylbenzene	50.0	45.1		ug/Kg		90	72 - 120
Methyl acetate	100	109		ug/Kg		109	55 - 136
Methyl tert-butyl ether	50.0	52.5		ug/Kg		105	63 - 125
Methylcyclohexane	50.0	52.2		ug/Kg		104	60 - 140
Methylene Chloride	50.0	52.9		ug/Kg		106	61 - 127

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-670064/1-A
Matrix: Solid
Analysis Batch: 670065

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670064

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Tetrachloroethene	50.0	40.5		ug/Kg		81	74 - 122
Toluene	50.0	44.5		ug/Kg		89	74 - 128
trans-1,2-Dichloroethene	50.0	51.0		ug/Kg		102	78 - 126
Trichloroethene	50.0	49.6		ug/Kg		99	77 - 129
Trichlorofluoromethane	50.0	50.6		ug/Kg		101	65 - 146
Vinyl chloride	50.0	55.0		ug/Kg		110	61 - 133
cis-1,3-Dichloropropene	50.0	51.3		ug/Kg		103	80 - 120
Styrene	50.0	43.6		ug/Kg		87	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*91*		*71 - 125*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 126*
4-Bromofluorobenzene (Surr)	*92*		*72 - 126*
Dibromofluoromethane (Surr)	*96*		*60 - 140*

Lab Sample ID: MB 480-670071/3-A
Matrix: Solid
Analysis Batch: 670205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		100	28	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,1,2,2-Tetrachloroethane	ND		100	16	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,1,2-Trichloroethane	ND		100	21	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		100	50	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,1-Dichloroethane	ND		100	31	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,1-Dichloroethene	ND		100	35	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,2,4-Trichlorobenzene	ND		100	38	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,2-Dibromo-3-Chloropropane	ND		100	50	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,2-Dichlorobenzene	ND		100	26	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,2-Dichloroethane	ND		100	41	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,2-Dichloropropane	ND		100	16	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,3-Dichlorobenzene	ND		100	27	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,4-Dichlorobenzene	ND		100	14	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
2-Butanone (MEK)	ND		500	300	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
2-Hexanone	ND		500	210	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
4-Methyl-2-pentanone (MIBK)	ND		500	32	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Acetone	ND		500	410	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Benzene	ND		100	19	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Bromoform	ND		100	50	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Bromomethane	ND		100	22	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Carbon disulfide	ND		100	46	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Carbon tetrachloride	ND		100	26	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Chlorobenzene	ND		100	13	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Dibromochloromethane	ND		100	48	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Chloroethane	ND		100	21	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Chloroform	ND		100	69	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Chloromethane	ND		100	24	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
cis-1,2-Dichloroethene	ND		100	28	ug/Kg		05/18/23 19:32	05/19/23 18:43	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 480-670071/3-A
Matrix: Solid
Analysis Batch: 670205

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670071

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyclohexane	ND		100	22	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Bromodichloromethane	ND		100	20	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Dichlorodifluoromethane	ND		100	44	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Ethylbenzene	ND		100	29	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
1,2-Dibromoethane	ND		100	18	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Isopropylbenzene	ND		100	15	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Methyl acetate	ND		500	48	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Methyl tert-butyl ether	ND		100	38	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Methylcyclohexane	ND		100	47	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Methylene Chloride	ND		100	20	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Tetrachloroethene	ND		100	13	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Toluene	ND		100	27	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
trans-1,2-Dichloroethene	ND		100	24	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
trans-1,3-Dichloropropene	ND		100	9.8	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Trichloroethene	ND		100	28	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Trichlorofluoromethane	ND		100	47	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Vinyl chloride	ND		100	34	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Xylenes, Total	ND		200	55	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
cis-1,3-Dichloropropene	ND		100	24	ug/Kg		05/18/23 19:32	05/19/23 18:43	1
Styrene	ND		100	24	ug/Kg		05/18/23 19:32	05/19/23 18:43	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*103*		*50 - 149*	*05/18/23 19:32*	*05/19/23 18:43*	*1*
1,2-Dichloroethane-d4 (Surr)	*101*		*53 - 146*	*05/18/23 19:32*	*05/19/23 18:43*	*1*
4-Bromofluorobenzene (Surr)	*98*		*49 - 148*	*05/18/23 19:32*	*05/19/23 18:43*	*1*
Dibromofluoromethane (Surr)	*99*		*60 - 140*	*05/18/23 19:32*	*05/19/23 18:43*	*1*

Lab Sample ID: LCS 480-670071/1-A
Matrix: Solid
Analysis Batch: 670205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	2500	2290		ug/Kg		92	68 - 130
1,1,2,2-Tetrachloroethane	2500	2300		ug/Kg		92	73 - 120
1,1,2-Trichloroethane	2500	2370		ug/Kg		95	80 - 120
1,1,2-Trichloro-1,2,2-trifluoroethane	2500	2480		ug/Kg		99	10 - 179
1,1-Dichloroethane	2500	2250		ug/Kg		90	78 - 121
1,1-Dichloroethene	2500	1970		ug/Kg		79	48 - 133
1,2,4-Trichlorobenzene	2500	2090		ug/Kg		84	70 - 140
1,2-Dibromo-3-Chloropropane	2500	1870		ug/Kg		75	56 - 122
1,2-Dichlorobenzene	2500	2350		ug/Kg		94	78 - 125
1,2-Dichloroethane	2500	2120		ug/Kg		85	74 - 127
1,2-Dichloropropane	2500	2170		ug/Kg		87	80 - 120
1,3-Dichlorobenzene	2500	2430		ug/Kg		97	80 - 120
1,4-Dichlorobenzene	2500	2310		ug/Kg		92	80 - 120
2-Butanone (MEK)	12500	10100		ug/Kg		81	54 - 149
2-Hexanone	12500	10400		ug/Kg		83	59 - 127
4-Methyl-2-pentanone (MIBK)	12500	9890		ug/Kg		79	74 - 120

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 480-670071/1-A
Matrix: Solid
Analysis Batch: 670205

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670071

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Acetone	12500	11200		ug/Kg		90	47 - 141
Benzene	2500	2230		ug/Kg		89	77 - 125
Bromoform	2500	1970		ug/Kg		79	48 - 125
Bromomethane	2500	2500		ug/Kg		100	39 - 149
Carbon disulfide	2500	2160		ug/Kg		87	40 - 136
Carbon tetrachloride	2500	2250		ug/Kg		90	54 - 135
Chlorobenzene	2500	2410		ug/Kg		97	76 - 126
Dibromochloromethane	2500	2230		ug/Kg		89	64 - 120
Chloroethane	2500	2250		ug/Kg		90	23 - 150
Chloroform	2500	2170		ug/Kg		87	78 - 120
Chloromethane	2500	2610		ug/Kg		104	61 - 124
cis-1,2-Dichloroethene	2500	2250		ug/Kg		90	79 - 124
Cyclohexane	2500	2300		ug/Kg		92	49 - 129
Bromodichloromethane	2500	2040		ug/Kg		82	71 - 121
Dichlorodifluoromethane	2500	2350		ug/Kg		94	10 - 150
Ethylbenzene	2500	2430		ug/Kg		97	78 - 124
1,2-Dibromoethane	2500	2270		ug/Kg		91	80 - 120
Isopropylbenzene	2500	2560		ug/Kg		102	76 - 120
Methyl acetate	5000	3730		ug/Kg		75	71 - 123
Methyl tert-butyl ether	2500	2100		ug/Kg		84	67 - 137
Methylcyclohexane	2500	2360		ug/Kg		94	50 - 130
Methylene Chloride	2500	2180		ug/Kg		87	75 - 118
Tetrachloroethene	2500	2490		ug/Kg		99	73 - 133
Toluene	2500	2410		ug/Kg		96	75 - 124
trans-1,2-Dichloroethene	2500	2200		ug/Kg		88	74 - 129
Trichloroethene	2500	2240		ug/Kg		89	75 - 131
Trichlorofluoromethane	2500	2660		ug/Kg		106	29 - 158
Vinyl chloride	2500	2590		ug/Kg		104	59 - 124
cis-1,3-Dichloropropene	2500	2080		ug/Kg		83	75 - 121
Styrene	2500	2370		ug/Kg		95	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*106*		*50 - 149*
1,2-Dichloroethane-d4 (Surr)	*98*		*53 - 146*
4-Bromofluorobenzene (Surr)	*99*		*49 - 148*
Dibromofluoromethane (Surr)	*102*		*60 - 140*

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 480-670161/1-A
Matrix: Solid
Analysis Batch: 670509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670161

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.1	0.41	mg/Kg		05/19/23 11:18	05/22/23 21:03	1
Barium	ND		0.52	0.11	mg/Kg		05/19/23 11:18	05/22/23 21:03	1
Cadmium	ND		0.21	0.031	mg/Kg		05/19/23 11:18	05/22/23 21:03	1
Chromium	ND		0.52	0.21	mg/Kg		05/19/23 11:18	05/22/23 21:03	1
Copper	ND		1.0	0.22	mg/Kg		05/19/23 11:18	05/22/23 21:03	1

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: MB 480-670161/1-A
Matrix: Solid
Analysis Batch: 670509

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670161

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.0	0.25	mg/Kg		05/19/23 11:18	05/22/23 21:03	1
Nickel	ND		5.2	0.24	mg/Kg		05/19/23 11:18	05/22/23 21:03	1
Selenium	ND		4.1	0.41	mg/Kg		05/19/23 11:18	05/22/23 21:03	1
Silver	ND		0.62	0.21	mg/Kg		05/19/23 11:18	05/22/23 21:03	1

Lab Sample ID: LCSSRM 480-670161/2-A
Matrix: Solid
Analysis Batch: 670509

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670161

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	129	105.7		mg/Kg		81.9	60.9 - 113.2
Barium	169	153.3		mg/Kg		90.7	68.6 - 114.2
Cadmium	227	186.1		mg/Kg		82.0	64.8 - 110.1
Chromium	115	100.6		mg/Kg		87.5	62.4 - 115.7
Copper	76.0	68.06		mg/Kg		89.6	69.5 - 115.8
Lead	74.8	81.39		mg/Kg		108.8	67.0 - 128.9
Nickel	282	277.4		mg/Kg		98.4	62.1 - 114.9
Selenium	246	200.9		mg/Kg		81.7	60.2 - 114.6
Silver	87.5	71.39		mg/Kg		81.6	63.7 - 115.4

Lab Sample ID: 480-208969-2 MS
Matrix: Solid
Analysis Batch: 670509

Client Sample ID: DP-2 0'-1'
Prep Type: Total/NA
Prep Batch: 670161

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	13.5		51.1	62.11		mg/Kg	☼	95	75 - 125
Barium	102	F1	51.1	173.8	F1	mg/Kg	☼	141	75 - 125
Cadmium	1.8		51.1	53.02		mg/Kg	☼	100	75 - 125
Chromium	219	F2	51.2	351.2	4	mg/Kg	☼	259	75 - 125
Copper	95.9	F1	51.1	166.9	F1	mg/Kg	☼	139	75 - 125
Lead	84.8	F1 F2	51.1	185.1	F1	mg/Kg	☼	196	75 - 125
Nickel	65.9	F1 F2	51.1	178.5	F1	mg/Kg	☼	220	75 - 125
Selenium	0.82	J	51.1	49.68		mg/Kg	☼	96	75 - 125
Silver	ND		12.8	11.87		mg/Kg	☼	93	75 - 125

Lab Sample ID: 480-208969-2 MSD
Matrix: Solid
Analysis Batch: 670509

Client Sample ID: DP-2 0'-1'
Prep Type: Total/NA
Prep Batch: 670161

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	13.5		51.8	60.22		mg/Kg	☼	90	75 - 125	3	20
Barium	102	F1	51.8	202.1	F1	mg/Kg	☼	194	75 - 125	15	20
Cadmium	1.8		51.8	50.21		mg/Kg	☼	94	75 - 125	5	20

Method: 6010C - Metals (ICP) (Continued)

Lab Sample ID: 480-208969-2 MSD
Matrix: Solid
Analysis Batch: 670509

Client Sample ID: DP-2 0'-1'
Prep Type: Total/NA
Prep Batch: 670161

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chromium	219	F2	51.9	266.0	4 F2	mg/Kg	☼	91	75 - 125	28	20
Copper	95.9	F1	51.8	136.8		mg/Kg	☼	79	75 - 125	20	20
Lead	84.8	F1 F2	51.8	135.7	F2	mg/Kg	☼	98	75 - 125	31	20
Nickel	65.9	F1 F2	51.8	122.8	F2	mg/Kg	☼	110	75 - 125	37	20
Selenium	0.82	J	51.8	47.22		mg/Kg	☼	90	75 - 125	5	20
Silver	ND		12.9	11.74		mg/Kg	☼	91	75 - 125	1	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 480-670567/1-A
Matrix: Solid
Analysis Batch: 670722

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670567

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020	0.0047	mg/Kg		05/24/23 09:50	05/24/23 12:46	1

Lab Sample ID: LCSSRM 480-670567/2-A ^10
Matrix: Solid
Analysis Batch: 670722

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670567

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	20.7	12.07		mg/Kg		58.3	38.3 - 110.1

Lab Sample ID: 480-208969-1 MS
Matrix: Solid
Analysis Batch: 670722

Client Sample ID: DP-1 0'-1'
Prep Type: Total/NA
Prep Batch: 670567

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.10		0.412	0.497		mg/Kg	☼	96	80 - 120

Lab Sample ID: 480-208969-1 MSD
Matrix: Solid
Analysis Batch: 670722

Client Sample ID: DP-1 0'-1'
Prep Type: Total/NA
Prep Batch: 670567

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.10		0.424	0.479		mg/Kg	☼	90	80 - 120	4	20

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 460-912340/1-A
Matrix: Solid
Analysis Batch: 912482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 912340

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0	0.85	mg/Kg		05/31/23 07:30	05/31/23 11:00	1

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSI 460-912340/3-A
Matrix: Solid
Analysis Batch: 912482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 912340

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	698.1		mg/Kg		99	80 - 120

Lab Sample ID: LCSSRM 460-912340/2-A
Matrix: Solid
Analysis Batch: 912482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 912340

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	11.1	11.09		mg/Kg		99.8	83.8 - 114.7

Lab Sample ID: MB 460-912394/1-A
Matrix: Solid
Analysis Batch: 912485

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 912394

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		2.0	0.85	mg/Kg		05/31/23 09:55	05/31/23 14:30	1

Lab Sample ID: LCSI 460-912394/3-A
Matrix: Solid
Analysis Batch: 912485

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 912394

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	708	741.1		mg/Kg		105	80 - 120

Lab Sample ID: LCSSRM 460-912394/2-A
Matrix: Solid
Analysis Batch: 912485

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 912394

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	11.1	10.76		mg/Kg		96.8	83.8 - 114.7

GC/MS VOA

Prep Batch: 670064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	5035A_L	
480-208969-2	DP-2 0'-1'	Total/NA	Solid	5035A_L	
480-208969-4	DP-4 0'-1'	Total/NA	Solid	5035A_L	
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	5035A_L	
MB 480-670064/2-A	Method Blank	Total/NA	Solid	5035A_L	
LCS 480-670064/1-A	Lab Control Sample	Total/NA	Solid	5035A_L	

Analysis Batch: 670065

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	8260C	670064
480-208969-2	DP-2 0'-1'	Total/NA	Solid	8260C	670064
480-208969-4	DP-4 0'-1'	Total/NA	Solid	8260C	670064
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	8260C	670064
MB 480-670064/2-A	Method Blank	Total/NA	Solid	8260C	670064
LCS 480-670064/1-A	Lab Control Sample	Total/NA	Solid	8260C	670064

Prep Batch: 670071

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-3	DP-3 0'-1'	Total/NA	Solid	5035A_H	
480-208969-6 - DL	DP-5 0'-2'	Total/NA	Solid	5035A_H	
480-208969-6	DP-5 0'-2'	Total/NA	Solid	5035A_H	
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	5035A_H	
MB 480-670071/3-A	Method Blank	Total/NA	Solid	5035A_H	
LCS 480-670071/1-A	Lab Control Sample	Total/NA	Solid	5035A_H	

Analysis Batch: 670205

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-3	DP-3 0'-1'	Total/NA	Solid	8260C	670071
480-208969-6	DP-5 0'-2'	Total/NA	Solid	8260C	670071
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	8260C	670071
MB 480-670071/3-A	Method Blank	Total/NA	Solid	8260C	670071
LCS 480-670071/1-A	Lab Control Sample	Total/NA	Solid	8260C	670071

Analysis Batch: 670344

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-6 - DL	DP-5 0'-2'	Total/NA	Solid	8260C	670071

Metals

Prep Batch: 670161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	3050B	
480-208969-2	DP-2 0'-1'	Total/NA	Solid	3050B	
480-208969-3	DP-3 0'-1'	Total/NA	Solid	3050B	
480-208969-4	DP-4 0'-1'	Total/NA	Solid	3050B	
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	3050B	
480-208969-6	DP-5 0'-2'	Total/NA	Solid	3050B	
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	3050B	
MB 480-670161/1-A	Method Blank	Total/NA	Solid	3050B	
LCSSRM 480-670161/2-A	Lab Control Sample	Total/NA	Solid	3050B	
480-208969-2 MS	DP-2 0'-1'	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 670161 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-2 MSD	DP-2 0'-1'	Total/NA	Solid	3050B	

Analysis Batch: 670509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	6010C	670161
480-208969-2	DP-2 0'-1'	Total/NA	Solid	6010C	670161
480-208969-3	DP-3 0'-1'	Total/NA	Solid	6010C	670161
480-208969-4	DP-4 0'-1'	Total/NA	Solid	6010C	670161
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	6010C	670161
480-208969-6	DP-5 0'-2'	Total/NA	Solid	6010C	670161
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	6010C	670161
MB 480-670161/1-A	Method Blank	Total/NA	Solid	6010C	670161
LCSSRM 480-670161/2-A	Lab Control Sample	Total/NA	Solid	6010C	670161
480-208969-2 MS	DP-2 0'-1'	Total/NA	Solid	6010C	670161
480-208969-2 MSD	DP-2 0'-1'	Total/NA	Solid	6010C	670161

Prep Batch: 670567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	7471B	
480-208969-2	DP-2 0'-1'	Total/NA	Solid	7471B	
480-208969-3	DP-3 0'-1'	Total/NA	Solid	7471B	
480-208969-4	DP-4 0'-1'	Total/NA	Solid	7471B	
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	7471B	
480-208969-6	DP-5 0'-2'	Total/NA	Solid	7471B	
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	7471B	
MB 480-670567/1-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 480-670567/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	
480-208969-1 MS	DP-1 0'-1'	Total/NA	Solid	7471B	
480-208969-1 MSD	DP-1 0'-1'	Total/NA	Solid	7471B	

Analysis Batch: 670722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	7471B	670567
480-208969-2	DP-2 0'-1'	Total/NA	Solid	7471B	670567
480-208969-3	DP-3 0'-1'	Total/NA	Solid	7471B	670567
480-208969-4	DP-4 0'-1'	Total/NA	Solid	7471B	670567
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	7471B	670567
480-208969-6	DP-5 0'-2'	Total/NA	Solid	7471B	670567
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	7471B	670567
MB 480-670567/1-A	Method Blank	Total/NA	Solid	7471B	670567
LCSSRM 480-670567/2-A ^1	Lab Control Sample	Total/NA	Solid	7471B	670567
480-208969-1 MS	DP-1 0'-1'	Total/NA	Solid	7471B	670567
480-208969-1 MSD	DP-1 0'-1'	Total/NA	Solid	7471B	670567

General Chemistry

Analysis Batch: 669872

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	Moisture	
480-208969-2	DP-2 0'-1'	Total/NA	Solid	Moisture	
480-208969-3	DP-3 0'-1'	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 669872 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-4	DP-4 0'-1'	Total/NA	Solid	Moisture	
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	Moisture	
480-208969-6	DP-5 0'-2'	Total/NA	Solid	Moisture	
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	Moisture	
480-208969-7 DU	DP-5 8.5'-9.5'	Total/NA	Solid	Moisture	

Prep Batch: 912340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	3060A	
480-208969-2	DP-2 0'-1'	Total/NA	Solid	3060A	
480-208969-3	DP-3 0'-1'	Total/NA	Solid	3060A	
480-208969-4	DP-4 0'-1'	Total/NA	Solid	3060A	
MB 460-912340/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-912340/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-912340/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Prep Batch: 912394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	3060A	
480-208969-6	DP-5 0'-2'	Total/NA	Solid	3060A	
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	3060A	
MB 460-912394/1-A	Method Blank	Total/NA	Solid	3060A	
LCSI 460-912394/3-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSSRM 460-912394/2-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 912482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-1	DP-1 0'-1'	Total/NA	Solid	7196A	912340
480-208969-2	DP-2 0'-1'	Total/NA	Solid	7196A	912340
480-208969-3	DP-3 0'-1'	Total/NA	Solid	7196A	912340
480-208969-4	DP-4 0'-1'	Total/NA	Solid	7196A	912340
MB 460-912340/1-A	Method Blank	Total/NA	Solid	7196A	912340
LCSI 460-912340/3-A	Lab Control Sample	Total/NA	Solid	7196A	912340
LCSSRM 460-912340/2-A	Lab Control Sample	Total/NA	Solid	7196A	912340

Analysis Batch: 912485

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-208969-5	DP-4 9'-9.7'	Total/NA	Solid	7196A	912394
480-208969-6	DP-5 0'-2'	Total/NA	Solid	7196A	912394
480-208969-7	DP-5 8.5'-9.5'	Total/NA	Solid	7196A	912394
MB 460-912394/1-A	Method Blank	Total/NA	Solid	7196A	912394
LCSI 460-912394/3-A	Lab Control Sample	Total/NA	Solid	7196A	912394
LCSSRM 460-912394/2-A	Lab Control Sample	Total/NA	Solid	7196A	912394

Lab Chronicle

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-1 0'-1'
Date Collected: 05/15/23 10:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	669872	JMM	EET BUF	05/17/23 16:10

Client Sample ID: DP-1 0'-1'
Date Collected: 05/15/23 10:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-1
Matrix: Solid
Percent Solids: 81.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			670064	CDC	EET BUF	05/17/23 11:10
Total/NA	Analysis	8260C		1	670065	LCH	EET BUF	05/18/23 22:58
Total/NA	Prep	3050B			670161	VAK	EET BUF	05/19/23 11:18
Total/NA	Analysis	6010C		1	670509	LMH	EET BUF	05/22/23 21:15
Total/NA	Prep	7471B			670567	NVK	EET BUF	05/24/23 09:50
Total/NA	Analysis	7471B		1	670722	NVK	EET BUF	05/24/23 12:49
Total/NA	Prep	3060A			912340	AMN	EET EDI	05/31/23 07:30 - 05/31/23 08:30 [1]
Total/NA	Analysis	7196A		1	912482	AMN	EET EDI	05/31/23 12:05

Client Sample ID: DP-2 0'-1'
Date Collected: 05/15/23 11:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	669872	JMM	EET BUF	05/17/23 16:10

Client Sample ID: DP-2 0'-1'
Date Collected: 05/15/23 11:45
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-2
Matrix: Solid
Percent Solids: 78.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			670064	CDC	EET BUF	05/17/23 11:10
Total/NA	Analysis	8260C		1	670065	LCH	EET BUF	05/18/23 23:22
Total/NA	Prep	3050B			670161	VAK	EET BUF	05/19/23 11:18
Total/NA	Analysis	6010C		1	670509	LMH	EET BUF	05/22/23 21:19
Total/NA	Prep	7471B			670567	NVK	EET BUF	05/24/23 09:50
Total/NA	Analysis	7471B		1	670722	NVK	EET BUF	05/24/23 12:54
Total/NA	Prep	3060A			912340	AMN	EET EDI	05/31/23 07:30 - 05/31/23 08:30 [1]
Total/NA	Analysis	7196A		1	912482	AMN	EET EDI	05/31/23 12:05

Client Sample ID: DP-3 0'-1'
Date Collected: 05/15/23 12:35
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-3
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	669872	JMM	EET BUF	05/17/23 16:10

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-208969-1
Project/Site: NYSDEC Remedial Investigation

Client Sample ID: DP-3 0'-1'
Lab Sample ID: 480-208969-3
Date Collected: 05/15/23 12:35
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			670071	CDC	EET BUF	05/18/23 19:32
Total/NA	Analysis	8260C		1	670205	ATG	EET BUF	05/19/23 20:35
Total/NA	Prep	3050B			670161	VAK	EET BUF	05/19/23 11:18
Total/NA	Analysis	6010C		1	670509	LMH	EET BUF	05/22/23 21:49
Total/NA	Prep	7471B			670567	NVK	EET BUF	05/24/23 09:50
Total/NA	Analysis	7471B		1	670722	NVK	EET BUF	05/24/23 12:55
Total/NA	Prep	3060A			912340	AMN	EET EDI	05/31/23 07:30 - 05/31/23 08:30 [1]
Total/NA	Analysis	7196A		1	912482	AMN	EET EDI	05/31/23 12:05

Client Sample ID: DP-4 0'-1'
Lab Sample ID: 480-208969-4
Date Collected: 05/15/23 13:15
Matrix: Solid
Date Received: 05/17/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	669872	JMM	EET BUF	05/17/23 16:10

Client Sample ID: DP-4 0'-1'
Lab Sample ID: 480-208969-4
Date Collected: 05/15/23 13:15
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			670064	CDC	EET BUF	05/17/23 11:10
Total/NA	Analysis	8260C		1	670065	LCH	EET BUF	05/18/23 23:47
Total/NA	Prep	3050B			670161	VAK	EET BUF	05/19/23 11:18
Total/NA	Analysis	6010C		1	670509	LMH	EET BUF	05/22/23 21:53
Total/NA	Prep	7471B			670567	NVK	EET BUF	05/24/23 09:50
Total/NA	Analysis	7471B		1	670722	NVK	EET BUF	05/24/23 12:57
Total/NA	Prep	3060A			912340	AMN	EET EDI	05/31/23 07:30 - 05/31/23 08:30 [1]
Total/NA	Analysis	7196A		1	912482	AMN	EET EDI	05/31/23 12:05

Client Sample ID: DP-4 9'-9.7'
Lab Sample ID: 480-208969-5
Date Collected: 05/15/23 13:25
Matrix: Solid
Date Received: 05/17/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	669872	JMM	EET BUF	05/17/23 16:10

Client Sample ID: DP-4 9'-9.7'
Lab Sample ID: 480-208969-5
Date Collected: 05/15/23 13:25
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_L			670064	CDC	EET BUF	05/17/23 11:10
Total/NA	Analysis	8260C		1	670065	LCH	EET BUF	05/19/23 00:11
Total/NA	Prep	3050B			670161	VAK	EET BUF	05/19/23 11:18
Total/NA	Analysis	6010C		1	670509	LMH	EET BUF	05/22/23 21:57

Client Sample ID: DP-4 9'-9.7'
Lab Sample ID: 480-208969-5
Date Collected: 05/15/23 13:25
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 91.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	7471B			670567	NVK	EET BUF	05/24/23 09:50
Total/NA	Analysis	7471B		1	670722	NVK	EET BUF	05/24/23 12:58
Total/NA	Prep	3060A			912394	AMN	EET EDI	05/31/23 09:55 - 05/31/23 10:55 [1]
Total/NA	Analysis	7196A		1	912485	AMN	EET EDI	05/31/23 14:30

Client Sample ID: DP-5 0'-2'
Lab Sample ID: 480-208969-6
Date Collected: 05/15/23 14:00
Matrix: Solid
Date Received: 05/17/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	669872	JMM	EET BUF	05/17/23 16:10

Client Sample ID: DP-5 0'-2'
Lab Sample ID: 480-208969-6
Date Collected: 05/15/23 14:00
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 81.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			670071	CDC	EET BUF	05/18/23 19:32
Total/NA	Analysis	8260C		10	670205	ATG	EET BUF	05/19/23 20:58
Total/NA	Prep	5035A_H	DL		670071	CDC	EET BUF	05/18/23 19:32
Total/NA	Analysis	8260C	DL	20	670344	ATG	EET BUF	05/22/23 21:16
Total/NA	Prep	3050B			670161	VAK	EET BUF	05/19/23 11:18
Total/NA	Analysis	6010C		1	670509	LMH	EET BUF	05/22/23 22:01
Total/NA	Prep	7471B			670567	NVK	EET BUF	05/24/23 09:50
Total/NA	Analysis	7471B		1	670722	NVK	EET BUF	05/24/23 13:02
Total/NA	Prep	3060A			912394	AMN	EET EDI	05/31/23 09:55 - 05/31/23 10:55 [1]
Total/NA	Analysis	7196A		1	912485	AMN	EET EDI	05/31/23 14:30

Client Sample ID: DP-5 8.5'-9.5'
Lab Sample ID: 480-208969-7
Date Collected: 05/15/23 14:25
Matrix: Solid
Date Received: 05/17/23 10:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	669872	JMM	EET BUF	05/17/23 16:10

Client Sample ID: DP-5 8.5'-9.5'
Lab Sample ID: 480-208969-7
Date Collected: 05/15/23 14:25
Matrix: Solid
Date Received: 05/17/23 10:00
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035A_H			670071	CDC	EET BUF	05/18/23 19:32
Total/NA	Analysis	8260C		1	670205	ATG	EET BUF	05/19/23 21:22
Total/NA	Prep	3050B			670161	VAK	EET BUF	05/19/23 11:18
Total/NA	Analysis	6010C		1	670509	LMH	EET BUF	05/22/23 22:05
Total/NA	Prep	7471B			670567	NVK	EET BUF	05/24/23 09:50
Total/NA	Analysis	7471B		1	670722	NVK	EET BUF	05/24/23 13:03

Lab Chronicle

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Client Sample ID: DP-5 8.5'-9.5'

Date Collected: 05/15/23 14:25
Date Received: 05/17/23 10:00

Lab Sample ID: 480-208969-7

Matrix: Solid
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3060A			912394	AMN	EET EDI	05/31/23 09:55 - 05/31/23 10:55 [1]
Total/NA	Analysis	7196A		1	912485	AMN	EET EDI	05/31/23 14:30

[1] This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600
EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: Geologic NY Inc
Job ID: 480-208969-1
Project/Site: NYSDEC Remedial Investigation

Laboratory: Eurofins Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-24

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
Moisture		Solid	Percent Moisture
Moisture		Solid	Percent Solids

Laboratory: Eurofins Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0818	01-30-24
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-01-24
Georgia	State	12028 (NJ)	06-30-23
Massachusetts	State	M-NJ312	06-30-23
New Jersey	NELAP	12028	06-30-23
New York	NELAP	11452	04-01-24
Pennsylvania	NELAP	68-00522	03-01-24
Rhode Island	State	LAO00376	12-30-23
USDA	US Federal Programs	P330-20-00244	11-03-23

Method Summary

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	EET BUF
6010C	Metals (ICP)	SW846	EET BUF
7471B	Mercury (CVAA)	SW846	EET BUF
7196A	Chromium, Hexavalent	SW846	EET EDI
Moisture	Percent Moisture	EPA	EET BUF
3050B	Preparation, Metals	SW846	EET BUF
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	EET EDI
5035A_H	Closed System Purge and Trap	SW846	EET BUF
5035A_L	Closed System Purge and Trap	SW846	EET BUF
7471B	Preparation, Mercury	SW846	EET BUF

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:

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

EET EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: Geologic NY Inc
Project/Site: NYSDEC Remedial Investigation

Job ID: 480-208969-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-208969-1	DP-1 0'-1'	Solid	05/15/23 10:45	05/17/23 10:00
480-208969-2	DP-2 0'-1'	Solid	05/15/23 11:45	05/17/23 10:00
480-208969-3	DP-3 0'-1'	Solid	05/15/23 12:35	05/17/23 10:00
480-208969-4	DP-4 0'-1'	Solid	05/15/23 13:15	05/17/23 10:00
480-208969-5	DP-4 9'-9.7'	Solid	05/15/23 13:25	05/17/23 10:00
480-208969-6	DP-5 0'-2'	Solid	05/15/23 14:00	05/17/23 10:00
480-208969-7	DP-5 8.5'-9.5'	Solid	05/15/23 14:25	05/17/23 10:00

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

Syracuse #225

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Client Information	Sampler: Joe Menzel	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-184731-39095.1
Client Contact: Mr. Christopher Gabriel	Phone: 607-749-5000	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: NY	Page: Page 1 of 2
Company: Geologic NY Inc	PWSID:			Job #:
Address: PO BOX 350 37 Copeland Ave	Due Date Requested:			
City: Homer	TAT Requested (days): Standard 10 Day			
State, Zip: NY, 13077	Compliance Project: Δ Yes Δ No			
Phone: 607-749-5000(Tel)	PO #: Purchase Order not required			
Email: ChrisG@geologic.net	WO #:			
Project Name: NYSDEC Remedial Investigation	Project #: 48026438			
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, Y - Trizma, 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)	7196A - Hexavalent Chromium - 7196	8260C - TCL VOCs	6010C, 7471B	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N	N		
DP-1 0'-1'	5-15-23	10:45	G	Solid			X	X	X		
DP-2 0'-1'	5-15-23	11:45	G	Solid			X	X	X		
DP-3 0'-1'	5-15-23	12:35	G	Solid			X	X	X		
DP-4 0'-1'	5-15-23	13:15	G	Solid			X	X	X		
DP-4 9'-9.7'	5-15-23	13:25	G	Solid			X	X	X		
DP-5 0'-2'	5-15-23	14:00	G	Solid			X	X	X		
DP-5 8.5-9.5'	5-15-23	14:25	G	Solid			X	X	X		
				Solid							
				Solid							
				Solid							
				Solid							

Rec 5-16-23

480-208969 Chain of Custody

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) 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
1	Joseph Menzel	5-16-23 8:00	Geologic	R English	5-16-23, 0820	Fed Ex
2	R English	5-16-23, 1900	Fed Ex	[illegible]	5/17/23 1000	TA
3						

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.0 # ICE

Ver: 06/08/2021

Eurofins Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler	Lab PM: Beninati, John	Carrier Tracking No(s):	COC No: 480-80695.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: John.Beninati@et.eurofinsus.com	State of Origin: New York	Page: Page 1 of 1
Company: Eurofins Environment Testing Northeast,		Accreditations Required (See note): NELAP New York		Job #: 480-208969-1
Address: 777 New Durham Road,	Due Date Requested: 5/31/2023			
City: Edison	TAT Requested (days):			
State, Zip: NJ 08817				
Phone: 732-549-3900(Tel) 732-549-3679(Fax)	PO #:			
Email:	WO #:			
Project Name: NYSDEC Remedial Investigation	Project #: 48026438			
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, Y Trizma, Z other (specify)
Other:

Sample Identification Client ID (Lab ID)	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)	7196A/3060A Hexavalent Chromium 7196	Total Number of containers	Special Instructions/Note:
			Preservation Code:						
DP-1 0' 1 (480-208969-1)	5/15/23	10:45 Eastern		Solid			X	1	
DP-2 0'-1 (480-208969-2)	5/15/23	11:45 Eastern		Solid			X	1	
DP-3 0'-1 (480-208969-3)	5/15/23	12:35 Eastern		Solid			X	1	
DP-4 0'-1 (480-208969-4)	5/15/23	13:15 Eastern		Solid			X	1	
DP-4 9'-9.7' (480-208969-5)	5/15/23	13:25 Eastern		Solid			X	1	
DP-5 0'-2' (480-208969-6)	5/15/23	14:00 Eastern		Solid			X	1	
DP-5 8.5'-9.5' (480-208969-7)	5/15/23	14:25 Eastern		Solid			X	1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing Northeast, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing Northeast, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing Northeast, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing Northeast, LLC.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months
Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	[signature]	5-18-23 1800	TAT	[signature] Fedex	5-19-23 1030	ET
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No. 20594419	Cooler Temperature(s) °C and Other Remarks: 4.4°C | 4.4°C

Ver 06/08/2021

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-208969-1

Login Number: 208969
List Number: 1
Creator: Kolb, Chris M

List Source: Eurofins Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	tcores put in freezer 5/17 @ 11:10
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	geologic
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-208969-1

Login Number: 208969
List Number: 2
Creator: Armbruster, Chris

List Source: Eurofins Edison
List Creation: 05/19/23 12:44 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Analytical Data Package

Prepared by:

Pace Analytical Services

Pace Project No.: 30337003

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Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

December 03, 2019

GeoLogic NY, P.C.
Geologic NY
37 Copeland Avenue
Homer, NY 13077

RE: Project: 215042
Pace Project No.: 30337003

Dear GeoLogic NY, P.C.:
Enclosed are the analytical results for sample(s) received by the laboratory on November 22, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Rachel Christner
rachel.christner@pacelabs.com
724-850-5611
Project Manager

Enclosures

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CERTIFICATIONS

Project: 215042
Pace Project No.: 30337003

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE ANALYTE COUNT

Project: 215042
Pace Project No.: 30337003

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30337003001	**MW-01**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003002	**MW-02**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003003	**MW-03**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003004	**MW-04**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003005	**MW-05**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003006	**MS**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003007	**MSD**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003008	**Duplicate**	EPA 6010C	CTS	9	PASI-PA
		EPA 7470A	KAS	1	PASI-PA
		EPA 8260C	LEL	71	PASI-PA
30337003009	**Trip Blank by Pace**	EPA 8260C	LEL	71	PASI-PA

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-01 **Lab ID: 30337003001** Collected: 11/20/19 14:00 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:01	7440-38-2	
Barium	**142**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:01	7440-39-3	
Cadmium	ND	ug/L	3.0	1	11/27/19 16:21	12/03/19 11:01	7440-43-9	
Chromium	**5.2**	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:01	7440-47-3	
Copper	**6.8**	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:01	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:01	7439-92-1	
Nickel	ND	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:01	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 11:01	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 11:01	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:25	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 11:38	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/29/19 11:38	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 11:38	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/29/19 11:38	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/29/19 11:38	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/29/19 11:38	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/29/19 11:38	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		11/29/19 11:38	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/29/19 11:38	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 11:38	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/29/19 11:38	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/29/19 11:38	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 11:38	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/29/19 11:38	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 11:38	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 11:38	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 11:38	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/29/19 11:38	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 11:38	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 11:38	594-20-7	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/29/19 11:38	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 11:38	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 11:38	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		11/29/19 11:38	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 11:38	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/29/19 11:38	108-10-1	
Acetone	ND	ug/L	10.0	1		11/29/19 11:38	67-64-1	1c,CH
Benzene	ND	ug/L	1.0	1		11/29/19 11:38	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/29/19 11:38	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/29/19 11:38	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/29/19 11:38	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/29/19 11:38	75-25-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-01 **Lab ID: 30337003001** Collected: 11/20/19 14:00 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	ND	ug/L	1.0	1		11/29/19 11:38	74-83-9	
Carbon disulfide	ND	ug/L	1.0	1		11/29/19 11:38	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/29/19 11:38	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/29/19 11:38	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/29/19 11:38	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/29/19 11:38	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/29/19 11:38	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		11/29/19 11:38	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		11/29/19 11:38	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/29/19 11:38	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		11/29/19 11:38	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/29/19 11:38	87-68-3	L2
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/29/19 11:38	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/29/19 11:38	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		11/29/19 11:38	75-09-2	
Naphthalene	ND	ug/L	2.0	1		11/29/19 11:38	91-20-3	
Styrene	ND	ug/L	1.0	1		11/29/19 11:38	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/29/19 11:38	127-18-4	
Toluene	ND	ug/L	1.0	1		11/29/19 11:38	108-88-3	
Trichloroethene	ND	ug/L	1.0	1		11/29/19 11:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/29/19 11:38	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		11/29/19 11:38	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/29/19 11:38	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/29/19 11:38	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/29/19 11:38	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 11:38	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		11/29/19 11:38	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		11/29/19 11:38	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		11/29/19 11:38	103-65-1	
o-Xylene	ND	ug/L	1.0	1		11/29/19 11:38	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/29/19 11:38	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		11/29/19 11:38	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/29/19 11:38	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/29/19 11:38	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 11:38	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%.	78-122	1		11/29/19 11:38	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%.	80-120	1		11/29/19 11:38	17060-07-0	
Toluene-d8 (S)	98	%.	80-120	1		11/29/19 11:38	2037-26-5	
Dibromofluoromethane (S)	105	%.	80-120	1		11/29/19 11:38	1868-53-7	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-02 **Lab ID: 30337003002** Collected: 11/20/19 11:45 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:03	7440-38-2	
Barium	**83.7**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:03	7440-39-3	
Cadmium	**9.9**	ug/L	3.0	1	11/27/19 16:21	12/03/19 11:03	7440-43-9	
Chromium	**9.5**	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:03	7440-47-3	
Copper	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:03	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:03	7439-92-1	
Nickel	ND	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:03	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 11:03	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 11:03	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:26	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 12:03	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/29/19 12:03	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 12:03	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/29/19 12:03	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/29/19 12:03	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/29/19 12:03	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:03	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		11/29/19 12:03	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:03	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 12:03	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/29/19 12:03	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/29/19 12:03	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:03	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/29/19 12:03	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:03	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 12:03	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:03	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:03	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:03	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:03	594-20-7	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/29/19 12:03	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 12:03	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 12:03	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		11/29/19 12:03	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 12:03	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/29/19 12:03	108-10-1	
Acetone	ND	ug/L	10.0	1		11/29/19 12:03	67-64-1	1c,CH
Benzene	ND	ug/L	1.0	1		11/29/19 12:03	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/29/19 12:03	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/29/19 12:03	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/29/19 12:03	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/29/19 12:03	75-25-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-02 **Lab ID: 30337003002** Collected: 11/20/19 11:45 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	ND	ug/L	1.0	1		11/29/19 12:03	74-83-9	
Carbon disulfide	ND	ug/L	1.0	1		11/29/19 12:03	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/29/19 12:03	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/29/19 12:03	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/29/19 12:03	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/29/19 12:03	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/29/19 12:03	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		11/29/19 12:03	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		11/29/19 12:03	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/29/19 12:03	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		11/29/19 12:03	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/29/19 12:03	87-68-3	L2
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/29/19 12:03	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/29/19 12:03	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		11/29/19 12:03	75-09-2	
Naphthalene	ND	ug/L	2.0	1		11/29/19 12:03	91-20-3	
Styrene	ND	ug/L	1.0	1		11/29/19 12:03	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/29/19 12:03	127-18-4	
Toluene	ND	ug/L	1.0	1		11/29/19 12:03	108-88-3	
Trichloroethene	**17.8**	ug/L	1.0	1		11/29/19 12:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/29/19 12:03	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		11/29/19 12:03	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/29/19 12:03	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/29/19 12:03	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/29/19 12:03	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:03	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		11/29/19 12:03	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:03	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		11/29/19 12:03	103-65-1	
o-Xylene	ND	ug/L	1.0	1		11/29/19 12:03	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/29/19 12:03	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:03	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:03	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/29/19 12:03	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:03	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%.	78-122	1		11/29/19 12:03	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	80-120	1		11/29/19 12:03	17060-07-0	
Toluene-d8 (S)	92	%.	80-120	1		11/29/19 12:03	2037-26-5	
Dibromofluoromethane (S)	103	%.	80-120	1		11/29/19 12:03	1868-53-7	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-03 **Lab ID: 30337003003** Collected: 11/20/19 11:30 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:06	7440-38-2	
Barium	**74.6**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:06	7440-39-3	
Cadmium	ND	ug/L	3.0	1	11/27/19 16:21	12/03/19 11:06	7440-43-9	
Chromium	**1560**	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:06	7440-47-3	
Copper	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:06	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:06	7439-92-1	
Nickel	ND	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:06	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 11:06	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 11:06	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:28	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 12:28	630-20-6	
1,1,1-Trichloroethane	**83.7**	ug/L	1.0	1		11/29/19 12:28	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 12:28	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/29/19 12:28	79-00-5	
1,1-Dichloroethane	**4.2**	ug/L	1.0	1		11/29/19 12:28	75-34-3	
1,1-Dichloroethene	**29.8**	ug/L	1.0	1		11/29/19 12:28	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:28	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		11/29/19 12:28	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:28	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 12:28	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/29/19 12:28	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/29/19 12:28	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:28	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/29/19 12:28	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:28	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 12:28	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:28	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:28	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:28	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:28	594-20-7	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/29/19 12:28	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 12:28	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 12:28	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		11/29/19 12:28	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 12:28	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/29/19 12:28	108-10-1	
Acetone	ND	ug/L	10.0	1		11/29/19 12:28	67-64-1	1c,CH
Benzene	ND	ug/L	1.0	1		11/29/19 12:28	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/29/19 12:28	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/29/19 12:28	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/29/19 12:28	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/29/19 12:28	75-25-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-03 **Lab ID: 30337003003** Collected: 11/20/19 11:30 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	ND	ug/L	1.0	1		11/29/19 12:28	74-83-9	
Carbon disulfide	ND	ug/L	1.0	1		11/29/19 12:28	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/29/19 12:28	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/29/19 12:28	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/29/19 12:28	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/29/19 12:28	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/29/19 12:28	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		11/29/19 12:28	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		11/29/19 12:28	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/29/19 12:28	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		11/29/19 12:28	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/29/19 12:28	87-68-3	L2
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/29/19 12:28	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/29/19 12:28	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		11/29/19 12:28	75-09-2	
Naphthalene	ND	ug/L	2.0	1		11/29/19 12:28	91-20-3	
Styrene	ND	ug/L	1.0	1		11/29/19 12:28	100-42-5	
Tetrachloroethene	**3.0**	ug/L	1.0	1		11/29/19 12:28	127-18-4	
Toluene	ND	ug/L	1.0	1		11/29/19 12:28	108-88-3	
Trichloroethene	**296**	ug/L	1.0	1		11/29/19 12:28	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/29/19 12:28	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		11/29/19 12:28	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/29/19 12:28	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/29/19 12:28	1330-20-7	
cis-1,2-Dichloroethene	**12.2**	ug/L	1.0	1		11/29/19 12:28	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:28	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		11/29/19 12:28	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:28	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		11/29/19 12:28	103-65-1	
o-Xylene	ND	ug/L	1.0	1		11/29/19 12:28	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/29/19 12:28	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:28	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:28	98-06-6	
trans-1,2-Dichloroethene	**1.9**	ug/L	1.0	1		11/29/19 12:28	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:28	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%.	78-122	1		11/29/19 12:28	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	80-120	1		11/29/19 12:28	17060-07-0	
Toluene-d8 (S)	96	%.	80-120	1		11/29/19 12:28	2037-26-5	
Dibromofluoromethane (S)	105	%.	80-120	1		11/29/19 12:28	1868-53-7	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-04 **Lab ID: 30337003004** Collected: 11/20/19 11:00 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:08	7440-38-2	
Barium	**116**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:08	7440-39-3	
Cadmium	ND	ug/L	3.0	1	11/27/19 16:21	12/03/19 11:08	7440-43-9	
Chromium	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:08	7440-47-3	
Copper	**13.4**	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:08	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:08	7439-92-1	
Nickel	**13.6**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:08	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 11:08	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 11:08	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:30	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 12:52	630-20-6	
1,1,1-Trichloroethane	**157**	ug/L	1.0	1		11/29/19 12:52	71-55-6	MH
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 12:52	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/29/19 12:52	79-00-5	
1,1-Dichloroethane	**26.6**	ug/L	1.0	1		11/29/19 12:52	75-34-3	
1,1-Dichloroethene	**49.6**	ug/L	1.0	1		11/29/19 12:52	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:52	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		11/29/19 12:52	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:52	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 12:52	95-63-6	ML
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/29/19 12:52	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/29/19 12:52	106-93-4	ML
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:52	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/29/19 12:52	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:52	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 12:52	108-67-8	ML
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:52	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:52	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 12:52	106-46-7	ML
2,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 12:52	594-20-7	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/29/19 12:52	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 12:52	110-75-8	ML,c2
2-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 12:52	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		11/29/19 12:52	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 12:52	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/29/19 12:52	108-10-1	
Acetone	ND	ug/L	10.0	1		11/29/19 12:52	67-64-1	1c,CH
Benzene	ND	ug/L	1.0	1		11/29/19 12:52	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/29/19 12:52	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/29/19 12:52	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/29/19 12:52	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/29/19 12:52	75-25-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-04 **Lab ID: 30337003004** Collected: 11/20/19 11:00 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	ND	ug/L	1.0	1		11/29/19 12:52	74-83-9	R1
Carbon disulfide	ND	ug/L	1.0	1		11/29/19 12:52	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/29/19 12:52	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/29/19 12:52	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/29/19 12:52	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/29/19 12:52	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/29/19 12:52	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		11/29/19 12:52	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		11/29/19 12:52	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/29/19 12:52	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		11/29/19 12:52	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/29/19 12:52	87-68-3	L2
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/29/19 12:52	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/29/19 12:52	1634-04-4	ML
Methylene Chloride	ND	ug/L	1.0	1		11/29/19 12:52	75-09-2	
Naphthalene	ND	ug/L	2.0	1		11/29/19 12:52	91-20-3	
Styrene	ND	ug/L	1.0	1		11/29/19 12:52	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/29/19 12:52	127-18-4	
Toluene	ND	ug/L	1.0	1		11/29/19 12:52	108-88-3	ML
Trichloroethene	**292**	ug/L	1.0	1		11/29/19 12:52	79-01-6	MH
Trichlorofluoromethane	ND	ug/L	1.0	1		11/29/19 12:52	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		11/29/19 12:52	108-05-4	
Vinyl chloride	**5.4**	ug/L	1.0	1		11/29/19 12:52	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/29/19 12:52	1330-20-7	
cis-1,2-Dichloroethene	**41.9**	ug/L	1.0	1		11/29/19 12:52	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:52	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		11/29/19 12:52	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:52	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		11/29/19 12:52	103-65-1	
o-Xylene	ND	ug/L	1.0	1		11/29/19 12:52	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/29/19 12:52	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:52	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/29/19 12:52	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/29/19 12:52	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 12:52	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%.	78-122	1		11/29/19 12:52	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%.	80-120	1		11/29/19 12:52	17060-07-0	
Toluene-d8 (S)	94	%.	80-120	1		11/29/19 12:52	2037-26-5	
Dibromofluoromethane (S)	107	%.	80-120	1		11/29/19 12:52	1868-53-7	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-05 **Lab ID: 30337003005** Collected: 11/20/19 10:30 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:14	7440-38-2	
Barium	**39.1**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:14	7440-39-3	
Cadmium	ND	ug/L	3.0	1	11/27/19 16:21	12/03/19 11:14	7440-43-9	
Chromium	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:14	7440-47-3	
Copper	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:14	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:14	7439-92-1	
Nickel	**24.6**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:14	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 11:14	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 11:14	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:31	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 13:17	630-20-6	
1,1,1-Trichloroethane	**1580**	ug/L	10.0	10		12/02/19 22:35	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 13:17	79-34-5	
1,1,2-Trichloroethane	**19.3**	ug/L	1.0	1		11/29/19 13:17	79-00-5	
1,1-Dichloroethane	**37.2**	ug/L	1.0	1		11/29/19 13:17	75-34-3	
1,1-Dichloroethene	**735**	ug/L	10.0	10		12/02/19 22:35	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/29/19 13:17	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		11/29/19 13:17	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:17	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 13:17	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/29/19 13:17	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/29/19 13:17	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:17	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/29/19 13:17	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 13:17	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 13:17	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:17	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/29/19 13:17	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:17	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 13:17	594-20-7	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/29/19 13:17	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 13:17	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 13:17	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		11/29/19 13:17	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 13:17	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/29/19 13:17	108-10-1	
Acetone	ND	ug/L	10.0	1		11/29/19 13:17	67-64-1	1c,CH
Benzene	ND	ug/L	1.0	1		11/29/19 13:17	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/29/19 13:17	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/29/19 13:17	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/29/19 13:17	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/29/19 13:17	75-25-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MW-05 **Lab ID: 30337003005** Collected: 11/20/19 10:30 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	ND	ug/L	1.0	1		11/29/19 13:17	74-83-9	
Carbon disulfide	ND	ug/L	1.0	1		11/29/19 13:17	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/29/19 13:17	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/29/19 13:17	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/29/19 13:17	75-00-3	
Chloroform	**2.2**	ug/L	1.0	1		11/29/19 13:17	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/29/19 13:17	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		11/29/19 13:17	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		11/29/19 13:17	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/29/19 13:17	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		11/29/19 13:17	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/29/19 13:17	87-68-3	L2
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/29/19 13:17	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/29/19 13:17	1634-04-4	
Methylene Chloride	**2.4**	ug/L	1.0	1		11/29/19 13:17	75-09-2	
Naphthalene	ND	ug/L	2.0	1		11/29/19 13:17	91-20-3	
Styrene	ND	ug/L	1.0	1		11/29/19 13:17	100-42-5	
Tetrachloroethene	**1.2**	ug/L	1.0	1		11/29/19 13:17	127-18-4	
Toluene	ND	ug/L	1.0	1		11/29/19 13:17	108-88-3	
Trichloroethene	**2200**	ug/L	10.0	10		12/02/19 22:35	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/29/19 13:17	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		11/29/19 13:17	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/29/19 13:17	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/29/19 13:17	1330-20-7	
cis-1,2-Dichloroethene	**88.2**	ug/L	1.0	1		11/29/19 13:17	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 13:17	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		11/29/19 13:17	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		11/29/19 13:17	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		11/29/19 13:17	103-65-1	
o-Xylene	ND	ug/L	1.0	1		11/29/19 13:17	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/29/19 13:17	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		11/29/19 13:17	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/29/19 13:17	98-06-6	
trans-1,2-Dichloroethene	**8.2**	ug/L	1.0	1		11/29/19 13:17	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 13:17	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%.	78-122	1		11/29/19 13:17	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%.	80-120	1		11/29/19 13:17	17060-07-0	
Toluene-d8 (S)	93	%.	80-120	1		11/29/19 13:17	2037-26-5	
Dibromofluoromethane (S)	105	%.	80-120	1		11/29/19 13:17	1868-53-7	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MS **Lab ID: 30337003006** Collected: 11/20/19 11:05 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:17	7440-38-2	
Barium	**116**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:17	7440-39-3	
Cadmium	ND	ug/L	3.0	1	11/27/19 16:21	12/03/19 11:17	7440-43-9	
Chromium	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:17	7440-47-3	
Copper	**11.8**	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:17	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:17	7439-92-1	
Nickel	**13.9**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:17	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 11:17	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 11:17	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:38	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	**16.9**	ug/L	1.0	1		11/29/19 16:12	630-20-6	
1,1,1-Trichloroethane	**183**	ug/L	1.0	1		11/29/19 16:12	71-55-6	
1,1,2,2-Tetrachloroethane	**15.2**	ug/L	1.0	1		11/29/19 16:12	79-34-5	
1,1,2-Trichloroethane	**16.0**	ug/L	1.0	1		11/29/19 16:12	79-00-5	
1,1-Dichloroethane	**44.5**	ug/L	1.0	1		11/29/19 16:12	75-34-3	
1,1-Dichloroethene	**67.9**	ug/L	1.0	1		11/29/19 16:12	75-35-4	
1,1-Dichloropropene	**16.8**	ug/L	1.0	1		11/29/19 16:12	563-58-6	
1,2,3-Trichlorobenzene	**13.3**	ug/L	2.0	1		11/29/19 16:12	87-61-6	
1,2,4-Trichlorobenzene	**13.4**	ug/L	1.0	1		11/29/19 16:12	120-82-1	
1,2,4-Trimethylbenzene	**15.4**	ug/L	1.0	1		11/29/19 16:12	95-63-6	
1,2-Dibromo-3-chloropropane	**13.3**	ug/L	5.0	1		11/29/19 16:12	96-12-8	
1,2-Dibromoethane (EDB)	**15.0**	ug/L	1.0	1		11/29/19 16:12	106-93-4	
1,2-Dichlorobenzene	**15.1**	ug/L	1.0	1		11/29/19 16:12	95-50-1	
1,2-Dichloroethane	**18.1**	ug/L	1.0	1		11/29/19 16:12	107-06-2	
1,2-Dichloropropane	**17.1**	ug/L	1.0	1		11/29/19 16:12	78-87-5	
1,3,5-Trimethylbenzene	**15.3**	ug/L	1.0	1		11/29/19 16:12	108-67-8	
1,3-Dichlorobenzene	**15.6**	ug/L	1.0	1		11/29/19 16:12	541-73-1	
1,3-Dichloropropane	**14.5**	ug/L	1.0	1		11/29/19 16:12	142-28-9	
1,4-Dichlorobenzene	**14.8**	ug/L	1.0	1		11/29/19 16:12	106-46-7	
2,2-Dichloropropane	**17.2**	ug/L	1.0	1		11/29/19 16:12	594-20-7	
2-Butanone (MEK)	**17.2**	ug/L	10.0	1		11/29/19 16:12	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 16:12	110-75-8	c2
2-Chlorotoluene	**16.2**	ug/L	1.0	1		11/29/19 16:12	95-49-8	
2-Hexanone	**18.0**	ug/L	10.0	1		11/29/19 16:12	591-78-6	
4-Chlorotoluene	**15.6**	ug/L	1.0	1		11/29/19 16:12	106-43-4	
4-Methyl-2-pentanone (MIBK)	**19.2**	ug/L	10.0	1		11/29/19 16:12	108-10-1	
Acetone	**20.4**	ug/L	10.0	1		11/29/19 16:12	67-64-1	1c,CH
Benzene	**16.2**	ug/L	1.0	1		11/29/19 16:12	71-43-2	
Bromobenzene	**14.3**	ug/L	1.0	1		11/29/19 16:12	108-86-1	
Bromochloromethane	**16.9**	ug/L	1.0	1		11/29/19 16:12	74-97-5	
Bromodichloromethane	**16.3**	ug/L	1.0	1		11/29/19 16:12	75-27-4	
Bromoform	**12.4**	ug/L	1.0	1		11/29/19 16:12	75-25-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MS **Lab ID: 30337003006** Collected: 11/20/19 11:05 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	**4.7**	ug/L	1.0	1		11/29/19 16:12	74-83-9	
Carbon disulfide	**14.0**	ug/L	1.0	1		11/29/19 16:12	75-15-0	
Carbon tetrachloride	**17.7**	ug/L	1.0	1		11/29/19 16:12	56-23-5	
Chlorobenzene	**16.8**	ug/L	1.0	1		11/29/19 16:12	108-90-7	
Chloroethane	**21.7**	ug/L	1.0	1		11/29/19 16:12	75-00-3	
Chloroform	**16.5**	ug/L	1.0	1		11/29/19 16:12	67-66-3	
Chloromethane	**16.4**	ug/L	1.0	1		11/29/19 16:12	74-87-3	
Dibromochloromethane	**14.6**	ug/L	1.0	1		11/29/19 16:12	124-48-1	
Dibromomethane	**15.5**	ug/L	1.0	1		11/29/19 16:12	74-95-3	
Dichlorodifluoromethane	**22.2**	ug/L	1.0	1		11/29/19 16:12	75-71-8	
Ethylbenzene	**16.5**	ug/L	1.0	1		11/29/19 16:12	100-41-4	
Hexachloro-1,3-butadiene	**11.8**	ug/L	1.0	1		11/29/19 16:12	87-68-3	L2
Isopropylbenzene (Cumene)	**17.4**	ug/L	1.0	1		11/29/19 16:12	98-82-8	
Methyl-tert-butyl ether	**15.8**	ug/L	1.0	1		11/29/19 16:12	1634-04-4	
Methylene Chloride	**20.8**	ug/L	1.0	1		11/29/19 16:12	75-09-2	
Naphthalene	**13.6**	ug/L	2.0	1		11/29/19 16:12	91-20-3	
Styrene	**16.8**	ug/L	1.0	1		11/29/19 16:12	100-42-5	
Tetrachloroethene	**17.2**	ug/L	1.0	1		11/29/19 16:12	127-18-4	
Toluene	**16.0**	ug/L	1.0	1		11/29/19 16:12	108-88-3	
Trichloroethene	**317**	ug/L	1.0	1		11/29/19 16:12	79-01-6	
Trichlorofluoromethane	**18.7**	ug/L	1.0	1		11/29/19 16:12	75-69-4	
Vinyl acetate	**13.4**	ug/L	1.0	1		11/29/19 16:12	108-05-4	
Vinyl chloride	**24.4**	ug/L	1.0	1		11/29/19 16:12	75-01-4	
Xylene (Total)	**47.8**	ug/L	3.0	1		11/29/19 16:12	1330-20-7	
cis-1,2-Dichloroethene	**59.9**	ug/L	1.0	1		11/29/19 16:12	156-59-2	
cis-1,3-Dichloropropene	**15.2**	ug/L	1.0	1		11/29/19 16:12	10061-01-5	
m&p-Xylene	**32.5**	ug/L	2.0	1		11/29/19 16:12	179601-23-1	
n-Butylbenzene	**14.3**	ug/L	1.0	1		11/29/19 16:12	104-51-8	
n-Propylbenzene	**15.8**	ug/L	1.0	1		11/29/19 16:12	103-65-1	
o-Xylene	**15.3**	ug/L	1.0	1		11/29/19 16:12	95-47-6	
p-Isopropyltoluene	**15.7**	ug/L	1.0	1		11/29/19 16:12	99-87-6	
sec-Butylbenzene	**15.4**	ug/L	1.0	1		11/29/19 16:12	135-98-8	
tert-Butylbenzene	**16.2**	ug/L	1.0	1		11/29/19 16:12	98-06-6	
trans-1,2-Dichloroethene	**18.5**	ug/L	1.0	1		11/29/19 16:12	156-60-5	
trans-1,3-Dichloropropene	**15.5**	ug/L	1.0	1		11/29/19 16:12	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%.	78-122	1		11/29/19 16:12	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%.	80-120	1		11/29/19 16:12	17060-07-0	
Toluene-d8 (S)	94	%.	80-120	1		11/29/19 16:12	2037-26-5	
Dibromofluoromethane (S)	106	%.	80-120	1		11/29/19 16:12	1868-53-7	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MSD **Lab ID: 30337003007** Collected: 11/20/19 11:05 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 10:53	7440-38-2	
Barium	**112**	ug/L	10.0	1	11/27/19 16:21	12/03/19 10:53	7440-39-3	
Cadmium	ND	ug/L	3.0	1	11/27/19 16:21	12/03/19 10:53	7440-43-9	
Chromium	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 10:53	7440-47-3	
Copper	**12.5**	ug/L	5.0	1	11/27/19 16:21	12/03/19 10:53	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 10:53	7439-92-1	
Nickel	**13.8**	ug/L	10.0	1	11/27/19 16:21	12/03/19 10:53	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 10:53	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 10:53	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:43	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	**14.8**	ug/L	1.0	1		11/29/19 16:37	630-20-6	
1,1,1-Trichloroethane	**182**	ug/L	1.0	1		11/29/19 16:37	71-55-6	
1,1,2,2-Tetrachloroethane	**13.0**	ug/L	1.0	1		11/29/19 16:37	79-34-5	
1,1,2-Trichloroethane	**14.2**	ug/L	1.0	1		11/29/19 16:37	79-00-5	
1,1-Dichloroethane	**42.2**	ug/L	1.0	1		11/29/19 16:37	75-34-3	
1,1-Dichloroethene	**66.5**	ug/L	1.0	1		11/29/19 16:37	75-35-4	
1,1-Dichloropropene	**14.5**	ug/L	1.0	1		11/29/19 16:37	563-58-6	
1,2,3-Trichlorobenzene	**11.9**	ug/L	2.0	1		11/29/19 16:37	87-61-6	
1,2,4-Trichlorobenzene	**12.6**	ug/L	1.0	1		11/29/19 16:37	120-82-1	
1,2,4-Trimethylbenzene	**13.6**	ug/L	1.0	1		11/29/19 16:37	95-63-6	
1,2-Dibromo-3-chloropropane	**10.9**	ug/L	5.0	1		11/29/19 16:37	96-12-8	
1,2-Dibromoethane (EDB)	**13.5**	ug/L	1.0	1		11/29/19 16:37	106-93-4	
1,2-Dichlorobenzene	**13.8**	ug/L	1.0	1		11/29/19 16:37	95-50-1	
1,2-Dichloroethane	**15.6**	ug/L	1.0	1		11/29/19 16:37	107-06-2	
1,2-Dichloropropane	**15.2**	ug/L	1.0	1		11/29/19 16:37	78-87-5	
1,3,5-Trimethylbenzene	**13.8**	ug/L	1.0	1		11/29/19 16:37	108-67-8	
1,3-Dichlorobenzene	**13.6**	ug/L	1.0	1		11/29/19 16:37	541-73-1	
1,3-Dichloropropane	**12.7**	ug/L	1.0	1		11/29/19 16:37	142-28-9	
1,4-Dichlorobenzene	**13.4**	ug/L	1.0	1		11/29/19 16:37	106-46-7	
2,2-Dichloropropane	**14.1**	ug/L	1.0	1		11/29/19 16:37	594-20-7	
2-Butanone (MEK)	**17.1**	ug/L	10.0	1		11/29/19 16:37	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 16:37	110-75-8	c2
2-Chlorotoluene	**14.4**	ug/L	1.0	1		11/29/19 16:37	95-49-8	
2-Hexanone	**15.5**	ug/L	10.0	1		11/29/19 16:37	591-78-6	
4-Chlorotoluene	**13.5**	ug/L	1.0	1		11/29/19 16:37	106-43-4	
4-Methyl-2-pentanone (MIBK)	**17.6**	ug/L	10.0	1		11/29/19 16:37	108-10-1	
Acetone	**19.0**	ug/L	10.0	1		11/29/19 16:37	67-64-1	1c,CH
Benzene	**13.6**	ug/L	1.0	1		11/29/19 16:37	71-43-2	
Bromobenzene	**12.9**	ug/L	1.0	1		11/29/19 16:37	108-86-1	
Bromochloromethane	**14.3**	ug/L	1.0	1		11/29/19 16:37	74-97-5	
Bromodichloromethane	**14.6**	ug/L	1.0	1		11/29/19 16:37	75-27-4	
Bromoform	**10.8**	ug/L	1.0	1		11/29/19 16:37	75-25-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: MSD **Lab ID: 30337003007** Collected: 11/20/19 11:05 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	**6.6**	ug/L	1.0	1		11/29/19 16:37	74-83-9	
Carbon disulfide	**12.0**	ug/L	1.0	1		11/29/19 16:37	75-15-0	
Carbon tetrachloride	**15.5**	ug/L	1.0	1		11/29/19 16:37	56-23-5	
Chlorobenzene	**14.9**	ug/L	1.0	1		11/29/19 16:37	108-90-7	
Chloroethane	**20.5**	ug/L	1.0	1		11/29/19 16:37	75-00-3	
Chloroform	**14.1**	ug/L	1.0	1		11/29/19 16:37	67-66-3	
Chloromethane	**16.4**	ug/L	1.0	1		11/29/19 16:37	74-87-3	
Dibromochloromethane	**13.1**	ug/L	1.0	1		11/29/19 16:37	124-48-1	
Dibromomethane	**13.3**	ug/L	1.0	1		11/29/19 16:37	74-95-3	
Dichlorodifluoromethane	**20.7**	ug/L	1.0	1		11/29/19 16:37	75-71-8	
Ethylbenzene	**14.5**	ug/L	1.0	1		11/29/19 16:37	100-41-4	
Hexachloro-1,3-butadiene	**11.0**	ug/L	1.0	1		11/29/19 16:37	87-68-3	L2
Isopropylbenzene (Cumene)	**15.5**	ug/L	1.0	1		11/29/19 16:37	98-82-8	
Methyl-tert-butyl ether	**13.8**	ug/L	1.0	1		11/29/19 16:37	1634-04-4	
Methylene Chloride	**17.6**	ug/L	1.0	1		11/29/19 16:37	75-09-2	
Naphthalene	**12.4**	ug/L	2.0	1		11/29/19 16:37	91-20-3	
Styrene	**14.9**	ug/L	1.0	1		11/29/19 16:37	100-42-5	
Tetrachloroethene	**14.6**	ug/L	1.0	1		11/29/19 16:37	127-18-4	
Toluene	**14.1**	ug/L	1.0	1		11/29/19 16:37	108-88-3	
Trichloroethene	**323**	ug/L	1.0	1		11/29/19 16:37	79-01-6	
Trichlorofluoromethane	**18.8**	ug/L	1.0	1		11/29/19 16:37	75-69-4	
Vinyl acetate	**13.0**	ug/L	1.0	1		11/29/19 16:37	108-05-4	
Vinyl chloride	**23.9**	ug/L	1.0	1		11/29/19 16:37	75-01-4	
Xylene (Total)	**42.5**	ug/L	3.0	1		11/29/19 16:37	1330-20-7	
cis-1,2-Dichloroethene	**56.2**	ug/L	1.0	1		11/29/19 16:37	156-59-2	
cis-1,3-Dichloropropene	**13.8**	ug/L	1.0	1		11/29/19 16:37	10061-01-5	
m&p-Xylene	**28.5**	ug/L	2.0	1		11/29/19 16:37	179601-23-1	
n-Butylbenzene	**12.5**	ug/L	1.0	1		11/29/19 16:37	104-51-8	
n-Propylbenzene	**14.0**	ug/L	1.0	1		11/29/19 16:37	103-65-1	
o-Xylene	**14.0**	ug/L	1.0	1		11/29/19 16:37	95-47-6	
p-Isopropyltoluene	**13.7**	ug/L	1.0	1		11/29/19 16:37	99-87-6	
sec-Butylbenzene	**13.7**	ug/L	1.0	1		11/29/19 16:37	135-98-8	
tert-Butylbenzene	**14.2**	ug/L	1.0	1		11/29/19 16:37	98-06-6	
trans-1,2-Dichloroethene	**16.0**	ug/L	1.0	1		11/29/19 16:37	156-60-5	
trans-1,3-Dichloropropene	**13.4**	ug/L	1.0	1		11/29/19 16:37	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%.	78-122	1		11/29/19 16:37	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%.	80-120	1		11/29/19 16:37	17060-07-0	
Toluene-d8 (S)	96	%.	80-120	1		11/29/19 16:37	2037-26-5	
Dibromofluoromethane (S)	107	%.	80-120	1		11/29/19 16:37	1868-53-7	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: Duplicate **Lab ID: 30337003008** Collected: 11/20/19 10:35 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010C MET ICP	Analytical Method: EPA 6010C Preparation Method: EPA 3005A							
Arsenic	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:19	7440-38-2	
Barium	**38.4**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:19	7440-39-3	
Cadmium	ND	ug/L	3.0	1	11/27/19 16:21	12/03/19 11:19	7440-43-9	
Chromium	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:19	7440-47-3	
Copper	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:19	7440-50-8	
Lead	ND	ug/L	5.0	1	11/27/19 16:21	12/03/19 11:19	7439-92-1	
Nickel	**24.5**	ug/L	10.0	1	11/27/19 16:21	12/03/19 11:19	7440-02-0	
Selenium	ND	ug/L	8.0	1	11/27/19 16:21	12/03/19 11:19	7782-49-2	
Silver	ND	ug/L	6.0	1	11/27/19 16:21	12/03/19 11:19	7440-22-4	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	ug/L	0.20	1	11/25/19 12:50	11/25/19 21:44	7439-97-6	
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 13:42	630-20-6	
1,1,1-Trichloroethane	**1550**	ug/L	10.0	10		12/02/19 23:00	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 13:42	79-34-5	
1,1,2-Trichloroethane	**20.5**	ug/L	1.0	1		11/29/19 13:42	79-00-5	
1,1-Dichloroethane	**36.9**	ug/L	1.0	1		11/29/19 13:42	75-34-3	
1,1-Dichloroethene	**704**	ug/L	10.0	10		12/02/19 23:00	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/29/19 13:42	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		11/29/19 13:42	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:42	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 13:42	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/29/19 13:42	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/29/19 13:42	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:42	95-50-1	
1,2-Dichloroethane	**6.1**	ug/L	1.0	1		11/29/19 13:42	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 13:42	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 13:42	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:42	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/29/19 13:42	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 13:42	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 13:42	594-20-7	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/29/19 13:42	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 13:42	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 13:42	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		11/29/19 13:42	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 13:42	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/29/19 13:42	108-10-1	
Acetone	ND	ug/L	10.0	1		11/29/19 13:42	67-64-1	1c,CH
Benzene	ND	ug/L	1.0	1		11/29/19 13:42	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/29/19 13:42	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/29/19 13:42	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/29/19 13:42	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/29/19 13:42	75-25-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: Duplicate **Lab ID: 30337003008** Collected: 11/20/19 10:35 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Bromomethane	ND	ug/L	1.0	1		11/29/19 13:42	74-83-9	
Carbon disulfide	ND	ug/L	1.0	1		11/29/19 13:42	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/29/19 13:42	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/29/19 13:42	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/29/19 13:42	75-00-3	
Chloroform	**2.3**	ug/L	1.0	1		11/29/19 13:42	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/29/19 13:42	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		11/29/19 13:42	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		11/29/19 13:42	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/29/19 13:42	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		11/29/19 13:42	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/29/19 13:42	87-68-3	L2
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/29/19 13:42	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/29/19 13:42	1634-04-4	
Methylene Chloride	ND	ug/L	1.0	1		11/29/19 13:42	75-09-2	
Naphthalene	ND	ug/L	2.0	1		11/29/19 13:42	91-20-3	
Styrene	ND	ug/L	1.0	1		11/29/19 13:42	100-42-5	
Tetrachloroethene	**1.2**	ug/L	1.0	1		11/29/19 13:42	127-18-4	
Toluene	ND	ug/L	1.0	1		11/29/19 13:42	108-88-3	
Trichloroethene	**2110**	ug/L	10.0	10		12/02/19 23:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/29/19 13:42	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		11/29/19 13:42	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/29/19 13:42	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/29/19 13:42	1330-20-7	
cis-1,2-Dichloroethene	**88.3**	ug/L	1.0	1		11/29/19 13:42	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 13:42	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		11/29/19 13:42	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		11/29/19 13:42	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		11/29/19 13:42	103-65-1	
o-Xylene	ND	ug/L	1.0	1		11/29/19 13:42	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/29/19 13:42	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		11/29/19 13:42	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/29/19 13:42	98-06-6	
trans-1,2-Dichloroethene	**8.4**	ug/L	1.0	1		11/29/19 13:42	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 13:42	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%.	78-122	1		11/29/19 13:42	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%.	80-120	1		11/29/19 13:42	17060-07-0	
Toluene-d8 (S)	95	%.	80-120	1		11/29/19 13:42	2037-26-5	
Dibromofluoromethane (S)	104	%.	80-120	1		11/29/19 13:42	1868-53-7	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: Trip Blank by Pace **Lab ID: 30337003009** Collected: 11/20/19 00:00 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
1,1,1,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 10:47	630-20-6	
1,1,1-Trichloroethane	ND	ug/L	1.0	1		11/29/19 10:47	71-55-6	
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0	1		11/29/19 10:47	79-34-5	
1,1,2-Trichloroethane	ND	ug/L	1.0	1		11/29/19 10:47	79-00-5	
1,1-Dichloroethane	ND	ug/L	1.0	1		11/29/19 10:47	75-34-3	
1,1-Dichloroethene	ND	ug/L	1.0	1		11/29/19 10:47	75-35-4	
1,1-Dichloropropene	ND	ug/L	1.0	1		11/29/19 10:47	563-58-6	
1,2,3-Trichlorobenzene	ND	ug/L	2.0	1		11/29/19 10:47	87-61-6	
1,2,4-Trichlorobenzene	ND	ug/L	1.0	1		11/29/19 10:47	120-82-1	
1,2,4-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 10:47	95-63-6	
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0	1		11/29/19 10:47	96-12-8	
1,2-Dibromoethane (EDB)	ND	ug/L	1.0	1		11/29/19 10:47	106-93-4	
1,2-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 10:47	95-50-1	
1,2-Dichloroethane	ND	ug/L	1.0	1		11/29/19 10:47	107-06-2	
1,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 10:47	78-87-5	
1,3,5-Trimethylbenzene	ND	ug/L	1.0	1		11/29/19 10:47	108-67-8	
1,3-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 10:47	541-73-1	
1,3-Dichloropropane	ND	ug/L	1.0	1		11/29/19 10:47	142-28-9	
1,4-Dichlorobenzene	ND	ug/L	1.0	1		11/29/19 10:47	106-46-7	
2,2-Dichloropropane	ND	ug/L	1.0	1		11/29/19 10:47	594-20-7	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/29/19 10:47	78-93-3	
2-Chloroethylvinyl ether	ND	ug/L	2.0	1		11/29/19 10:47	110-75-8	c2
2-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 10:47	95-49-8	
2-Hexanone	ND	ug/L	10.0	1		11/29/19 10:47	591-78-6	
4-Chlorotoluene	ND	ug/L	1.0	1		11/29/19 10:47	106-43-4	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/29/19 10:47	108-10-1	
Acetone	ND	ug/L	10.0	1		11/29/19 10:47	67-64-1	1c,CH
Benzene	ND	ug/L	1.0	1		11/29/19 10:47	71-43-2	
Bromobenzene	ND	ug/L	1.0	1		11/29/19 10:47	108-86-1	
Bromochloromethane	ND	ug/L	1.0	1		11/29/19 10:47	74-97-5	
Bromodichloromethane	ND	ug/L	1.0	1		11/29/19 10:47	75-27-4	
Bromoform	ND	ug/L	1.0	1		11/29/19 10:47	75-25-2	
Bromomethane	ND	ug/L	1.0	1		11/29/19 10:47	74-83-9	
Carbon disulfide	ND	ug/L	1.0	1		11/29/19 10:47	75-15-0	
Carbon tetrachloride	ND	ug/L	1.0	1		11/29/19 10:47	56-23-5	
Chlorobenzene	ND	ug/L	1.0	1		11/29/19 10:47	108-90-7	
Chloroethane	ND	ug/L	1.0	1		11/29/19 10:47	75-00-3	
Chloroform	ND	ug/L	1.0	1		11/29/19 10:47	67-66-3	
Chloromethane	ND	ug/L	1.0	1		11/29/19 10:47	74-87-3	
Dibromochloromethane	ND	ug/L	1.0	1		11/29/19 10:47	124-48-1	
Dibromomethane	ND	ug/L	1.0	1		11/29/19 10:47	74-95-3	
Dichlorodifluoromethane	ND	ug/L	1.0	1		11/29/19 10:47	75-71-8	
Ethylbenzene	ND	ug/L	1.0	1		11/29/19 10:47	100-41-4	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1		11/29/19 10:47	87-68-3	L2
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/29/19 10:47	98-82-8	
Methyl-tert-butyl ether	ND	ug/L	1.0	1		11/29/19 10:47	1634-04-4	
Methylene Chloride	**2.3**	ug/L	1.0	1		11/29/19 10:47	75-09-2	

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ANALYTICAL RESULTS

Project: 215042
Pace Project No.: 30337003

Sample: Trip Blank by Pace **Lab ID: 30337003009** Collected: 11/20/19 00:00 Received: 11/22/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260C MSV	Analytical Method: EPA 8260C							
Naphthalene	ND	ug/L	2.0	1		11/29/19 10:47	91-20-3	
Styrene	ND	ug/L	1.0	1		11/29/19 10:47	100-42-5	
Tetrachloroethene	ND	ug/L	1.0	1		11/29/19 10:47	127-18-4	
Toluene	ND	ug/L	1.0	1		11/29/19 10:47	108-88-3	
Trichloroethene	ND	ug/L	1.0	1		11/29/19 10:47	79-01-6	
Trichlorofluoromethane	ND	ug/L	1.0	1		11/29/19 10:47	75-69-4	
Vinyl acetate	ND	ug/L	1.0	1		11/29/19 10:47	108-05-4	
Vinyl chloride	ND	ug/L	1.0	1		11/29/19 10:47	75-01-4	
Xylene (Total)	ND	ug/L	3.0	1		11/29/19 10:47	1330-20-7	
cis-1,2-Dichloroethene	ND	ug/L	1.0	1		11/29/19 10:47	156-59-2	
cis-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 10:47	10061-01-5	
m&p-Xylene	ND	ug/L	2.0	1		11/29/19 10:47	179601-23-1	
n-Butylbenzene	ND	ug/L	1.0	1		11/29/19 10:47	104-51-8	
n-Propylbenzene	ND	ug/L	1.0	1		11/29/19 10:47	103-65-1	
o-Xylene	ND	ug/L	1.0	1		11/29/19 10:47	95-47-6	
p-Isopropyltoluene	ND	ug/L	1.0	1		11/29/19 10:47	99-87-6	
sec-Butylbenzene	ND	ug/L	1.0	1		11/29/19 10:47	135-98-8	
tert-Butylbenzene	ND	ug/L	1.0	1		11/29/19 10:47	98-06-6	
trans-1,2-Dichloroethene	ND	ug/L	1.0	1		11/29/19 10:47	156-60-5	
trans-1,3-Dichloropropene	ND	ug/L	1.0	1		11/29/19 10:47	10061-02-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%.	78-122	1		11/29/19 10:47	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%.	80-120	1		11/29/19 10:47	17060-07-0	
Toluene-d8 (S)	93	%.	80-120	1		11/29/19 10:47	2037-26-5	
Dibromofluoromethane (S)	101	%.	80-120	1		11/29/19 10:47	1868-53-7	

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QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

QC Batch: 372679 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 30337003001, 30337003002, 30337003003, 30337003004, 30337003005, 30337003006, 30337003007, 30337003008

METHOD BLANK: 1808451 Matrix: Water
Associated Lab Samples: 30337003001, 30337003002, 30337003003, 30337003004, 30337003005, 30337003006, 30337003007, 30337003008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	11/25/19 21:03	

LABORATORY CONTROL SAMPLE: 1808452

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	1	1.1	111	80-120	

MATRIX SPIKE SAMPLE: 1808454

Parameter	Units	30336865001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	0.050J	2.5	2.6	104	75-125	

MATRIX SPIKE SAMPLE: 1808456

Parameter	Units	30337003006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	ND	2.5	2.7	106	75-125	

SAMPLE DUPLICATE: 1808453

Parameter	Units	30336865001 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	0.050J	.05J		

SAMPLE DUPLICATE: 1808455

Parameter	Units	30337003006 Result	Dup Result	RPD	Qualifiers
Mercury	ug/L	ND	.04J		

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QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

QC Batch: 373140 Analysis Method: EPA 6010C
QC Batch Method: EPA 3005A Analysis Description: 6010C MET
Associated Lab Samples: 30337003001, 30337003002, 30337003003, 30337003004, 30337003005, 30337003006, 30337003007, 30337003008

METHOD BLANK: 1810748 Matrix: Water
Associated Lab Samples: 30337003001, 30337003002, 30337003003, 30337003004, 30337003005, 30337003006, 30337003007, 30337003008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	12/03/19 10:49	
Barium	ug/L	ND	10.0	12/03/19 10:49	
Cadmium	ug/L	ND	3.0	12/03/19 10:49	
Chromium	ug/L	ND	5.0	12/03/19 10:49	
Copper	ug/L	ND	5.0	12/03/19 10:49	
Lead	ug/L	ND	5.0	12/03/19 10:49	
Nickel	ug/L	ND	10.0	12/03/19 10:49	
Selenium	ug/L	ND	8.0	12/03/19 10:49	
Silver	ug/L	ND	6.0	12/03/19 10:49	

LABORATORY CONTROL SAMPLE: 1810749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	500	525	105	80-120	
Barium	ug/L	500	504	101	80-120	
Cadmium	ug/L	500	523	105	80-120	
Chromium	ug/L	500	510	102	80-120	
Copper	ug/L	500	502	100	80-120	
Lead	ug/L	500	509	102	80-120	
Nickel	ug/L	500	518	104	80-120	
Selenium	ug/L	500	528	106	80-120	
Silver	ug/L	250	253	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1810751 1810752

Parameter	Units	30337003007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Arsenic	ug/L	ND	500	500	541	529	108	106	75-125	2	
Barium	ug/L	112	500	500	620	610	102	100	75-125	2	
Cadmium	ug/L	ND	500	500	538	524	107	105	75-125	3	
Chromium	ug/L	ND	500	500	514	496	102	99	75-125	3	
Copper	ug/L	12.5	500	500	518	504	101	98	75-125	3	
Lead	ug/L	ND	500	500	512	499	102	100	75-125	3	
Nickel	ug/L	13.8	500	500	528	515	103	100	75-125	3	
Selenium	ug/L	ND	500	500	539	529	108	106	75-125	2	
Silver	ug/L	ND	250	250	260	256	104	102	75-125	2	

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QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

SAMPLE DUPLICATE: 1810750

Parameter	Units	30337003007 Result	Dup Result	RPD	Qualifiers
Arsenic	ug/L	ND	2.9J		
Barium	ug/L	112	111	1	
Cadmium	ug/L	ND	.59J		
Chromium	ug/L	ND	2.6J		
Copper	ug/L	12.5	11.3	10	
Lead	ug/L	ND	ND		
Nickel	ug/L	13.8	13.6	1	
Selenium	ug/L	ND	ND		
Silver	ug/L	ND	ND		

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QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

QC Batch: 373192 Analysis Method: EPA 8260C
QC Batch Method: EPA 8260C Analysis Description: 8260C MSV
Associated Lab Samples: 30337003001, 30337003002, 30337003003, 30337003004, 30337003005, 30337003006, 30337003007, 30337003008, 30337003009

METHOD BLANK: 1811177 Matrix: Water
Associated Lab Samples: 30337003001, 30337003002, 30337003003, 30337003004, 30337003005, 30337003006, 30337003007, 30337003008, 30337003009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	ND	1.0	11/29/19 10:22	
1,1,1-Trichloroethane	ug/L	ND	1.0	11/29/19 10:22	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	11/29/19 10:22	
1,1,2-Trichloroethane	ug/L	ND	1.0	11/29/19 10:22	
1,1-Dichloroethane	ug/L	ND	1.0	11/29/19 10:22	
1,1-Dichloroethene	ug/L	ND	1.0	11/29/19 10:22	
1,1-Dichloropropene	ug/L	ND	1.0	11/29/19 10:22	
1,2,3-Trichlorobenzene	ug/L	ND	2.0	11/29/19 10:22	
1,2,4-Trichlorobenzene	ug/L	ND	1.0	11/29/19 10:22	
1,2,4-Trimethylbenzene	ug/L	ND	1.0	11/29/19 10:22	
1,2-Dibromo-3-chloropropane	ug/L	ND	5.0	11/29/19 10:22	
1,2-Dibromoethane (EDB)	ug/L	ND	1.0	11/29/19 10:22	
1,2-Dichlorobenzene	ug/L	ND	1.0	11/29/19 10:22	
1,2-Dichloroethane	ug/L	ND	1.0	11/29/19 10:22	
1,2-Dichloropropane	ug/L	ND	1.0	11/29/19 10:22	
1,3,5-Trimethylbenzene	ug/L	ND	1.0	11/29/19 10:22	
1,3-Dichlorobenzene	ug/L	ND	1.0	11/29/19 10:22	
1,3-Dichloropropane	ug/L	ND	1.0	11/29/19 10:22	
1,4-Dichlorobenzene	ug/L	ND	1.0	11/29/19 10:22	
2,2-Dichloropropane	ug/L	ND	1.0	11/29/19 10:22	
2-Butanone (MEK)	ug/L	ND	10.0	11/29/19 10:22	
2-Chloroethylvinyl ether	ug/L	ND	2.0	11/29/19 10:22	
2-Chlorotoluene	ug/L	ND	1.0	11/29/19 10:22	
2-Hexanone	ug/L	ND	10.0	11/29/19 10:22	
4-Chlorotoluene	ug/L	ND	1.0	11/29/19 10:22	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	11/29/19 10:22	
Acetone	ug/L	ND	10.0	11/29/19 10:22	1c,CH
Benzene	ug/L	ND	1.0	11/29/19 10:22	
Bromobenzene	ug/L	ND	1.0	11/29/19 10:22	
Bromochloromethane	ug/L	ND	1.0	11/29/19 10:22	
Bromodichloromethane	ug/L	ND	1.0	11/29/19 10:22	
Bromoform	ug/L	ND	1.0	11/29/19 10:22	
Bromomethane	ug/L	ND	1.0	11/29/19 10:22	
Carbon disulfide	ug/L	ND	1.0	11/29/19 10:22	
Carbon tetrachloride	ug/L	ND	1.0	11/29/19 10:22	
Chlorobenzene	ug/L	ND	1.0	11/29/19 10:22	
Chloroethane	ug/L	ND	1.0	11/29/19 10:22	
Chloroform	ug/L	ND	1.0	11/29/19 10:22	
Chloromethane	ug/L	ND	1.0	11/29/19 10:22	
cis-1,2-Dichloroethene	ug/L	ND	1.0	11/29/19 10:22	

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QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

METHOD BLANK: 1811177 Matrix: Water

Associated Lab Samples: 30337003001, 30337003002, 30337003003, 30337003004, 30337003005, 30337003006, 30337003007, 30337003008, 30337003009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
cis-1,3-Dichloropropene	ug/L	ND	1.0	11/29/19 10:22	
Dibromochloromethane	ug/L	ND	1.0	11/29/19 10:22	
Dibromomethane	ug/L	ND	1.0	11/29/19 10:22	
Dichlorodifluoromethane	ug/L	ND	1.0	11/29/19 10:22	
Ethylbenzene	ug/L	ND	1.0	11/29/19 10:22	
Hexachloro-1,3-butadiene	ug/L	ND	1.0	11/29/19 10:22	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/29/19 10:22	
m&p-Xylene	ug/L	ND	2.0	11/29/19 10:22	
Methyl-tert-butyl ether	ug/L	ND	1.0	11/29/19 10:22	
Methylene Chloride	ug/L	ND	1.0	11/29/19 10:22	
n-Butylbenzene	ug/L	ND	1.0	11/29/19 10:22	
n-Propylbenzene	ug/L	ND	1.0	11/29/19 10:22	
Naphthalene	ug/L	ND	2.0	11/29/19 10:22	
o-Xylene	ug/L	ND	1.0	11/29/19 10:22	
p-Isopropyltoluene	ug/L	ND	1.0	11/29/19 10:22	
sec-Butylbenzene	ug/L	ND	1.0	11/29/19 10:22	
Styrene	ug/L	ND	1.0	11/29/19 10:22	
tert-Butylbenzene	ug/L	ND	1.0	11/29/19 10:22	
Tetrachloroethene	ug/L	ND	1.0	11/29/19 10:22	
Toluene	ug/L	ND	1.0	11/29/19 10:22	
trans-1,2-Dichloroethene	ug/L	ND	1.0	11/29/19 10:22	
trans-1,3-Dichloropropene	ug/L	ND	1.0	11/29/19 10:22	
Trichloroethene	ug/L	ND	1.0	11/29/19 10:22	
Trichlorofluoromethane	ug/L	ND	1.0	11/29/19 10:22	
Vinyl acetate	ug/L	ND	1.0	11/29/19 10:22	
Vinyl chloride	ug/L	ND	1.0	11/29/19 10:22	
Xylene (Total)	ug/L	ND	3.0	11/29/19 10:22	
1,2-Dichloroethane-d4 (S)	%.	103	80-120	11/29/19 10:22	
4-Bromofluorobenzene (S)	%.	96	78-122	11/29/19 10:22	
Dibromofluoromethane (S)	%.	103	80-120	11/29/19 10:22	
Toluene-d8 (S)	%.	94	80-120	11/29/19 10:22	

LABORATORY CONTROL SAMPLE: 1811178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.0	95	70-130	
1,1,1-Trichloroethane	ug/L	20	20.3	101	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	18.6	93	70-130	
1,1,2-Trichloroethane	ug/L	20	18.0	90	70-130	
1,1-Dichloroethane	ug/L	20	19.4	97	68-121	
1,1-Dichloroethene	ug/L	20	17.8	89	63-129	
1,1-Dichloropropene	ug/L	20	18.7	94	70-130	
1,2,3-Trichlorobenzene	ug/L	20	16.5	83	70-130	

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1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

LABORATORY CONTROL SAMPLE: 1811178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2,4-Trichlorobenzene	ug/L	20	16.9	84	70-130	
1,2,4-Trimethylbenzene	ug/L	20	18.7	93	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	16.5	82	67-132	
1,2-Dibromoethane (EDB)	ug/L	20	17.3	86	70-130	
1,2-Dichlorobenzene	ug/L	20	18.3	91	70-130	
1,2-Dichloroethane	ug/L	20	19.0	95	67-117	
1,2-Dichloropropane	ug/L	20	20.2	101	69-121	
1,3,5-Trimethylbenzene	ug/L	20	18.3	92	70-130	
1,3-Dichlorobenzene	ug/L	20	18.7	93	70-130	
1,3-Dichloropropane	ug/L	20	16.6	83	70-130	
1,4-Dichlorobenzene	ug/L	20	18.1	90	70-130	
2,2-Dichloropropane	ug/L	20	19.3	97	54-130	
2-Butanone (MEK)	ug/L	20	22.1	111	59-128	
2-Chloroethylvinyl ether	ug/L	20	18.2	91	63-120	
2-Chlorotoluene	ug/L	20	18.3	92	70-130	
2-Hexanone	ug/L	20	21.8	109	49-145	
4-Chlorotoluene	ug/L	20	18.8	94	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	23.2	116	63-126	
Acetone	ug/L	20	24.0	120	37-150	1c,CH
Benzene	ug/L	20	17.6	88	70-130	
Bromobenzene	ug/L	20	17.5	87	70-130	
Bromochloromethane	ug/L	20	19.0	95	59-137	
Bromodichloromethane	ug/L	20	18.8	94	70-130	
Bromoform	ug/L	20	14.8	74	65-130	
Bromomethane	ug/L	20	19.0	95	45-148	
Carbon disulfide	ug/L	20	15.1	76	55-123	
Carbon tetrachloride	ug/L	20	18.8	94	69-126	
Chlorobenzene	ug/L	20	19.3	96	70-130	
Chloroethane	ug/L	20	19.1	96	68-146	
Chloroform	ug/L	20	18.1	90	69-116	
Chloromethane	ug/L	20	19.7	99	56-129	
cis-1,2-Dichloroethene	ug/L	20	19.2	96	66-118	
cis-1,3-Dichloropropene	ug/L	20	18.8	94	70-130	
Dibromochloromethane	ug/L	20	17.1	86	70-130	
Dibromomethane	ug/L	20	17.4	87	70-130	
Dichlorodifluoromethane	ug/L	20	20.7	104	44-171	
Ethylbenzene	ug/L	20	18.9	94	70-130	
Hexachloro-1,3-butadiene	ug/L	20	14.2	71	73-141	L2
Isopropylbenzene (Cumene)	ug/L	20	20.7	103	70-130	
m&p-Xylene	ug/L	40	37.3	93	70-130	
Methyl-tert-butyl ether	ug/L	20	17.5	88	70-130	
Methylene Chloride	ug/L	20	22.6	113	65-124	
n-Butylbenzene	ug/L	20	17.8	89	71-138	
n-Propylbenzene	ug/L	20	18.7	94	70-130	
Naphthalene	ug/L	20	17.9	89	69-135	
o-Xylene	ug/L	20	18.2	91	70-130	
p-Isopropyltoluene	ug/L	20	18.5	93	70-130	

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

LABORATORY CONTROL SAMPLE: 1811178

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
sec-Butylbenzene	ug/L	20	18.5	93	70-130	
Styrene	ug/L	20	19.5	97	70-130	
tert-Butylbenzene	ug/L	20	18.9	95	70-130	
Tetrachloroethene	ug/L	20	18.5	93	70-130	
Toluene	ug/L	20	18.6	93	70-130	
trans-1,2-Dichloroethene	ug/L	20	19.6	98	64-123	
trans-1,3-Dichloropropene	ug/L	20	18.2	91	68-119	
Trichloroethene	ug/L	20	19.4	97	70-130	
Trichlorofluoromethane	ug/L	20	18.4	92	64-163	
Vinyl acetate	ug/L	20	15.4	77	45-129	
Vinyl chloride	ug/L	20	20.2	101	70-130	
Xylene (Total)	ug/L	60	55.5	93	70-130	
1,2-Dichloroethane-d4 (S)	%.			100	80-120	
4-Bromofluorobenzene (S)	%.			98	78-122	
Dibromofluoromethane (S)	%.			104	80-120	
Toluene-d8 (S)	%.			95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1811547 1811548

Parameter	Units	30337003004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1,2-Tetrachloroethane	ug/L	ND	20	20	16.9	14.8	85	74	52-123	14	
1,1,1-Trichloroethane	ug/L	157	20	20	183	182	132	127	67-127	1	MH
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	15.2	13.0	76	65	55-118	16	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.0	14.2	80	71	60-117	12	
1,1-Dichloroethane	ug/L	26.6	20	20	44.5	42.2	90	78	68-118	5	
1,1-Dichloroethene	ug/L	49.6	20	20	67.9	66.5	91	85	62-126	2	
1,1-Dichloropropene	ug/L	ND	20	20	16.8	14.5	84	72	55-129	15	
1,2,3-Trichlorobenzene	ug/L	ND	20	20	13.3	11.9	66	59	49-128	11	
1,2,4-Trichlorobenzene	ug/L	ND	20	20	13.4	12.6	67	63	60-128	6	
1,2,4-Trimethylbenzene	ug/L	ND	20	20	15.4	13.6	77	68	70-130	12	ML
1,2-Dibromo-3-chloropropane	ug/L	ND	20	20	13.3	10.9	67	55	46-130	20	
1,2-Dibromoethane (EDB)	ug/L	ND	20	20	15.0	13.5	75	68	69-124	10	ML
1,2-Dichlorobenzene	ug/L	ND	20	20	15.1	13.8	75	69	66-116	9	
1,2-Dichloroethane	ug/L	ND	20	20	18.1	15.6	91	78	67-117	15	
1,2-Dichloropropane	ug/L	ND	20	20	17.1	15.2	86	76	61-128	12	
1,3,5-Trimethylbenzene	ug/L	ND	20	20	15.3	13.8	77	69	70-130	11	ML
1,3-Dichlorobenzene	ug/L	ND	20	20	15.6	13.6	78	68	67-117	13	
1,3-Dichloropropane	ug/L	ND	20	20	14.5	12.7	72	64	62-117	13	
1,4-Dichlorobenzene	ug/L	ND	20	20	14.8	13.4	74	67	68-116	10	ML
2,2-Dichloropropane	ug/L	ND	20	20	17.2	14.1	86	70	44-134	20	
2-Butanone (MEK)	ug/L	ND	20	20	17.2	17.1	86	85	63-175	0	
2-Chloroethylvinyl ether	ug/L	ND	20	20	ND	ND	0	0	10-105		ML
2-Chlorotoluene	ug/L	ND	20	20	16.2	14.4	81	72	50-124	12	
2-Hexanone	ug/L	ND	20	20	18.0	15.5	90	77	65-151	15	

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(724)850-5600

QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1811547 1811548

Parameter	Units	30337003004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
4-Chlorotoluene	ug/L	ND	20	20	15.6	13.5	78	68	49-127	14	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	19.2	17.6	96	88	66-149	9	
Acetone	ug/L	ND	20	20	20.4	19.0	91	84	10-175	7	1c,CH
Benzene	ug/L	ND	20	20	16.2	13.6	81	68	67-119	17	
Bromobenzene	ug/L	ND	20	20	14.3	12.9	71	65	55-124	10	
Bromochloromethane	ug/L	ND	20	20	16.9	14.3	85	71	64-124	17	
Bromodichloromethane	ug/L	ND	20	20	16.3	14.6	82	73	67-126	11	
Bromoform	ug/L	ND	20	20	12.4	10.8	62	54	43-114	14	
Bromomethane	ug/L	ND	20	20	4.7	6.6	23	33	10-164	34	R1
Carbon disulfide	ug/L	ND	20	20	14.0	12.0	70	60	37-135	15	
Carbon tetrachloride	ug/L	ND	20	20	17.7	15.5	89	78	60-137	13	
Chlorobenzene	ug/L	ND	20	20	16.8	14.9	84	74	68-119	13	
Chloroethane	ug/L	ND	20	20	21.7	20.5	109	103	54-169	6	
Chloroform	ug/L	ND	20	20	16.5	14.1	82	71	69-113	16	
Chloromethane	ug/L	ND	20	20	16.4	16.4	82	82	43-159	0	
cis-1,2-Dichloroethene	ug/L	41.9	20	20	59.9	56.2	90	72	65-121	6	
cis-1,3-Dichloropropene	ug/L	ND	20	20	15.2	13.8	76	69	61-120	10	
Dibromochloromethane	ug/L	ND	20	20	14.6	13.1	73	66	56-121	11	
Dibromomethane	ug/L	ND	20	20	15.5	13.3	78	66	56-133	16	
Dichlorodifluoromethane	ug/L	ND	20	20	22.2	20.7	111	103	21-175	7	
Ethylbenzene	ug/L	ND	20	20	16.5	14.5	83	72	69-127	13	
Hexachloro-1,3-butadiene	ug/L	ND	20	20	11.8	11.0	59	55	15-133	7	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	17.4	15.5	87	77	70-130	11	
m&p-Xylene	ug/L	ND	40	40	32.5	28.5	81	71	70-129	13	
Methyl-tert-butyl ether	ug/L	ND	20	20	15.8	13.8	79	69	70-130	13	ML
Methylene Chloride	ug/L	ND	20	20	20.8	17.6	104	88	49-144	17	
n-Butylbenzene	ug/L	ND	20	20	14.3	12.5	72	63	54-128	13	
n-Propylbenzene	ug/L	ND	20	20	15.8	14.0	79	70	62-127	12	
Naphthalene	ug/L	ND	20	20	13.6	12.4	68	62	60-136	9	
o-Xylene	ug/L	ND	20	20	15.3	14.0	77	70	68-126	9	
p-Isopropyltoluene	ug/L	ND	20	20	15.7	13.7	78	68	60-125	14	
sec-Butylbenzene	ug/L	ND	20	20	15.4	13.7	77	68	63-125	12	
Styrene	ug/L	ND	20	20	16.8	14.9	84	74	65-120	12	
tert-Butylbenzene	ug/L	ND	20	20	16.2	14.2	81	71	64-124	13	
Tetrachloroethene	ug/L	ND	20	20	17.2	14.6	86	73	64-123	16	
Toluene	ug/L	ND	20	20	16.0	14.1	79	69	70-130	13	ML
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.5	16.0	89	77	66-119	14	
trans-1,3-Dichloropropene	ug/L	ND	20	20	15.5	13.4	77	67	52-117	14	
Trichloroethene	ug/L	292	20	20	317	323	126	155	63-125	2	MH
Trichlorofluoromethane	ug/L	ND	20	20	18.7	18.8	94	94	43-186	1	
Vinyl acetate	ug/L	ND	20	20	13.4	13.0	67	65	35-150	3	
Vinyl chloride	ug/L	5.4	20	20	24.4	23.9	95	93	60-133	2	
Xylene (Total)	ug/L	ND	60	60	47.8	42.5	80	71	69-128	12	
1,2-Dichloroethane-d4 (S)	%.						110	109	80-120		
4-Bromofluorobenzene (S)	%.						95	96	78-122		
Dibromofluoromethane (S)	%.						106	107	80-120		

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Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: 215042
Pace Project No.: 30337003

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		1811547			1811548						
Parameter	Units	30337003004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Toluene-d8 (S)	%.						94	96	80-120		

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(724)850-5600

QUALIFIERS

Project: 215042
Pace Project No.: 30337003

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA	Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1c	The analyte did not meet the method recommended minimum RF.
CH	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
MH	Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
R1	RPD value was outside control limits.
c2	Acid preservation may not be appropriate for the analysis of 2-Chloroethylvinyl ether.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 215042
Pace Project No.: 30337003

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30337003001	**MW-01**	EPA 3005A	373140	EPA 6010C	373297
30337003002	**MW-02**	EPA 3005A	373140	EPA 6010C	373297
30337003003	**MW-03**	EPA 3005A	373140	EPA 6010C	373297
30337003004	**MW-04**	EPA 3005A	373140	EPA 6010C	373297
30337003005	**MW-05**	EPA 3005A	373140	EPA 6010C	373297
30337003006	**MS**	EPA 3005A	373140	EPA 6010C	373297
30337003007	**MSD**	EPA 3005A	373140	EPA 6010C	373297
30337003008	**Duplicate**	EPA 3005A	373140	EPA 6010C	373297
30337003001	**MW-01**	EPA 7470A	372679	EPA 7470A	372751
30337003002	**MW-02**	EPA 7470A	372679	EPA 7470A	372751
30337003003	**MW-03**	EPA 7470A	372679	EPA 7470A	372751
30337003004	**MW-04**	EPA 7470A	372679	EPA 7470A	372751
30337003005	**MW-05**	EPA 7470A	372679	EPA 7470A	372751
30337003006	**MS**	EPA 7470A	372679	EPA 7470A	372751
30337003007	**MSD**	EPA 7470A	372679	EPA 7470A	372751
30337003008	**Duplicate**	EPA 7470A	372679	EPA 7470A	372751
30337003001	**MW-01**	EPA 8260C	373192		
30337003002	**MW-02**	EPA 8260C	373192		
30337003003	**MW-03**	EPA 8260C	373192		
30337003004	**MW-04**	EPA 8260C	373192		
30337003005	**MW-05**	EPA 8260C	373192		
30337003006	**MS**	EPA 8260C	373192		
30337003007	**MSD**	EPA 8260C	373192		
30337003008	**Duplicate**	EPA 8260C	373192		
30337003009	**Trip Blank by Pace**	EPA 8260C	373192		

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CHAIN-OF-CUSTODY / Analytical Request Doc

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed a

WO# : 30337003

30337003

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	GeoLogic NY, PC	Report To:	GeoLogic NY, PC	Attention:	
Address:	P.O. Box 350	Copy To:		Company Name:	GeoLogic NY, PC
	Homer, New York 13077			Address:	
Email To:	geologicny@geologic.net	Purchase Order No.:		Pace Quote Reference:	
Phone:	607-749-5000 Fax: 607-749-5063	Project Name:	Elmira	Pace Project Manager:	
Requested Due Date/TAT:	Standard 5-DAY	Project Number:	215042	Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☒ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER

Site Location STATE: NY

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	Valid Matrix Codes: MATRIX / CODE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Y/N	Analysis Test: TCL - VOCs EPA 8260	8 RCRA Metals, Ni & Cu	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	MW-01	DRINKING WATER DW; WATER WT; WASTE WATER WW; PRODUCT P; SOIL/SOLID SL; OIL OL; WIPE WP; AIR AR; OTHER OT; TISSUE TS	WT	G			11.20.19	14:00		4			1	3						X	X		01
2	MW-02		WT	G			11.20.19	11:45		4			1	3						X	X		02
3	MW-03		WT	G			11.20.19	11:30		4			1	3						X	X		03
4	MW-04		WT	G			11.20.19	11:00		4			1	3						X	X		04
5	MW-05		WT	G			11.20.19	10:30		4			1	3						X	X		05
6	MS		WT	G			11.20.19	11:05		4			1	3						X	X		06
7	MSD		WT	G			11.20.19	11:05		4			1	3						X	X		07
8	Duplicate		WT	G			11.20.19	10:35		4			1	3						X	X		08
9	Trip Blank by Pace		WT							2													09
10																							
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
** Trip Blank by Pace for Q.C. Only. NO CHARGE **		11.20.19	16:45	GeoLogic Sample Refrigerator	11.20.19	16:45				
	GeoLogic Sample Refrigerator	11.21.19	1208		11.21.19	12:08				
		11.21	1700	PACE	11/22/19	930	2.3	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: J.A. MENZEL of GeoLogic NY, PC

SIGNATURE of SAMPLER: [signature] DATE Signed (MM/DD/YY): 11.20.19

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.08, 12-Oct-2007

Pittsburgh Lab Sample Condition Upon Receipt

Pace Analytical

Client Name: Geologic

Project # # 30337003

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Label LIMS Login

Tracking #: 770515044743

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals Intact: ☑ yes ☐ no

Thermometer Used 11 Type of Ice: (Wet) Blue None

Cooler Temperature Observed Temp 2.3 °C Correction Factor: 0 °C Final Temp: 2.3 °C

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot# 108391 / Date and Initials of person examining contents: MG 11/20/19
Chain of Custody Present:	✓			1.
Chain of Custody Filled Out:	✓			2.
Chain of Custody Relinquished:	✓			3.
Sampler Name & Signature on COC:	✓			4.
Sample Labels match COC: -Includes date/time/ID Matrix: WT	✓			5.
Samples Arrived within Hold Time:	✓			6.
Short Hold Time Analysis (<72hr remaining):		✓		7.
Rush Turn Around Time Requested:	✓			8.
Sufficient Volume:	✓			9.
Correct Containers Used: -Pace Containers Used:	✓ ✓			10.
Containers Intact:	✓			11.
Orthophosphate field filtered			✓	12.
Hex Cr Aqueous sample field filtered			✓	13.
Organic Samples checked for dechlorination:			✓	14.
Filtered volume received for Dissolved tests			✓	15.
All containers have been checked for preservation. exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix	✓			16.
All containers meet method preservation requirements.	✓			Initial when completed MG / Date/time of preservation / Lot # of added preservative
Headspace in VOA Vials (>6mm):		✓		17.
Trip Blank Present:	✓			18.
Trip Blank Custody Seals Present	✓			
Rad Samples Screened < 0.5 mrem/hr			✓	Initial when completed: Date:

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

☐ **A check in this box indicates that additional information has been stored in ereports.**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

***PM review** is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Manual Integration Letter Code System

NI: indicates that the peak was not integrated at all by the computer software.

LT: indicates that the peak in question was inappropriately integrated to an area less than what it should be (i.e. Peak area was cut)

GT: indicates that the peak in question was inappropriately integrated to an area greater than it should be (i.e. Peak tailing)

BA: indicates that the baseline had to be adjusted correctly by the analyst.

WP: indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system.).

CO: indicates that the analyst had to split two co-eluting peaks apart that were not (or could not be) separated by the computer system.

RT: indicates that the retention time for the peak in question has shifted from the expected retention time.

INT: indicates that there was electronic interference (i.e. Noise).

Letter Codes from Manual Integration SOP S-ALL-Q-016-3

Data Qualifier Flags

Organic Data Flags

A: Target compound was detected but, the quantitated amount exceeded the maximum amount of the calibration range.

a. Target compound was detected but, the amount quantitated was below the limit of quantitation.

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

DF: This indicates the amount of the diluted analyte.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

M: Compound response was manually integrated.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: Spike/Surrogate failed the recovery limits

U: This flag indicates the compound was analyzed for but not detected.

Data Qualifier Flags

Inorganic Data Flags

B: This flag is used when the analyte is found in the associated method blank as well as in the sample.

J: This flag designates a result that is between the method detection limit (MDL) and the reporting limit (RL). The reported number should be considered an estimated value.

D: This flag represents a sample analyte that was reanalyzed at a dilution. For example, when the concentration of an analyte exceeds the upper calibration range, the more diluted concentrations are reported and with the letter D flag.

DF: This indicates that the analyte was diluted and the amount of the dilution.

N: This flag indicates presumptive evidence of a compound for a tentatively identified compound.

NC: This flag denotes that the percent recovery was not calculated because the sample concentration was greater than four times spike concentration.

ND: This flag indicates the compound was analyzed for but not detected.

Q: One or more quality control criteria failed (e.g., LCS recovery, surrogate spike recovery or CCV)

R: This represents a compound for the duplicate analysis that was not within the specified acceptable limits.

U: This flag indicates the compound was analyzed for but not detected.

SAMPLE NO.

MW-01

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 11:01
7440-39-3	Barium	142		ug/L	1	12/03/2019 11:01
7440-43-9	Cadmium	ND	U	ug/L	1	12/03/2019 11:01
7440-47-3	Chromium	5.2		ug/L	1	12/03/2019 11:01
7440-50-8	Copper	6.8		ug/L	1	12/03/2019 11:01
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 11:01
7440-02-0	Nickel	ND	U	ug/L	1	12/03/2019 11:01
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 11:01
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 11:01

SAMPLE NO.

MW-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 11:03
7440-39-3	Barium	83.7		ug/L	1	12/03/2019 11:03
7440-43-9	Cadmium	9.9		ug/L	1	12/03/2019 11:03
7440-47-3	Chromium	9.5		ug/L	1	12/03/2019 11:03
7440-50-8	Copper	ND	U	ug/L	1	12/03/2019 11:03
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 11:03
7440-02-0	Nickel	ND	U	ug/L	1	12/03/2019 11:03
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 11:03
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 11:03

SAMPLE NO.

MW-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 11:06
7440-39-3	Barium	74.6		ug/L	1	12/03/2019 11:06
7440-43-9	Cadmium	ND	U	ug/L	1	12/03/2019 11:06
7440-47-3	Chromium	1560		ug/L	1	12/03/2019 11:06
7440-50-8	Copper	ND	U	ug/L	1	12/03/2019 11:06
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 11:06
7440-02-0	Nickel	ND	U	ug/L	1	12/03/2019 11:06
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 11:06
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 11:06

SAMPLE NO.

MW-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 11:08
7440-39-3	Barium	116		ug/L	1	12/03/2019 11:08
7440-43-9	Cadmium	ND	U	ug/L	1	12/03/2019 11:08
7440-47-3	Chromium	ND	U	ug/L	1	12/03/2019 11:08
7440-50-8	Copper	13.4		ug/L	1	12/03/2019 11:08
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 11:08
7440-02-0	Nickel	13.6		ug/L	1	12/03/2019 11:08
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 11:08
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 11:08

SAMPLE NO.

MW-05

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 11:14
7440-39-3	Barium	39.1		ug/L	1	12/03/2019 11:14
7440-43-9	Cadmium	ND	U	ug/L	1	12/03/2019 11:14
7440-47-3	Chromium	ND	U	ug/L	1	12/03/2019 11:14
7440-50-8	Copper	ND	U	ug/L	1	12/03/2019 11:14
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 11:14
7440-02-0	Nickel	24.6		ug/L	1	12/03/2019 11:14
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 11:14
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 11:14

SAMPLE NO.

MS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 11:17
7440-39-3	Barium	116		ug/L	1	12/03/2019 11:17
7440-43-9	Cadmium	ND	U	ug/L	1	12/03/2019 11:17
7440-47-3	Chromium	ND	U	ug/L	1	12/03/2019 11:17
7440-50-8	Copper	11.8		ug/L	1	12/03/2019 11:17
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 11:17
7440-02-0	Nickel	13.9		ug/L	1	12/03/2019 11:17
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 11:17
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 11:17

SAMPLE NO.

MSD

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003007 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 10:53
7440-39-3	Barium	112		ug/L	1	12/03/2019 10:53
7440-43-9	Cadmium	ND	U	ug/L	1	12/03/2019 10:53
7440-47-3	Chromium	ND	U	ug/L	1	12/03/2019 10:53
7440-50-8	Copper	12.5		ug/L	1	12/03/2019 10:53
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 10:53
7440-02-0	Nickel	13.8		ug/L	1	12/03/2019 10:53
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 10:53
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 10:53

SAMPLE NO.

Duplicate

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003008 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7440-38-2	Arsenic	ND	U	ug/L	1	12/03/2019 11:19
7440-39-3	Barium	38.4		ug/L	1	12/03/2019 11:19
7440-43-9	Cadmium	ND	U	ug/L	1	12/03/2019 11:19
7440-47-3	Chromium	ND	U	ug/L	1	12/03/2019 11:19
7440-50-8	Copper	ND	U	ug/L	1	12/03/2019 11:19
7439-92-1	Lead	ND	U	ug/L	1	12/03/2019 11:19
7440-02-0	Nickel	24.5		ug/L	1	12/03/2019 11:19
7782-49-2	Selenium	ND	U	ug/L	1	12/03/2019 11:19
7440-22-4	Silver	ND	U	ug/L	1	12/03/2019 11:19

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Initial Calibration Verification Source: 106548

Continuing Calibration Verification Source: 106402

Concentration Units: ug/L Instrument ID: 30ICP2

	Initial Calibration Verification				Continuing Calibration Verification						
	12/03/2019 10:33				12/03/2019 10:37			12/03/2019 11:10			
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	Control Limit
Arsenic	2000	2060	102.8	90-110	1000	975	97.5	1000	1050	105.3	90-110
Barium	2000	2020	100.9	90-110	1000	974	97.4	1000	1010	101.3	90-110
Cadmium	2000	2050	102.4	90-110	1000	976	97.6	1000	1030	102.6	90-110
Chromium	2000	2040	102.0	90-110	1000	984	98.4	1000	1000	100.5	90-110
Copper	2000	2010	100.7	90-110	1000	976	97.6	1000	1010	100.8	90-110
Lead	2000	2040	102.0	90-110	1000	970	97.0	1000	999	99.9	90-110
Nickel	2000	2030	101.3	90-110	1000	980	98.0	1000	990	99.0	90-110
Selenium	2000	2040	102.2	90-110	1000	976	97.6	1000	1050	105.0	90-110
Silver	1000	1010	101.3	90-110	500	486	97.3	500	504	100.7	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 106402

Concentration Units: ug/L Instrument ID: 30ICP2

	Continuing Calibration Verification			
	12/03/2019 11:21			Control Limit
Analyte	True	Found	%R	
Arsenic	1000	1070	107.2	90-110
Barium	1000	1040	103.8	90-110
Cadmium	1000	1040	104.5	90-110
Chromium	1000	1040	103.6	90-110
Copper	1000	1050	104.7	90-110
Lead	1000	1020	101.9	90-110
Nickel	1000	996	99.6	90-110
Selenium	1000	1070	106.7	90-110
Silver	500	515	103.0	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

CRDL Check Standard Source: 105101 Analysis Date/Time: 12/03/2019 10:45

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	4.6	91.7	70-130
Barium	10.0	10	99.9	70-130
Cadmium	3.0	2.9	97.5	70-130
Chromium	5.0	5.2	104.7	70-130
Copper	5.0	4.9	98.4	70-130
Lead	5.0	4.3	85.7	70-130
Nickel	10.0	9.6	96.5	70-130
Selenium	8.0	7.0	87.0	70-130
Silver	6.0	5.7	95.7	70-130

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

CRDL Check Standard Source: 105101 Analysis Date/Time: 12/03/2019 11:34

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Arsenic	5.0	5.0	99.9	70-130
Barium	10.0	10.0	100.3	70-130
Cadmium	3.0	2.9	98.2	70-130
Chromium	5.0	5.5	110.2	70-130
Copper	5.0	5.0	99.2	70-130
Lead	5.0	3.6	72.2	70-130
Nickel	10.0	8.8	88.0	70-130
Selenium	8.0	10.1	126.2	70-130
Silver	6.0	6.4	107.5	70-130

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract : 215042

Method Blank Matrix: Water Instrument ID: 30ICP2

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	12/03/2019 10:35	C	12/03/2019 11:12	C	12/03/2019 11:23	C		C	1810748	C
Arsenic	2.0	U	2.0	U	2.0	U			ND	U
Barium	0.68	U	0.68	U	0.68	U			ND	U
Cadmium	0.34	U	0.34	U	0.34	U			ND	U
Chromium	0.35	U	0.35	U	0.35	U			ND	U
Copper	2.7	U	2.7	U	2.7	U			ND	U
Lead	4.9	U	4.9	U	4.9	U			ND	U
Nickel	1.5	U	1.5	U	1.5	U			ND	U
Selenium	5.5	U	5.5	U	5.5	U			ND	U
Silver	1.4	U	1.4	U	1.4	U			ND	U

FORM IV INORGANIC-1
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Instrument ID: 30ICP2 Solution A Run Date: 12/03/2019 10:39

ICS Source: 106113,106401 Solution AB Run Date: 12/03/2019 10:42

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	48570	97.1	49080	98.2	90-110
Arsenic			-0.7536		1.311		
Barium		500	0.1701		484.2	96.8	90-110
Cadmium		1000	0.5167		1003	100.3	90-110
Calcium	50000	50000	48160	96.3	48870	97.7	90-110
Chromium		500	0.1262		494.2	98.8	90-110
Copper		500	1.242		487.1	97.4	90-110
Iron	20000	20000	19020	95.1	19290	96.5	90-110
Lead		1000	1.323		980.2	98	90-110
Magnesium	50000	50000	48280	96.6	49170	98.3	90-110
Nickel		1000	-1.057		990.2	99	90-110
Selenium			-1.487		-1.64		
Silver		1000	-0.2965		1005	100.5	90-110

FORM IV INORGANIC-2
INTERFERENCE CHECK SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Instrument ID: 30ICP2 Solution A Run Date: 12/03/2019 11:26

ICS Source: 106113,106401 Solution AB Run Date: 12/03/2019 11:28

Concentration Units: ug/L

Analyte	True		Found				
	Sol. A	Sol. AB	Sol. A	%R	Sol. AB	%R	Limits
Aluminum	50000	50000	52000	104	53470	106.9	90-110
Arsenic			0.2871		-1.209		
Barium		500	0.1011		524.4	104.9	90-110
Cadmium		1000	0.6125		1033	103.3	90-110
Calcium	50000	50000	51450	102.9	52850	105.7	90-110
Chromium		500	-0.1738		518.3	103.7	90-110
Copper		500	2.174		530.1	106	90-110
Iron	20000	20000	20210	101.1	20790	104	90-110
Lead		1000	2.881		1001	100.1	90-110
Magnesium	50000	50000	49860	99.7	51370	102.7	90-110
Nickel		1000	-1.116		964.9	96.5	90-110
Selenium			0.155		-0.3299		
Silver		1000	0.288		1055	105.5	90-110

SAMPLE NO.

1810751MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Basis: Wet Parent Sample ID: MSD

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	ug/L	75-125	541	ND	500	108
Barium	ug/L	75-125	620	112	500	102
Cadmium	ug/L	75-125	538	ND	500	107
Chromium	ug/L	75-125	514	ND	500	102
Copper	ug/L	75-125	518	12.5	500	101
Lead	ug/L	75-125	512	ND	500	102
Nickel	ug/L	75-125	528	13.8	500	103
Selenium	ug/L	75-125	539	ND	500	108
Silver	ug/L	75-125	260	ND	250	104

SAMPLE NO.

1810752MSD

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Basis: Wet Parent Sample ID: MSD

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Arsenic	ug/L	75-125	529	ND	500	106
Barium	ug/L	75-125	610	112	500	100
Cadmium	ug/L	75-125	524	ND	500	105
Chromium	ug/L	75-125	496	ND	500	99
Copper	ug/L	75-125	504	12.5	500	98
Lead	ug/L	75-125	499	ND	500	100
Nickel	ug/L	75-125	515	13.8	500	100
Selenium	ug/L	75-125	529	ND	500	106
Silver	ug/L	75-125	256	ND	250	102

SAMPLE NO.

1810750DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	ND	2.9J	
Barium	20	112	111	1
Cadmium	20	ND	0.59J	
Chromium	20	ND	2.6J	
Copper	20	12.5	11.3	10
Lead	20	ND	ND	
Nickel	20	13.8	13.6	1
Selenium	20	ND	ND	
Silver	20	ND	ND	

SAMPLE NO.

1810752MSD

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Arsenic	20	541	529	2
Barium	20	620	610	2
Cadmium	20	538	524	3
Chromium	20	514	496	3
Copper	20	518	504	3
Lead	20	512	499	3
Nickel	20	528	515	3
Selenium	20	539	529	2
Silver	20	260	256	2

SAMPLE NO.

1810749LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Arsenic	ug/L	500	525	105	80	120
Barium	ug/L	500	504	101	80	120
Cadmium	ug/L	500	523	105	80	120
Chromium	ug/L	500	510	102	80	120
Copper	ug/L	500	502	100	80	120
Lead	ug/L	500	509	102	80	120
Nickel	ug/L	500	518	104	80	120
Selenium	ug/L	500	528	106	80	120
Silver	ug/L	250	253	101	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Preparation Method: None Instrument ID: 30ICP2

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Arsenic	5.0	2.0	11/14/2018
Barium	10.0	0.68	11/14/2018
Cadmium	3.0	0.34	11/14/2018
Chromium	5.0	0.35	11/14/2018
Copper	5.0	2.7	11/14/2018
Lead	5.0	4.9	11/14/2018
Nickel	10.0	1.5	11/14/2018
Selenium	8.0	5.5	11/14/2018
Silver	6.0	1.4	11/14/2018

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Preparation Method: EPA 3005A Instrument ID: 30ICP2

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Arsenic	5.0	2.0	11/14/2018
Barium	10.0	0.68	11/14/2018
Cadmium	3.0	0.34	11/14/2018
Chromium	5.0	0.35	11/14/2018
Copper	5.0	2.7	11/14/2018
Lead	5.0	4.9	11/14/2018
Nickel	10.0	1.5	11/14/2018
Selenium	8.0	5.5	11/14/2018
Silver	6.0	1.4	11/14/2018

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-flt?
Ag 328.068 {103}	☒	7	V	-0.000710	0.000000	No
			Mn	0.000110	0.000000	No
			Cu	-0.000017	0.000000	No
			Mo	0.000584	0.000000	No
			Ti	-0.000129	0.000000	No
			Zr	0.004772	0.000000	No
			Fe	0.000009	0.000000	No
Al 396.152 { 85}	☒	5	Mo	0.053893	0.000000	No
			Zr	0.011123	0.000000	No
			Ca	0.000126	0.000000	No
			V	0.000716	0.000000	No
			Fe	-0.000080	0.000000	No
As 189.042 {478}	☒	8	Be	0.000082	0.000000	No
			Al	-0.000024	0.000000	No
			V	0.000009	0.000000	No
			Cr	-0.009671	0.000000	No
			Fe	-0.000008	0.000000	No
			Co	0.000030	0.000000	No
			Mo	-0.000138	0.000000	No
			Tl	0.000011	0.000000	No
B 208.959 {461}	☒	4	Ti	0.000132	0.000000	No
			Mo	0.032648	0.000000	No
			Si	0.000180	0.000000	No
			V	0.002695	0.000000	No
Ba 455.403 { 74}	☒	None				
Be 313.042 {108}	☒	2	V	-0.000017	0.000000	No
			Mo	0.000082	0.000000	No
Ca 373.690 { 90}	☒	1	Fe	0.002080	0.000000	No
Cd 228.802 {447}	☒	4	V	0.000070	0.000000	No
			Fe	0.000000	0.000000	No
			Ni	-0.000009	0.000000	No
			As	0.006121	0.000000	No
Co 228.616 {447}	☒	4	Ti	0.001894	0.000000	No
			Fe	0.000004	0.000000	No
			Mo	-0.000649	0.000000	No
			Ni	0.000178	0.000000	No
Cr 267.716 {126}	☒	2	Al	0.000006	0.000000	No
			Mn	0.000260	0.000000	No
Cu 324.754 {104}	☒	5	K	0.000004	0.000000	No
			V	-0.000071	0.000000	No
			Fe	-0.000155	0.000000	No
			Co	-0.000660	0.000000	No
			Mo	0.000478	0.000000	No
Fe 261.187 {129}	☒	None				
In 230.606 {446}*	☒	None				
K 766.490 { 44}	☒	None				
Li 670.784 { 50}	☒	None				
Mg 279.079 {121}	☒	2	Mn	-0.002210	0.000000	No
			Mo	-0.000957	0.000000	No
Mn 257.610 {131}	☒	1	Fe	-0.000004	0.000000	No
Mo 202.030 {467}	☒	1	V	-0.000017	0.000000	No
Na 818.326 { 41}	☒	1	Fe	0.001190	0.000000	No
Ni 231.604 {446}	☒	None				
P 177.495 {490}	☒	2	Ni	0.001820	0.000000	No

Element, Wavelength and Order	Use?	# IECs	IEC	k1	k2	Calc-in-fit?
			Cu	0.001961	0.000000	No
Pb 220.353 {453}	☒	6	Al	0.000203	0.000000	No
			Si	0.000063	0.000000	No
			Mn	0.000090	0.000000	No
			Fe	0.000021	0.000000	No
			Cu	0.000329	0.000000	No
			Mo	-0.001816	0.000000	No
S 182.034 {485}	☒	8	Al	-0.000089	0.000000	No
			Mn	0.002996	0.000000	No
			Ti	-0.000441	0.000000	No
			V	-0.000354	0.000000	No
			Ni	-0.000410	0.000000	No
			Ca	0.000007	0.000000	No
			Fe	-0.000062	0.000000	No
			Mo	-0.007427	0.000000	No
Sb 206.833 {463}	☒	6	Al	0.000000	0.000000	No
			Cr	0.019804	0.000000	No
			Fe	0.000019	0.000000	No
			Mo	-0.001963	0.000000	No
			Zr	-0.000778	0.000000	No
			Ti	0.000509	0.000000	No
Se 196.090 {472}	☒	3	Al	0.000012	0.000000	No
			Mn	0.000301	0.000000	No
			Mo	0.000474	0.000000	No
Si 251.611 {134}	☒	2	V	0.042383	0.000000	No
			Mo	0.010972	0.000000	No
Sn 189.989 {477}	☒	None				
Sr 407.771 { 83}	☒	1	Ca	0.000015	0.000000	No
Ti 334.904 {101}	☒	3	Cr	0.000218	0.000000	No
			Mo	0.000493	0.000000	No
			Ca	0.000007	0.000000	No
Tl 190.856 {477}	☒	6	Ti	-0.001394	0.000000	No
			V	-0.024899	0.000000	No
			Cr	0.000322	0.000000	No
			Mn	0.000927	0.000000	No
			Fe	0.000008	0.000000	No
			Co	0.001126	0.000000	No
V 292.402 {115}	☒	5	Ti	0.000421	0.000000	No
			Cr	-0.004806	0.000000	No
			Mn	-0.000473	0.000000	No
			Fe	-0.000004	0.000000	No
			Mo	-0.000036	0.000000	No
Y 224.306 {450}*	☒	None				
Y 360.073 { 94}*	☒	None				
Y 371.030 { 91}*	☒	None				
Zn 206.200 {463}	☒	6	Cr	-0.000244	0.000000	No
			Mn	0.000036	0.000000	No
			Fe	-0.000003	0.000000	No
			Co	0.000004	0.000000	No
			Ni	-0.000002	0.000000	No
			Mo	0.000153	0.000000	No
Zr 339.198 { 99}	☒	None				

FORM XI - INORGANIC-1
LINEAR DYNAMIC RANGES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract : 215042

Instrument ID: 30ICP2 Effective Date:11/21/2018

Analyte	Concentration (ug/L)
Arsenic	100000
Barium	50000
Cadmium	25000
Chromium	50000
Copper	100000
Lead	100000
Nickel	100000
Selenium	100000
Silver	5000

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Preparation Method: EPA 3005A Batch: MPRP 27241

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1810748	1810748BLANK	11/27/2019	50	50
1810749	1810749LCS	11/27/2019	50	50
1810750	1810750DUP	11/27/2019	50	50
1810751	1810751MS	11/27/2019	50	50
1810752	1810752MSD	11/27/2019	50	50
30337003001	MW-01	11/27/2019	50	50
30337003002	MW-02	11/27/2019	50	50
30337003003	MW-03	11/27/2019	50	50
30337003004	MW-04	11/27/2019	50	50
30337003005	MW-05	11/27/2019	50	50
30337003006	MS	11/27/2019	50	50
30337003007	MSD	11/27/2019	50	50
30337003008	Duplicate	11/27/2019	50	50

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Instrument ID: 30ICP2 Analysis Method: EPA 6010C

Start Date: 12/03/2019 10:28 End Date: 12/03/2019 11:34

Sample Name	Lab Sample ID	D/F	Date	Time	Ag	As	Ba	Cd	Cr	Cu	Ni	Pb	Se
11975187CAL0	11975187CAL0	1	12/03/2019	10:28	X	X	X	X	X	X	X	X	X
11975189CAL1	11975189CAL1	1	12/03/2019	10:31	X	X	X	X	X	X	X	X	X
11975191ICV	11975191ICV	1	12/03/2019	10:33	X	X	X	X	X	X	X	X	X
11975194ICB	11975194ICB	1	12/03/2019	10:35	X	X	X	X	X	X	X	X	X
11975196CCV	11975196CCV	1	12/03/2019	10:37	X	X	X	X	X	X	X	X	X
11975205ICSA	11975205ICSA	1	12/03/2019	10:39	X	X	X	X	X	X	X	X	X
11975209ICSAB	11975209ICSAB	1	12/03/2019	10:42	X	X	X	X	X	X	X	X	X
11975214CRDL	11975214CRDL	1	12/03/2019	10:45	X	X	X	X	X	X	X	X	X
1810748BLANK	1810748	1	12/03/2019	10:49	X	X	X	X	X	X	X	X	X
1810749LCS	1810749	1	12/03/2019	10:51	X	X	X	X	X	X	X	X	X
MSD	30337003007	1	12/03/2019	10:53	X	X	X	X	X	X	X	X	X
1810750DUP	1810750	1	12/03/2019	10:55	X	X	X	X	X	X	X	X	X
1810751MS	1810751	1	12/03/2019	10:57	X	X	X	X	X	X	X	X	X
1810752MSD	1810752	1	12/03/2019	10:59	X	X	X	X	X	X	X	X	X
MW-01	30337003001	1	12/03/2019	11:01	X	X	X	X	X	X	X	X	X
MW-02	30337003002	1	12/03/2019	11:03	X	X	X	X	X	X	X	X	X
MW-03	30337003003	1	12/03/2019	11:06	X	X	X	X	X	X	X	X	X
MW-04	30337003004	1	12/03/2019	11:08	X	X	X	X	X	X	X	X	X
11975228CCV	11975228CCV	1	12/03/2019	11:10	X	X	X	X	X	X	X	X	X
11975229CCB	11975229CCB	1	12/03/2019	11:12	X	X	X	X	X	X	X	X	X
MW-05	30337003005	1	12/03/2019	11:14	X	X	X	X	X	X	X	X	X
MS	30337003006	1	12/03/2019	11:17	X	X	X	X	X	X	X	X	X
Duplicate	30337003008	1	12/03/2019	11:19	X	X	X	X	X	X	X	X	X
11975230CCV	11975230CCV	1	12/03/2019	11:21	X	X	X	X	X	X	X	X	X
11975231CCB	11975231CCB	1	12/03/2019	11:23	X	X	X	X	X	X	X	X	X
11975232ICSA	11975232ICSA	1	12/03/2019	11:26	X	X	X	X	X	X	X	X	X
11975233ICSAB	11975233ICSAB	1	12/03/2019	11:28	X	X	X	X	X	X	X	X	X
11975241CRDL	11975241CRDL	1	12/03/2019	11:34	X	X	X	X	X	X	X	X	X

Sample Name: CAL0 Acquired: 12/3/2019 10:28:20 Type: Cal
Method: Pace-65002-2-CETAC1(v1868) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0000**	**.0011**	**-.0003**	**.0005**	**.0018**	**-.0003**	**.0012**	**-.0000**
Stddev	.0001	.0005	.0002	.0000	.0000	.0001	.0002	.0004
%RSD	593.5	44.71	82.39	6.806	.7401	20.12	20.61	40190.
#1	.0000	.0014	-.0004	.0005	.0018	-.0003	.0010	-.0003
#2	-.0001	.0007	-.0001	.0005	.0018	-.0003	.0014	.0003

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0005**	**.0001**	**.0004**	**.0000**	**2339.**	**.0022**	**-.0014**	**-.0001**
Stddev	.0008	.0000	.0001	.0000	7.	.0004	.0000	.0000
%RSD	155.3	38.60	20.09	115.1	.3032	15.88	1.730	11.21
#1	.0001	.0001	.0003	.0000	2334.	.0020	-.0014	-.0001
#2	-.0011	.0001	.0005	.0001	2344.	.0025	-.0014	-.0002

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**.0009**	**-.0042**	**.0004**	**.0003**	**-.0009**	**-.0008**	**-.0004**
Stddev	.0001	.0002	.0004	.0002	.0001	.0003	.0000	.0001
%RSD	186.6	18.12	10.05	37.65	21.95	31.59	4.667	27.89
#1	.0001	.0011	-.0039	.0005	.0002	-.0011	-.0008	-.0005
#2	-.0000	.0008	-.0045	.0003	.0003	-.0007	-.0008	-.0003

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0003**	**.0002**	**.0003**	**.0001**	**-.0004**	**-.0016**	**.0000**	**4747.**
Stddev	.0000	.0000	.0002	.0002	.0000	.0001	.0000	24.
%RSD	11.10	22.84	77.75	285.5	5.081	8.643	77.02	.4977
#1	.0002	.0002	.0004	-.0001	-.0004	-.0017	.0000	4730.
#2	.0003	.0002	.0001	.0002	-.0003	-.0015	.0001	4764.

Sample Name: CAL0 Acquired: 12/3/2019 10:28:20 Type: Cal
Method: Pace-65002-2-CETAC1(v1868) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**70950.**	**15670.**	**.0007**	**-.0003**
Stddev	95.	92.	.0001	.0002
%RSD	.1334	.5900	12.54	73.98
#1	71020.	15600.	.0008	-.0004
#2	70890.	15730.	.0006	-.0001

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2338.7**	**4747.2**	**70953.**	**15665.**
Stddev	7.1	23.6	95.	92.
%RSD	.30320	.49765	.13342	.58997
#1	2333.7	4730.5	71020.	15600.
#2	2343.7	4763.9	70886.	15731.

Sample Name: CAL1 Acquired: 12/3/2019 10:31:15 Type: Cal
Method: Pace-65002-2-CETAC1(v1868) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1752**	**1.193**	**.1905**	**.9345**	**6.226**	**7.144**	**1.369**	**4.695**
Stddev	.0021	.006	.0020	.0088	.025	.023	.006	.040
%RSD	1.197	.4766	1.046	.9426	.3948	.3219	.4781	.8549
#1	.1737	1.197	.1891	.9283	6.243	7.161	1.374	4.667
#2	.1767	1.189	.1919	.9407	6.208	7.128	1.365	4.724

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.266**	**.4262**	**.2786**	**.7561**	**2287.**	**.6344**	**1.313**	**.2058**
Stddev	.049	.0011	.0020	.0047	1.	.0009	.001	.0011
%RSD	.9218	.2675	.7078	.6235	.0428	.1473	.0677	.5302
#1	5.231	.4254	.2800	.7594	2288.	.6337	1.314	.2066
#2	5.300	.4270	.2772	.7527	2286.	.6351	1.313	.2051

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7509**	**2.593**	**.0786**	**1.341**	**.2081**	**.9845**	**.9590**	**.2818**
Stddev	.0047	.027	.0001	.012	.0022	.0108	.0101	.0026
%RSD	.6285	1.033	.1015	.8988	1.074	1.098	1.053	.9157
#1	.7543	2.574	.0785	1.332	.2065	.9768	.9519	.2800
#2	.7476	2.612	.0787	1.349	.2097	.9921	.9662	.2836

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1754**	**.2011**	**.4838**	**11.90**	**.8259**	**.3878**	**.5067**	**4605.**
Stddev	.0020	.0007	.0033	.13	.0044	.0043	.0025	2.
%RSD	1.145	.3629	.6806	1.105	.5280	1.098	.4968	.0403
#1	.1740	.2016	.4815	11.81	.8228	.3847	.5049	4604.
#2	.1768	.2006	.4862	12.00	.8289	.3908	.5084	4606.

Sample Name: CAL1 Acquired: 12/3/2019 10:31:15 Type: Cal
Method: Pace-65002-2-CETAC1(v1868) Mode: IR Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	69650.	15430.	3.170	.5384
Stddev	118.	47.	.033	.0035
%RSD	.1690	.3059	1.044	.6576
#1	69570.	15400.	3.147	.5409
#2	69740.	15470.	3.194	.5359

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2286.8	4604.9	69654.	15432.
Stddev	1.0	1.9	118.	47.
%RSD	.04277	.04026	.16897	.30590
#1	2287.5	4603.6	69571.	15398.
#2	2286.2	4606.2	69738.	15465.

Sample Name: ICV Acquired: 12/3/2019 10:33:18 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1013.**	**20040.**	**2055.**	**2019.**	**2018.**	**2026.**	**20360.**	**2049.**	**2039.**
Stddev	17.	25.	17.	37.	3.	1.	24.	25.	19.
%RSD	1.650	.1246	.8502	1.841	.1478	.0252	.1186	1.207	.9425
#1	1001.	20020.	2043.	1993.	2020.	2025.	20340.	2032.	2025.
#2	1024.	20060.	2068.	2045.	2016.	2026.	20380.	2067.	2052.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2039.**	**2014.**	**20120.**	**96.23**	**20060.**	**1970.**	**20200.**	**2014.**	**2091.**
Stddev	17.	1.	11.	.04	104.	3.	21.	3.	22.
%RSD	.8324	.0405	.0535	.0426	.5161	.1772	.1015	.1582	1.052
#1	2027.	2014.	20130.	96.26	19980.	1973.	20180.	2017.	2076.
#2	2051.	2015.	20120.	96.20	20130.	1968.	20210.	2012.	2107.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**20150.**	**2026.**	**2004.**	**2041.**	**20350.**	**2021.**	**2045.**	**10110.**	**2043.**
Stddev	22.	34.	20.	29.	211.	40.	20.	24.	31.
%RSD	.1094	1.684	.9964	1.441	1.035	1.989	.9845	.2333	1.536
#1	20130.	2002.	1989.	2020.	20200.	1992.	2031.	10130.	2020.
#2	20170.	2050.	2018.	2062.	20500.	2049.	2059.	10090.	2065.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: ICV Acquired: 12/3/2019 10:33:18 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2023.**	**2014.**	**1969.**	**2043.**	**95.85**	**95.96**	**97.05**	**2016.**	**2022.**
Stddev	15.	20.	34.	21.	.21	.23	.07	33.	9.
%RSD	.7387	1.004	1.746	1.019	.2147	.2441	.0714	1.614	.4518
#1	2033.	2000.	1944.	2028.	95.99	96.13	97.00	1993.	2016.
#2	2012.	2028.	1993.	2057.	95.70	95.79	97.10	2039.	2029.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2250.5**	**4550.0**	**68086.**	**15203.**
Stddev	1.0	9.8	166.	11.
%RSD	.04256	.21469	.24414	.07141
#1	2251.1	4556.9	68204.	15196.
#2	2249.8	4543.0	67968.	15211.

Sample Name: ICB Acquired: 12/3/2019 10:35:22 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0489	4.590	-1.491	.8197	.2851	.1975	5.437	-.0460	-.0984
Stddev	.1227	4.510	.208	.0238	.0424	.0130	3.939	.0206	.3043
%RSD	250.7	98.27	13.98	2.901	14.88	6.596	72.45	44.86	309.2
#1	.1357	1.401	-1.344	.8365	.3151	.2067	8.223	-.0605	-.3136
#2	-.0378	7.779	-1.638	.8029	.2551	.1883	2.652	-.0314	.1167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.3363	-.1428	6.260	97.08	16.75	.8001	17.82	.4456	2.149
Stddev	.0873	.1767	.782	.21	14.72	.0690	6.02	.1769	.610
%RSD	25.96	123.7	12.50	.2113	87.90	8.627	33.75	39.69	28.40
#1	.3980	-.0179	5.707	96.94	6.339	.7513	13.57	.3206	2.581
#2	.2746	-.2678	6.814	97.23	27.16	.8489	22.08	.5707	1.718
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	102.0	-.3277	.7059	1.620	1.814	.1879	1.879	2.073	.0761
Stddev	11.5	.0214	.8903	1.117	4.892	1.898	1.549	3.884	1.122
%RSD	11.24	6.544	126.1	68.93	269.7	1010.	82.42	187.3	1475.
#1	110.1	-.3125	1.335	.8304	5.274	-1.154	2.975	4.819	-.7176
#2	93.88	-.3429	.0763	2.410	-1.645	1.530	.7841	-.6731	.8697
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICB Acquired: 12/3/2019 10:35:22 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2499	.0343	.5150	-.0631	96.77	97.07	97.96	.5623	-.4081
Stddev	.0732	.2132	.1734	.0503	.37	.21	.90	.0473	.8442
%RSD	29.31	621.8	33.67	79.75	.3871	.2187	.9163	8.406	206.9
#1	.3017	-.1165	.3924	-.0986	96.51	97.22	97.33	.5289	.1889
#2	.1981	.1850	.6377	-.0275	97.04	96.92	98.60	.5958	-1.005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2270.5	4594.0	68876.	15346.
Stddev	4.8	17.8	151.	141.
%RSD	.21134	.38711	.21874	.91633
#1	2267.1	4581.5	68982.	15247.
#2	2273.9	4606.6	68769.	15446.

Sample Name: CCV Acquired: 12/3/2019 10:37:54 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**486.5**	**9663.**	**974.7**	**974.3**	**973.5**	**991.3**	**9825.**	**976.0**	**978.2**
Stddev	5.0	32.	19.8	11.8	2.3	5.2	54.	12.6	13.1
%RSD	1.017	.3324	2.032	1.210	.2321	.5287	.5456	1.287	1.339
#1	483.0	9686.	960.7	965.9	975.1	995.1	9863.	967.1	969.0
#2	490.0	9641.	988.8	982.6	971.9	987.6	9787.	984.9	987.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**983.5**	**975.8**	**9778.**	**100.5**	**9697.**	**966.8**	**9885.**	**987.0**	**972.8**
Stddev	6.5	1.3	51.	.1	21.	2.6	91.	3.5	13.5
%RSD	.6562	.1374	.5219	.0755	.2204	.2721	.9198	.3549	1.386
#1	979.0	976.8	9815.	100.4	9682.	965.0	9949.	989.5	963.2
#2	988.1	974.9	9742.	100.5	9712.	968.7	9821.	984.5	982.3
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9823.**	**979.8**	**983.6**	**969.7**	**9760.**	**972.6**	**976.0**	**4901.**	**971.8**
Stddev	94.	12.5	19.5	10.9	165.	10.2	20.6	36.	6.3
%RSD	.9569	1.274	1.984	1.119	1.692	1.052	2.114	.7362	.6471
#1	9889.	971.0	969.8	962.0	9643.	965.3	961.4	4926.	967.4
#2	9756.	988.7	997.4	977.4	9877.	979.8	990.5	4875.	976.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 12/3/2019 10:37:54 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**994.0**	**972.9**	**961.2**	**971.8**	**99.69**	**100.3**	**100.9**	**990.9**	**979.2**
Stddev	2.7	4.9	15.0	6.2	.00	.1	.8	13.1	3.7
%RSD	.2758	.5084	1.560	.6390	.0040	.1054	.7953	1.319	.3757
#1	996.0	969.4	950.6	967.4	99.69	100.3	100.4	981.6	981.8
#2	992.1	976.4	971.8	976.2	99.70	100.4	101.5	1000.	976.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2349.4**	**4732.7**	**71185.**	**15814.**
Stddev	1.8	.2	75.	126.
%RSD	.07546	.00404	.10542	.79531
#1	2348.2	4732.5	71132.	15725.
#2	2350.7	4732.8	71238.	15903.

Sample Name: ICSA Acquired: 12/3/2019 10:39:59 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2965**	**48570.**	**-.7536**	**.5711**	**.1701**	**.1918**	**48160.**	**.5167**	**-.2281**
Stddev	.2040	291.	.9229	.2088	.0506	.0200	313.	.1272	.5121
%RSD	68.82	.5999	122.5	36.57	29.73	10.45	.6500	24.62	224.5
#1	-.4407	48780.	-1.406	.4234	.1343	.2060	48390.	.4267	.1340
#2	-.1522	48360.	-.1010	.7187	.2059	.1776	47940.	.6066	-.5902
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.1262**	**1.242**	**19020.**	**100.1**	**-8.055**	**2.184**	**48280.**	**-.0732**	**1.020**
Stddev	.2842	1.539	93.	.1	4.661	.475	350.	.2398	.054
%RSD	225.3	123.9	.4900	.0912	57.87	21.75	.7244	327.7	5.299
#1	-.0748	.1539	19080.	100.1	-4.759	2.520	48530.	.0964	.9817
#2	.3272	2.331	18950.	99.99	-11.35	1.848	48030.	-.2427	1.058
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**148.3**	**-1.057**	**.1543**	**1.323**	**-3.229**	**-2.905**	**-1.487**	**3.064**	**.8533**
Stddev	21.1	.058	1.777	.156	.057	.241	.253	.070	.0438
%RSD	14.25	5.474	1152.	11.75	1.776	8.312	16.98	2.294	5.137
#1	133.3	-1.098	-1.102	1.433	-3.270	-3.076	-1.666	3.113	.8223
#2	163.2	-1.016	1.411	1.213	-3.189	-2.734	-1.309	3.014	.8843
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 12/3/2019 10:39:59 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0598**	**.6004**	**1.548**	**.4151**	**98.33**	**99.52**	**101.5**	**-.2545**	**.2523**
Stddev	.0256	.2554	3.441	.3368	.32	.02	.4	.1677	.9692
%RSD	42.78	42.54	222.2	81.12	.3262	.0238	.3622	65.90	384.2
#1	-.0417	.7811	-.8850	.6532	98.55	99.54	101.2	-.1359	-.4330
#2	-.0779	.4198	3.982	.1770	98.10	99.51	101.7	-.3730	.9376
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2339.9**	**4667.8**	**70615.**	**15894.**
Stddev	2.1	15.2	17.	58.
%RSD	.09120	.32615	.02385	.36218
#1	2341.5	4678.6	70627.	15853.
#2	2338.4	4657.0	70603.	15934.

Sample Name: ICSAB Acquired: 12/3/2019 10:42:12 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1005.**	**49080.**	**1.311**	**-1.166**	**484.2**	**499.0**	**48870.**	**1003.**	**482.8**
Stddev	17.	252.	2.259	.473	2.1	1.3	155.	12.	4.6
%RSD	1.646	.5142	172.2	40.55	.4335	.2516	.3169	1.193	.9526
#1	993.5	49260.	2.909	-1.501	485.7	499.9	48980.	994.2	479.5
#2	1017.	48900.	-.2857	-.8319	482.8	498.1	48760.	1011.	486.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**494.2**	**487.1**	**19290.**	**99.52**	**-5.130**	**1.579**	**49170.**	**481.6**	**.1853**
Stddev	3.2	.2	131.	.02	6.595	1.037	89.	1.7	.0820
%RSD	.6483	.0369	.6763	.0160	128.6	65.67	.1804	.3504	44.28
#1	491.9	486.9	19380.	99.54	-9.794	.8457	49240.	482.8	.2433
#2	496.5	487.2	19200.	99.51	-.4667	2.312	49110.	480.4	.1273
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-16.06**	**990.2**	**1.511**	**980.2**	**-8.813**	**-2.527**	**-1.640**	**-18.81**	**-.0446**
Stddev	103.0	11.6	.149	10.8	1.046	.173	1.858	1.01	.6434
%RSD	641.6	1.175	9.835	1.102	11.87	6.844	113.3	5.393	1444.
#1	-88.91	982.0	1.616	972.6	-8.074	-2.649	-.3260	-19.52	-.4995
#2	56.79	998.5	1.406	987.9	-9.553	-2.405	-2.954	-18.09	.4104
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSAB Acquired: 12/3/2019 10:42:12 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.2289	.3338	-2.019	488.8	97.67	98.94	100.6	978.4	-1.297
Stddev	.0324	.1399	.131	4.5	.11	.07	.1	15.2	.437
%RSD	14.15	41.92	6.468	.9250	.1118	.0740	.0922	1.554	33.66
#1	-.2518	.4328	-1.927	485.6	97.75	98.99	100.7	967.6	-.9885
#2	-.2060	.2349	-2.111	492.0	97.60	98.88	100.6	989.1	-1.606
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2327.6	4636.7	70198.	15764.
Stddev	.4	5.2	52.	15.
%RSD	.01602	.11179	.07397	.09216
#1	2327.8	4640.4	70234.	15775.
#2	2327.3	4633.1	70161.	15754.

Sample Name: CRDL Acquired: 12/3/2019 10:45:18 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.744**	**49.20**	**4.584**	**49.21**	**9.986**	**1.040**	**1005.**	**2.925**	**4.537**
Stddev	.039	2.42	1.655	.11	.058	.011	14.	.224	.030
%RSD	.6863	4.918	36.11	.2217	.5839	1.067	1.396	7.656	.6556
#1	5.772	50.91	3.414	49.13	9.944	1.032	995.1	2.767	4.516
#2	5.716	47.49	5.754	49.29	10.03	1.048	1015.	3.084	4.558
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.236**	**4.921**	**74.11**	**100.1**	**467.4**	**39.88**	**206.4**	**5.126**	**19.96**
Stddev	.020	.712	1.96	.1	16.4	.49	15.2	.076	.36
%RSD	.3806	14.46	2.643	.1231	3.504	1.224	7.374	1.477	1.826
#1	5.222	5.424	72.73	100.2	455.8	39.54	217.2	5.073	19.70
#2	5.250	4.418	75.50	100.1	479.0	40.23	195.7	5.180	20.22
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1217.**	**9.648**	**49.66**	**4.285**	**51.31**	**8.474**	**6.960**	**103.6**	**48.69**
Stddev	39.	.105	1.45	1.161	.20	1.617	2.203	4.6	.77
%RSD	3.189	1.092	2.911	27.10	.3871	19.08	31.66	4.444	1.575
#1	1244.	9.574	50.68	5.106	51.45	9.617	8.518	106.8	49.23
#2	1189.	9.723	48.64	3.464	51.17	7.330	5.402	100.3	48.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 12/3/2019 10:45:18 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.088**	**4.683**	**8.326**	**4.780**	**100.2**	**101.0**	**101.6**	**9.937**	**67.12**
Stddev	.038	.042	.932	.336	.2	.1	.3	.058	.08
%RSD	.7493	.9043	11.19	7.029	.2259	.1362	.2938	.5799	.1177
#1	5.061	4.713	7.667	4.542	100.4	101.1	101.4	9.977	67.17
#2	5.115	4.653	8.985	5.018	100.1	100.9	101.9	9.896	67.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2342.0**	**4757.3**	**71665.**	**15922.**
Stddev	2.9	10.7	98.	47.
%RSD	.12312	.22593	.13617	.29380
#1	2344.1	4764.9	71734.	15889.
#2	2340.0	4749.7	71596.	15955.

Sample Name: 1810748_28207 Acquired: 12/3/2019 10:49:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2001	-5.888	-1.302	.4323	.0340	-.0188	6.311	.0196	-.0076
Stddev	.1400	7.352	.876	.1461	.0172	.0182	1.126	.0169	.3054
%RSD	69.98	124.9	67.29	33.80	50.48	96.99	17.85	86.47	4001.
#1	.2991	-11.09	-1.922	.3290	.0219	-.0316	7.107	.0076	.2083
#2	.1011	-.6895	-.6826	.5356	.0461	-.0059	5.514	.0316	-.2236

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1818	1.023	4.393	97.19	-6.425	-.2729	9.805	.0882	-.0625
Stddev	.1562	1.406	1.665	.27	.703	1.090	.783	.0406	.0857
%RSD	85.91	137.5	37.90	.2807	10.95	399.4	7.988	46.03	137.2
#1	.0714	.0285	5.570	97.38	-6.922	-1.043	9.251	.1169	-.0018
#2	.2923	2.017	3.215	97.00	-5.927	.4977	10.36	.0595	-.1231

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	66.22	-.4638	1.164	-1.433	2.216	.2216	-1.044	4.204	-.5458
Stddev	114.2	.3171	.964	2.012	1.602	.5985	.402	1.456	.6013
%RSD	172.4	68.36	82.82	140.4	72.26	270.1	38.51	34.64	110.2
#1	-14.51	-.2396	1.846	-2.855	3.349	.6448	-1.328	5.234	-.9711
#2	146.9	-.6880	.4824	-.0101	1.084	-.2016	-.7595	3.174	-.1206

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.0305	-.3695	-1.595	-.5176	97.31	98.41	99.95	2.950	-.0548
Stddev	.0622	.2430	.294	.0655	.02	.94	.17	.070	.3690
%RSD	204.1	65.76	18.44	12.65	.0204	.9545	.1711	2.386	672.8
#1	-.0135	-.1977	-1.387	-.4713	97.29	97.75	100.1	2.999	-.3158
#2	.0745	-.5414	-1.803	-.5639	97.32	99.07	99.83	2.900	.2061

Sample Name: 1810748_28207 Acquired: 12/3/2019 10:49:06 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2273.0	4619.4	69825.	15658.
Stddev	6.4	.9	666.	27.
%RSD	.28067	.02036	.95446	.17113
#1	2277.5	4618.7	69354.	15677.
#2	2268.4	4620.1	70296.	15639.

Sample Name: 1810749_28207 Acquired: 12/3/2019 10:51:18 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**253.3**	**5038.**	**525.1**	**514.1**	**503.9**	**503.4**	**5089.**	**523.2**	**516.8**
Stddev	5.5	4.	6.8	5.5	1.9	.9	9.	5.3	5.8
%RSD	2.156	.0724	1.301	1.069	.3732	.1721	.1773	1.005	1.114
#1	249.4	5035.	520.3	510.2	502.5	502.8	5082.	519.5	512.7
#2	257.1	5040.	530.0	518.0	505.2	504.0	5095.	526.9	520.8

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**509.8**	**502.3**	**5079.**	**98.07**	**5029.**	**495.9**	**5014.**	**503.3**	**526.1**
Stddev	7.7	1.6	18.	.16	42.	1.2	7.	2.0	3.7
%RSD	1.511	.3177	.3565	.1641	.8322	.2323	.1492	.3919	.7088
#1	504.3	503.4	5066.	97.96	4999.	495.1	5019.	504.7	523.5
#2	515.2	501.2	5091.	98.19	5059.	496.8	5008.	501.9	528.8

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5273.**	**518.1**	**516.1**	**508.6**	**5268.**	**515.0**	**527.8**	**2488.**	**510.4**
Stddev	113.	7.7	9.5	8.8	43.	4.7	9.5	1.	4.4
%RSD	2.147	1.489	1.848	1.725	.8255	.9063	1.801	.0256	.8702
#1	5353.	512.7	509.3	502.4	5237.	511.7	521.1	2489.	507.3
#2	5193.	523.6	522.8	514.8	5299.	518.3	534.5	2488.	513.6

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**508.7**	**497.0**	**484.0**	**501.1**	**97.10**	**99.43**	**102.0**	**517.4**	**500.5**
Stddev	1.0	8.2	8.0	8.9	.04	.42	1.1	5.8	1.1
%RSD	.1874	1.649	1.662	1.768	.0425	.4217	1.063	1.121	.2144
#1	508.1	491.2	478.3	494.8	97.07	99.73	101.3	513.3	501.3
#2	509.4	502.8	489.7	507.4	97.13	99.13	102.8	521.5	499.8

Sample Name: 1810749_28207 Acquired: 12/3/2019 10:51:18 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2293.6	4609.6	70548.	15984.
Stddev	3.8	2.0	298.	170.
%RSD	.16408	.04253	.42174	1.0630
#1	2291.0	4608.2	70759.	15864.
#2	2296.3	4611.0	70338.	16104.

Sample Name: 30337003007_28207 Acquired: 12/3/2019 10:53:20 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.4308**	**289.2**	**.6890**	**370.7**	**111.9**	**.1649**	**116700.**	**.5865**
Stddev	.1856	9.4	1.878	1.8	.6	.0325	285.	.0612
%RSD	43.08	3.239	272.6	.4921	.5095	19.70	.2446	10.44
#1	-.2995	282.5	2.017	369.4	111.5	.1878	116500.	.5432
#2	-.5620	295.8	-.6389	372.0	112.3	.1419	116900.	.6298

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.081**	**2.963**	**12.51**	**886.3**	**96.26**	**5010.**	**12.02**	**14370.**
Stddev	.142	.026	.75	2.8	.54	61.	.36	9.
%RSD	6.831	.8879	6.018	.3113	.5651	1.219	2.957	.0599
#1	2.181	2.982	13.04	884.4	95.88	4967.	12.27	14370.
#2	1.980	2.944	11.97	888.3	96.65	5054.	11.77	14380.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1339.**	**11.53**	**54760.**	**13.83**	**223.7**	**-1.012**	**16580.**	**.3608**
Stddev	1.	.26	298.	.43	2.9	.772	83.	.6933
%RSD	.0901	2.229	.5449	3.140	1.312	76.30	.5002	192.1
#1	1339.	11.71	54550.	13.52	221.7	-1.558	16520.	-.1294
#2	1338.	11.35	54970.	14.14	225.8	-.4661	16640.	.8511

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1822**	**8741.**	**.3556**	**364.5**	**5.984**	**1.638**	**1.319**	**95.30**
Stddev	4.550	49.	.8117	1.1	.118	.861	.208	.19
%RSD	2498.	.5610	228.2	.2896	1.970	52.56	15.78	.1974
#1	-3.399	8706.	-.2183	363.7	6.067	2.247	1.172	95.16
#2	3.035	8776.	.9296	365.2	5.901	1.029	1.466	95.43

Sample Name: 30337003007_28207 Acquired: 12/3/2019 10:53:20 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**97.38**	**100.0**	**8.702**	**3.133**
Stddev	.21	.6	.131	.757
%RSD	.2137	.6211	1.506	24.18
#1	97.23	99.57	8.610	2.597
#2	97.52	100.4	8.795	3.669

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2251.3**	**4523.9**	**69092.**	**15666.**
Stddev	12.7	8.9	148.	97.
%RSD	.56511	.19741	.21369	.62115
#1	2242.3	4517.6	68987.	15597.
#2	2260.3	4530.2	69196.	15735.

Sample Name: 1810750_28207 Acquired: 12/3/2019 10:55:29 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.6283**	**275.9**	**2.852**	**365.6**	**110.7**	**-.0239**	**115600.**	**.5920**
Stddev	.3074	1.8	.434	1.7	.8	.0313	847.	.0255
%RSD	48.92	.6634	15.22	.4729	.6800	130.7	.7324	4.312
#1	-.4110	274.6	3.159	364.4	110.1	-.0460	115000.	.6100
#2	-.8457	277.2	2.545	366.8	111.2	-.0018	116200.	.5739

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.978**	**2.572**	**11.29**	**865.4**	**96.55**	**4945.**	**12.16**	**14180.**
Stddev	.004	.347	.34	11.9	.51	68.	.59	153.
%RSD	.2182	13.49	3.004	1.378	.5253	1.381	4.840	1.076
#1	1.975	2.326	11.53	857.0	96.19	4897.	11.75	14080.
#2	1.981	2.817	11.05	873.9	96.91	4994.	12.58	14290.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1318.**	**11.34**	**53960.**	**13.65**	**217.0**	**.9463**	**16290.**	**1.028**
Stddev	10.	.18	643.	.38	.7	1.025	150.	.390
%RSD	.7305	1.551	1.191	2.796	.3266	108.3	.9175	37.90
#1	1311.	11.21	53510.	13.38	217.5	1.671	16180.	1.304
#2	1325.	11.46	54420.	13.92	216.5	.2218	16400.	.7525

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.489**	**8620.**	**.2469**	**359.7**	**6.233**	**.0595**	**1.033**	**95.58**
Stddev	2.214	93.	.2053	2.9	.305	1.760	.110	.54
%RSD	148.7	1.081	83.14	.7943	4.897	2958.	10.62	.5690
#1	-.0769	8555.	.1018	357.6	6.017	1.304	.9559	95.19
#2	3.054	8686.	.3921	361.7	6.449	-1.185	1.111	95.96

Sample Name: 1810750_28207 Acquired: 12/3/2019 10:55:29 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	97.99	100.00	8.009	1.327
Stddev	.30	.190	.073	.134
%RSD	.3022	.1903	.9087	10.13
#1	98.20	99.86	8.060	1.232
#2	97.78	100.1	7.957	1.422
Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2258.0	4537.1	69528.	15665.
Stddev	11.9	25.8	210.	30.
%RSD	.52530	.56901	.30223	.19034
#1	2249.6	4518.9	69677.	15644.
#2	2266.4	4555.4	69380.	15686.

Sample Name: 1810751_28207 Acquired: 12/3/2019 10:57:39 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**260.3**	**5385.**	**540.8**	**899.9**	**620.2**	**515.0**	**120800.**	**537.8**
Stddev	3.6	16.	10.1	10.7	.5	2.9	285.	6.0
%RSD	1.393	.3053	1.863	1.189	.0866	.5636	.2363	1.118
#1	257.7	5373.	533.6	892.4	620.6	513.0	120600.	533.6
#2	262.9	5396.	547.9	907.5	619.8	517.1	121000.	542.1

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**519.1**	**514.0**	**518.4**	**5888.**	**95.80**	**10060.**	**519.0**	**19110.**
Stddev	3.5	4.2	1.8	1.	.04	26.	.3	105.
%RSD	.6660	.8231	.3383	.0121	.0462	.2564	.0591	.5499
#1	516.6	511.1	517.1	5888.	95.77	10040.	519.2	19030.
#2	521.5	517.0	519.6	5887.	95.83	10080.	518.8	19180.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1815.**	**540.4**	**59110.**	**528.5**	**754.2**	**512.2**	**21820.**	**523.0**
Stddev	2.	4.5	341.	6.1	3.4	2.6	184.	9.4
%RSD	.1150	.8375	.5773	1.150	.4545	.5015	.8411	1.796
#1	1813.	537.2	58870.	524.2	751.8	510.3	21690.	516.3
#2	1816.	543.6	59350.	532.8	756.6	514.0	21950.	529.6

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**538.6**	**11310.**	**513.8**	**870.5**	**511.3**	**503.8**	**512.8**	**94.57**
Stddev	2.2	26.	4.7	2.6	6.3	1.3	4.7	.32
%RSD	.4025	.2310	.9173	.3014	1.235	.2524	.9068	.3427
#1	537.0	11330.	510.4	868.7	506.8	502.9	509.5	94.80
#2	540.1	11290.	517.1	872.4	515.8	504.7	516.1	94.34

Sample Name: 1810751_28207 Acquired: 12/3/2019 10:57:39 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**96.66**	**100.4**	**509.7**	**501.8**
Stddev	.09	.6	3.8	2.9
%RSD	.0953	.5558	.7418	.5858
#1	96.73	100.0	507.1	499.7
#2	96.60	100.8	512.4	503.9
Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2240.4**	**4489.4**	**68584.**	**15735.**
Stddev	1.0	15.4	65.	87.
%RSD	.04622	.34268	.09534	.55575
#1	2239.7	4500.2	68630.	15673.
#2	2241.1	4478.5	68538.	15797.

Sample Name: 1810752_28207 Acquired: 12/3/2019 10:59:41 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**255.9**	**5332.**	**529.3**	**894.5**	**610.1**	**499.1**	**120800.**	**524.0**
Stddev	4.1	6.	3.4	11.8	.1	2.4	237.	6.9
%RSD	1.611	.1173	.6477	1.320	.0196	.4864	.1963	1.319
#1	252.9	5337.	526.8	886.2	610.0	497.4	120700.	519.1
#2	258.8	5328.	531.7	902.8	610.2	500.9	121000.	528.9

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**507.6**	**496.4**	**504.5**	**5810.**	**95.88**	**10120.**	**506.5**	**19030.**
Stddev	9.4	2.6	1.3	8.	.45	72.	1.3	3.
%RSD	1.849	.5199	.2646	.1323	.4717	.7160	.2550	.0165
#1	501.0	494.6	503.6	5816.	96.20	10070.	505.6	19030.
#2	514.2	498.2	505.5	5805.	95.56	10170.	507.4	19030.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1803.**	**533.4**	**59460.**	**515.0**	**745.6**	**499.4**	**22040.**	**515.2**
Stddev	4.	6.9	482.	7.3	15.6	13.0	316.	5.9
%RSD	.2002	1.288	.8108	1.413	2.091	2.604	1.433	1.137
#1	1801.	528.5	59120.	509.8	734.5	490.2	21810.	511.1
#2	1806.	538.2	59800.	520.1	756.6	508.6	22260.	519.4

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**528.7**	**11270.**	**506.1**	**860.3**	**500.3**	**490.9**	**498.3**	**95.03**
Stddev	5.0	28.	7.1	3.3	5.1	6.0	4.6	.03
%RSD	.9545	.2476	1.399	.3869	1.023	1.220	.9207	.0276
#1	525.1	11250.	501.1	857.9	496.7	486.7	495.1	95.02
#2	532.2	11290.	511.1	862.6	503.9	495.1	501.6	95.05

Sample Name: 1810752_28207 Acquired: 12/3/2019 10:59:41 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**97.22**	**101.1**	**498.8**	**499.6**
Stddev	.12	1.0	8.3	.1
%RSD	.1203	.9446	1.663	.0114
#1	97.13	100.4	492.9	499.6
#2	97.30	101.7	504.6	499.5

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2242.4**	**4511.5**	**68978.**	**15831.**
Stddev	10.6	1.2	83.	150.
%RSD	.47175	.02764	.12026	.94460
#1	2249.9	4510.6	68919.	15725.
#2	2235.0	4512.3	69037.	15936.

Sample Name: 30337003001_28207 Acquired: 12/3/2019 11:01:43 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3164**	**3502.**	**.7416**	**18.38**	**142.0**	**.3067**	**91970.**	**.8421**	**1.734**
Stddev	.3895	35.	3.389	.24	1.1	.0025	506.	.0490	.032
%RSD	123.1	.9983	457.0	1.294	.7604	.8152	.5500	5.823	1.859
#1	-.0410	3527.	3.138	18.22	142.8	.3084	92320.	.8768	1.757
#2	-.5918	3478.	-1.655	18.55	141.2	.3049	91610.	.8074	1.712

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.248**	**6.816**	**4520.**	**94.26**	**4055.**	**33.04**	**59540.**	**252.6**	**3.635**
Stddev	.023	1.310	46.	.08	1.	.25	492.	2.6	.117
%RSD	.4331	19.22	1.015	.0810	.0137	.7426	.8271	1.017	3.208
#1	5.232	7.742	4552.	94.21	4055.	33.22	59890.	254.4	3.717
#2	5.264	5.889	4487.	94.32	4054.	32.87	59190.	250.8	3.552

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**12230.**	**4.252**	**51.06**	**4.137**	**28200.**	**-.7411**	**-1.292**	**16300.**	**.6680**
Stddev	23.	.044	.17	.902	89.	.2499	1.148	109.	.4926
%RSD	.1890	1.033	.3280	21.81	.3144	33.72	88.86	.6693	73.75
#1	12220.	4.221	50.94	4.775	28140.	-.5644	-.4800	16380.	.3196
#2	12250.	4.284	51.18	3.499	28260.	-.9178	-2.103	16220.	1.016

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**292.3**	**49.40**	**-.9126**	**5.729**	**93.37**	**96.23**	**101.0**	**18.57**	**3.439**
Stddev	1.8	.97	.5195	.151	.02	.15	.4	.05	.024
%RSD	.6235	1.954	56.93	2.639	.0232	.1583	.3805	.2470	.7028
#1	293.6	48.71	-1.280	5.622	93.36	96.12	100.7	18.54	3.456
#2	291.0	50.08	-.5452	5.836	93.39	96.34	101.2	18.60	3.421

Sample Name: 30337003001_28207 Acquired: 12/3/2019 11:01:43 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2204.5	4432.5	68276.	15815.
Stddev	1.8	1.0	108.	60.
%RSD	.08097	.02322	.15827	.38047
#1	2203.3	4431.8	68199.	15772.
#2	2205.8	4433.2	68352.	15858.

Sample Name: 30337003002_28207 Acquired: 12/3/2019 11:03:54 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.0220**	**416.6**	**1.728**	**665.5**	**83.66**	**.0782**	**87150.**	**9.891**	**2.571**
Stddev	.2617	4.2	.467	5.7	.13	.0111	185.	.275	.102
%RSD	1188.	1.014	27.03	.8524	.1584	14.23	.2128	2.784	3.958
#1	-.2071	419.6	1.398	661.5	83.57	.0861	87280.	9.696	2.499
#2	.1630	413.6	2.058	669.5	83.76	.0703	87020.	10.09	2.643

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
IS Ref	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_3710)	(In2306)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**9.474**	**4.074**	**762.3**	**95.39**	**27040.**	**23.74**	**11080.**	**103.5**	**1.664**
Stddev	.095	.949	.7	.04	295.	.41	9.	1.2	.168
%RSD	1.004	23.28	.0961	.0417	1.090	1.709	.0819	1.161	10.08
#1	9.407	4.745	761.8	95.36	26830.	24.03	11070.	104.3	1.783
#2	9.541	3.403	762.8	95.41	27250.	23.46	11090.	102.6	1.546

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
IS Ref	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**77130.**	**7.554**	**96.30**	**.9533**	**26590.**	**4.987**	**7.046**	**9761.**	**.0899**
Stddev	381.	.477	1.01	.7948	300.	.320	2.211	31.	.0943
%RSD	.4939	6.317	1.043	83.37	1.128	6.424	31.38	.3219	104.9
#1	76860.	7.217	95.59	1.515	26380.	4.761	5.483	9738.	.0232
#2	77400.	7.891	97.01	.3913	26810.	5.214	8.610	9783.	.1566

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**306.8**	**6.386**	**-.2982**	**1.246**	**95.35**	**97.38**	**99.97**	**23.15**	**2.267**
Stddev	.3	.047	.3351	.014	.25	.66	.06	.33	.423
%RSD	.0946	.7323	112.4	1.081	.2655	.6765	.0607	1.435	18.66
#1	307.0	6.353	-.0612	1.237	95.53	97.85	99.93	22.92	2.567
#2	306.6	6.419	-.5352	1.256	95.17	96.91	100.0	23.39	1.968

Sample Name: 30337003002_28207 Acquired: 12/3/2019 11:03:54 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2230.8	4526.4	69093.	15661.
Stddev	.9	12.0	467.	10.
%RSD	.04174	.26552	.67646	.06072
#1	2230.1	4534.9	69424.	15654.
#2	2231.4	4517.9	68763.	15668.

Sample Name: 30337003003_28207 Acquired: 12/3/2019 11:06:04 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.0300**	**563.9**	**4.031**	**505.9**	**74.61**	**-.0208**	**110800.**	**.5338**
Stddev	.5397	8.8	.248	2.6	.08	.0036	112.	.1629
%RSD	1802.	1.562	6.144	.5170	.1041	17.51	.1011	30.51
#1	-.3517	557.7	4.206	504.1	74.55	-.0182	110700.	.4186
#2	.4116	570.2	3.856	507.8	74.66	-.0234	110900.	.6489

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.793**	**1561.**	**2.289**	**560.8**	**96.10**	**3866.**	**12.97**	**23040.**
Stddev	.205	12.	.725	2.1	.41	27.	.39	113.
%RSD	11.45	.7657	31.66	.3834	.4286	.6890	3.033	.4895
#1	1.647	1552.	2.802	562.3	96.39	3847.	12.69	22960.
#2	1.938	1569.	1.777	559.2	95.81	3885.	13.25	23120.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**22.05**	**.8438**	**67080.**	**6.808**	**13.29**	**-2.072**	**38940.**	**-7.528**
Stddev	.06	.6705	231.	.283	.54	1.548	304.	.327
%RSD	.2569	79.47	.3439	4.157	4.063	74.71	.7801	4.343
#1	22.09	.3697	66920.	6.608	12.90	-3.166	38730.	-7.296
#2	22.01	1.318	67240.	7.008	13.67	-.9773	39160.	-7.759

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-2.671**	**6728.**	**.6016**	**176.1**	**15.10**	**1.534**	**.7072**	**95.97**
Stddev	2.200	49.	.9032	.6	.44	.321	.1787	.29
%RSD	82.37	.7306	150.1	.3335	2.884	20.90	25.26	.2989
#1	-1.115	6694.	1.240	175.7	14.79	1.308	.5809	95.76
#2	-4.227	6763.	-.0371	176.5	15.41	1.761	.8336	96.17

Sample Name: 30337003003_28207 Acquired: 12/3/2019 11:06:04 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**97.28**	**99.65**	**4.746**	**1.334**
Stddev	.17	.37	.131	.598
%RSD	.1736	.3721	2.762	44.85
#1	97.16	99.39	4.654	.9109
#2	97.40	99.91	4.839	1.757
Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2247.5**	**4555.6**	**69025.**	**15610.**
Stddev	9.6	13.6	120.	58.
%RSD	.42858	.29887	.17365	.37211
#1	2254.3	4546.0	68940.	15569.
#2	2240.7	4565.3	69110.	15651.

Sample Name: 30337003004_28207 Acquired: 12/3/2019 11:08:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2170**	**472.2**	**2.073**	**364.1**	**115.7**	**-.0108**	**119100.**	**.6086**
Stddev	.0090	1.0	1.492	2.2	.2	.0088	320.	.1436
%RSD	4.135	.2067	71.99	.5924	.1742	81.96	.2683	23.59
#1	-.2233	471.5	3.128	362.6	115.8	-.0045	119400.	.7101
#2	-.2106	472.9	1.018	365.6	115.5	-.0170	118900.	.5071

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.430**	**3.465**	**13.43**	**1197.**	**96.26**	**5117.**	**13.28**	**14470.**
Stddev	.390	.058	.63	11.	.32	23.	.73	66.
%RSD	16.07	1.678	4.657	.9031	.3312	.4466	5.524	.4551
#1	2.154	3.506	13.87	1205.	96.03	5101.	12.76	14510.
#2	2.706	3.424	12.99	1189.	96.48	5133.	13.80	14420.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1342.**	**11.27**	**55330.**	**13.60**	**238.2**	**2.060**	**16410.**	**.2846**
Stddev	6.	.32	186.	.16	2.2	2.533	104.	2.044
%RSD	.4656	2.797	.3354	1.147	.9220	122.9	.6342	718.1
#1	1347.	11.05	55200.	13.49	236.7	3.851	16330.	1.730
#2	1338.	11.49	55460.	13.71	239.8	.2691	16480.	-1.161

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.7794**	**9035.**	**-.8032**	**368.8**	**7.826**	**-.1001**	**1.003**	**96.25**
Stddev	1.994	22.	.3512	2.0	.770	1.358	.075	.33
%RSD	255.8	.2384	43.72	.5344	9.835	1357.	7.516	.3422
#1	2.189	9050.	-1.052	370.2	7.282	.8601	1.056	96.01
#2	-.6303	9020.	-.5549	367.4	8.370	-1.060	.9493	96.48

Sample Name: 30337003004_28207 Acquired: 12/3/2019 11:08:14 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**98.22**	**99.60**	**11.02**	**1.523**
Stddev	.23	.79	.13	.232
%RSD	.2380	.7930	1.206	15.24
#1	98.06	99.04	10.93	1.687
#2	98.39	100.2	11.12	1.359

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2251.1**	**4569.0**	**69691.**	**15603.**
Stddev	7.5	15.6	166.	124.
%RSD	.33120	.34218	.23798	.79305
#1	2245.8	4558.0	69574.	15516.
#2	2256.4	4580.1	69808.	15691.

Sample Name: CCV Acquired: 12/3/2019 11:10:26 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**503.5**	**10030.**	**1053.**	**1017.**	**1013.**	**997.5**	**10080.**	**1026.**	**1041.**
Stddev	9.6	40.	9.	12.	4.	7.3	30.	11.	7.
%RSD	1.913	.3962	.8395	1.155	.4157	.7288	.2938	1.108	.6315
#1	496.7	10000.	1047.	1009.	1010.	1003.	10100.	1018.	1036.
#2	510.3	10060.	1059.	1025.	1016.	992.4	10050.	1034.	1045.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1005.**	**1008.**	**10010.**	**96.31**	**9985.**	**999.7**	**9776.**	**987.7**	**1035.**
Stddev	13.	1.	8.	.08	59.	2.7	66.	3.0	10.
%RSD	1.285	.1098	.0754	.0882	.5894	.2661	.6720	.2998	.9650
#1	995.5	1009.	10010.	96.37	9943.	997.8	9822.	989.7	1028.
#2	1014.	1007.	10020.	96.25	10030.	1002.	9729.	985.6	1042.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10100.**	**990.1**	**1058.**	**998.7**	**10510.**	**995.3**	**1050.**	**4967.**	**993.6**
Stddev	75.	11.5	6.	14.4	73.	15.2	10.	1.	14.0
%RSD	.7434	1.159	.6059	1.439	.6970	1.527	.9721	.0154	1.412
#1	10050.	982.0	1063.	988.5	10460.	984.5	1043.	4967.	983.7
#2	10160.	998.2	1054.	1009.	10560.	1006.	1058.	4966.	1004.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 12/3/2019 11:10:26 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	1015.	1002.	998.2	987.6	96.96	97.48	100.0	1013.	993.8
Stddev	2.	12.	13.7	11.7	.27	.01	.8	10.	2.9
%RSD	.1878	1.200	1.372	1.183	.2794	.0099	.7528	.9555	.2945
#1	1017.	993.5	988.5	979.3	97.15	97.49	99.47	1006.	995.8
#2	1014.	1011.	1008.	995.8	96.77	97.48	100.5	1020.	991.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2252.4	4602.8	69167.	15666.
Stddev	2.0	12.9	7.	118.
%RSD	.08820	.27939	.00993	.75281
#1	2253.8	4611.9	69172.	15583.
#2	2251.0	4593.7	69162.	15750.

Sample Name: CCB Acquired: 12/3/2019 11:12:30 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2093	-5.265	-1.492	.6905	.1469	.1612	8.720	-.0797	-.0720
Stddev	.1046	3.355	2.264	.3667	.1375	.0351	3.476	.1283	.1132
%RSD	49.99	63.73	151.7	53.11	93.58	21.76	39.86	161.1	157.3
#1	.2833	-2.892	-3.093	.4312	.2442	.1860	11.18	.0111	-.1520
#2	.1353	-7.637	.1088	.9498	.0497	.1364	6.262	-.1704	.0081
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.0174	.4475	2.997	95.82	-8.015	.6335	17.18	.4214	.6451
Stddev	.0677	.2221	1.463	.41	7.838	.5554	2.64	.0708	.3406
%RSD	388.1	49.63	48.81	.4291	97.79	87.68	15.36	16.81	52.80
#1	-.0653	.2905	4.031	96.11	-2.473	.2407	19.05	.3713	.4042
#2	.0304	.6046	1.963	95.53	-13.56	1.026	15.32	.4715	.8859
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	97.08	-.2650	-.6561	-.5409	3.534	1.380	-1.361	-1.701	-.0350
Stddev	156.1	.2684	.6116	2.691	2.626	1.488	.631	2.859	.8847
%RSD	160.8	101.3	93.22	497.6	74.30	107.8	46.38	168.1	2525.
#1	-13.27	-.0752	-.2236	1.362	1.677	2.433	-1.807	-3.722	-.6606
#2	207.4	-.4548	-1.089	-2.444	5.391	.3279	-.9145	.3206	.5906
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 12/3/2019 11:12:30 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.1696	-.1012	1.464	.1167	97.82	98.19	99.83	.3112	-.1336
Stddev	.0615	.0543	2.783	.0459	.29	.21	.29	.1011	.5662
%RSD	36.28	53.66	190.1	39.33	.2950	.2118	.2913	32.50	423.9
#1	.2131	-.0628	3.432	.1492	98.02	98.05	99.62	.2397	.2668
#2	.1261	-.1396	-.5038	.0843	97.62	98.34	100.0	.3827	-.5340
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2240.9	4643.6	69671.	15638.
Stddev	9.6	13.7	148.	46.
%RSD	.42914	.29496	.21183	.29134
#1	2247.7	4653.3	69567.	15606.
#2	2234.1	4634.0	69776.	15671.

Sample Name: 30337003005_28207 Acquired: 12/3/2019 11:14:59 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.2181**	**280.5**	**-3.681**	**1660.**	**39.06**	**-.0271**	**138100.**	**.4627**
Stddev	.1858	1.8	.287	1.	.18	.0173	438.	.0784
%RSD	85.20	.6498	7.791	.0790	.4728	63.84	.3173	16.95
#1	-.0867	281.8	-3.479	1659.	39.19	-.0394	138400.	.4072
#2	-.3495	279.2	-3.884	1661.	38.93	-.0149	137800.	.5182

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.539**	**1.610**	**2.857**	**304.4**	**91.31**	**3163.**	**28.80**	**43000.**
Stddev	.225	.113	1.301	3.0	.15	17.	.10	172.
%RSD	2.979	7.033	45.54	.9824	.1600	.5259	.3543	.4000
#1	7.380	1.690	1.937	306.5	91.21	3151.	28.73	43120.
#2	7.698	1.530	3.776	302.3	91.42	3174.	28.87	42870.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**28.97**	**.9878**	**143100.**	**24.57**	**9.697**	**-3.067**	**55180.**	**-1.112**
Stddev	.20	.4521	569.	.40	.171	.578	61.	.962
%RSD	.6989	45.77	.3978	1.637	1.762	18.86	.1110	86.56
#1	29.12	1.307	142600.	24.29	9.576	-2.658	55130.	-.4312
#2	28.83	.6681	143500.	24.86	9.818	-3.476	55220.	-1.792

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.7117**	**6091.**	**.3847**	**149.9**	**6.373**	**1.376**	**.9118**	**92.39**
Stddev	2.391	3.	.5929	.2	.920	2.512	.0677	.02
%RSD	336.0	.0455	154.1	.1640	14.44	182.5	7.428	.0245
#1	.9790	6089.	-.0345	150.1	7.024	3.152	.8639	92.37
#2	-2.402	6093.	.8040	149.7	5.722	-.3995	.9596	92.41

Sample Name: 30337003005_28207 Acquired: 12/3/2019 11:14:59 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**94.87**	**96.55**	**4.068**	**.2569**
Stddev	.87	.76	.206	.8227
%RSD	.9121	.7858	5.057	320.2
#1	94.25	96.01	3.922	-.3248
#2	95.48	97.09	4.213	.8386
Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2135.5**	**4385.9**	**67310.**	**15125.**
Stddev	3.4	1.1	614.	119.
%RSD	.16004	.02447	.91207	.78576
#1	2133.1	4385.1	66876.	15041.
#2	2137.9	4386.6	67744.	15209.

Sample Name: 30337003006_28207 Acquired: 12/3/2019 11:17:10 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1495**	**255.9**	**1.694**	**383.2**	**115.7**	**-.0401**	**121100.**	**.5538**
Stddev	.0208	7.7	3.093	.4	.3	.0189	120.	.2236
%RSD	13.93	3.025	182.6	.0981	.2339	47.09	.0990	40.37
#1	-.1642	250.4	3.881	382.9	115.5	-.0534	121200.	.7119
#2	-.1348	261.4	-.4933	383.4	115.9	-.0267	121000.	.3957

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**2.384**	**3.515**	**11.80**	**877.0**	**92.71**	**5121.**	**13.49**	**14540.**
Stddev	.284	.111	.04	7.0	.12	46.	.40	52.
%RSD	11.90	3.151	.3416	.7963	.1306	.8961	2.944	.3591
#1	2.183	3.437	11.77	881.9	92.62	5089.	13.21	14580.
#2	2.584	3.593	11.83	872.0	92.79	5154.	13.77	14500.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1328.**	**11.80**	**57830.**	**13.93**	**233.9**	**-.8351**	**17660.**	**.2915**
Stddev	3.	.27	252.	.03	.6	.7279	155.	.6662
%RSD	.2002	2.282	.4357	.1968	.2618	87.16	.8763	228.5
#1	1330.	11.99	57650.	13.91	233.4	-1.350	17550.	.7625
#2	1326.	11.61	58000.	13.95	234.3	-.3204	17770.	-.1796

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.5479**	**8817.**	**-.4034**	**373.4**	**4.908**	**-1.249**	**1.492**	**93.40**
Stddev	.1295	30.	.8238	.4	.061	2.049	.054	.09
%RSD	23.64	.3389	204.2	.1063	1.234	164.1	3.625	.0994
#1	-.4563	8796.	-.9859	373.1	4.951	.1999	1.530	93.33
#2	-.6395	8838.	.1792	373.7	4.866	-2.698	1.454	93.47

Sample Name: 30337003006_28207 Acquired: 12/3/2019 11:17:10 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**94.65**	**97.10**	**8.447**	**1.590**
Stddev	.05	.63	.167	1.309
%RSD	.0503	.6515	1.979	82.35
#1	94.68	96.65	8.329	.6643
#2	94.61	97.54	8.566	2.516

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2168.2**	**4433.8**	**67154.**	**15210.**
Stddev	2.8	4.4	34.	99.
%RSD	.13058	.09936	.05028	.65147
#1	2166.2	4430.7	67178.	15140.
#2	2170.2	4436.9	67130.	15281.

Sample Name: 30337003008_28207 Acquired: 12/3/2019 11:19:18 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288
IS Ref	(Y_3600)	(Y_3710)	(Y_2243)	(Y_2243)	(Y_3710)	(Y_3710)	(Y_3710)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1497**	**306.2**	**.0092**	**1660.**	**38.39**	**-.0341**	**136300.**	**.6091**
Stddev	.2483	7.2	.4574	13.	.16	.0172	1031.	.0582
%RSD	165.9	2.351	4966.	.7663	.4224	50.50	.7562	9.556
#1	.0259	311.2	.3326	1651.	38.28	-.0463	135600.	.6502
#2	-.3253	301.1	-.3142	1669.	38.51	-.0219	137000.	.5679

Elem	Co2286	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790
IS Ref	(In2306)	(Y_3600)	(Y_3710)	(Y_3710)	(none)	(Y_3710)	(Y_3710)	(Y_3710)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**7.692**	**1.271**	**1.991**	**312.6**	**90.75**	**3018.**	**28.00**	**41900.**
Stddev	.000	.032	.528	2.8	.30	53.	1.46	249.
%RSD	.0046	2.505	26.51	.9090	.3328	1.760	5.222	.5938
#1	7.692	1.294	1.618	314.6	90.96	2980.	29.04	41720.
#2	7.693	1.249	2.365	310.6	90.53	3055.	26.97	42070.

Elem	Mn2576	Mo2020	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068
IS Ref	(Y_3710)	(In2306)	(Y_3710)	(Y_2243)	(Y_2243)	(In2306)	(Y_2243)	(Y_2243)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**28.12**	**.6463**	**140800.**	**24.52**	**9.073**	**-1.744**	**55370.**	**-2.011**
Stddev	.08	.6383	2071.	.93	1.719	1.641	406.	.326
%RSD	.2747	98.77	1.471	3.784	18.94	94.10	.7327	16.23
#1	28.06	1.098	139300.	23.86	7.858	-.5836	55090.	-1.780
#2	28.17	.1949	142200.	25.17	10.29	-2.905	55660.	-2.242

Elem	Se1960	Si2516	Sn1899	Sr4077	Ti3349	Tl1908	V_2924	Y_2243
IS Ref	(Y_2243)	(Y_3710)	(Y_2243)	(Y_3710)	(Y_3600)	(In2306)	(Y_3600)	(none)
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1.127**	**5976.**	**1.315**	**146.7**	**7.305**	**-.7783**	**.6454**	**92.70**
Stddev	1.699	67.	.020	1.6	.099	1.109	.0346	.13
%RSD	150.8	1.121	1.483	1.076	1.353	142.5	5.362	.1419
#1	-.0747	5929.	1.301	145.6	7.235	.0061	.6699	92.79
#2	2.328	6023.	1.328	147.8	7.375	-1.563	.6209	92.61

Sample Name: 30337003008_28207 Acquired: 12/3/2019 11:19:18 Type: Unk
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Y_3600	Y_3710	Zn2062	Zr3391
IS Ref	(none)	(none)	(Y_2243)	(Y_3710)
Units	ppb	ppb	ppb	ppb
Avg	**94.79**	**95.93**	**4.216**	**1.176**
Stddev	.31	.11	.282	.291
%RSD	.3232	.1152	6.698	24.73
#1	95.00	95.85	4.416	1.381
#2	94.57	96.00	4.017	.9702

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2122.3**	**4400.7**	**67254.**	**15027.**
Stddev	7.1	6.2	217.	17.
%RSD	.33283	.14187	.32320	.11523
#1	2127.3	4405.1	67408.	15015.
#2	2117.3	4396.3	67100.	15039.

Sample Name: CCV Acquired: 12/3/2019 11:21:31 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**514.8**	**10300.**	**1072.**	**1028.**	**1038.**	**1023.**	**10430.**	**1045.**	**1075.**
Stddev	7.0	67.	8.	16.	5.	.	20.	14.	9.
%RSD	1.364	.6546	.7722	1.521	.4406	.0440	.1891	1.353	.8062
#1	509.8	10250.	1066.	1017.	1035.	1023.	10420.	1035.	1069.
#2	519.7	10350.	1078.	1039.	1041.	1024.	10440.	1055.	1081.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1036.**	**1047.**	**10280.**	**94.43**	**10170.**	**1017.**	**10000.**	**995.2**	**1066.**
Stddev	7.	.	66.	.20	80.	5.	4.	1.0	7.
%RSD	.7006	.0104	.6372	.2080	.7843	.5250	.0410	.1040	.6223
#1	1031.	1047.	10240.	94.29	10120.	1014.	9998.	994.5	1061.
#2	1041.	1047.	10330.	94.57	10230.	1021.	10000.	995.9	1071.
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**10560.**	**996.5**	**1088.**	**1019.**	**10650.**	**1003.**	**1067.**	**5041.**	**1008.**
Stddev	143.	16.9	12.	7.	114.	14.	11.	11.	15.
%RSD	1.354	1.699	1.083	.7099	1.067	1.377	1.051	.2169	1.465
#1	10450.	984.5	1079.	1014.	10570.	993.5	1059.	5034.	997.1
#2	10660.	1008.	1096.	1024.	10730.	1013.	1075.	5049.	1018.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CCV Acquired: 12/3/2019 11:21:31 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1039.**	**1035.**	**1013.**	**1015.**	**95.99**	**96.13**	**97.14**	**1033.**	**1016.**
Stddev	2.	7.	13.	5.	.26	.21	.16	19.	2.
%RSD	.1592	.7064	1.260	.5060	.2702	.2149	.1610	1.822	.1497
#1	1038.	1029.	1004.	1011.	96.17	96.27	97.03	1019.	1015.
#2	1040.	1040.	1022.	1018.	95.80	95.98	97.25	1046.	1017.
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2208.5**	**4556.7**	**68206.**	**15217.**
Stddev	4.6	12.3	147.	25.
%RSD	.20800	.27020	.21487	.16104
#1	2205.2	4565.4	68309.	15200.
#2	2211.7	4548.0	68102.	15235.

Sample Name: CCB Acquired: 12/3/2019 11:23:36 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.4733**	**2.060**	**-1.435**	**1.313**	**.1241**	**.2275**	**15.88**	**-.1106**	**-.0553**
Stddev	.2300	2.433	.168	.259	.0446	.0288	3.95	.1632	.0790
%RSD	48.60	118.1	11.70	19.72	35.93	12.65	24.89	147.6	142.9
#1	.6359	3.780	-1.316	1.496	.0926	.2479	13.09	.0048	.0006
#2	.3106	.3399	-1.553	1.130	.1556	.2072	18.68	-.2259	-.1112
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2115**	**.1267**	**5.432**	**95.27**	**6.223**	**.5730**	**16.80**	**.2494**	**.7414**
Stddev	.0394	.6756	.130	.04	4.651	.7935	5.45	.3981	.4768
%RSD	18.61	533.0	2.393	.0463	74.74	138.5	32.46	159.7	64.31
#1	.1836	-.3510	5.523	95.30	9.511	.0118	20.66	.5309	1.079
#2	.2393	.6045	5.340	95.23	2.934	1.134	12.94	-.0322	.4042
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**36.87**	**.1275**	**.7258**	**.7876**	**5.066**	**2.325**	**1.061**	**.4204**	**-.3445**
Stddev	64.68	.2016	.2736	.8289	2.268	1.525	1.518	3.219	.6347
%RSD	175.4	158.1	37.70	105.2	44.77	65.57	143.1	765.6	184.2
#1	82.60	.2701	.5324	1.374	6.670	1.247	2.135	-1.856	-.7933
#2	-8.868	-.0151	.9193	.2015	3.462	3.403	-.0124	2.697	.1043
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: CCB Acquired: 12/3/2019 11:23:36 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	.2352	.0341	.4651	.1635	97.88	97.69	98.16	.3892	.0914
Stddev	.0729	.0950	1.136	.2786	.13	.07	.35	.0861	.1816
%RSD	31.00	278.3	244.2	170.4	.1362	.0754	.3523	22.12	198.8
#1	.2868	-.0330	-.3380	.3604	97.79	97.64	97.92	.4501	.2198
#2	.1837	.1013	1.268	-.0335	97.98	97.74	98.40	.3283	-.0371
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2228.0	4646.6	69315.	15377.
Stddev	1.0	6.3	52.	54.
%RSD	.04627	.13620	.07543	.35230
#1	2228.7	4642.1	69278.	15339.
#2	2227.2	4651.1	69352.	15415.

Sample Name: ICSA Acquired: 12/3/2019 11:26:23 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**.2880**	**52000.**	**.2871**	**.8430**	**.1011**	**-.0143**	**51450.**	**.6125**	**-.2621**
Stddev	.2615	93.	1.518	.5059	.0108	.0016	175.	.0299	.0218
%RSD	90.80	.1785	528.7	60.02	10.69	10.98	.3403	4.881	8.331
#1	.1031	51930.	-.7862	1.201	.1087	-.0154	51320.	.6336	-.2467
#2	.4730	52060.	1.360	.4852	.0934	-.0132	51570.	.5914	-.2776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.1738**	**2.174**	**20210.**	**92.62**	**-24.58**	**1.737**	**49860.**	**-.0855**	**-.0902**
Stddev	.0336	1.012	13.	.28	34.20	.280	44.	.0074	.0547
%RSD	19.31	46.57	.0665	.3024	139.1	16.14	.0875	8.619	60.69
#1	-.1500	1.458	20220.	92.82	-.3977	1.935	49830.	-.0803	-.0515
#2	-.1975	2.890	20200.	92.42	-48.76	1.539	49890.	-.0907	-.1289
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-52.65**	**-1.116**	**-.0308**	**2.881**	**-.3526**	**1.262**	**.1550**	**2.935**	**.3346**
Stddev	36.07	.089	1.706	.604	4.863	.206	2.016	1.266	1.644
%RSD	68.52	7.950	5536.	20.95	1379.	16.34	1301.	43.13	491.2
#1	-78.16	-1.053	1.175	2.455	3.086	1.408	1.581	3.830	1.497
#2	-27.14	-1.179	-1.237	3.308	-3.791	1.117	-1.271	2.040	-.8278
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSA Acquired: 12/3/2019 11:26:23 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-.3101**	**.4255**	**-1.883**	**.6163**	**93.62**	**94.72**	**95.58**	**-.2837**	**-.3697**
Stddev	.0002	.2026	.774	.0780	.08	.40	.28	.0116	.7697
%RSD	.0628	47.62	41.10	12.66	.0885	.4210	.2910	4.094	208.2
#1	-.3103	.5688	-2.430	.5611	93.67	95.00	95.39	-.2754	-.9140
#2	-.3100	.2822	-1.336	.6715	93.56	94.43	95.78	-.2919	.1745
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2166.1**	**4444.1**	**67204.**	**14973.**
Stddev	6.6	3.9	283.	44.
%RSD	.30242	.08847	.42101	.29102
#1	2170.7	4446.9	67404.	14943.
#2	2161.5	4441.3	67004.	15004.

Sample Name: ICSAB Acquired: 12/3/2019 11:28:57 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1055.**	**53470.**	**-1.209**	**-.3219**	**524.4**	**527.9**	**52850.**	**1033.**	**509.8**
Stddev	11.	2344.	1.715	.0705	20.9	21.6	2014.	26.	14.5
%RSD	1.050	4.384	141.9	21.91	3.984	4.095	3.811	2.564	2.848
#1	1048.	55130.	-2.422	-.3718	539.2	543.2	54280.	1051.	520.1
#2	1063.	51810.	.0041	-.2720	509.6	512.6	51430.	1014.	499.6
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**518.3**	**530.1**	**20790.**	**94.71**	**-10.81**	**2.191**	**51370.**	**499.1**	**-.0010**
Stddev	4.6	19.8	886.	.32	7.84	.188	2232.	21.8	.3954
%RSD	.8904	3.733	4.260	.3425	72.56	8.583	4.345	4.370	40000.
#1	515.0	544.1	21420.	94.48	-16.35	2.324	52950.	514.5	-.2806
#2	521.6	516.1	20160.	94.94	-5.262	2.058	49790.	483.7	.2786
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**-124.3**	**964.9**	**1.323**	**1001.**	**-5.943**	**-2.823**	**-.3299**	**-19.02**	**.3563**
Stddev	55.4	25.6	1.579	23.	1.739	.397	1.524	1.01	.1715
%RSD	44.56	2.657	119.4	2.252	29.27	14.05	462.1	5.306	48.14
#1	-163.4	983.1	.2062	1017.	-7.173	-2.542	-1.408	-19.73	.2350
#2	-85.10	946.8	2.439	984.9	-4.713	-3.104	.7481	-18.30	.4776
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit									
Low Limit									

Sample Name: ICSAB Acquired: 12/3/2019 11:28:57 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	-.3174	.3823	-.9129	502.7	95.56	96.28	93.47	979.1	-.9980
Stddev	.0027	.0872	.5161	4.3	.19	.40	3.84	25.3	.1243
%RSD	.8516	22.81	56.53	.8504	.2006	.4132	4.105	2.579	12.45
#1	-.3193	.4439	-1.278	499.6	95.42	96.00	90.76	997.0	-1.086
#2	-.3155	.3206	-.5480	505.7	95.69	96.57	96.19	961.3	-.9101
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
High Limit									
Low Limit									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2214.9	4536.2	68316.	14643.
Stddev	7.6	9.1	282.	601.
%RSD	.34251	.20059	.41318	4.1055
#1	2209.5	4529.7	68117.	14218.
#2	2220.2	4542.6	68516.	15068.

Sample Name: CRDL Acquired: 12/3/2019 11:34:24 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Ag3280	Al3961	As1890	B_2089	Ba4554	Be3130	Ca3736	Cd2288	Co2286
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**6.449**	**52.14**	**4.997**	**49.55**	**10.03**	**1.001**	**1041.**	**2.945**	**5.008**
Stddev	.052	.30	1.073	.14	.16	.038	14.	.059	.149
%RSD	.8108	.5803	21.47	.2920	1.639	3.820	1.331	1.991	2.985
#1	6.486	51.92	5.756	49.45	9.916	.9736	1031.	2.987	4.902
#2	6.412	52.35	4.239	49.65	10.15	1.028	1051.	2.904	5.114
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Cr2677	Cu3247	Fe2611	In2306	K_7664	Li6707	Mg2790	Mn2576	Mo2020
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**5.512**	**4.960**	**75.23**	**97.15**	**487.3**	**42.05**	**206.7**	**4.727**	**20.79**
Stddev	.023	.697	1.16	.13	14.3	.67	1.7	.328	.14
%RSD	.4160	14.04	1.541	.1328	2.930	1.603	.8321	6.939	.6652
#1	5.496	4.467	76.05	97.24	477.2	41.58	208.0	4.958	20.89
#2	5.528	5.452	74.41	97.05	497.4	42.53	205.5	4.495	20.69
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Elem	Na8183	Ni2316	P_1774	Pb2203	S_1820	Sb2068	Se1960	Si2516	Sn1899
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	**1067.**	**8.803**	**51.36**	**3.610**	**53.36**	**6.620**	**10.10**	**107.9**	**47.65**
Stddev	31.	.251	2.05	.051	1.06	.828	1.71	9.4	.53
%RSD	2.866	2.848	3.983	1.423	1.983	12.51	16.94	8.756	1.120
#1	1089.	8.980	52.81	3.647	54.11	6.035	8.886	101.2	48.02
#2	1045.	8.625	49.91	3.574	52.62	7.206	11.30	114.6	47.27
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value									
Range									

Sample Name: CRDL Acquired: 12/3/2019 11:34:24 Type: QC
Method: Pace-65002-2-CETAC1(v1868) Mode: CONC Corr. Factor: 1.000000
User: Chad Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sr4077	Ti3349	Tl1908	V_2924	Y_2243	Y_3600	Y_3710	Zn2062	Zr3391
Units	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Avg	5.119	4.750	10.45	4.585	99.71	99.36	98.22	9.870	67.89
Stddev	.163	.041	.22	.041	.54	.21	.08	.141	1.25
%RSD	3.189	.8530	2.110	.8924	.5412	.2117	.0852	1.423	1.845
#1	5.004	4.721	10.30	4.614	100.1	99.21	98.16	9.771	67.00
#2	5.234	4.779	10.61	4.556	99.33	99.51	98.28	9.969	68.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None	None	Chk Pass	Chk Pass
Value									
Range									

Int. Std.	In2306	Y_2243	Y_3600	Y_3710
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2271.9	4733.3	70501.	15386.
Stddev	3.0	25.6	149.	13.
%RSD	.13284	.54123	.21174	.08519
#1	2274.1	4751.5	70395.	15377.
#2	2269.8	4715.2	70606.	15395.

Prep Log Report

Batch Information: MPRP 373140-3005 B W

Template Version: F-PA-I-001-Rev.00 (5May2016)

Prep Method	EPA 3005A	Analysis Method	EPA 6010C	Extracted By	JAG	Extracted Date/Time	11/27/2019 16:21:53:553
Block ID	HB5	Thermometer ID	HB5	Block Temp (C)	95.2	Correction Factor (C)	-0.4
Corrected Temp. (C)	94.80	Therm. Position	4.1	Acceptance Range:	95.0 C +/- 2.0	Digestion Start Time	11/27/2019 17:12:21:039
Digestion End Time	12/02/2019 12:10:35:303	Digestion Vessel	99510	Metals Pipette 1	PIP006	Bottle Disp. 1	BTD001
Bottle Disp. 2	BTD002	Reviewed By	BKH	Reviewed By Date	12/03/2019 14:05	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	Conc. HCL (mL)	Final Volume (mL)	Container ID	Sample Notes	6010-SPK1 (uL)	6010-SPK2 (uL)	6010-SPK3 (uL)
3005B W_P	BLANK	**1810748**	Water	Yes	50	105099 (1)	105100 (2.5)	50					
3005B W_P	LCS	**1810749**	Water	Yes	50	105099 (1)	105100 (2.5)	50			100193 (125)	105112 (125)	105113 (125)
3005B W_P	PS	**30337003007**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	DUP	**1810750**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	MS	**1810751**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1		100193 (125)	105112 (125)	105113 (125)
3005B W_P	MSD	**1810752**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1		100193 (125)	105112 (125)	105113 (125)
3005B W_P	PS	**30337003001**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	PS	**30337003002**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	PS	**30337003003**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	PS	**30337003004**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	PS	**30337003005**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	PS	**30337003006**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				
3005B W_P	PS	**30337003008**	Water	Yes	50	105099 (1)	105100 (2.5)	50	1				

Standard Notes:

100193: 6010-SPK1 ICP

105112: 6010-SPK2 ICP

105113: 6010-SPK3 ICP

SAMPLE NO.

MW-01

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003001 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:25

SAMPLE NO.

MW-02

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003002 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:26

SAMPLE NO.

MW-03

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003003 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:28

SAMPLE NO.

MW-04

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003004 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:30

SAMPLE NO.

MW-05

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003005 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:31

SAMPLE NO.

MS

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003006 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:38

SAMPLE NO.

MSD

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003007 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:43

SAMPLE NO.

Duplicate

FORM I INORGANIC-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Lab Sample ID: 30337003008 Percent Moisture:

CAS No.	Analyte	Concentration	Q	Units	DF	Analysis Date/Time
7439-97-6	Mercury	ND	U	ug/L	1	11/25/2019 21:44

FORM II INORGANIC-1

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Initial Calibration Verification Source: 106637

Continuing Calibration Verification Source: 106635

Concentration Units: ug/L Instrument ID: 30HG1

	Initial Calibration Verification				Continuing Calibration Verification						
	11/25/2019 20:04				11/25/2019 20:06			11/25/2019 20:28			Control Limit
Analyte	True	Found	%R	Control Limit	True	Found	%R	True	Found	%R	
Mercury	1.0	1.1	108.0	90-110	5.0	5.3	106.6	5.0	5.4	108.8	90-110

FORM II INORGANIC-2

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 106635

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification									
	11/25/2019 20:49			11/25/2019 21:13			11/25/2019 21:33			Control Limit
Analyte	True	Found	%R	True	Found	%R	True	Found	%R	
Mercury	5.0	5.3	106.4	5.0	5.3	105.6	5.0	5.3	106.4	90-110

FORM II INORGANIC-3

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Initial Calibration Verification Source:

Continuing Calibration Verification Source: 106635

Concentration Units: ug/L Instrument ID: 30HG1

	Continuing Calibration Verification			
	11/25/2019 21:46			Control Limit
Analyte	True	Found	%R	
Mercury	5.0	5.3	106.8	90-110

FORM II INORGANIC-1

CRDL CHECK STANDARD

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

CRDL Check Standard Source: 106090,106632,1066 Analysis Date/Time: 11/25/2019 20:10

Concentration Units: ug/L

Analyte	CRDL Check Standard			
	True	Found	%R	Control Limit %R
Mercury	0.2	0.25	125.0	50-150

FORM III INORGANIC-1

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract : 215042

Method Blank Matrix: Water Instrument ID: 30HG1

Method Blank Concentration Units: ug/L

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Method Blank	
	11/25/2019 20:09	C	11/25/2019 20:31	C	11/25/2019 20:52	C	11/25/2019 21:15	C	1808451	C
Mercury	0.050	J	0.040	J	0.040	J	0.040	J	ND	U

FORM III INORGANIC-2

BLANKS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract : 215042

Method Blank Matrix: Instrument ID: 30HG1

Method Blank Concentration Units:

Analyte	Initial Calibration Blank		Continuing Calibration Blank (ug/L)					
		C	11/25/2019 21:36	C	11/25/2019 21:49	C		C
Mercury			0.040	J	0.040	J		

SAMPLE NO.

1808454MS

FORM V INORGANIC-1

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Basis: Wet Parent Sample ID: 30336865001

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.6	0.050J	2.5	104

SAMPLE NO.

1808456MS

FORM V INORGANIC-2

MATRIX SPIKE SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Basis: Wet Parent Sample ID: MS

Percent Moisture:

Analyte	Units	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spike Added (SA)	%R
Mercury	ug/L	75-125	2.7	ND	2.5	106

SAMPLE NO.

1808453DUP

FORM VI INORGANIC-1
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	0.050J	0.05J	

SAMPLE NO.

1808455DUP

FORM VI INORGANIC-2
DUPLICATES

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water Concentration Units: ug/L

Percent Moisture: Basis: Wet

Analyte	Control Limit	Sample	Duplicate	RPD
Mercury	20	ND	0.04J	

SAMPLE NO.

1808452LCS

FORM VII INORGANIC-1
LABORATORY CONTROL SAMPLE

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Matrix: Water

Analyte	Units	True	Found	%R	Limits	
Mercury	ug/L	1.0	1.1	111	80	120

FORM IX INORGANIC-1
INSTRUMENT DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Preparation Method: None Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	IDL	IDL Date
Mercury	0.20	0.030	01/02/2019

FORM IX INORGANIC-2
METHOD DETECTION LIMITS

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Preparation Method: EPA 7470A Instrument ID: 30HG1

Concentration Units: ug/L

Analyte	PQL	MDL	MDL Date
Mercury	0.20	0.030	02/13/2018

FORM XII INORGANIC-1
PREPARATION LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Preparation Method: EPA 7470A Batch: MERP 11343

Lab Sample ID	Sample Name	Preparation Date	Initial Volume (mL)	Final Volume (mL)
1808451	1808451BLANK	11/25/2019	25	25
1808452	1808452LCS	11/25/2019	25	25
1808453	1808453DUP	11/25/2019	25	25
1808454	1808454MS	11/25/2019	25	25
1808455	1808455DUP	11/25/2019	25	25
1808456	1808456MS	11/25/2019	25	25
30337003001	MW-01	11/25/2019	25	25
30337003002	MW-02	11/25/2019	25	25
30337003003	MW-03	11/25/2019	25	25
30337003004	MW-04	11/25/2019	25	25
30337003005	MW-05	11/25/2019	25	25
30337003006	MS	11/25/2019	25	25
30337003007	MSD	11/25/2019	25	25
30337003008	Duplicate	11/25/2019	25	25

FORM XIII INORGANIC-1
ANALYSIS RUN LOG

Lab Name: Pace Analytical - Pittsburgh SDG No. : 30337003 Contract: 215042

Instrument ID: 30HG1 Analysis Method: EPA 7470A

Start Date: 11/25/2019 19:52 End Date: 11/25/2019 21:49

Sample Name	Lab Sample ID	D/F	Date	Time	Hg
11947987CAL0	11947987CAL0	1	11/25/2019	19:52	X
11947988CAL1	11947988CAL1	1	11/25/2019	19:53	X
11947989CAL2	11947989CAL2	1	11/25/2019	19:55	X
11947990CAL3	11947990CAL3	1	11/25/2019	19:57	X
11947991CAL4	11947991CAL4	1	11/25/2019	19:58	X
11947992CAL5	11947992CAL5	1	11/25/2019	20:01	X
11947993ICV	11947993ICV	1	11/25/2019	20:04	X
11947994CCV	11947994CCV	1	11/25/2019	20:06	X
11947995ICB	11947995ICB	1	11/25/2019	20:09	X
11947996CRDL	11947996CRDL	1	11/25/2019	20:10	X
11947997CCV	11947997CCV	1	11/25/2019	20:28	X
11947998CCB	11947998CCB	1	11/25/2019	20:31	X
11947999CCV	11947999CCV	1	11/25/2019	20:49	X
11948000CCB	11948000CCB	1	11/25/2019	20:52	X
1808451BLANK	1808451	1	11/25/2019	21:03	X
1808452LCS	1808452	1	11/25/2019	21:05	X
30336865001	30336865001	1	11/25/2019	21:07	X
1808453DUP	1808453	1	11/25/2019	21:08	X
11948001CCV	11948001CCV	1	11/25/2019	21:13	X
11948002CCB	11948002CCB	1	11/25/2019	21:15	X
1808454MS	1808454	1	11/25/2019	21:16	X
MW-01	30337003001	1	11/25/2019	21:25	X
MW-02	30337003002	1	11/25/2019	21:26	X
MW-03	30337003003	1	11/25/2019	21:28	X
MW-04	30337003004	1	11/25/2019	21:30	X
MW-05	30337003005	1	11/25/2019	21:31	X
11948003CCV	11948003CCV	1	11/25/2019	21:33	X
11948004CCB	11948004CCB	1	11/25/2019	21:36	X
MS	30337003006	1	11/25/2019	21:38	X
1808455DUP	1808455	1	11/25/2019	21:39	X
1808456MS	1808456	1	11/25/2019	21:41	X
MSD	30337003007	1	11/25/2019	21:43	X
Duplicate	30337003008	1	11/25/2019	21:44	X
11948005CCV	11948005CCV	1	11/25/2019	21:46	X
11948006CCB	11948006CCB	1	11/25/2019	21:49	X

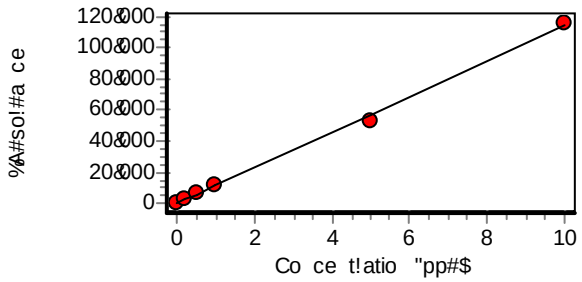
Report Generated By CETAC QuickTrace
Analyst: kholsopple
Worksheet file: C:\Program Files\QuickTrace\Worksheets\Hg112519A. s!
Date Started: "#$#2%1$ &55:19 P'
Comment:

Results

Sample Name					Type	Date/Time	Conc (ppb	µAbs	%RSD	Flags	Wt.	Vol. ODF
CAL0					STD	11/25/19 07:52:15 pm	0.00	406	7.35		1.00	1.00
											1.00	
	Replicates	390.3	381.1	404.2	448.4							
CAL1					STD	11/25/19 07:53:52 pm	0.20	2837	2.77		1.00	1.00
											1.00	
	Replicates	2776.3	2817.9	2802.4	2952.4							
CAL2					STD	11/25/19 07:55:29 pm	0.50	6306	0.32		1.00	1.00
											1.00	
	Replicates	6292.3	6312.9	6331.7	6287.5							
CAL3					STD	11/25/19 07:57:06 pm	1.00	12142	0.48		1.00	1.00
											1.00	
	Replicates	12166.9	12131.9	12065.7	12202.4							
CAL4					STD	11/25/19 07:58:44 pm	5.00	53259	1.07		1.00	1.00
											1.00	
	Replicates	53990.8	53368.5	53036.2	52642.3							
CAL5					STD	11/25/19 08:01:31 pm	10.00	115714	0.79		1.00	1.00
											1.00	
	Replicates	116426.0	116364.6	115595.8	114471.4							

Cali#!atio

' ( ) atio : A , 89.173 - 11385.030C
R2: 0.99823
S' ' : 2138.4790
* la+s:



.C/					.C/	11/25/19 08:04:29 pm	1.08	12410	0.89	0	1.00	1.00
	1 Reco2e!3	108.22									1.00	
	Replicates	12435.3	12527.5	12414.2	12261.3							
CC/					CC/	11/25/19 08:06:16 pm	5.33	60798	0.84		1.00	1.00
	1 Reco2e!3	106.65									1.00	
	Replicates	61093.8	61202.5	60821.3	60075.5							

Sample Name				Type	Date/Time	Conc (ppb	µAbs	%RSD	Flags	Wt.	Vol. ODF
.C4				.C4	11/25/19 08:09:05 pm	0.05	643	1.46		1.00	1.00
										1.00	
Replicates	630.0	651.7	642.2	647.2							
CRDL				CRDL	11/25/19 08:10:45 pm	0.25	2968	1.70		1.00	1.00
1 Reco2e!3	126.45									1.00	
Replicates	3043.8	2936.3	2943.3	2950.0							
1808440512935				647	11/25/19 08:12:22 pm	0.05	660	6.20		1.00	1.00
										1.00	
Replicates	637.0	662.6	624.9	717.1							
1808441512935				LCS	11/25/19 08:14:00 pm	1.01	11615	0.52		1.00	1.00
1 Reco2e!3	101.23									1.00	
Replicates	11672.9	11657.0	11546.5	11581.8							
30336286002512935				897	11/25/19 08:15:37 pm	0.12	1438	0.97		1.00	1.00
										1.00	
Replicates	1418.4	1441.1	1451.0	1443.3							
1808442512935				D86	11/25/19 08:17:15 pm	0.12	1509	1.31		1.00	1.00
		R6D 0.00								1.00	
Replicates	1523.5	1527.7	1499.6	1486.2							
1808443512935				: S7	11/25/19 08:18:54 pm	2.12	24274	1.16		1.00	1.00
1 Reco2e!3	80.23									1.00	
Replicates	24586.9	24373.8	24217.7	23919.3							
30336286003512935				897	11/25/19 08:20:31 pm	0.06	767	2.64		1.00	1.00
										1.00	
Replicates	776.1	740.9	763.6	788.4							
30336286004512935				897	11/25/19 08:22:09 pm	0.05	636	10.84		1.00	1.00
										1.00	
Replicates	566.9	590.7	714.0	672.9							
30336286005512935				897	11/25/19 08:23:47 pm	0.08	998	2.73		1.00	1.00
										1.00	
Replicates	973.9	1002.0	1034.7	981.2							
30335341001512935				897	11/25/19 08:25:25 pm	0.19	2272	0.72		1.00	1.00
										1.00	
Replicates	2251.8	2269.0	2275.5	2291.5							
30335341003512935				897	11/25/19 08:27:04 pm	0.30	3506	1.23		1.00	1.00
										1.00	
Replicates	3552.6	3458.1	3482.4	3529.9							

Sample Name					Type	Date/Time	Conc (ppb	µAbs	%RSD	Flags	Wt.	Vol. ODF
CC/					CC/	11/25/19 08:28:43 pm	5.44	62046	0.72		1.00	1.00
1 Reco2e!3	108.84										1.00	
Replicates	62206.7	62460.6	62108.5	61409.6								
CC4					CC4	11/25/19 08:31:33 pm	0.04	562	4.43		1.00	1.00
											1.00	
Replicates	557.0	558.3	597.1	537.6								
303353810001512935					897	11/25/19 08:33:11 pm	0.05	636	4.05		1.00	1.00
											1.00	
Replicates	606.6	623.0	660.3	655.2								
303354050001512935					897	11/25/19 08:34:49 pm	0.05	604	12.56		1.00	1.00
											1.00	
Replicates	503.9	632.1	595.6	683.9								
303354090001512935					897	11/25/19 08:36:27 pm	0.03	478	11.33		1.00	1.00
											1.00	
Replicates	499.8	523.5	399.7	488.2								
303358520003512935					897	11/25/19 08:38:06 pm	1.71	19551	0.59		1.00	1.00
											1.00	
Replicates	19598.2	19646.8	19575.4	19382.3								
303358520004512935					897	11/25/19 08:39:45 pm	0.08	952	3.55		1.00	1.00
											1.00	
Replicates	984.3	926.1	919.6	977.6								
1808444512935					D86	11/25/19 08:41:23 pm	0.08	992	4.92		1.00	1.00
		R6D 0.00									1.00	
Replicates	937.2	1042.2	965.0	1022.0								
1808445512935					: S7	11/25/19 08:43:02 pm	2.74	31276	0.78		1.00	1.00
1 Reco2e!3	106.54										1.00	
Replicates	31451.3	31456.3	31258.9	30939.1								
303354200001512935					897	11/25/19 08:44:40 pm	0.03	458	6.12		1.00	1.00
											1.00	
Replicates	424.2	483.5	446.3	478.7								
303356430001512935					897	11/25/19 08:46:19 pm	0.02	349	6.46		1.00	1.00
											1.00	
Replicates	323.2	371.5	337.3	363.6								
303356450001512935					897	11/25/19 08:47:59 pm	0.04	512	4.78		1.00	1.00
											1.00	
Replicates	476.8	521.6	517.8	532.8								

Sample Name					Type	Date/Time	Conc (ppb	µAbs	%RSD	Flags	Wt.	Vol. ODF
CC/					CC/	11/25/19 08:49:38 pm	5.32	60685	0.71		1.00	1.00
1 Reco2e!3	106.45										1.00	
Replicates	60928.2	61008.4	60741.3	60064.1								
CC4					CC4	11/25/19 08:52:24 pm	0.04	577	8.23		1.00	1.00
											1.00	
Replicates	583.5	605.8	507.6	609.8								
30335650001512935					897	11/25/19 08:54:02 pm	0.05	628	11.71		1.00	1.00
											1.00	
Replicates	713.7	558.1	575.4	662.8								
30335651001512935					897	11/25/19 08:55:41 pm	0.04	577	2.63		1.00	1.00
											1.00	
Replicates	569.4	597.8	563.0	579.3								
30335653001512935					897	11/25/19 08:57:20 pm	0.05	625	4.84		1.00	1.00
											1.00	
Replicates	599.2	612.6	668.6	619.6								
30335658001512935					897	11/25/19 08:59:00 pm	0.05	630	7.71		1.00	1.00
											1.00	
Replicates	628.5	630.3	570.3	689.1								
30335707001512935					897	11/25/19 09:00:39 pm	0.06	793	3.82		1.00	1.00
											1.00	
Replicates	751.3	819.0	792.2	811.5								
30336590007512935					897	11/25/19 09:02:18 pm	0.69	7951	0.14		1.00	1.00
											1.00	
Replicates	7937.3	7952.3	7964.7	7948.2								
1808451512936					647	11/25/19 09:03:57 pm	0.05	692	2.81		1.00	1.00
											1.00	
Replicates	707.8	685.2	706.7	667.1								
1808452512936					LCS	11/25/19 09:05:37 pm	1.11	12788	0.48		1.00	1.00
1 Reco2e!3	111.54										1.00	
Replicates	12758.1	12808.5	12864.2	12722.0								
30336865001512936					897	11/25/19 09:07:17 pm	0.05	712	3.38		1.00	1.00
											1.00	
Replicates	677.3	714.9	725.9	730.3								
1808453512936					D86	11/25/19 09:08:57 pm	0.05	681	4.92		1.00	1.00
		R6D 0.00									1.00	
Replicates	707.3	633.1	685.1	700.1								

Sample Name					Type	Date/Time	Conc (ppb	µAbs	%RSD	Flags	Wt.	Vol. ODF
CC/					CC/	11/25/19 09:10:36 pm	5.53	62987	0.59	0	1.00	1.00
1 Reco2e!3	110.49										1.00	
Replicates	63225.4	63304.1	62935.7	62483.7								
Si +le: CC/					CC/	11/25/19 09:13:04 pm	5.28	60141	0.14		1.00	1.00
1 Reco2e!3	105.49										1.00	
Replicates	60046.7	60246.0	60111.5	60159.5								
CC4					CC4	11/25/19 09:15:19 pm	0.04	527	6.31		1.00	1.00
											1.00	
Replicates	556.5	543.8	526.9	480.4								
1808454512936					: S7	11/25/19 09:16:58 pm	2.64	30112	0.20		1.00	1.00
1 Reco2e!3	103.29										1.00	
Replicates	30126.9	30176.3	30114.8	30031.6								
303361640015129 36					8 9 7	11/25/19 09:18:38 pm	0.04	569	4.85		1.00	1.00
											1.00	
Replicates	571.5	599.4	570.9	532.3								
303361770015129 36					8 9 7	11/25/19 09:20:17 pm	0.06	718	4.61		1.00	1.00
											1.00	
Replicates	743.3	712.9	742.1	672.9								
303361850015129 36					8 9 7	11/25/19 09:21:58 pm	0.05	614	6.52		1.00	1.00
											1.00	
Replicates	667.0	586.7	580.0	624.2								
303369420055129 36					8 9 7	11/25/19 09:23:38 pm	0.06	722	3.79		1.00	1.00
											1.00	
Replicates	762.5	701.1	711.9	713.6								
303370030015129 36					8 9 7	11/25/19 09:25:17 pm	0.05	713	4.18		1.00	1.00
											1.00	
Replicates	673.1	712.7	744.5	721.5								
303370030025129 36					8 9 7	11/25/19 09:26:57 pm	0.00	119	14.41		1.00	1.00
											1.00	
Replicates	112.6	142.5	102.3	116.6								
303370030035129 36					8 9 7	11/25/19 09:28:37 pm	0.03	412	5.09		1.00	1.00
											1.00	
Replicates	394.5	436.4	394.0	421.7								
303370030045129 36					8 9 7	11/25/19 09:30:18 pm	0.04	585	7.82		1.00	1.00
											1.00	
Replicates	559.4	653.0	569.2	557.9								

Sample Name					Type	Date/Time	Conc (ppb	µAbs	%RSD	Flags	Wt.	Vol. ODF
30337003005512936					8 9 7	11/25/19 09:31:58 pm	0.04	581	2.45		1.00	1.00
											1.00	
	Replicates	582.7	588.4	560.4	592.3							
CC/					CC/	11/25/19 09:33:38 pm	5.32	60647	0.45		1.00	1.00
	1 Reco2e!3	106.38									1.00	
	Replicates	60703.6	60916.8	60698.7	60267.8							
CC4					CC4	11/25/19 09:36:30 pm	0.04	495	4.68		1.00	1.00
											1.00	
	Replicates	480.7	469.5	516.8	511.6							
30337003006512936					8 9 7	11/25/19 09:38:10 pm	0.05	673	5.98		1.00	1.00
											1.00	
	Replicates	613.2	686.8	698.8	693.8							
1808455512936					D8 6	11/25/19 09:39:50 pm	0.04	568	7.52		1.00	1.00
			R6D	0.00							1.00	
	Replicates	602.6	557.4	511.6	599.3							
1808456512936					: S7	11/25/19 09:41:30 pm	2.71	30965	0.54		1.00	1.00
	1 Reco2e!3	106.43									1.00	
	Replicates	30915.6	31148.3	31041.1	30756.3							
30337003007512936					8 9 7	11/25/19 09:43:11 pm	0.04	501	6.74		1.00	1.00
											1.00	
	Replicates	514.6	534.6	455.3	498.1							
30337003008512936					8 9 7	11/25/19 09:44:52 pm	0.04	525	5.26		1.00	1.00
											1.00	
	Replicates	496.4	508.6	541.3	555.6							
CC/					CC/	11/25/19 09:46:31 pm	5.34	60895	0.48		1.00	1.00
	1 Reco2e!3	106.82									1.00	
	Replicates	60964.0	61187.2	60940.5	60489.5							
CC4					CC4	11/25/19 09:49:18 pm	0.04	540	9.39		1.00	1.00
											1.00	
	Replicates	515.0	491.6	608.6	546.6							

Prep Log Report

Batch Information: MERP 372679-7470 W

Template Version: F-PA-I-005-Rev.00 (5May2016)

Prep Method	EPA 7470A	Analysis Method	EPA 7470A	Extracted By	JAG	Extracted Date/Time	11/25/2019 12:50:50:565
Block ID	HB9	Thermometer ID	HB9	Block Temp (C)	94.2	Correction Factor (C)	-0.2
Corrected Temp. (C)	94.00	Acceptance Range:	95.0 C +/- 2.0	Therm. Position	2.1	Digestion Start Time	11/25/2019 15:09:50:027
Digestion End Time	11/25/2019 17:09:56:457	Digestion Vessel	99510	Metals Pipette 1	PIP003	Metals Pipette 2	PIP004
Metals Pipette 3	PIP005	Bottle Disp. 1	BTD064	Bottle Disp. 2	BTD004	Bottle Disp. 3	BTD006
Bottle Disp. 4	BTD008	Reviewed By	BKH	Reviewed By Date	12/03/2019 13:31	Batch Notes	

Sample Information:

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 W_P	BLANK	**1808451**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25			
7470 W_P	LCS	**1808452**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25			
7470 W_P	PS	**30336865001**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	DUP	**1808453**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	MS	**1808454**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		106150 (.25)
7470 W_P	PS	**30336164001**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1	1*	
7470 W_P	PS	**30336177001**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1	1*	
7470 W_P	PS	**30336185001**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1	1*	
7470 W_P	PS	**30336942005**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	PS	**30337003001**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	PS	**30337003002**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	PS	**30337003003**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	PS	**30337003004**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	PS	**30337003005**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	PS	**30337003006**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	DUP	**1808455**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	Select	Matrix	pH < 2	Initial Volume (mL)	Conc. HNO3 (mL)	H2SO4 - Conc. (mL)	Potassium Permaganate Soln. (mL)	5% K2S2O8 (mL)	Final Volume (mL)	Container ID	Sample Notes	MERCURY-SPK1 (mL)
7470 W_P	MS	**1808456**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		106150 (.25)
7470 W_P	PS	**30337003007**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
7470 W_P	PS	**30337003008**	Y	Water	Yes	25	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	25	1		
HG WATER_Q	CAL0	**CAL0**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	1			
HG WATER_Q	CAL1	**CAL1**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	1			
HG WATER_Q	CAL2	**CAL2**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	1			
HG WATER_Q	CAL3	**CAL3**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	1			
HG WATER_Q	CAL4	**CAL4**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	1			
HG WATER_Q	CAL5	**CAL5**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	1			
HG WATER_Q	ICV	**ICV**	Y	Water	Yes	1	105099 (0.625)	94233 (1.25)	104913 (3.75)	104159 (2)	1			

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 W_P	BLANK	**1808451**		
7470 W_P	LCS	**1808452**	97787 (.1)	
7470 W_P	PS	**30336865001**		
7470 W_P	DUP	**1808453**		
7470 W_P	MS	**1808454**		
7470 W_P	PS	**30336164001**		
7470 W_P	PS	**30336177001**		
7470 W_P	PS	**30336185001**		
7470 W_P	PS	**30336942005**		
7470 W_P	PS	**30337003001**		

Prep Log Report

QC Rule	Sample Type	Lab Sample ID	MERCURY-SPK2 (mL)	CAL-STD
7470 W_P	PS	**30337003002**		
7470 W_P	PS	**30337003003**		
7470 W_P	PS	**30337003004**		
7470 W_P	PS	**30337003005**		
7470 W_P	PS	**30337003006**		
7470 W_P	DUP	**1808455**		
7470 W_P	MS	**1808456**		
7470 W_P	PS	**30337003007**		
7470 W_P	PS	**30337003008**		
HG WATER_Q	CAL0	**CAL0**		106639 (1)
HG WATER_Q	CAL1	**CAL1**		106640 (1)
HG WATER_Q	CAL2	**CAL2**		106641 (1)
HG WATER_Q	CAL3	**CAL3**		106642 (1)
HG WATER_Q	CAL4	**CAL4**		106643 (1)
HG WATER_Q	CAL5	**CAL5**		106644 (1)
HG WATER_Q	ICV	**ICV**		106645 (1)

Sample Notes:

1*: Sample reacts with H2SO4.

Standard Notes:

106639: CALO **106640: CAL1** **106641: CAL2**

106642: CAL3 **106643: CAL4** **106644: CAL5** **106645: Hg ICV Source 2**

MSV - FORM II VOA-1
WATER VOLATILE SURROGATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042

Instrument ID: 30MV7B

LAB SAMPLE ID	SAMPLE NAME	12D4	BFB	DIBF	TOL8
1811177	1811177BLANK	103	96	103	94
1811178	1811178LCS	100	98	104	95
1811547	1811547MS	110	95	106	94
1811548	1811548MSD	109	96	107	96
30337003001	MW-01	111	97	105	98
30337003002	MW-02	106	96	103	92
30337003003	MW-03	106	97	105	96
30337003004	MW-04	106	99	107	94
30337003005	MW-05	104	98	105	93
30337003006	MS	110	95	106	94
30337003007	MSD	109	96	107	96
30337003008	Duplicate	105	97	104	95
30337003009	Trip Blank by Pace	108	97	101	93

	QC LIMITS
(12D4) = 1,2-Dichloroethane-d4 (S)	(80-120)
(BFB) = 4-Bromofluorobenzene (S)	(78-122)
(DIBF) = Dibromofluoromethane (S)	(80-120)
(TOL8) = Toluene-d8 (S)	(80-120)

* Values outside of QC Limits

MSV - FORM III VOA-1

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh | Lab Sample ID: 1811178LCS

Date Extracted: 11/29/2019 | Date Analyzed (1): 11/29/2019

Instrument: 30MV7B | LCS Lot No: 107036

Lab File ID: 7191129.B\2.B\71129008.D | SDG No.: 30337003

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Acetone	20.0	24.0	120	37-150
Benzene	20.0	17.6	88	70-130
Bromobenzene	20.0	17.5	87	70-130
Bromochloromethane	20.0	19.0	95	59-137
Bromodichloromethane	20.0	18.8	94	70-130
Bromoform	20.0	14.8	74	65-130
Bromomethane	20.0	19.0	95	45-148
2-Butanone (MEK)	20.0	22.1	111	59-128
n-Butylbenzene	20.0	17.8	89	71-138
sec-Butylbenzene	20.0	18.5	93	70-130
tert-Butylbenzene	20.0	18.9	95	70-130
Carbon disulfide	20.0	15.1	76	55-123
Carbon tetrachloride	20.0	18.8	94	69-126
Chlorobenzene	20.0	19.3	96	70-130
Chloroethane	20.0	19.1	96	68-146
2-Chloroethylvinyl ether	20.0	18.2	91	63-120
Chloroform	20.0	18.1	90	69-116
Chloromethane	20.0	19.7	99	56-129
2-Chlorotoluene	20.0	18.3	92	70-130
4-Chlorotoluene	20.0	18.8	94	70-130
1,2-Dibromo-3-chloropropane	20.0	16.5	82	67-132
Dibromochloromethane	20.0	17.1	86	70-130
1,2-Dibromoethane (EDB)	20.0	17.3	86	70-130
Dibromomethane	20.0	17.4	87	70-130
1,2-Dichlorobenzene	20.0	18.3	91	70-130
1,3-Dichlorobenzene	20.0	18.7	93	70-130
1,4-Dichlorobenzene	20.0	18.1	90	70-130
Dichlorodifluoromethane	20.0	20.7	104	44-171
1,1-Dichloroethane	20.0	19.4	97	68-121
1,2-Dichloroethane	20.0	19.0	95	67-117
1,1-Dichloroethene	20.0	17.8	89	63-129
cis-1,2-Dichloroethene	20.0	19.2	96	66-118
trans-1,2-Dichloroethene	20.0	19.6	98	64-123
1,2-Dichloropropane	20.0	20.2	101	69-121
1,3-Dichloropropane	20.0	16.6	83	70-130
2,2-Dichloropropane	20.0	19.3	97	54-130
1,1-Dichloropropene	20.0	18.7	94	70-130
cis-1,3-Dichloropropene	20.0	18.8	94	70-130
trans-1,3-Dichloropropene	20.0	18.2	91	68-119
Ethylbenzene	20.0	18.9	94	70-130
Hexachloro-1,3-butadiene	20.0	14.2	71	73-141
2-Hexanone	20.0	21.8	109	49-145
Isopropylbenzene (Cumene)	20.0	20.7	103	70-130
p-Isopropyltoluene	20.0	18.5	93	70-130
Methylene Chloride	20.0	22.6	113	65-124
4-Methyl-2-pentanone (MIBK)	20.0	23.2	116	63-126
Methyl-tert-butyl ether	20.0	17.5	88	70-130

MSV - FORM III VOA-2

WATER LABORATORY CONTROL SAMPLE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Lab Sample ID: 1811178LCS
Date Extracted: 11/29/2019
Date Analyzed (1): 11/29/2019
Instrument: 30MV7B
LCS Lot No: 107036
Lab File ID: 7191129.B\2.B\71129008.D
SDG No.: 30337003

COMPOUND	AMOUNT ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS %REC	QC LIMITS REC.
Naphthalene	20.0	17.9	89	69-135
n-Propylbenzene	20.0	18.7	94	70-130
Styrene	20.0	19.5	97	70-130
1,1,1,2-Tetrachloroethane	20.0	19.0	95	70-130
1,1,2,2-Tetrachloroethane	20.0	18.6	93	70-130
Tetrachloroethene	20.0	18.5	93	70-130
Toluene	20.0	18.6	93	70-130
1,2,3-Trichlorobenzene	20.0	16.5	83	70-130
1,2,4-Trichlorobenzene	20.0	16.9	84	70-130
1,1,1-Trichloroethane	20.0	20.3	101	70-130
1,1,2-Trichloroethane	20.0	18.0	90	70-130
Trichloroethene	20.0	19.4	97	70-130
Trichlorofluoromethane	20.0	18.4	92	64-163
1,2,4-Trimethylbenzene	20.0	18.7	93	70-130
1,3,5-Trimethylbenzene	20.0	18.3	92	70-130
Vinyl acetate	20.0	15.4	77	45-129
Vinyl chloride	20.0	20.2	101	70-130
Xylene (Total)	60.0	55.5	93	70-130
m&p-Xylene	40.0	37.3	93	70-130
o-Xylene	20.0	18.2	91	70-130

Spike Recovery: 1 out of 67 outside limits.

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MSV - FORM III VOA-1

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1811547MS
Date Extracted: 11/29/2019
Date Analyzed (1): 11/29/2019
Instrument: 30MV7B
Lab File ID: 7191129.B\2.B\71129040-MS.D
Parent Sample ID: MW-04
SDG No.: 30337003

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
1,1,1,2-Tetrachloroethane	20.0	ND	16.9	85	52-123
1,1,1-Trichloroethane	20.0	157	183	132	67-127
1,1,2,2-Tetrachloroethane	20.0	ND	15.2	76	55-118
1,1,2-Trichloroethane	20.0	ND	16.0	80	60-117
1,1-Dichloroethane	20.0	26.6	44.5	90	68-118
1,1-Dichloroethene	20.0	49.6	67.9	91	62-126
1,1-Dichloropropene	20.0	ND	16.8	84	55-129
1,2,3-Trichlorobenzene	20.0	ND	13.3	66	49-128
1,2,4-Trichlorobenzene	20.0	ND	13.4	67	60-128
1,2,4-Trimethylbenzene	20.0	ND	15.4	77	70-130
1,2-Dibromo-3-chloropropane	20.0	ND	13.3	67	46-130
1,2-Dibromoethane (EDB)	20.0	ND	15.0	75	69-124
1,2-Dichlorobenzene	20.0	ND	15.1	75	66-116
1,2-Dichloroethane	20.0	ND	18.1	91	67-117
1,2-Dichloropropane	20.0	ND	17.1	86	61-128
1,3,5-Trimethylbenzene	20.0	ND	15.3	77	70-130
1,3-Dichlorobenzene	20.0	ND	15.6	78	67-117
1,3-Dichloropropane	20.0	ND	14.5	72	62-117
1,4-Dichlorobenzene	20.0	ND	14.8	74	68-116
2,2-Dichloropropane	20.0	ND	17.2	86	44-134
2-Butanone (MEK)	20.0	ND	17.2	86	63-175
2-Chloroethylvinyl ether	20.0	ND	ND	0	10-105
2-Chlorotoluene	20.0	ND	16.2	81	50-124
2-Hexanone	20.0	ND	18.0	90	65-151
4-Chlorotoluene	20.0	ND	15.6	78	49-127
4-Methyl-2-pentanone (MIBK)	20.0	ND	19.2	96	66-149
Acetone	20.0	ND	20.4	91	10-175
Benzene	20.0	ND	16.2	81	67-119
Bromobenzene	20.0	ND	14.3	71	55-124
Bromochloromethane	20.0	ND	16.9	85	64-124
Bromodichloromethane	20.0	ND	16.3	82	67-126
Bromoform	20.0	ND	12.4	62	43-114
Bromomethane	20.0	ND	4.7	23	10-164
Carbon disulfide	20.0	ND	14.0	70	37-135
Carbon tetrachloride	20.0	ND	17.7	89	60-137
Chlorobenzene	20.0	ND	16.8	84	68-119
Chloroethane	20.0	ND	21.7	109	54-169
Chloroform	20.0	ND	16.5	82	69-113
Chloromethane	20.0	ND	16.4	82	43-159
Dibromochloromethane	20.0	ND	14.6	73	56-121
Dibromomethane	20.0	ND	15.5	78	56-133
Dichlorodifluoromethane	20.0	ND	22.2	111	21-175
Ethylbenzene	20.0	ND	16.5	83	69-127
Hexachloro-1,3-butadiene	20.0	ND	11.8	59	15-133
Isopropylbenzene (Cumene)	20.0	ND	17.4	87	70-130
Methyl-tert-butyl ether	20.0	ND	15.8	79	70-130
Methylene Chloride	20.0	ND	20.8	104	49-144

MSV - FORM III VOA-2

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Pace Analytical - Pittsburgh
Matrix Spike - Sample No: 1811547MS
Date Extracted: 11/29/2019
Date Analyzed (1): 11/29/2019
Instrument: 30MV7B
Lab File ID: 7191129.B\2.B\71129040-MS.D
Parent Sample ID: MW-04
SDG No.: 30337003

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS %REC	QC LIMITS REC.
Naphthalene	20.0	ND	13.6	68	60-136
Styrene	20.0	ND	16.8	84	65-120
Tetrachloroethene	20.0	ND	17.2	86	64-123
Toluene	20.0	ND	16.0	79	70-130
Trichloroethene	20.0	292	317	126	63-125
Trichlorofluoromethane	20.0	ND	18.7	94	43-186
Vinyl acetate	20.0	ND	13.4	67	35-150
Vinyl chloride	20.0	5.4	24.4	95	60-133
Xylene (Total)	60.0	ND	47.8	80	69-128
cis-1,2-Dichloroethene	20.0	41.9	59.9	90	65-121
cis-1,3-Dichloropropene	20.0	ND	15.2	76	61-120
m&p-Xylene	40.0	ND	32.5	81	70-129
n-Butylbenzene	20.0	ND	14.3	72	54-128
n-Propylbenzene	20.0	ND	15.8	79	62-127
o-Xylene	20.0	ND	15.3	77	68-126
p-Isopropyltoluene	20.0	ND	15.7	78	60-125
sec-Butylbenzene	20.0	ND	15.4	77	63-125
tert-Butylbenzene	20.0	ND	16.2	81	64-124
trans-1,2-Dichloroethene	20.0	ND	18.5	89	66-119
trans-1,3-Dichloropropene	20.0	ND	15.5	77	52-117

Spike Recovery: 3 out of 67 outside limits.

MSV - FORM III VOA-3

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV7B Matrix Spike Duplicate - Sample No: 1811548MSD

Lab File ID (2): 7191129.B\2.B\71129042-MSD.D Date Analyzed (2): 11/29/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
1,1,1,2-Tetrachloroethane	20.0	14.8	74	14	0-30	52-123
1,1,1-Trichloroethane	20.0	182	127	1	0-30	67-127
1,1,2,2-Tetrachloroethane	20.0	13.0	65	16	0-30	55-118
1,1,2-Trichloroethane	20.0	14.2	71	12	0-30	60-117
1,1-Dichloroethane	20.0	42.2	78	5	0-30	68-118
1,1-Dichloroethene	20.0	66.5	85	2	0-30	62-126
1,1-Dichloropropene	20.0	14.5	72	15	0-30	55-129
1,2,3-Trichlorobenzene	20.0	11.9	59	11	0-30	49-128
1,2,4-Trichlorobenzene	20.0	12.6	63	6	0-30	60-128
1,2,4-Trimethylbenzene	20.0	13.6	68	12	0-30	70-130
1,2-Dibromo-3-chloropropane	20.0	10.9	55	20	0-30	46-130
1,2-Dibromoethane (EDB)	20.0	13.5	68	10	0-30	69-124
1,2-Dichlorobenzene	20.0	13.8	69	9	0-30	66-116
1,2-Dichloroethane	20.0	15.6	78	15	0-30	67-117
1,2-Dichloropropane	20.0	15.2	76	12	0-30	61-128
1,3,5-Trimethylbenzene	20.0	13.8	69	11	0-30	70-130
1,3-Dichlorobenzene	20.0	13.6	68	13	0-30	67-117
1,3-Dichloropropane	20.0	12.7	64	13	0-30	62-117
1,4-Dichlorobenzene	20.0	13.4	67	10	0-30	68-116
2,2-Dichloropropane	20.0	14.1	70	20	0-30	44-134
2-Butanone (MEK)	20.0	17.1	85	0	0-30	63-175
2-Chloroethylvinyl ether	20.0	ND	0		0-30	10-105
2-Chlorotoluene	20.0	14.4	72	12	0-30	50-124
2-Hexanone	20.0	15.5	77	15	0-30	65-151
4-Chlorotoluene	20.0	13.5	68	14	0-30	49-127
4-Methyl-2-pentanone (MIBK)	20.0	17.6	88	9	0-30	66-149
Acetone	20.0	19.0	84	7	0-30	10-175
Benzene	20.0	13.6	68	17	0-30	67-119
Bromobenzene	20.0	12.9	65	10	0-30	55-124
Bromochloromethane	20.0	14.3	71	17	0-30	64-124
Bromodichloromethane	20.0	14.6	73	11	0-30	67-126
Bromoform	20.0	10.8	54	14	0-30	43-114
Bromomethane	20.0	6.6	33	34	0-30	10-164
Carbon disulfide	20.0	12.0	60	15	0-30	37-135
Carbon tetrachloride	20.0	15.5	78	13	0-30	60-137
Chlorobenzene	20.0	14.9	74	13	0-30	68-119
Chloroethane	20.0	20.5	103	6	0-30	54-169
Chloroform	20.0	14.1	71	16	0-30	69-113
Chloromethane	20.0	16.4	82	0	0-30	43-159
Dibromochloromethane	20.0	13.1	66	11	0-30	56-121
Dibromomethane	20.0	13.3	66	16	0-30	56-133
Dichlorodifluoromethane	20.0	20.7	103	7	0-30	21-175
Ethylbenzene	20.0	14.5	72	13	0-30	69-127
Hexachloro-1,3-butadiene	20.0	11.0	55	7	0-30	15-133
Isopropylbenzene (Cumene)	20.0	15.5	77	11	0-30	70-130
Methyl-tert-butyl ether	20.0	13.8	69	13	0-30	70-130
Methylene Chloride	20.0	17.6	88	17	0-30	49-144
Naphthalene	20.0	12.4	62	9	0-30	60-136
Styrene	20.0	14.9	74	12	0-30	65-120

MSV - FORM III VOA-4

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Instrument (2): 30MV7B Matrix Spike Duplicate - Sample No: 1811548MSD

Lab File ID (2): 7191129.B\2.B\71129042-MSD.D Date Analyzed (2): 11/29/2019

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD %REC	%RPD	QC LIMITS	
					RPD	REC.
Tetrachloroethene	20.0	14.6	73	16	0-30	64-123
Toluene	20.0	14.1	69	13	0-30	70-130
Trichloroethene	20.0	323	155	2	0-30	63-125
Trichlorofluoromethane	20.0	18.8	94	1	0-30	43-186
Vinyl acetate	20.0	13.0	65	3	0-30	35-150
Vinyl chloride	20.0	23.9	93	2	0-30	60-133
Xylene (Total)	60.0	42.5	71	12	0-30	69-128
cis-1,2-Dichloroethene	20.0	56.2	72	6	0-30	65-121
cis-1,3-Dichloropropene	20.0	13.8	69	10	0-30	61-120
m&p-Xylene	40.0	28.5	71	13	0-30	70-129
n-Butylbenzene	20.0	12.5	63	13	0-30	54-128
n-Propylbenzene	20.0	14.0	70	12	0-30	62-127
o-Xylene	20.0	14.0	70	9	0-30	68-126
p-Isopropyltoluene	20.0	13.7	68	14	0-30	60-125
sec-Butylbenzene	20.0	13.7	68	12	0-30	63-125
tert-Butylbenzene	20.0	14.2	71	13	0-30	64-124
trans-1,2-Dichloroethene	20.0	16.0	77	14	0-30	66-119
trans-1,3-Dichloropropene	20.0	13.4	67	14	0-30	52-117

RPD: 1 out of 66 outside limits.

Spike Recovery: 8 out of 67 outside limits.

02/13/2020 2:33

SAMPLE NO.

1811177BLANK

MSV - FORM IV VOA-1
VOLATILE METHOD BLANK SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042

Instrument ID: 30MV7B Matrix: Water Lab Sample ID: 1811177

Lab File ID: 7191129.B\2.B\71129012.D Date Analyzed: 11/29/2019 Time: 10:22

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	ANALYZED
1811178LCS	1811178	7191129.B\2.B\71129008.D	11/29/2019 09:33
Trip Blank by Pace	30337003009	7191129.B\2.B\71129014.D	11/29/2019 10:47
MW-01	30337003001	7191129.B\2.B\71129018.D	11/29/2019 11:38
MW-02	30337003002	7191129.B\2.B\71129020.D	11/29/2019 12:03
MW-03	30337003003	7191129.B\2.B\71129022.D	11/29/2019 12:28
MW-04	30337003004	7191129.B\2.B\71129024.D	11/29/2019 12:52
MW-05	30337003005	7191129.B\2.B\71129026.D	11/29/2019 13:17
Duplicate	30337003008	7191129.B\2.B\71129028.D	11/29/2019 13:42
MS	30337003006	7191129.B\2.B\71129040.D	11/29/2019 16:12
1811547MS	1811547	7191129.B\2.B\71129040-MS.D	11/29/2019 16:12
MSD	30337003007	7191129.B\2.B\71129042.D	11/29/2019 16:37
1811548MSD	1811548	7191129.B\2.B\71129042-MSD.D	11/29/2019 16:37

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042
Lab File ID: 7191112.B\1.B\71112003.D BFB Injection Date: 11/12/2019
Instrument ID: 30MV7A BFB Injection Time: 13:35

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	17.72	
75	30.00 - 60.00% of mass 95	44.30	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.82	
173	Less than 2.00% of mass 174	0.56	(0.57)[1]
174	Greater than 50.00% of mass 95	97.39	
175	5.00 - 9.00% of mass 174	7.32	(7.51)[1]
176	95.00 - 101.00% of mass 174	98.35	(100.98)[1]
177	5.00 - 9.00% of mass 176	6.63	(6.74)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11873478CAL1	11873478CAL1	7191112.B\1.B\71112005.D	11/12/2019	14:00
11873482CAL2	11873482CAL2	7191112.B\1.B\71112007.D	11/12/2019	14:25
11873479CAL3	11873479CAL3	7191112.B\1.B\71112009.D	11/12/2019	14:49
11873480CAL4	11873480CAL4	7191112.B\1.B\71112011.D	11/12/2019	15:14
11873477CAL5	11873477CAL5	7191112.B\1.B\71112013.D	11/12/2019	15:39
11873474CAL6	11873474CAL6	7191112.B\1.B\71112015.D	11/12/2019	16:04
11873476CAL7	11873476CAL7	7191112.B\1.B\71112017.D	11/12/2019	16:28
11876188ICV	11876188ICV	7191112.B\1.B\71112025.D	11/12/2019	18:07

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042
Lab File ID: 7191202.B\1.B\71202007.D BFB Injection Date: 12/02/2019
Instrument ID: 30MV7A BFB Injection Time: 11:15

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	18.95	
75	30.00 - 60.00% of mass 95	43.62	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	7.16	
173	Less than 2.00% of mass 174	0.39	(0.41)[1]
174	Greater than 50.00% of mass 95	94.62	
175	5.00 - 9.00% of mass 174	7.69	(8.13)[1]
176	95.00 - 101.00% of mass 174	91.23	(96.42)[1]
177	5.00 - 9.00% of mass 176	6.08	(6.67)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11969722CCV	11969722CCV	7191202.B\1.B\71202009.D	12/02/2019	11:40
MW-05	30337003005	7191202.B\1.B\71202061.D	12/02/2019	22:35
Duplicate	30337003008	7191202.B\1.B\71202063.D	12/02/2019	23:00

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042
Lab File ID: 7191112.B\2.B\71112006-BFB.D BFB Injection Date: 11/12/2019
Instrument ID: 30MV7B BFB Injection Time: 14:12

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	16.93	
75	30.00 - 60.00% of mass 95	43.41	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	7.01	
173	Less than 2.00% of mass 174	0.86	(0.89)[1]
174	Greater than 50.00% of mass 95	97.27	
175	5.00 - 9.00% of mass 174	7.21	(7.41)[1]
176	95.00 - 101.00% of mass 174	97.26	(99.99)[1]
177	5.00 - 9.00% of mass 176	6.08	(6.25)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
11873487CAL1	11873487CAL1	7191112.B\2.B\71112006.D	11/12/2019	14:12
11873489CAL2	11873489CAL2	7191112.B\2.B\71112008.D	11/12/2019	14:37
11873488CAL3	11873488CAL3	7191112.B\2.B\71112010.D	11/12/2019	15:01
11873491CAL4	11873491CAL4	7191112.B\2.B\71112012.D	11/12/2019	15:26
11873490CAL5	11873490CAL5	7191112.B\2.B\71112014.D	11/12/2019	15:51
11873483CAL6	11873483CAL6	7191112.B\2.B\71112016.D	11/12/2019	16:16
11873492CAL7	11873492CAL7	7191112.B\2.B\71112018.D	11/12/2019	16:40
11876055ICV	11876055ICV	7191112.B\2.B\71112026.D	11/12/2019	18:19

MSV - FORM V VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET
PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042
Lab File ID: 7191129.B\2.B\71129004.D BFB Injection Date: 11/29/2019
Instrument ID: 30MV7B BFB Injection Time: 08:43

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.00 - 40.00% of mass 95	17.18	
75	30.00 - 60.00% of mass 95	40.52	
95	Base Peak, 100.00% relative	100.00	
96	5.00 - 9.00% of mass 95	6.60	
173	Less than 2.00% of mass 174	0.28	(0.31)[1]
174	Greater than 50.00% of mass 95	89.04	
175	5.00 - 9.00% of mass 174	6.63	(7.45)[1]
176	95.00 - 101.00% of mass 174	86.94	(97.64)[1]
177	5.00 - 9.00% of mass 176	5.48	(6.30)[2]

1 - Value is % mass 174 2 - Value is % mass 176

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
12314985CCV	12314985CCV	7191129.B\2.B\71129006.D	11/29/2019	09:08
1811178LCS	1811178LCS	7191129.B\2.B\71129008.D	11/29/2019	09:33
1811177BLANK	1811177BLANK	7191129.B\2.B\71129012.D	11/29/2019	10:22
Trip Blank by Pace	30337003009	7191129.B\2.B\71129014.D	11/29/2019	10:47
MW-01	30337003001	7191129.B\2.B\71129018.D	11/29/2019	11:38
MW-02	30337003002	7191129.B\2.B\71129020.D	11/29/2019	12:03
MW-03	30337003003	7191129.B\2.B\71129022.D	11/29/2019	12:28
MW-04	30337003004	7191129.B\2.B\71129024.D	11/29/2019	12:52
MW-05	30337003005	7191129.B\2.B\71129026.D	11/29/2019	13:17
Duplicate	30337003008	7191129.B\2.B\71129028.D	11/29/2019	13:42
MS	30337003006	7191129.B\2.B\71129040.D	11/29/2019	16:12
1811547MS	1811547MS	7191129.B\2.B\71129040-MS.D	11/29/2019	16:12
1811548MSD	1811548MSD	7191129.B\2.B\71129042-MSD.D	11/29/2019	16:37
MSD	30337003007	7191129.B\2.B\71129042.D	11/29/2019	16:37

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042

Sample ID : 11969722CCV Date Analyzed: 12/02/2019

Instrument ID: 30MV7A GC Column: Col 1 Time Analyzed: 11:40

Lab File ID: 7191202.B\1.B\71202009.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		107431	5.513	47441	6.484	151838	4.07
UPPER LIMIT		214862	6.013	94882	6.984	303676	4.57
LOWER LIMIT		53715.5	5.013	23720.5	5.984	75919	3.57
LAB SAMPLE ID	SAMPLE NO.						
30337003005	MW-05	103178	5.513	45472	6.484	151572	4.07
30337003008	Duplicate	107203	5.513	44377	6.484	151003	4.07

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

MSV - FORM VIII VOA-1
MSV INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Pace Analytical - Pittsburgh SDG No.: 30337003 Contract: 215042

Sample ID : 12314985CCV Date Analyzed: 11/29/2019

Instrument ID: 30MV7B GC Column: Col 1 Time Analyzed: 09:08

Lab File ID: 7191129.B\2.B\71129006.D

		AREA CBZ	RT	AREA DCB	RT	AREA FBZ	RT
12 HOUR STD		126106	5.513	55507	6.484	185373	4.066
UPPER LIMIT		252212	6.013	111014	6.984	370746	4.566
LOWER LIMIT		63053	5.013	27753.5	5.984	92686.5	3.566
LAB SAMPLE ID	SAMPLE NO.						
1811177	1811177BLANK	124294	5.513	52230	6.481	179895	4.066
1811178	1811178LCS	132733	5.513	56748	6.481	191892	4.066
1811547	1811547MS	118259	5.513	52995	6.481	171682	4.067
1811548	1811548MSD	119033	5.513	52843	6.481	174643	4.066
30337003001	MW-01	112002	5.513	49175	6.481	173127	4.066
30337003002	MW-02	117126	5.513	50538	6.481	171703	4.067
30337003003	MW-03	113214	5.513	49942	6.481	169792	4.066
30337003004	MW-04	113689	5.513	48192	6.484	169978	4.07
30337003005	MW-05	115669	5.513	48863	6.484	172349	4.066
30337003006	MS	118259	5.513	52995	6.481	171682	4.067
30337003007	MSD	119033	5.513	52843	6.481	174643	4.066
30337003008	Duplicate	114914	5.513	49048	6.481	171563	4.067
30337003009	Trip Blank by Pace	120202	5.513	51435	6.484	179527	4.066

CBZ = Chlorobenzene-d5 (IS)
DCB = 1,4-Dichlorobenzene-d4 (IS)
FBZ = Fluorobenzene (IS)

AREA UPPER LIMIT = 200% of Internal Standard Area
AREA LOWER LIMIT = 50% of Internal Standard Area
RT UPPER LIMIT = +0.50 minutes of Internal Standard RT
RT LOWER LIMIT = -0.50 minutes of Internal Standard RT

* Values outside of QC Limits

SAMPLE NO.

MW-01

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 11:38 Lab Sample ID: 30337003001

Date Analyzed: 11/29/2019 11:38 Lab File ID: 7191129.B\2.B\71129018.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U

SAMPLE NO.

MW-01

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 11:38 Lab Sample ID: 30337003001

Date Analyzed: 11/29/2019 11:38 Lab File ID: 7191129.B\2.B\71129018.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d
Lab Smp Id: 30337003001 Client Smp ID: MW-01
Inj Date : 29-NOV-2019 11:38
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003001
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 18
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	Compound Not Detected.						
2	Chloromethane	50	Compound Not Detected.						
3	Vinyl chloride	62	Compound Not Detected.						
4	Bromomethane	94	Compound Not Detected.						
5	Chloroethane	64	Compound Not Detected.						
6	Trichlorofluoromethane	101	Compound Not Detected.						
7	Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8	Ethanol	46	Compound Not Detected.						
9	1,1-Dichloroethene	61	Compound Not Detected.						
10	1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11	Carbon disulfide	76	Compound Not Detected.						
12	Iodomethane	142	Compound Not Detected.						
13	Acrolein	56	Compound Not Detected.						
14	Allyl chloride	41	Compound Not Detected.						
15	Methylene Chloride	49	Compound Not Detected.						
16	Acetone	58	1.953	1.944	(0.480)	315	0.82852	0.828(aQ)	
17	trans-1,2-Dichloroethene	61	Compound Not Detected.						
18	Methyl acetate	74	Compound Not Detected.						
19	n-Hexane	86	Compound Not Detected.						
20	Methyl-tert-butyl ether	73	Compound Not Detected.						
21	tert-Butyl Alcohol	59	Compound Not Detected.						(D)
22	Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	Compound Not Detected.						
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Ethyl acetate	43	Compound Not Detected.						
	35 Carbon tetrachloride	117	Compound Not Detected.						
	36 Tetrahydrofuran	42	3.436	3.407	(0.845)	4444	3.39875	3.40(M)	LT
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	46964	31.3786	31.4	
	38 1,1,1-Trichloroethane	97	Compound Not Detected.						
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	51283	33.3061	33.3	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	173127	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	Compound Not Detected.						
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	148446	29.4643	29.5	
	59 Toluene	91	4.847	4.844	(0.879)	1308	0.20251	0.202(a)	
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	Compound Not Detected.						
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	112002	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	44774	29.2115	29.2	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	49175	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	23219	30.9677	31.0(Q)	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

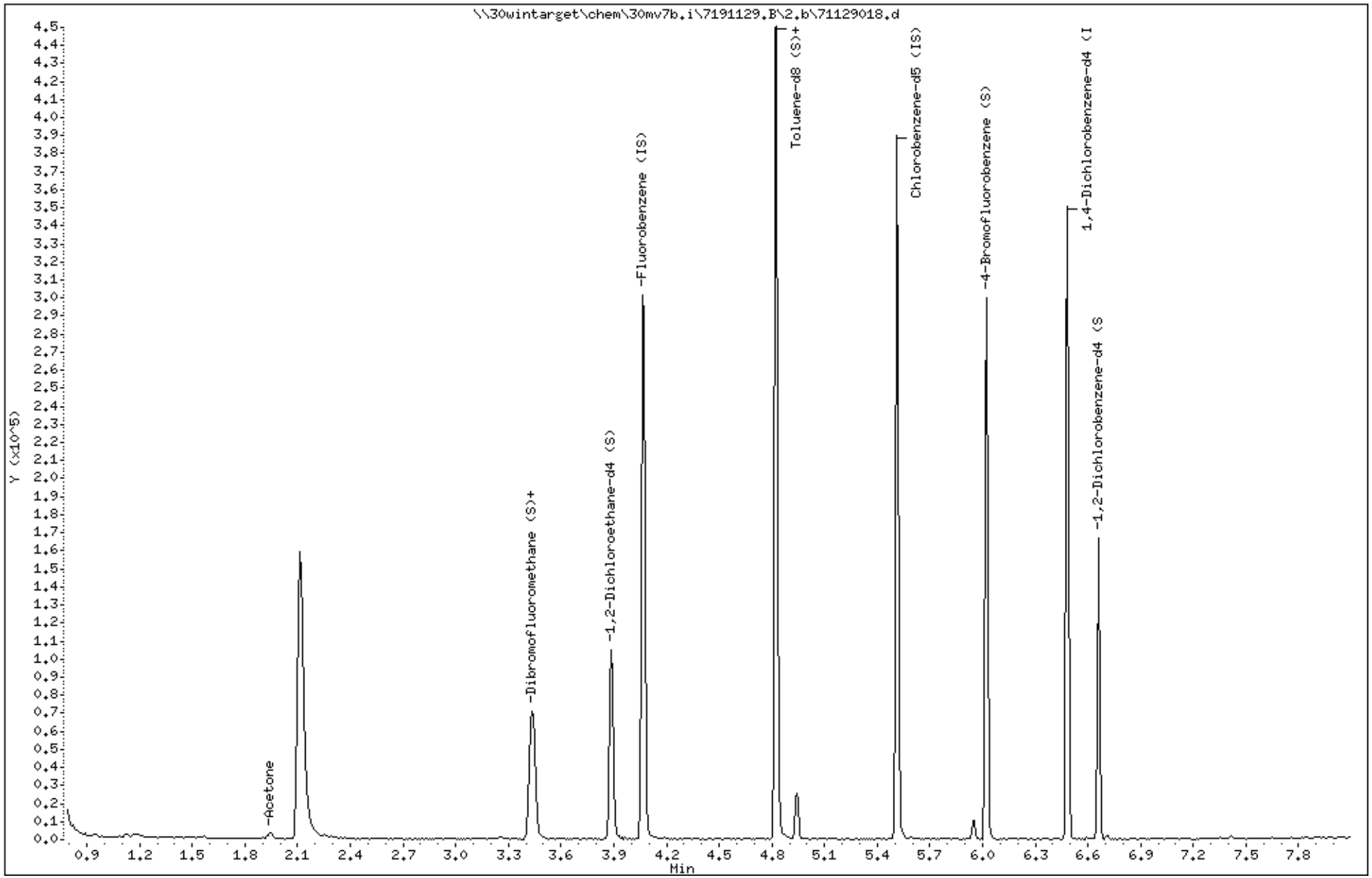
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003001
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-01
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
67-64-1	Acetone	0.828	J
109-99-9	Tetrahydrofuran	3.40	
108-88-3	Toluene	0.202	J
1868-53-7	Dibromofluoromethane (S)	31.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.3	
2037-26-5	Toluene-d8 (S)	29.5	
460-00-4	4-Bromofluorobenzene (S)	29.2	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	31.0	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d
Date : 29-NOV-2019 11:38
Client ID: MW-01
Instrument: 30mv7b.i
Sample Info: 30337003001
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d

Date : 29-NOV-2019 11:38

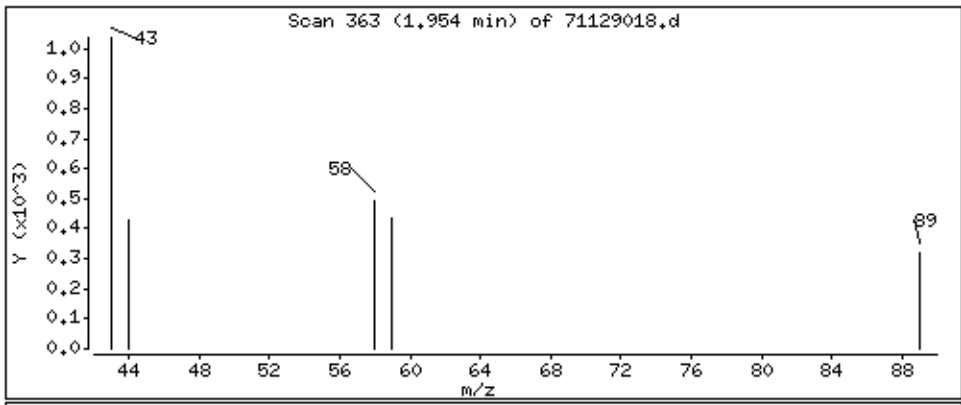
Client ID: MW-01 Instrument: 30mv7b.i

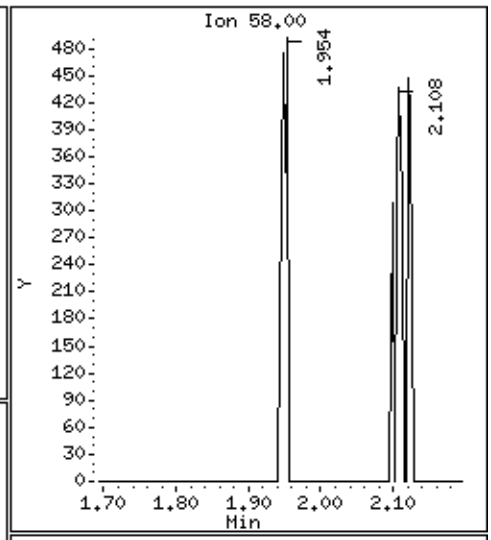
Sample Info: 30337003001

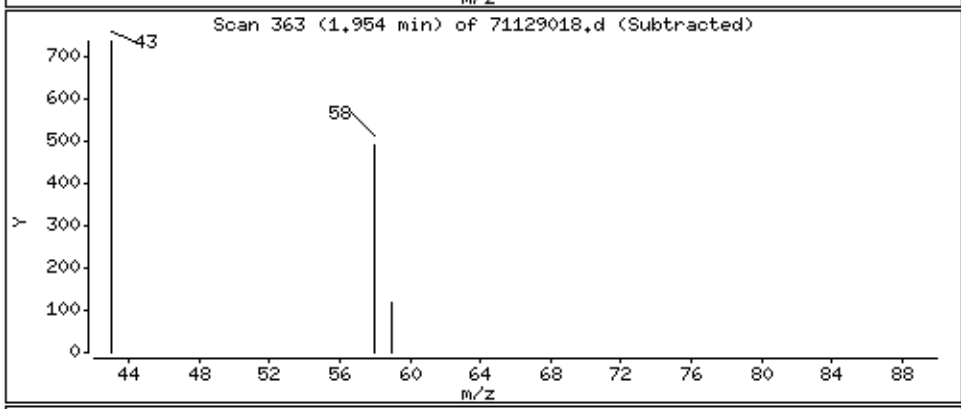
Purge Volume: 5.0 Operator: LEL

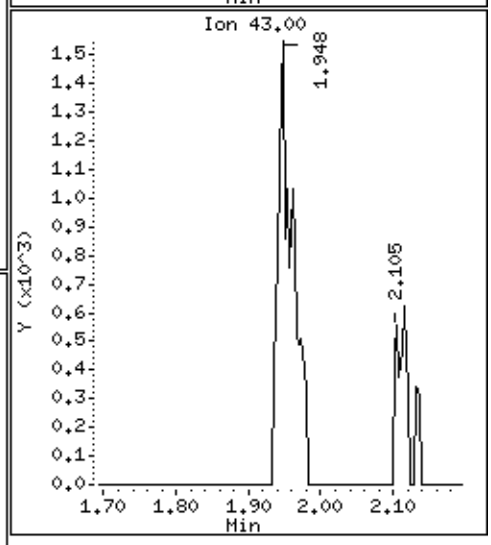
Column phase: RTX-VMS Column diameter: 0.18

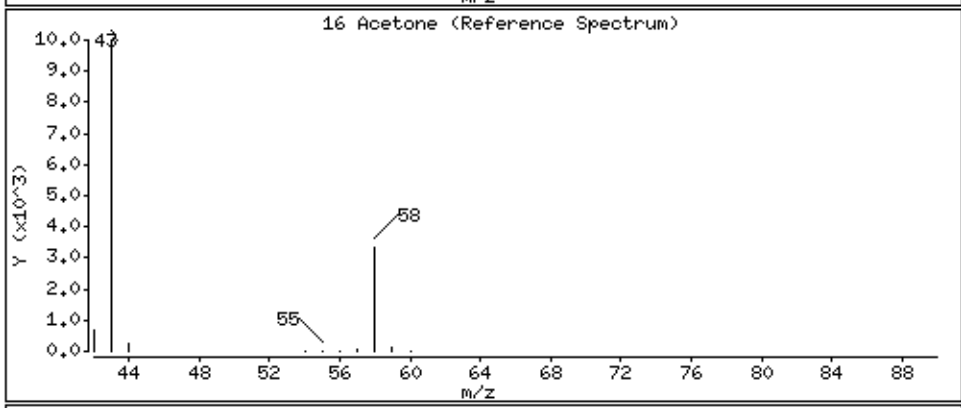
16 Acetone Concentration: 0.828 ug/L Review Code:

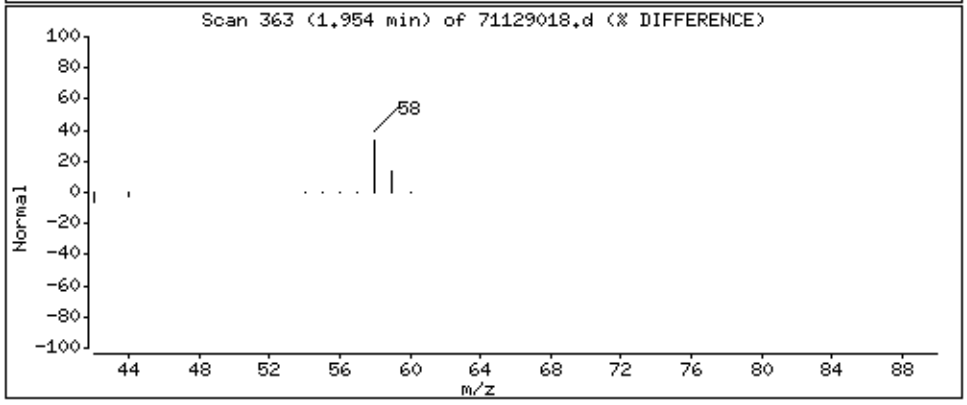












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d

Date : 29-NOV-2019 11:38

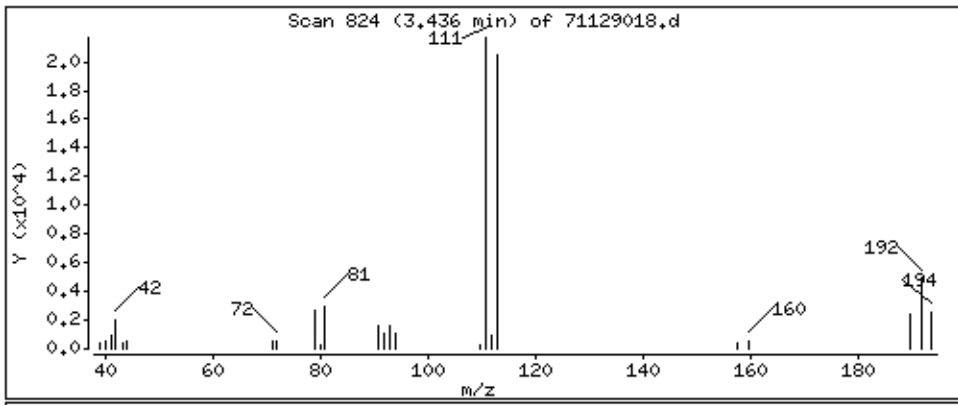
Client ID: MW-01 Instrument: 30mv7b.i

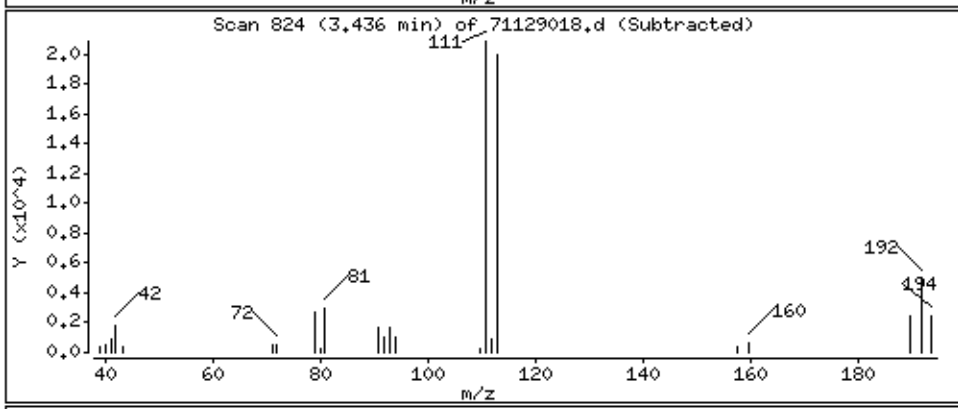
Sample Info: 30337003001

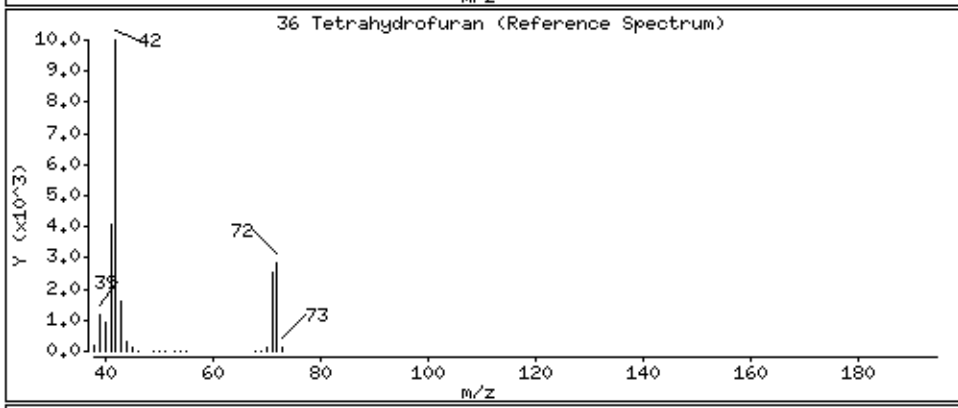
Purge Volume: 5.0 Operator: LEL

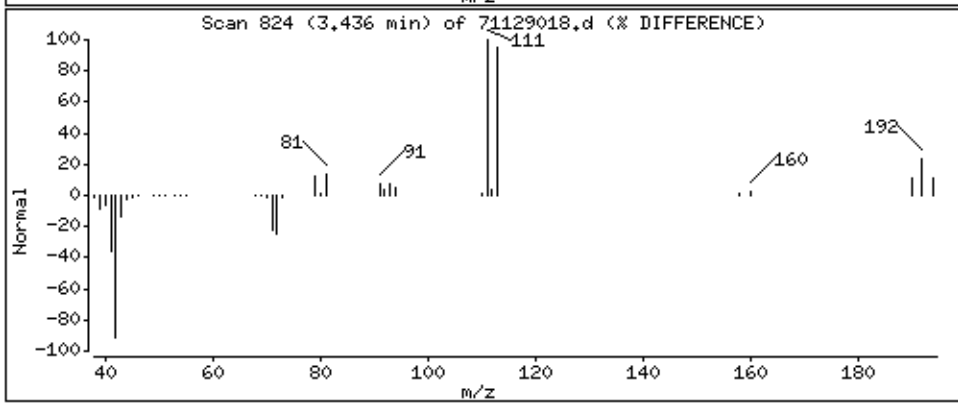
Column phase: RTX-VMS Column diameter: 0.18

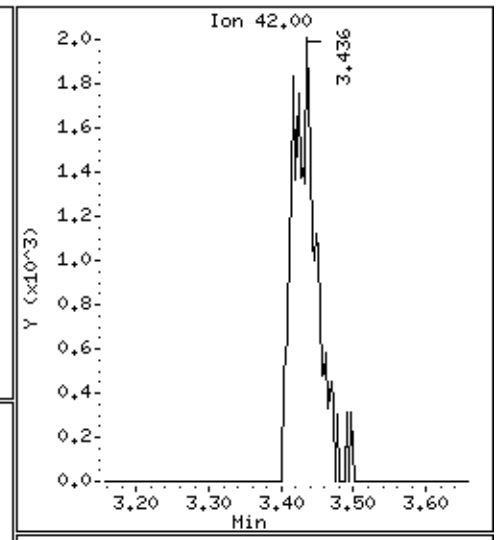
36 Tetrahydrofuran Concentration: 3.40 ug/L Review Code: LT

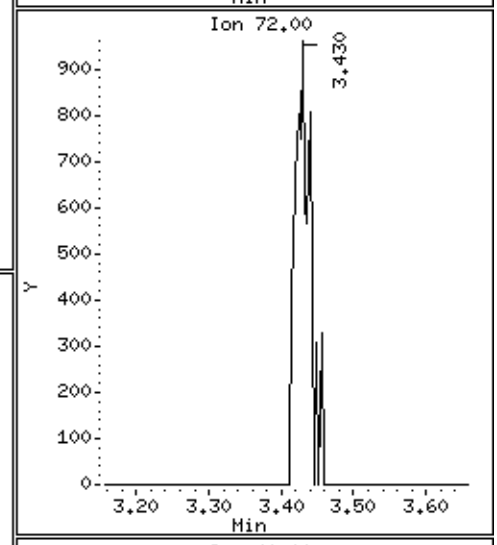


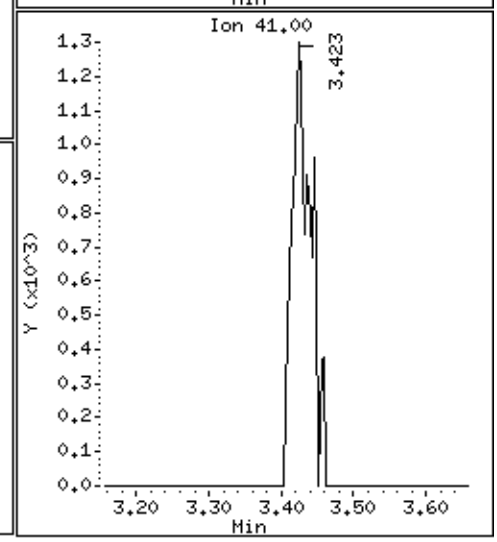












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129018.d

Date : 29-NOV-2019 11:38

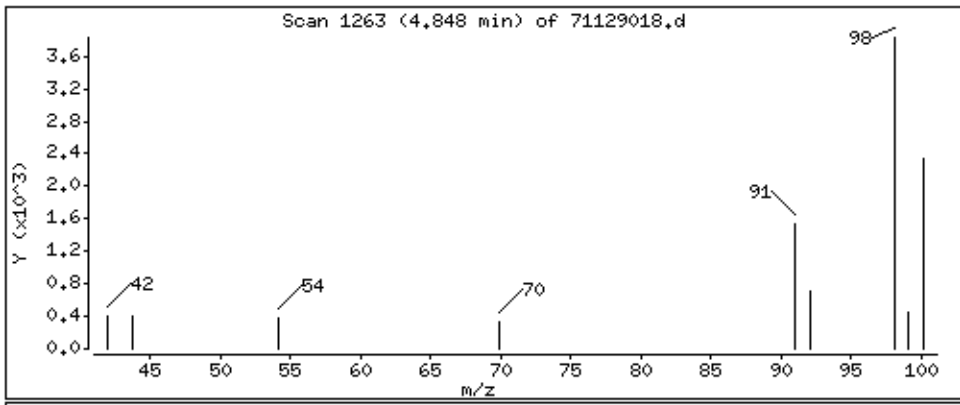
Client ID: MW-01 Instrument: 30mv7b.i

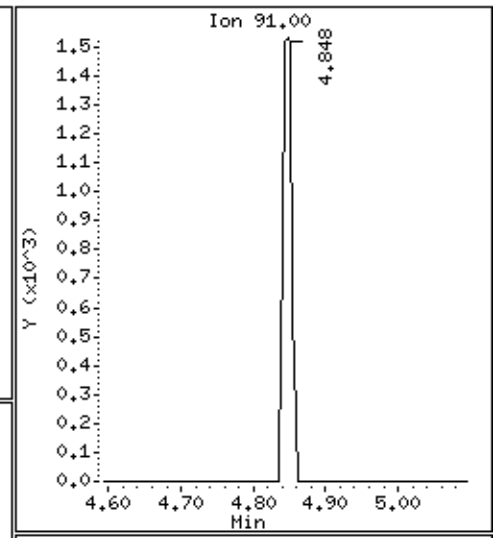
Sample Info: 30337003001

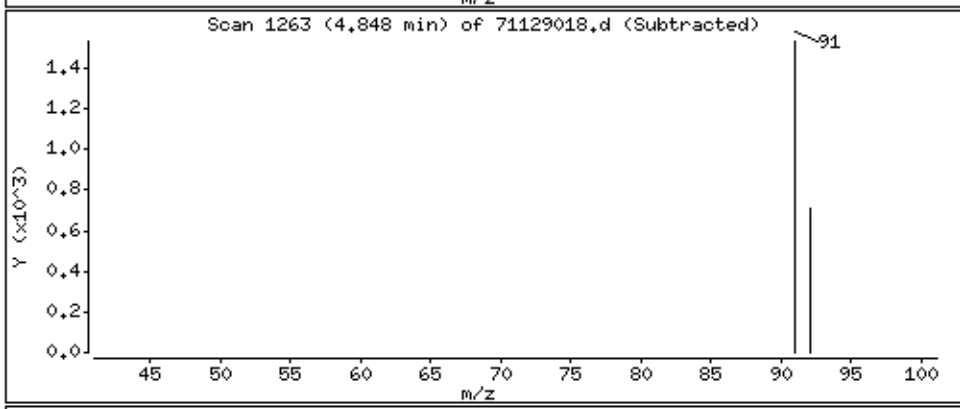
Purge Volume: 5.0 Operator: LEL

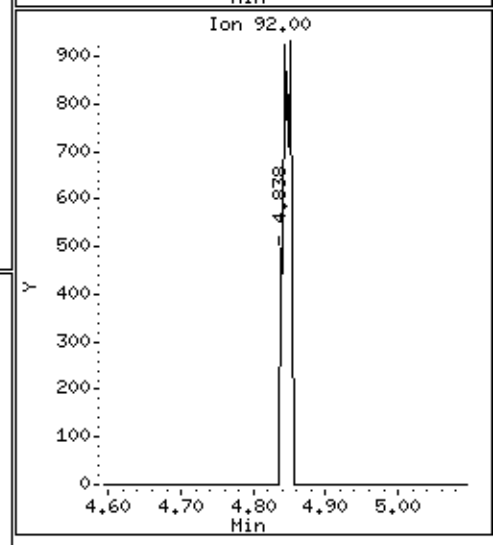
Column phase: RTX-VMS Column diameter: 0.18

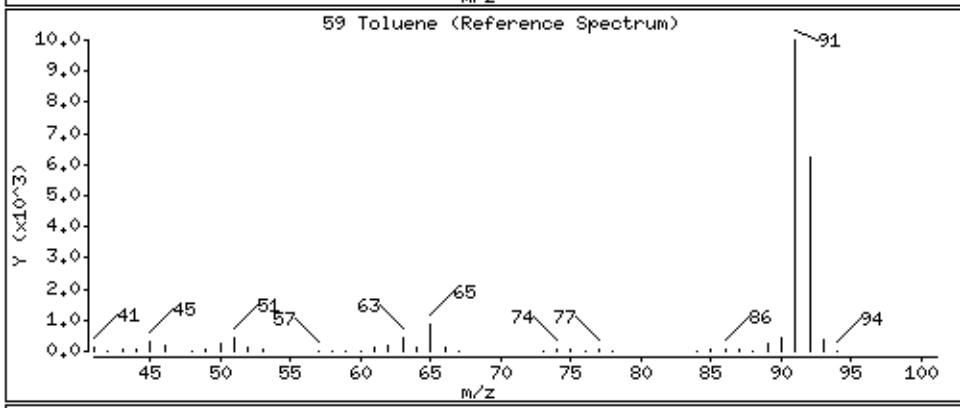
59 Toluene Concentration: 0.202 ug/L Review Code:

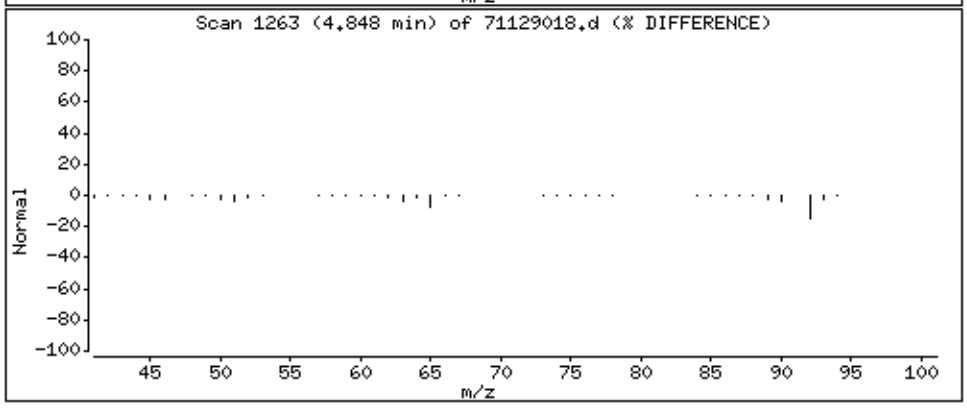






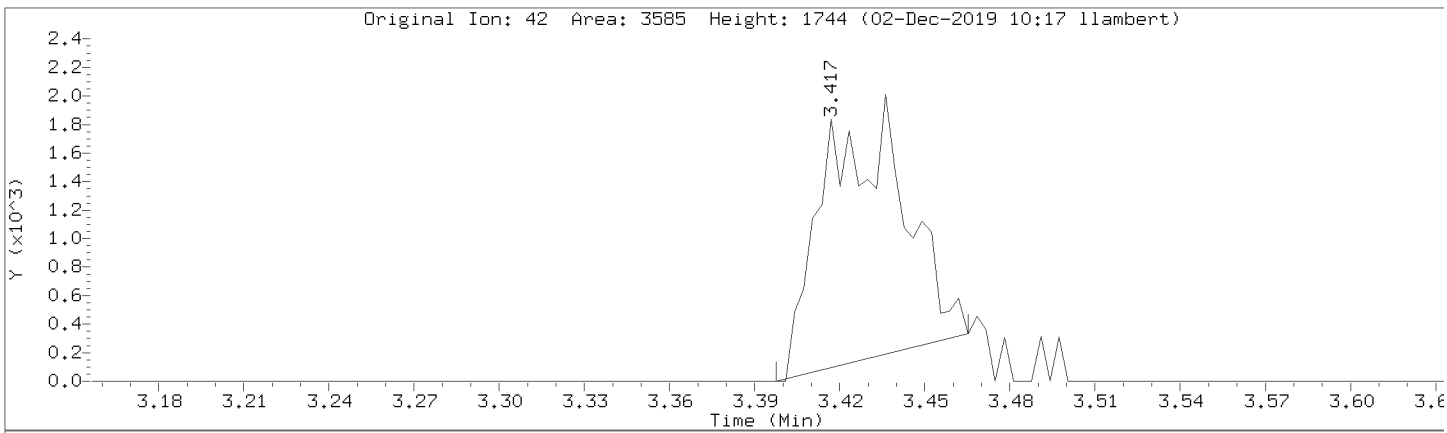


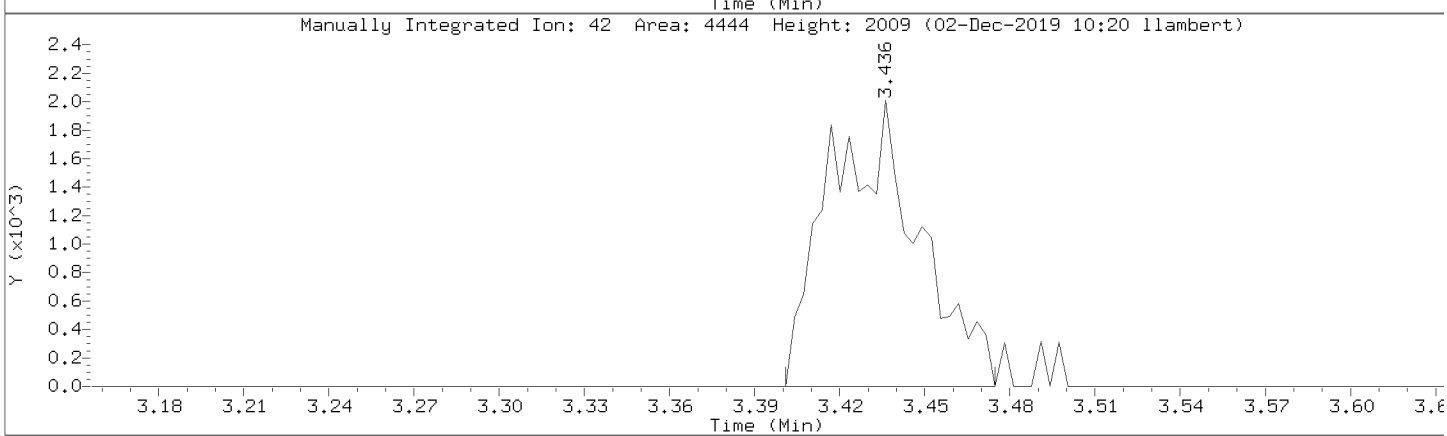


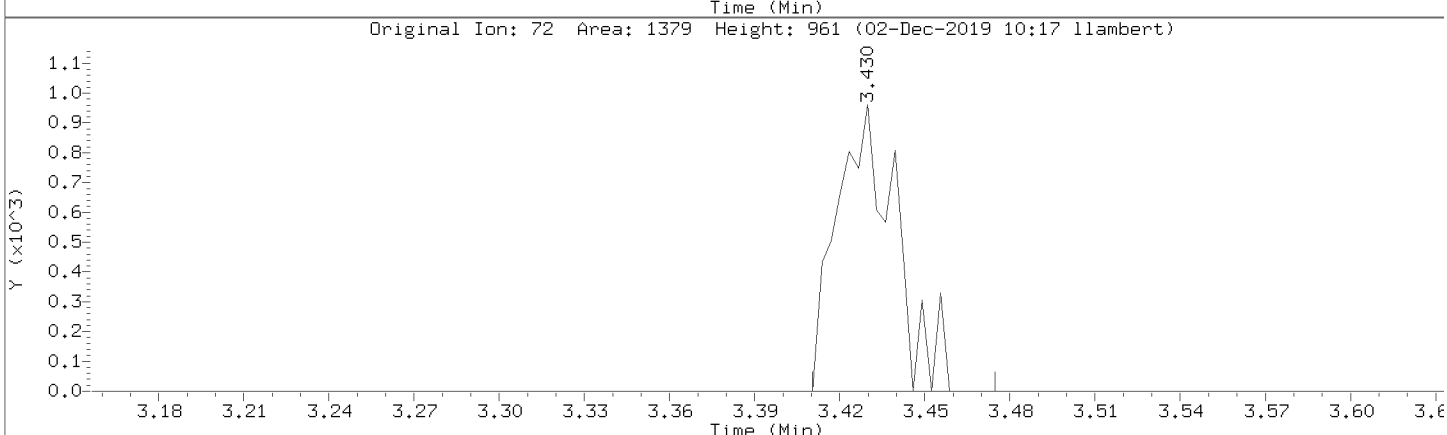


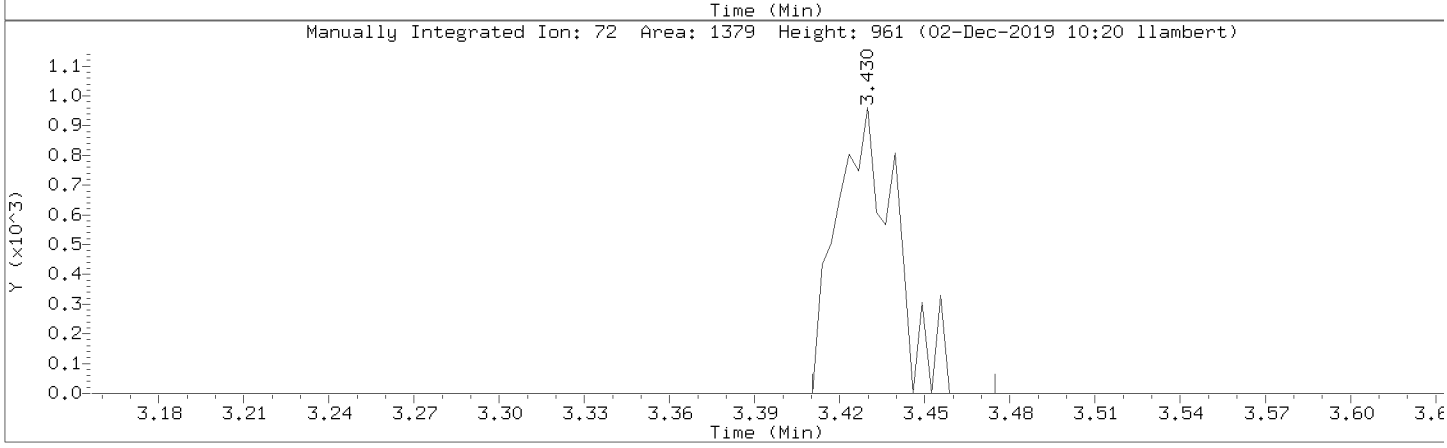
Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129018.d
Injection Date: 29-NOV-2019 11:38
Instrument: 30mv7b.i
Lab Sample ID: 30337003001

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9

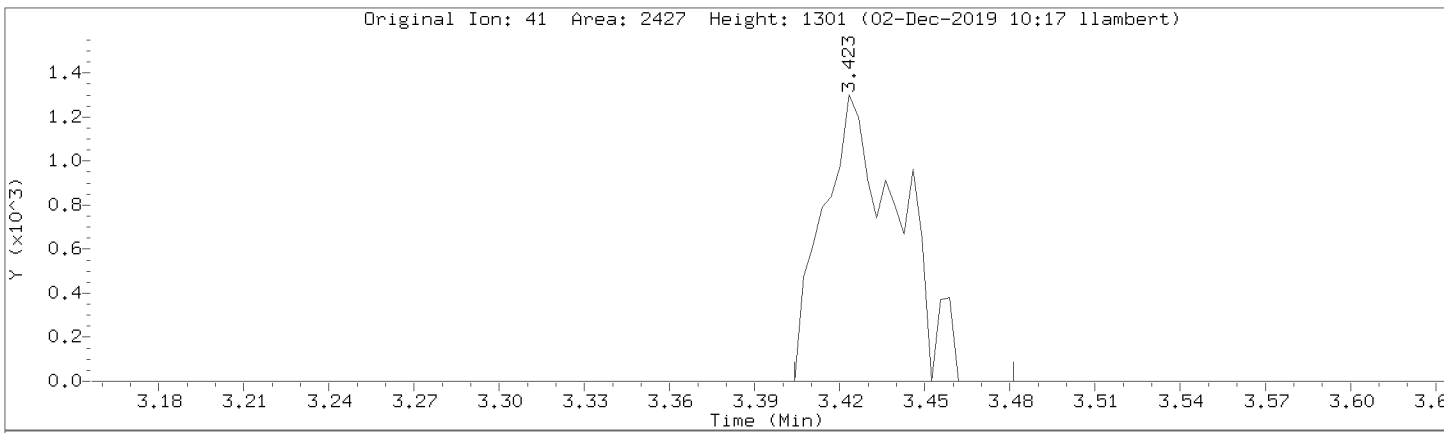


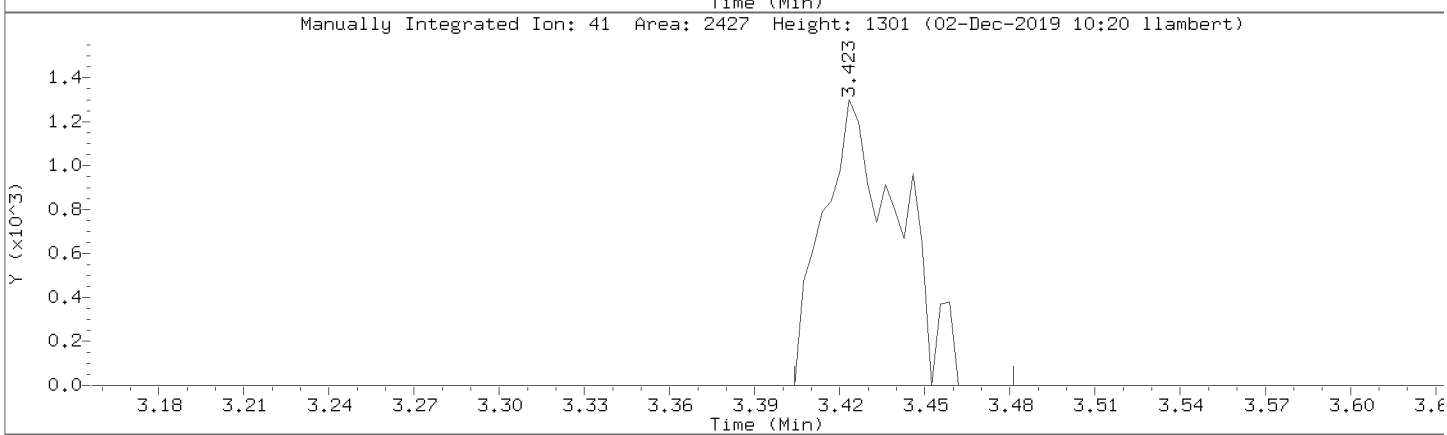


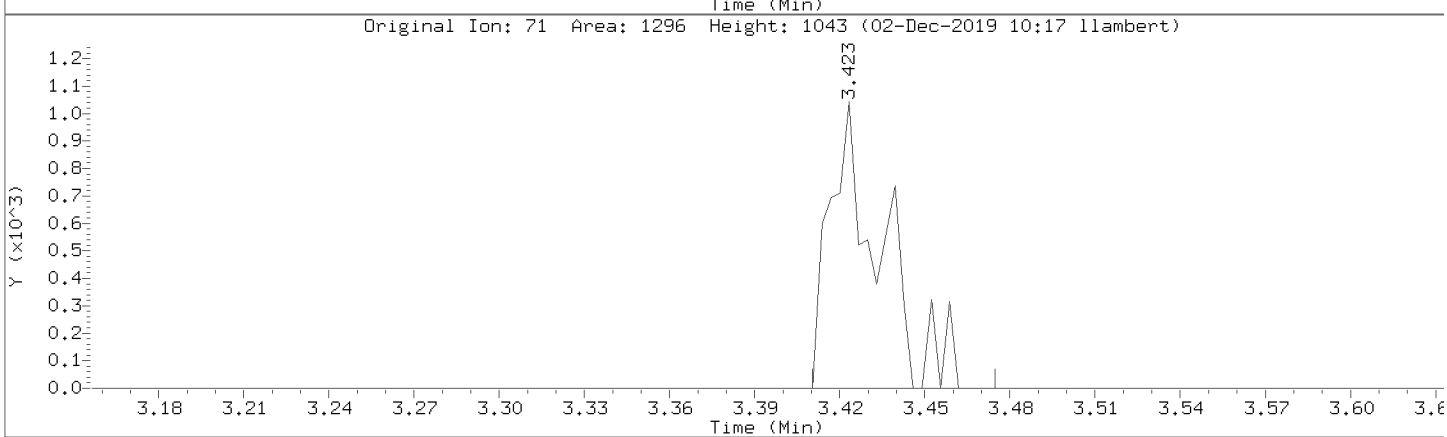


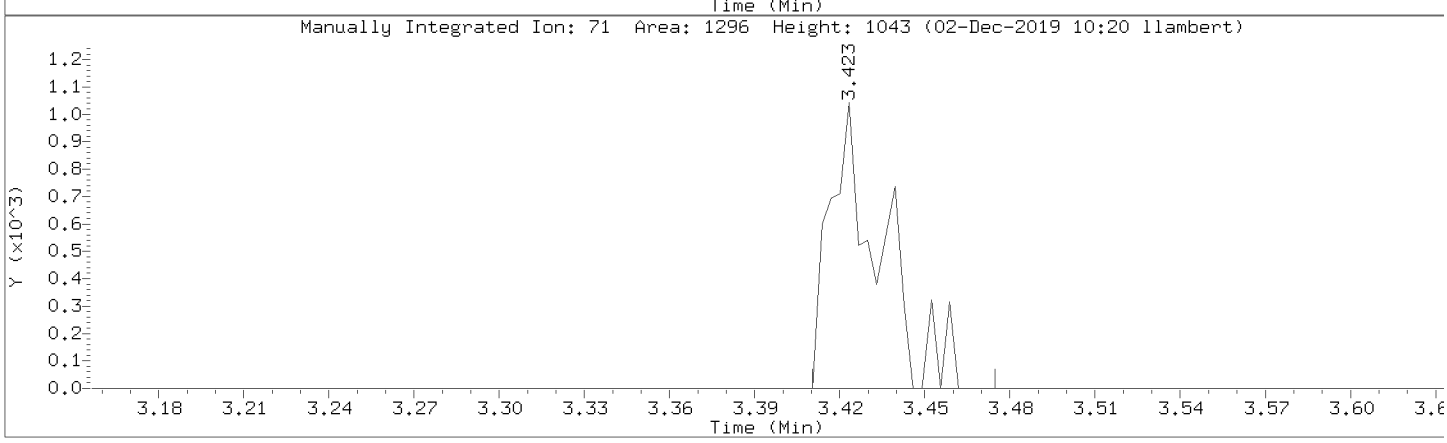


Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129018.d
Injection Date: 29-NOV-2019 11:38
Instrument: 30mv7b.i
Lab Sample ID: 30337003001









SAMPLE NO.

MW-02

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 12:03 Lab Sample ID: 30337003002

Date Analyzed: 11/29/2019 12:03 Lab File ID: 7191129.B\2.B\71129020.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U

SAMPLE NO.

MW-02

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 12:03 Lab Sample ID: 30337003002

Date Analyzed: 11/29/2019 12:03 Lab File ID: 7191129.B\2.B\71129020.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	17.8	
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d
Lab Smp Id: 30337003002 Client Smp ID: MW-02
Inj Date : 29-NOV-2019 12:03
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003002
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 20
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	Compound Not Detected.						
2	Chloromethane	50	Compound Not Detected.						
3	Vinyl chloride	62	Compound Not Detected.						
4	Bromomethane	94	Compound Not Detected.						
5	Chloroethane	64	Compound Not Detected.						
6	Trichlorofluoromethane	101	Compound Not Detected.						
7	Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8	Ethanol	46	Compound Not Detected.						
9	1,1-Dichloroethene	61	Compound Not Detected.						
10	1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11	Carbon disulfide	76	Compound Not Detected.						
12	Iodomethane	142	Compound Not Detected.						
13	Acrolein	56	Compound Not Detected.						
14	Allyl chloride	41	Compound Not Detected.						
15	Methylene Chloride	49	Compound Not Detected.						
16	Acetone	58	1.950	1.944	(0.480)	301	0.79826	0.798(aQ)	
17	trans-1,2-Dichloroethene	61	Compound Not Detected.						
18	Methyl acetate	74	Compound Not Detected.						
19	n-Hexane	86	Compound Not Detected.						
20	Methyl-tert-butyl ether	73	Compound Not Detected.						
21	tert-Butyl Alcohol	59	Compound Not Detected.						
22	Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	Compound Not Detected.						
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Ethyl acetate	43	Compound Not Detected.						
	35 Carbon tetrachloride	117	Compound Not Detected.						
	36 Tetrahydrofuran	42	3.423	3.407	(0.842)	4922	3.79554	3.80(Q)	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	45732	30.8089	30.8	
	38 1,1,1-Trichloroethane	97	Compound Not Detected.						
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	48340	31.6551	31.6	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	171703	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	4.166	4.162	(1.025)	33036	17.8248	17.8	
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.822	4.822	(0.875)	144680	27.4605	27.5	
	59 Toluene	91	4.844	4.844	(0.879)	2429	0.35962	0.360(aQ)	
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	Compound Not Detected.						
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	117126	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	45135	28.6529	28.6	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	50538	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	23199	30.1066	30.1(Q)	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

:

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

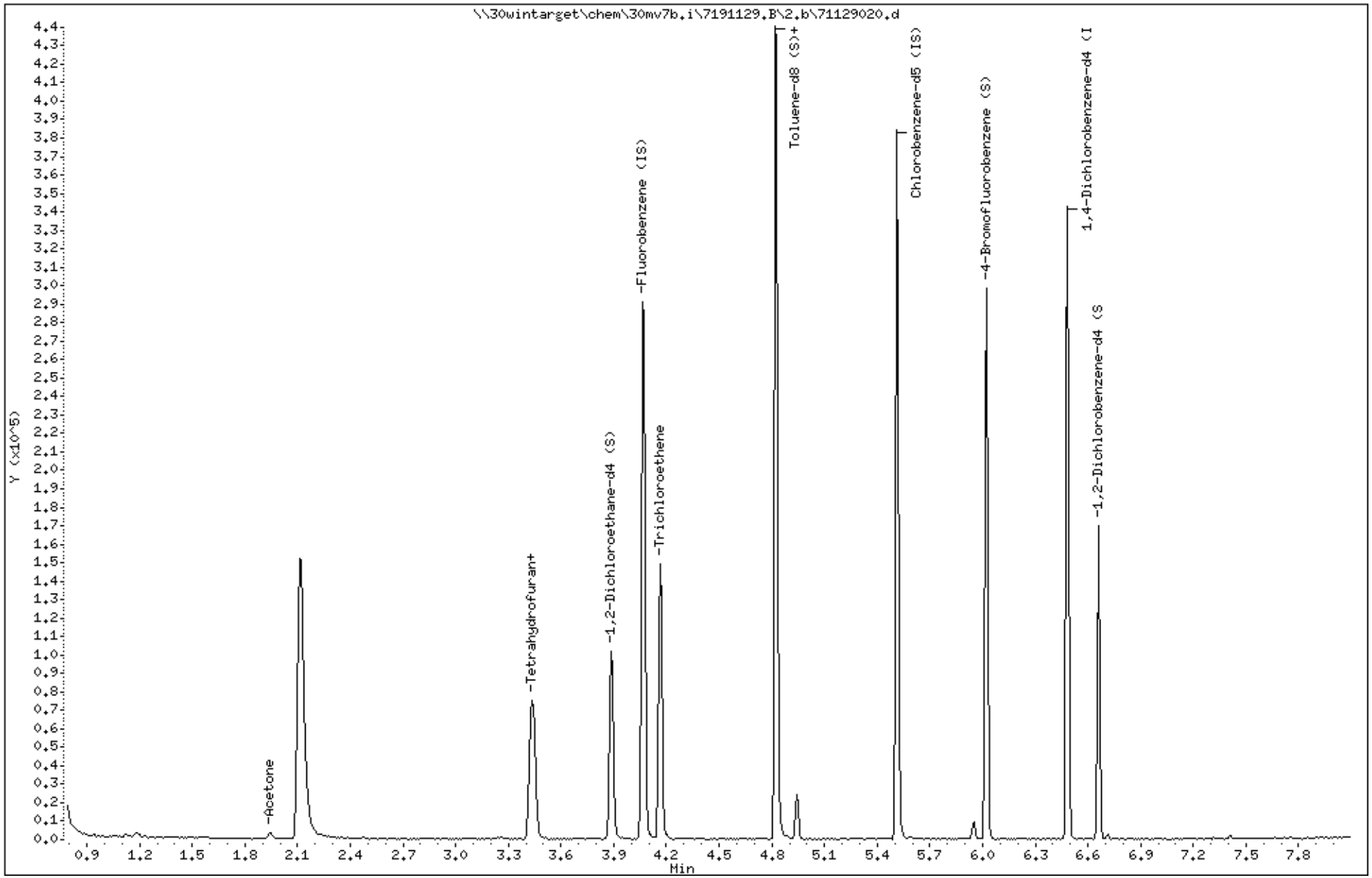
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003002
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-02
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
67-64-1	Acetone	0.798	J
109-99-9	Tetrahydrofuran	3.80	
79-01-6	Trichloroethene	17.8	
108-88-3	Toluene	0.360	J
1868-53-7	Dibromofluoromethane (S)	30.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.6	
2037-26-5	Toluene-d8 (S)	27.5	
460-00-4	4-Bromofluorobenzene (S)	28.6	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	30.1	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d
Date : 29-NOV-2019 12:03
Client ID: MW-02
Instrument: 30mv7b.i
Sample Info: 30337003002
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 29-NOV-2019 12:03

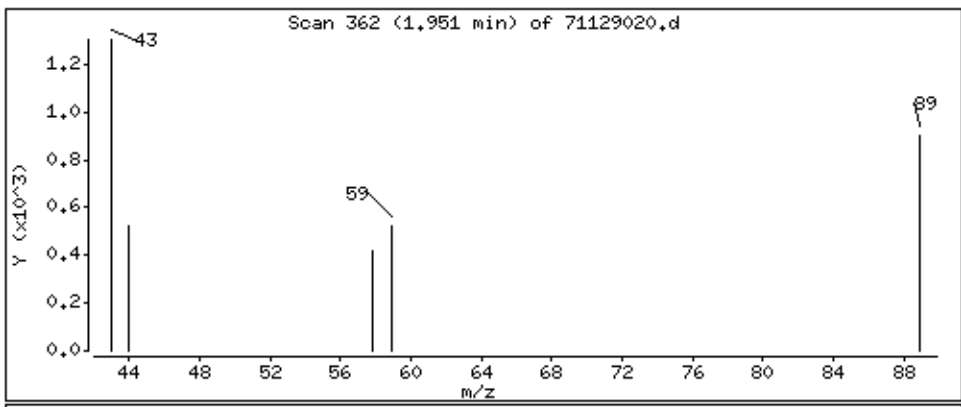
Client ID: MW-02 Instrument: 30mv7b.i

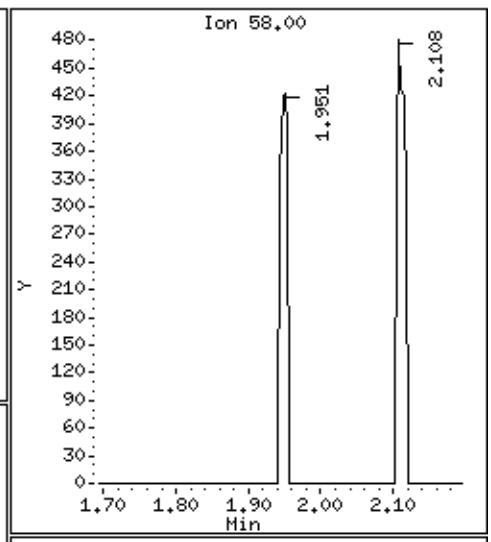
Sample Info: 30337003002

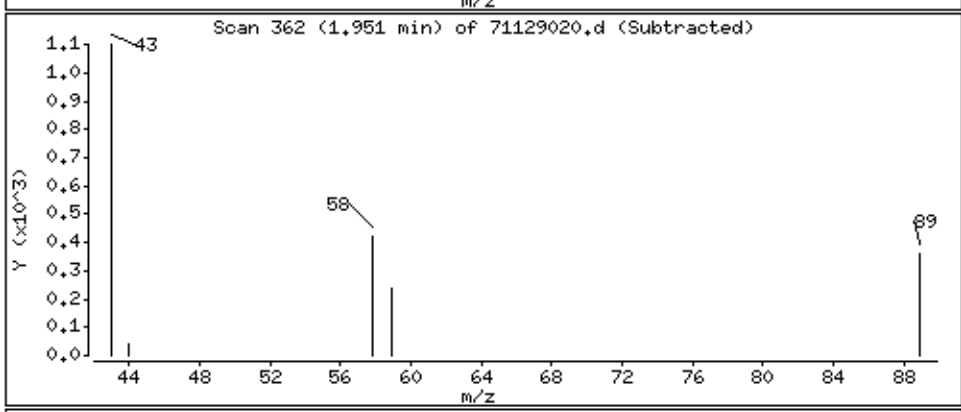
Purge Volume: 5.0 Operator: LEL

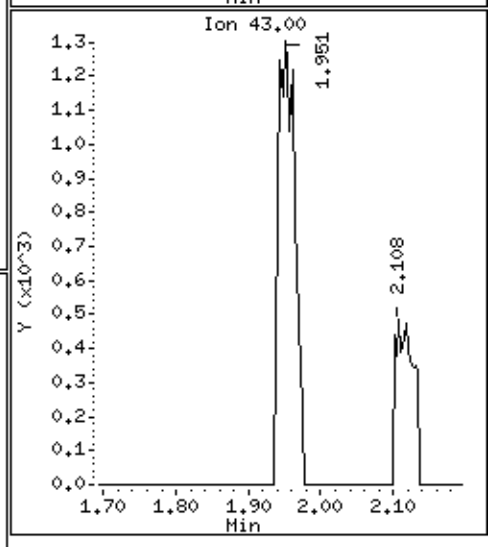
Column phase: RTX-VMS Column diameter: 0.18

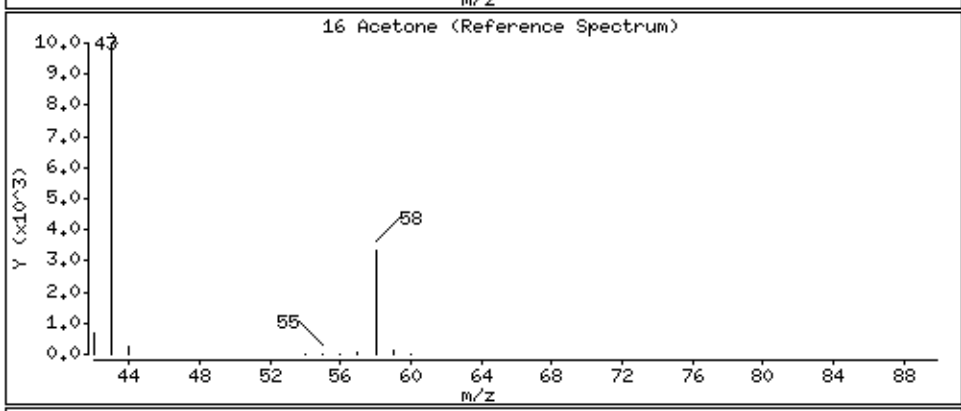
16 Acetone Concentration: 0.798 ug/L Review Code:

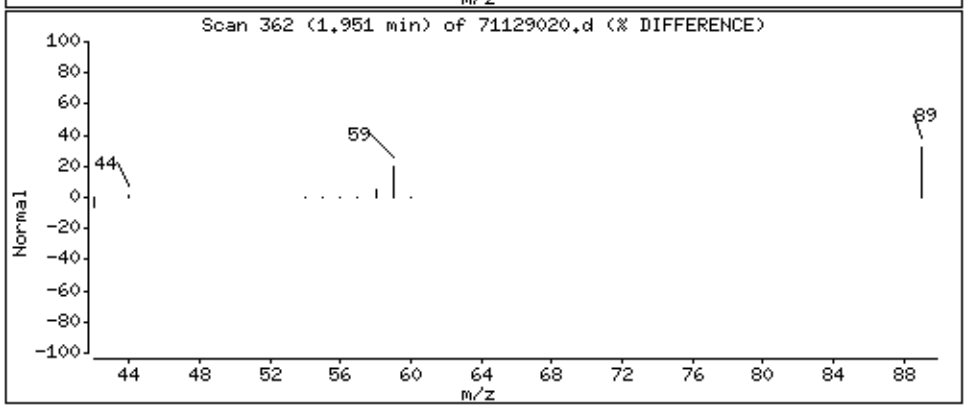












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d

Date : 29-NOV-2019 12:03

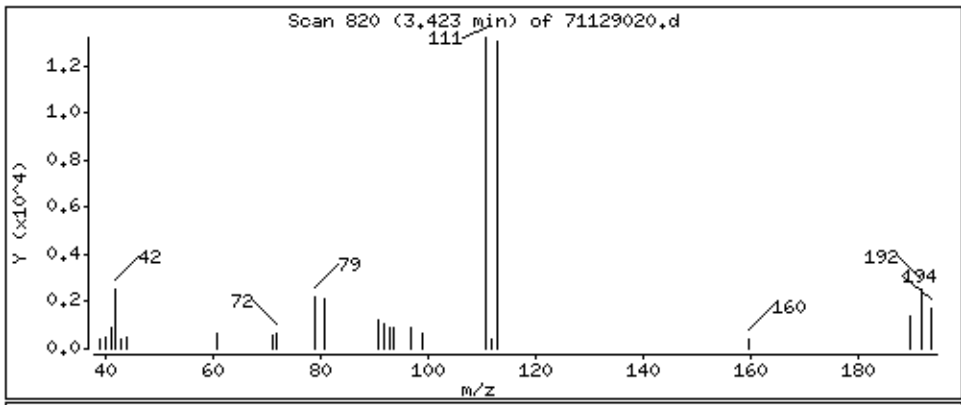
Client ID: MW-02 Instrument: 30mv7b.i

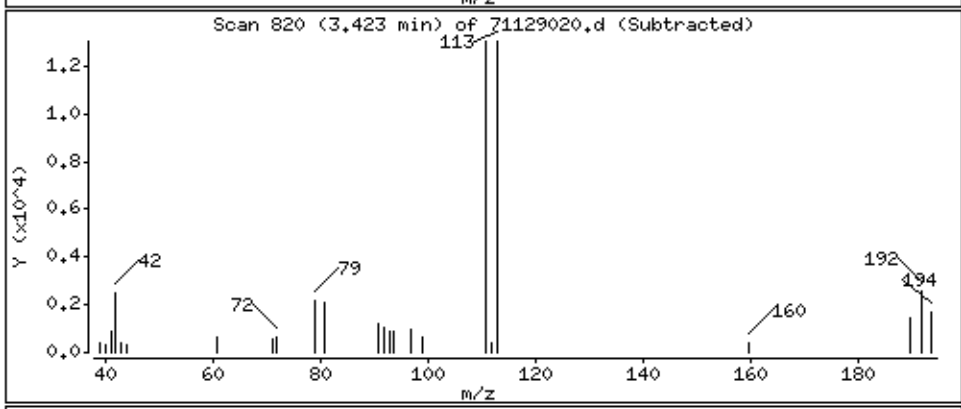
Sample Info: 30337003002

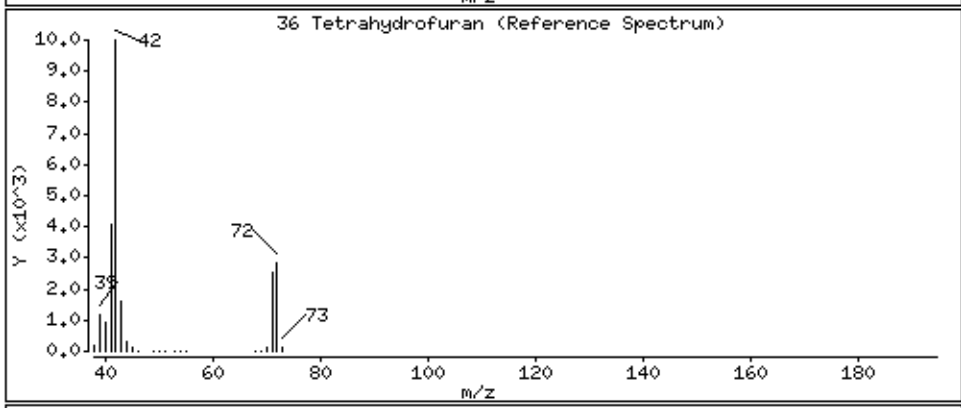
Purge Volume: 5.0 Operator: LEL

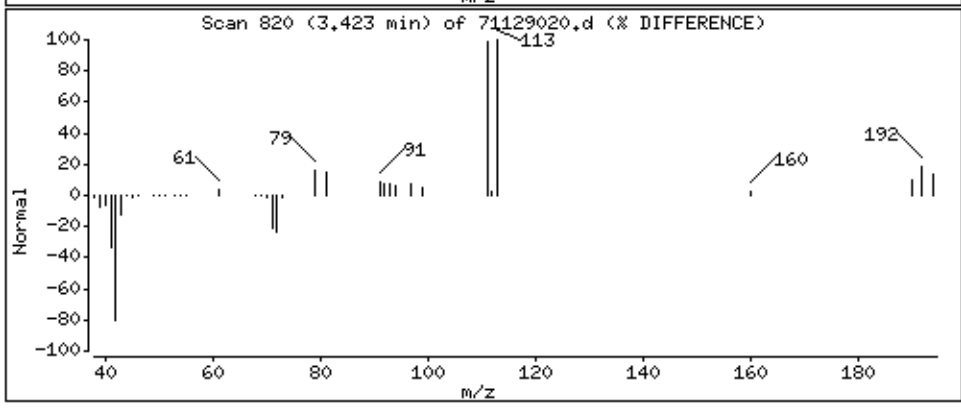
Column phase: RTX-VMS Column diameter: 0.18

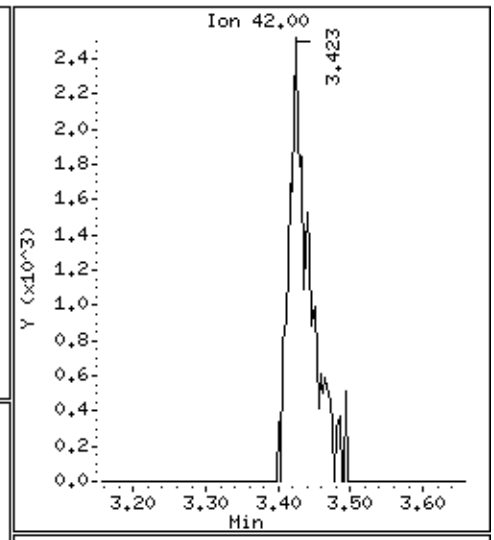
36 Tetrahydrofuran Concentration: 3.80 ug/L Review Code:

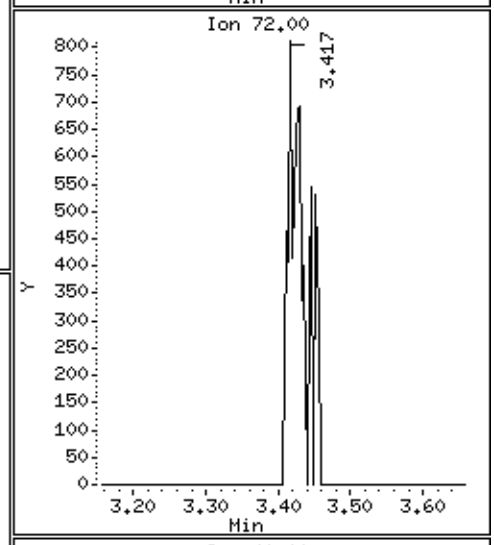


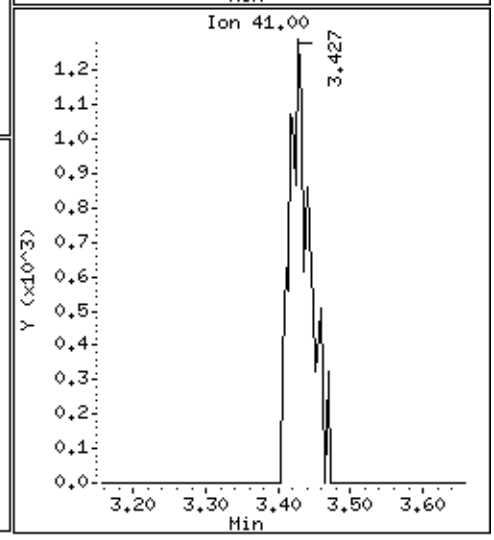












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d

Date : 29-NOV-2019 12:03

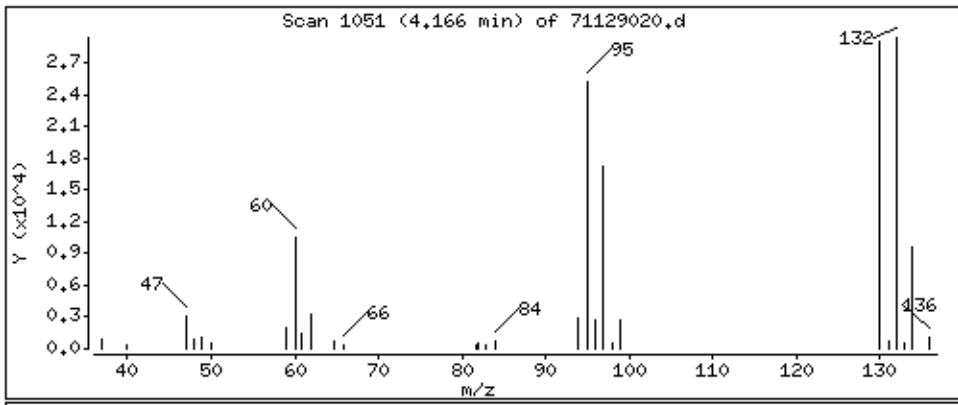
Client ID: MW-02 Instrument: 30mv7b.i

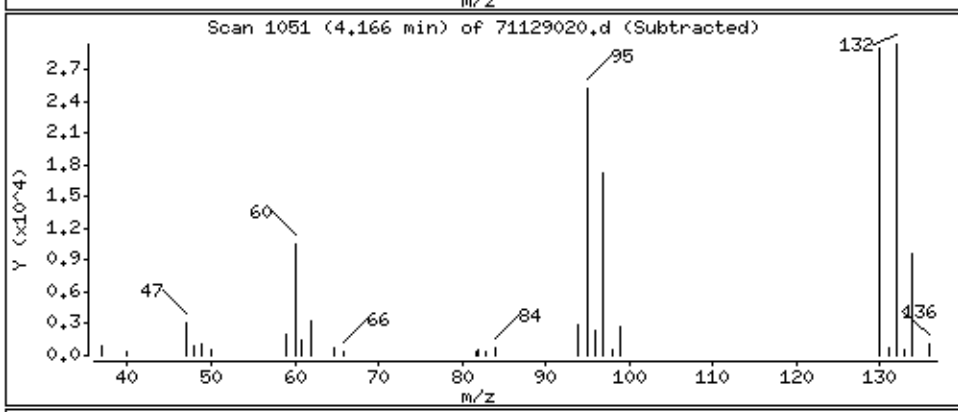
Sample Info: 30337003002

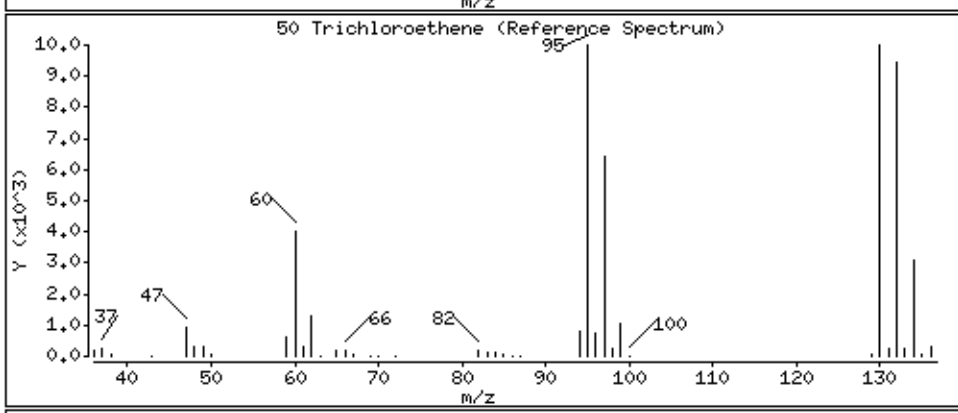
Purge Volume: 5.0 Operator: LEL

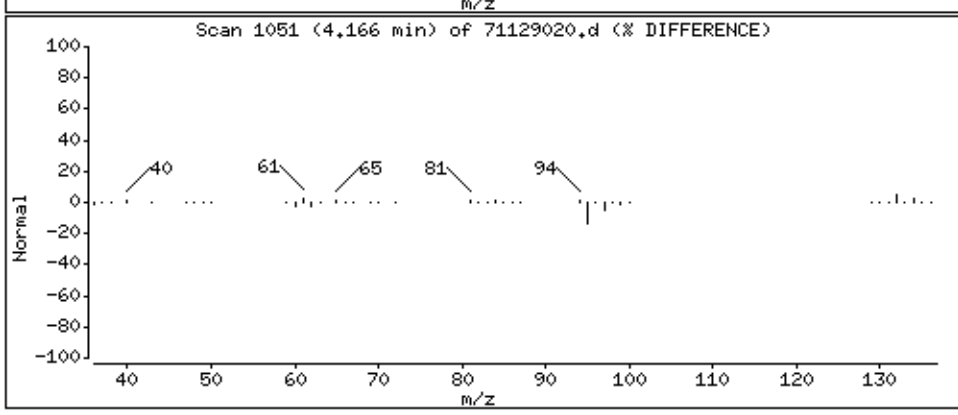
Column phase: RTX-VMS Column diameter: 0.18

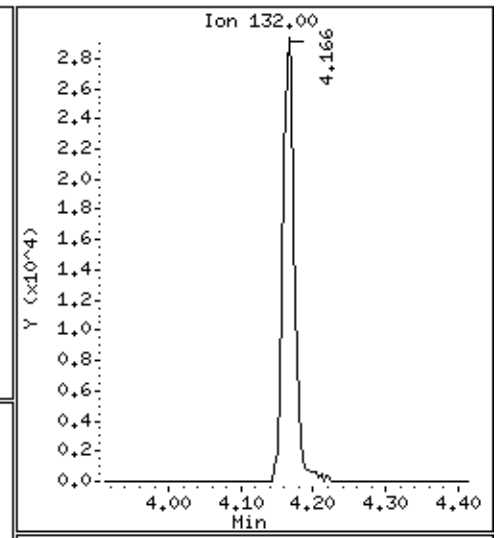
50 Trichloroethene Concentration: 17.8 ug/L Review Code:

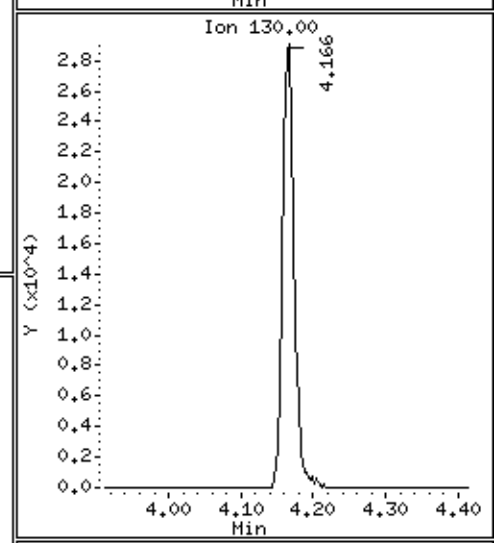


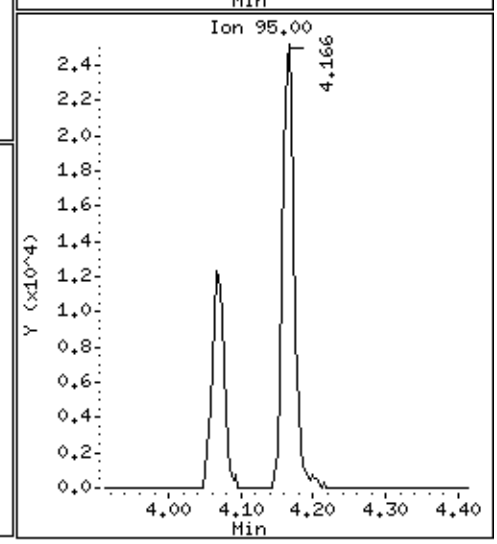












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129020.d

Date : 29-NOV-2019 12:03

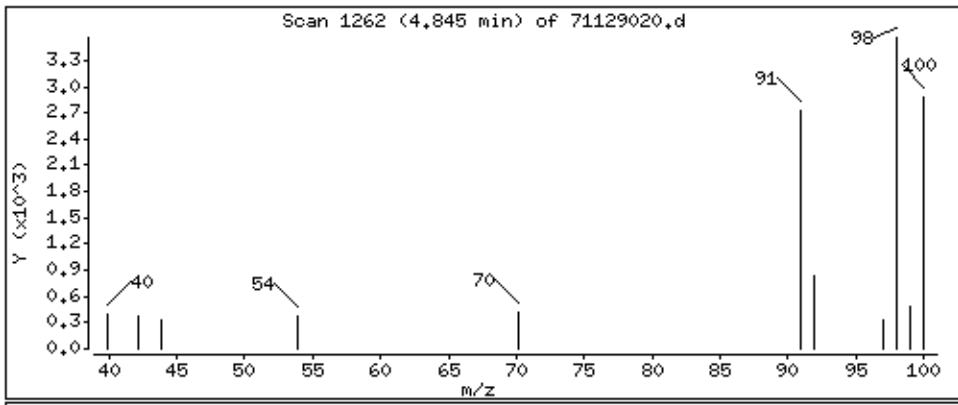
Client ID: MW-02 Instrument: 30mv7b.i

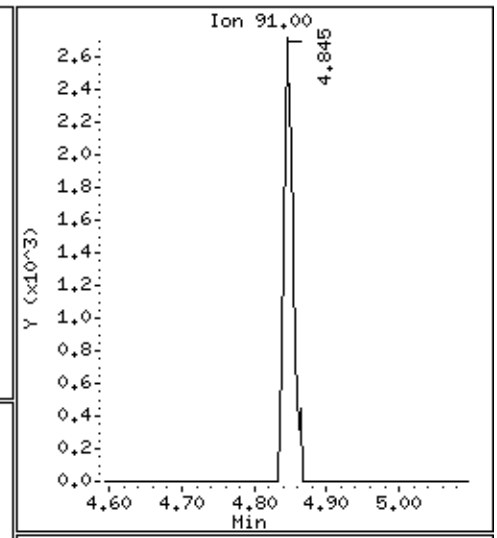
Sample Info: 30337003002

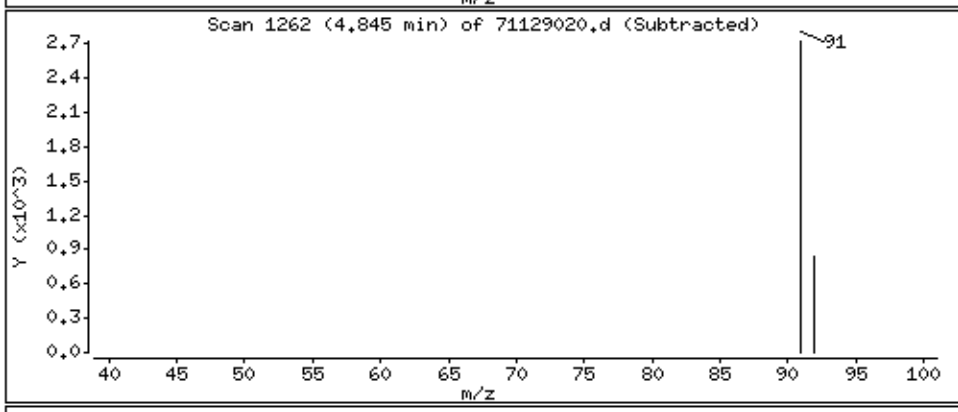
Purge Volume: 5.0 Operator: LEL

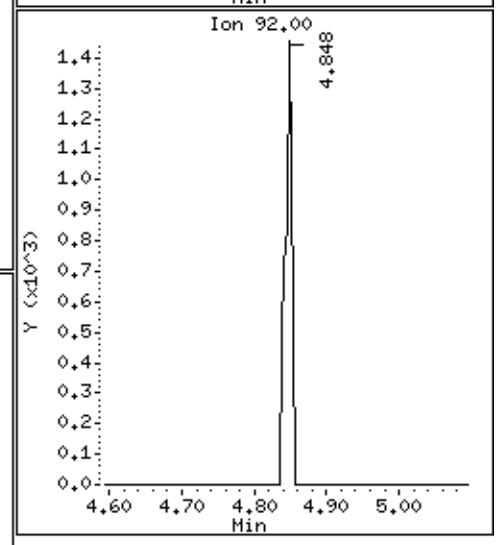
Column phase: RTX-VMS Column diameter: 0.18

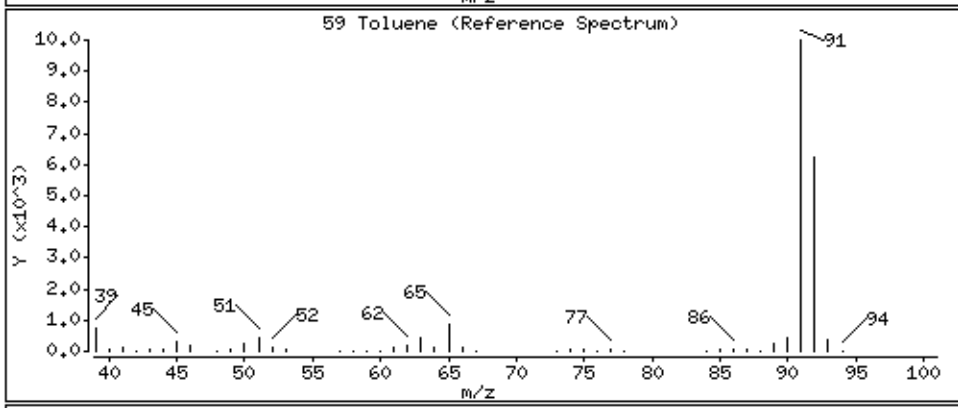
59 Toluene Concentration: 0.360 ug/L Review Code:

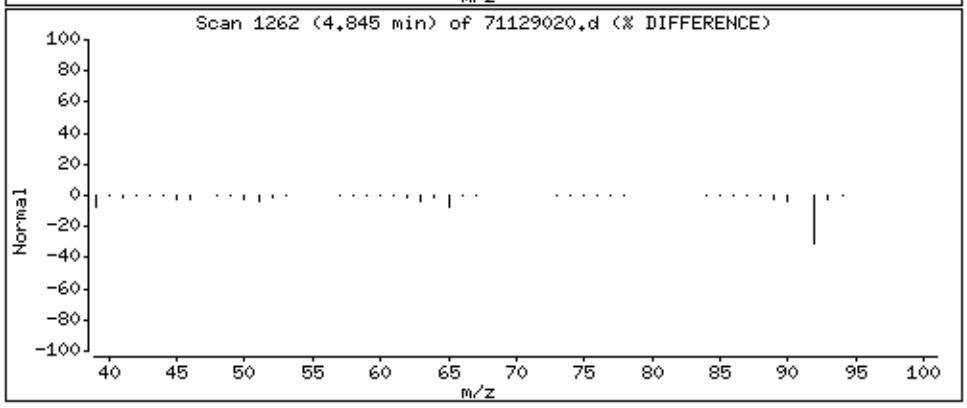












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129020.d
Injection Date: 29-NOV-2019 12:03
Instrument: 30mv7b.i
Lab Sample ID: 30337003002
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MW-03

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 12:28 Lab Sample ID: 30337003003

Date Analyzed: 11/29/2019 12:28 Lab File ID: 7191129.B\2.B\71129022.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	4.2	
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	29.8	
156-59-2	cis-1,2-Dichloroethene	12.2	
156-60-5	trans-1,2-Dichloroethene	1.9	
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U

SAMPLE NO.

MW-03

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 12:28 Lab Sample ID: 30337003003

Date Analyzed: 11/29/2019 12:28 Lab File ID: 7191129.B\2.B\71129022.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	3.0	
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	83.7	
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	296	
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d
Lab Smp Id: 30337003003 Client Smp ID: MW-03
Inj Date : 29-NOV-2019 12:28
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003003
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 22
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 Bromomethane	94	Compound Not Detected.						
5 Chloroethane	64	Compound Not Detected.						
6 Trichlorofluoromethane	101	Compound Not Detected.						
7 Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8 Ethanol	46	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	81005	29.8356	29.8	
10 1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	58	1.947	1.944	(0.479)	835	2.23987	2.24(Q)	
17 trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	4403	1.89886	1.90(Q)	
18 Methyl acetate	74	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 tert-Butyl Alcohol	59	Compound Not Detected.						(D)
22 Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	2.474	2.471	(0.609)	12080	4.22353	4.22(Q)	
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	2.966	2.957	(0.730)	26684	12.2042	12.2	
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	3.246	3.246	(0.798)	776	0.28079	0.281(aQ)	
	34 Ethyl acetate	43	Compound Not Detected.						
	35 Carbon tetrachloride	117	Compound Not Detected.						(D)
	36 Tetrahydrofuran	42	3.426	3.407	(0.843)	5100	3.97707	3.98(Q)	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	46263	31.5174	31.5	
	38 1,1,1-Trichloroethane	97	3.439	3.439	(0.846)	198886	83.6702	83.7	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	47943	31.7485	31.7	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	169792	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	4.166	4.162	(1.025)	543102	296.333	296	
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	146849	28.8353	28.8	
	59 Toluene	91	4.847	4.844	(0.879)	1440	0.22056	0.220(a)	
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	5368	2.98800	2.99	
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	1004	0.69238	0.692(a)	
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	113214	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	45102	28.9736	29.0	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	49942	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	22447	29.4783	29.5	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

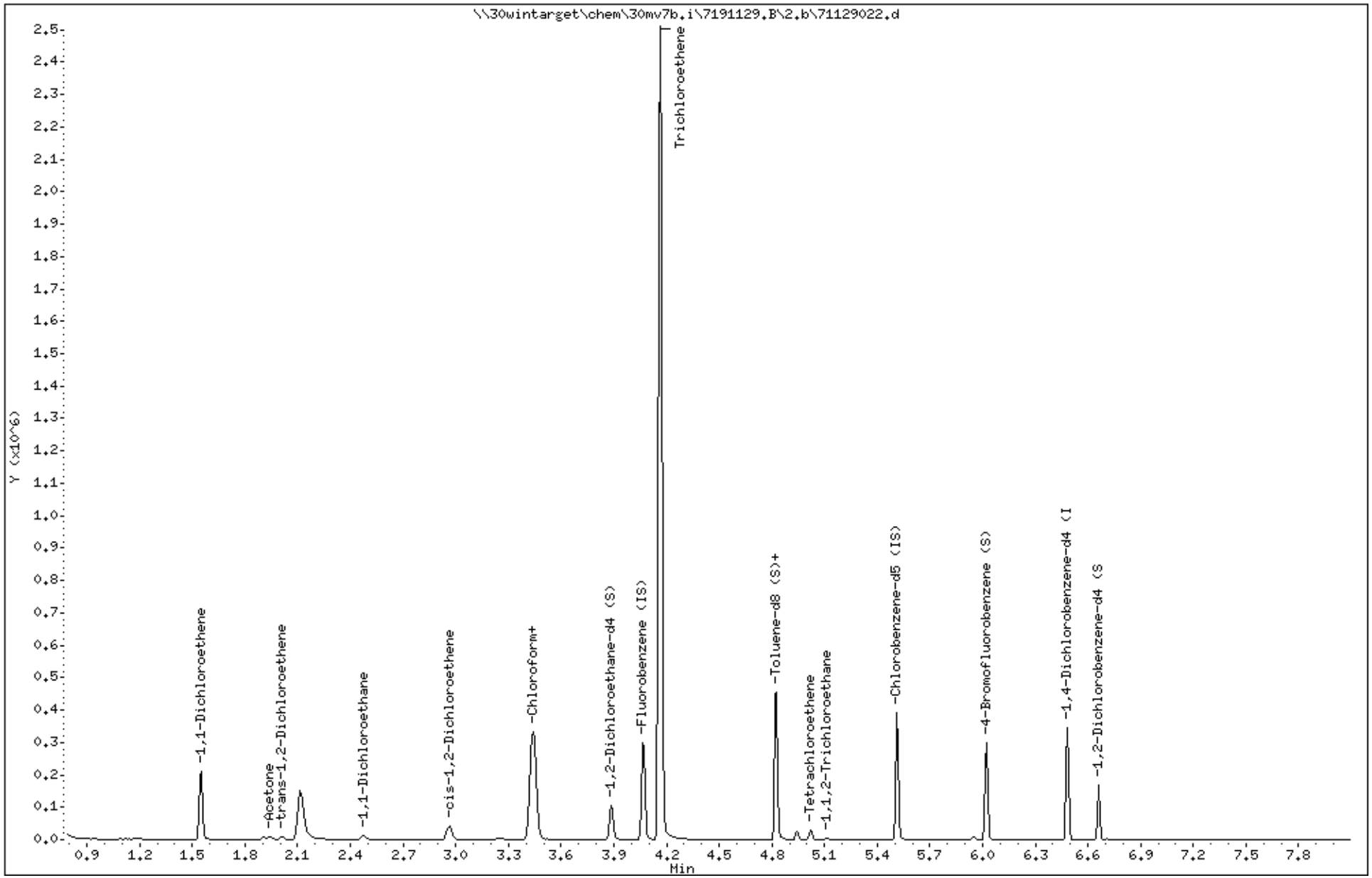
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003003
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-03
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-35-4	1,1-Dichloroethene	29.8	
67-64-1	Acetone	2.24	
156-60-5	trans-1,2-Dichloroethene	1.90	
75-34-3	1,1-Dichloroethane	4.22	
156-59-2	cis-1,2-Dichloroethene	12.2	
67-66-3	Chloroform	0.281	J
109-99-9	Tetrahydrofuran	3.98	
71-55-6	1,1,1-Trichloroethane	83.7	
79-01-6	Trichloroethene	296	
108-88-3	Toluene	0.220	J
127-18-4	Tetrachloroethene	2.99	
79-00-5	1,1,2-Trichloroethane	0.692	J
1868-53-7	Dibromofluoromethane (S)	31.5	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.7	
2037-26-5	Toluene-d8 (S)	28.8	
460-00-4	4-Bromofluorobenzene (S)	29.0	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.5	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d
Date : 29-NOV-2019 12:28
Client ID: MW-03
Instrument: 30mv7b.i
Sample Info: 30337003003
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 29-NOV-2019 12:28

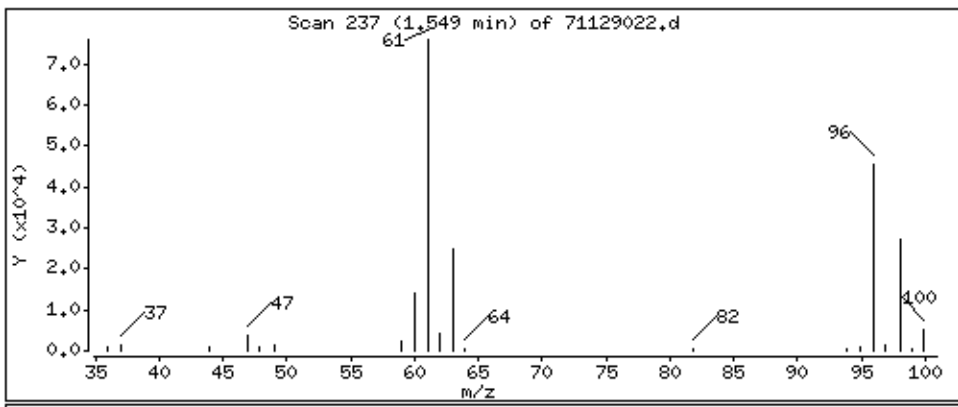
Client ID: MW-03 Instrument: 30mv7b.i

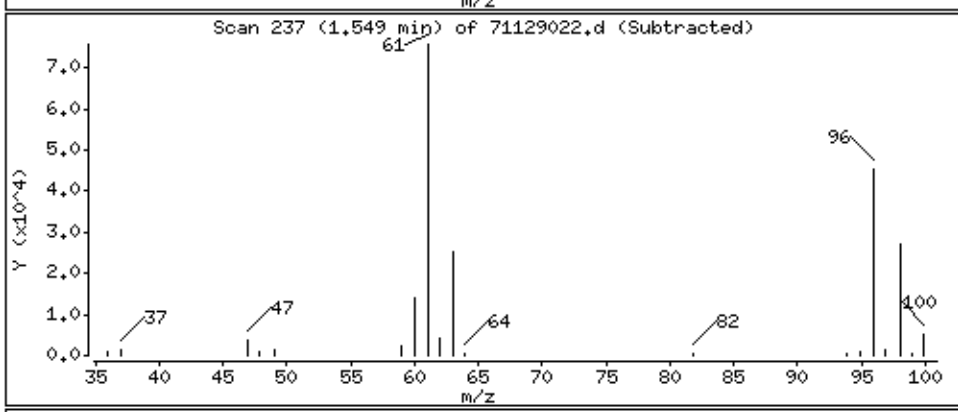
Sample Info: 30337003003

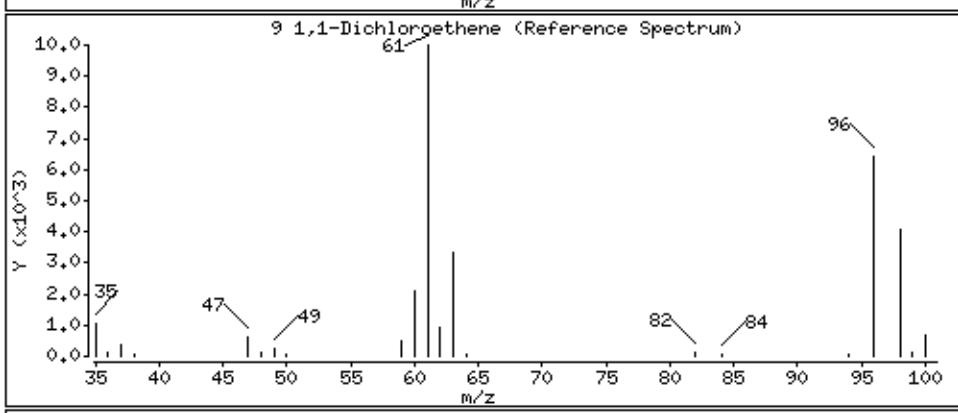
Purge Volume: 5.0 Operator: LEL

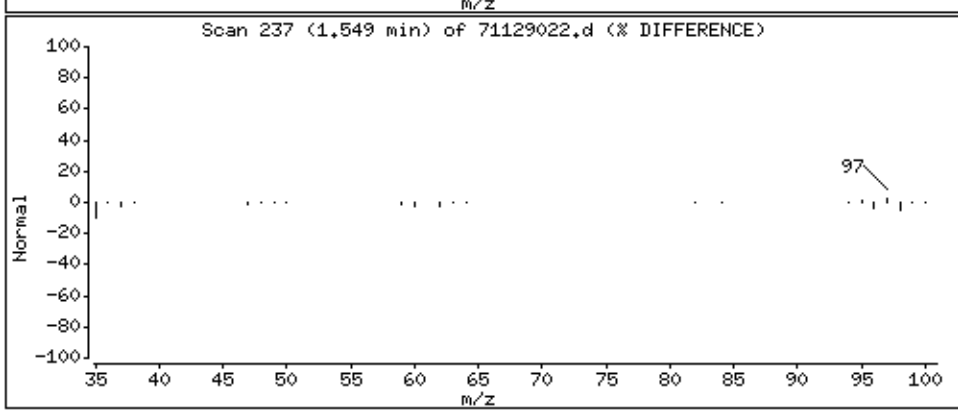
Column phase: RTX-VMS Column diameter: 0.18

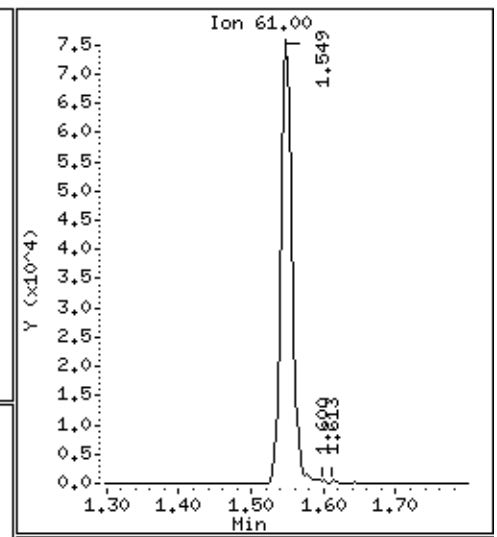
9 1,1-Dichloroethene Concentration: 29.8 ug/L Review Code:

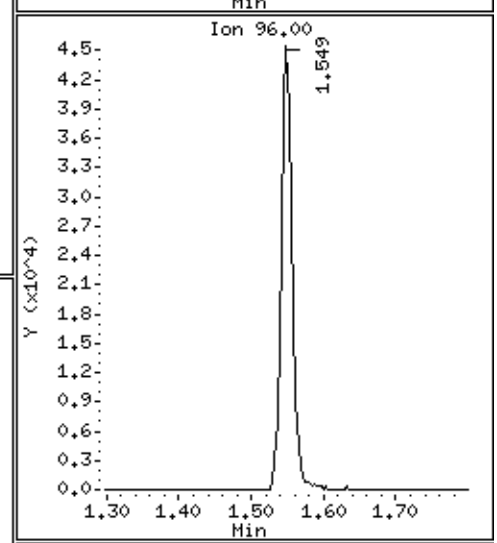


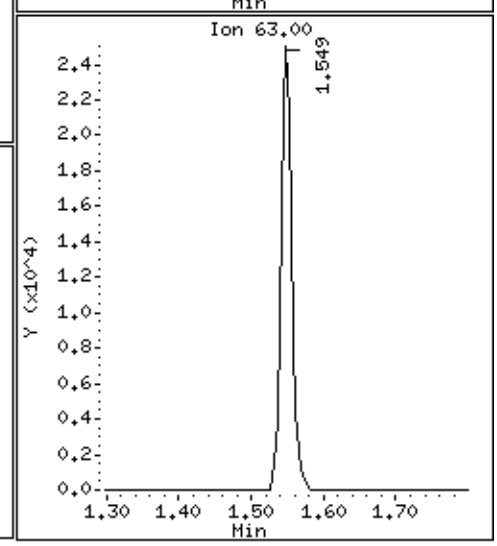












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

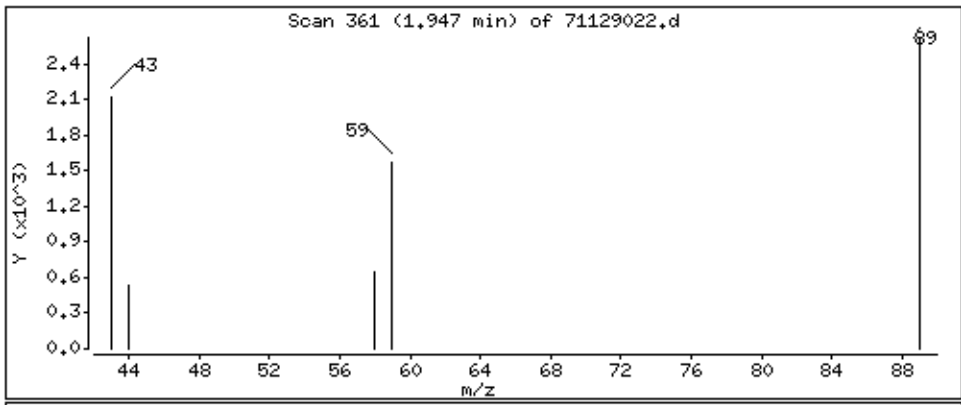
Client ID: MW-03 Instrument: 30mv7b.i

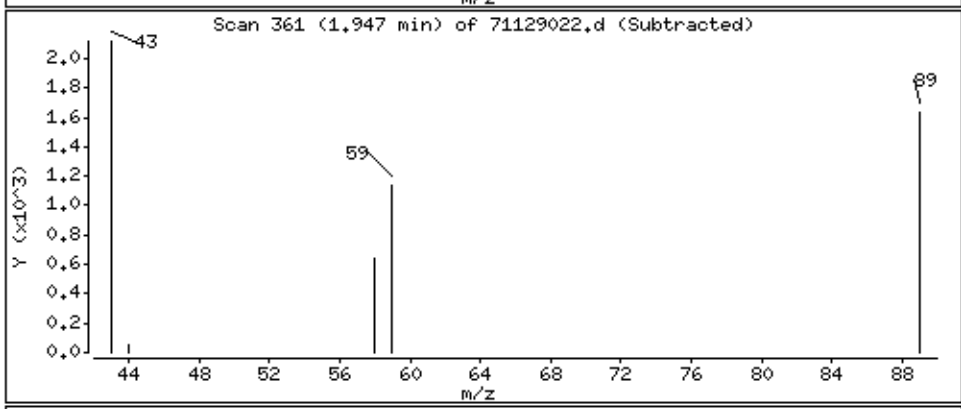
Sample Info: 30337003003

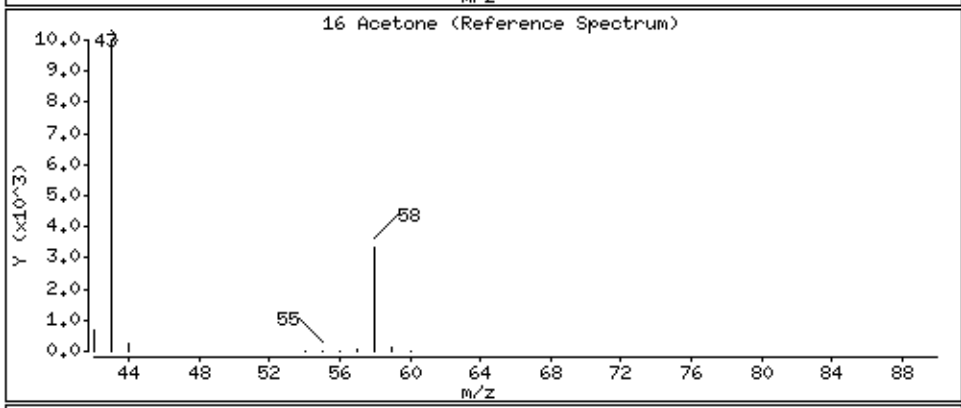
Purge Volume: 5.0 Operator: LEL

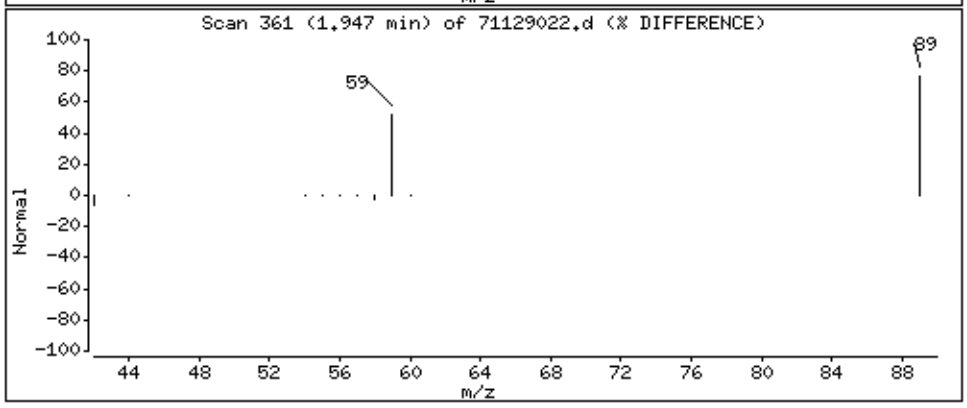
Column phase: RTX-VMS Column diameter: 0.18

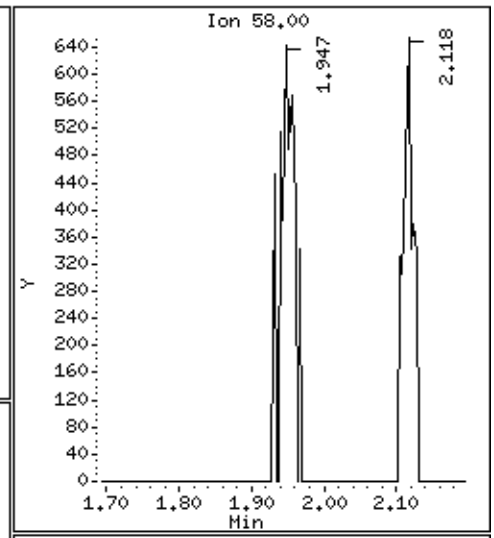
16 Acetone Concentration: 2.24 ug/L Review Code:

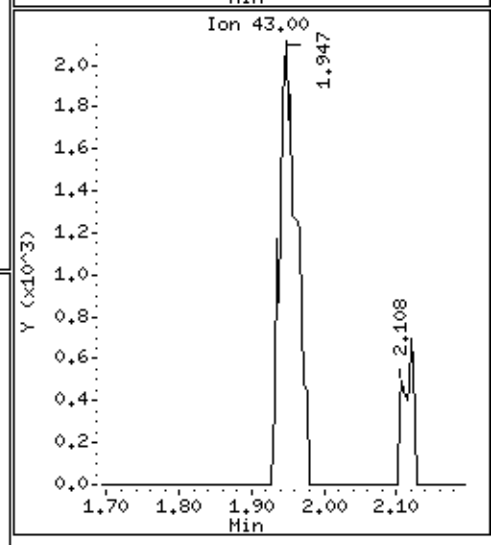












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

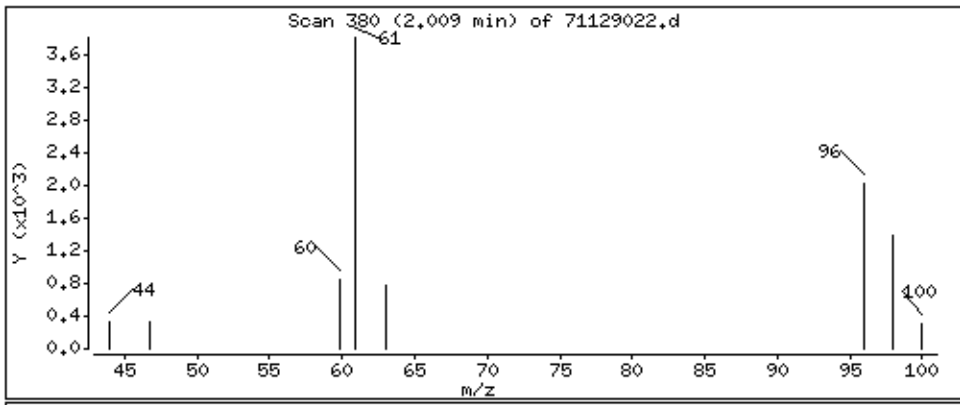
Client ID: MW-03 Instrument: 30mv7b.i

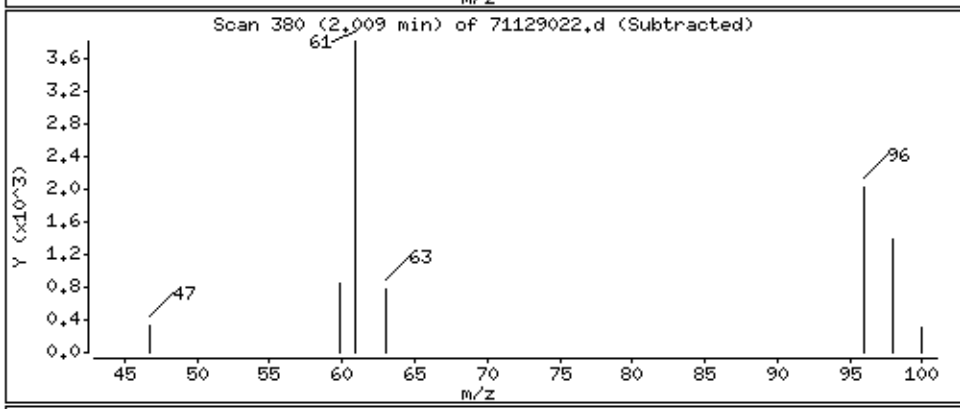
Sample Info: 30337003003

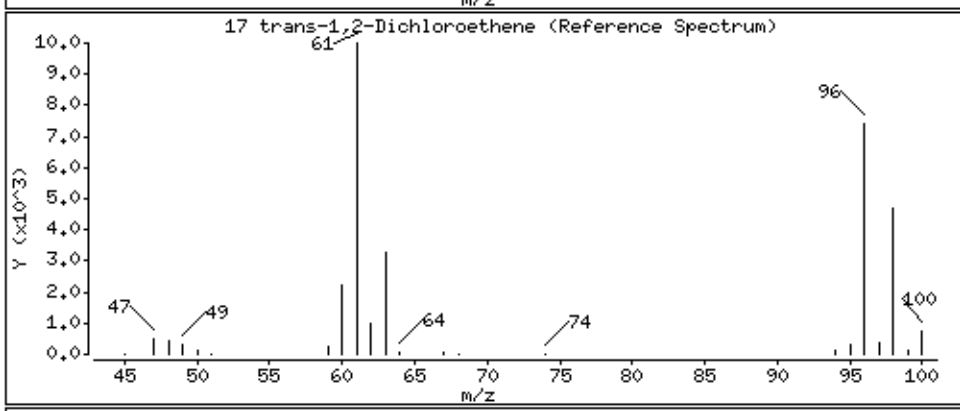
Purge Volume: 5.0 Operator: LEL

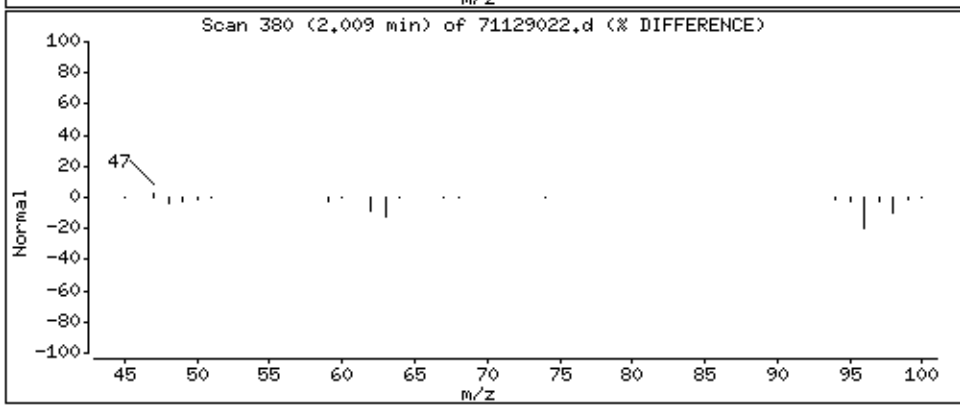
Column phase: RTX-VMS Column diameter: 0.18

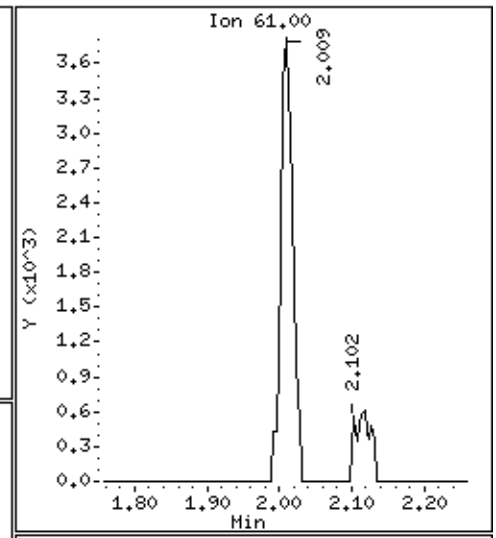
17 trans-1,2-Dichloroethene Concentration: 1.90 ug/L Review Code:

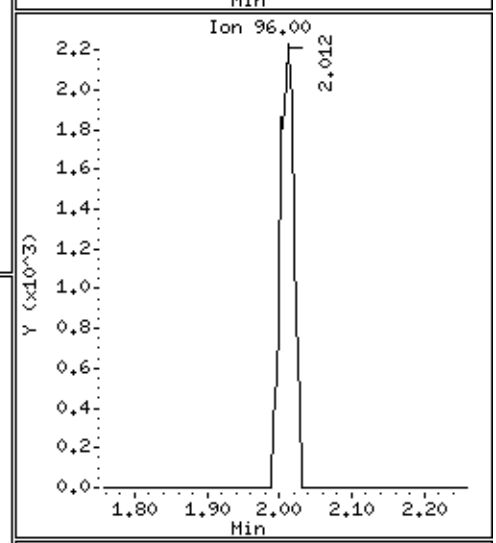


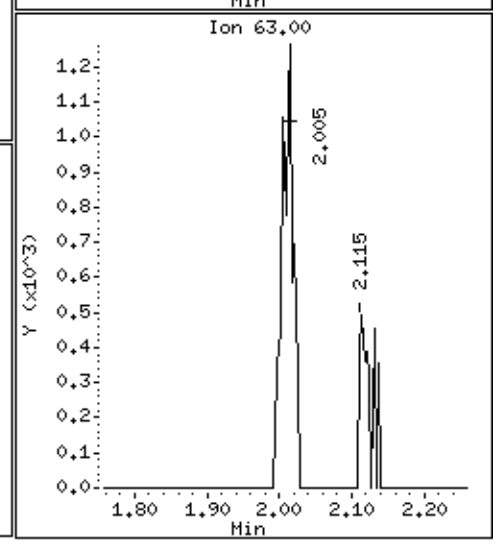












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

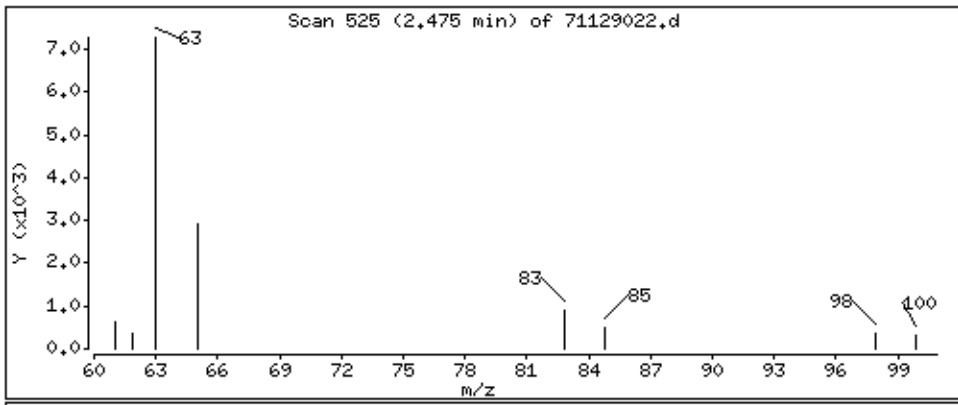
Client ID: MW-03 Instrument: 30mv7b.i

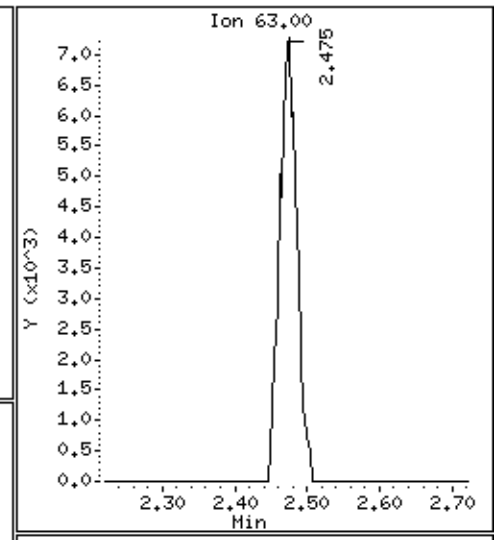
Sample Info: 30337003003

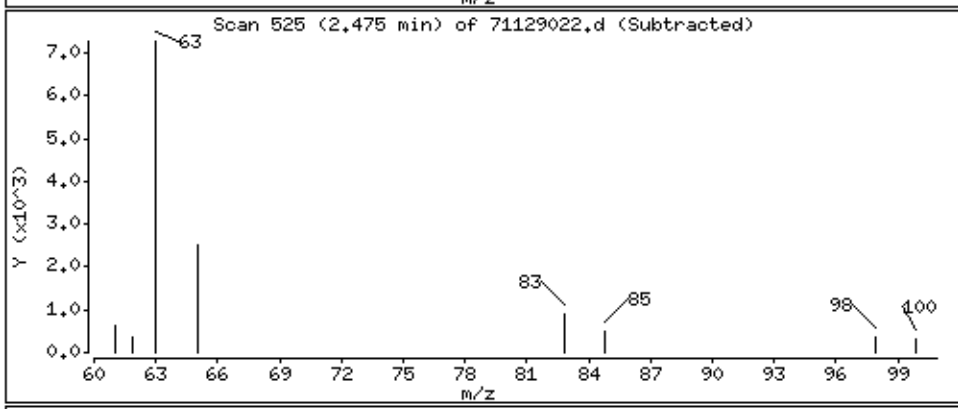
Purge Volume: 5.0 Operator: LEL

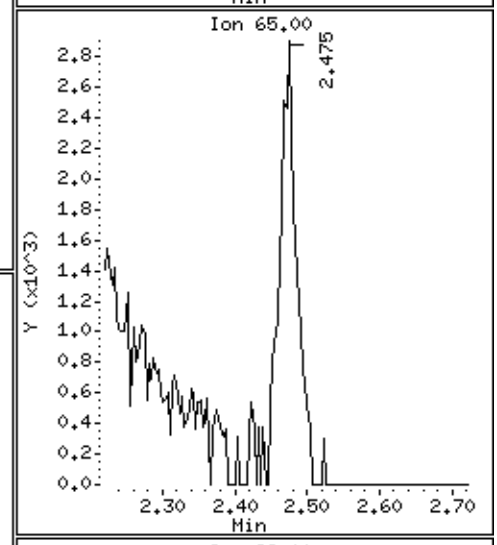
Column phase: RTX-VMS Column diameter: 0.18

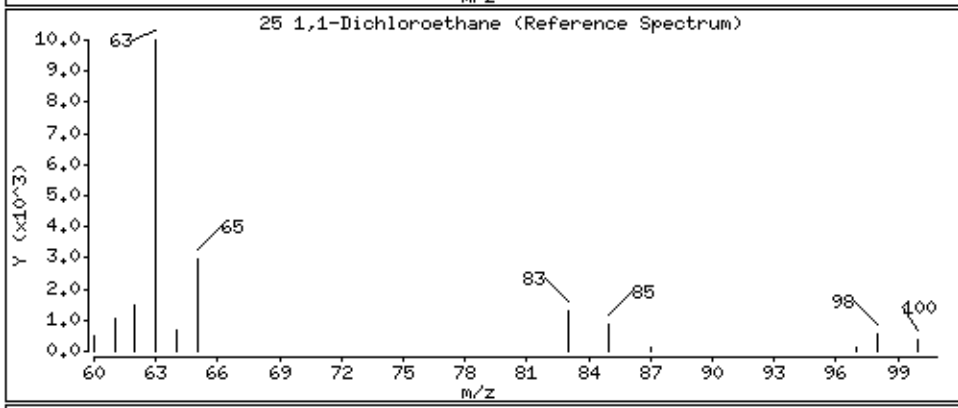
25 1,1-Dichloroethane Concentration: 4.22 ug/L Review Code:

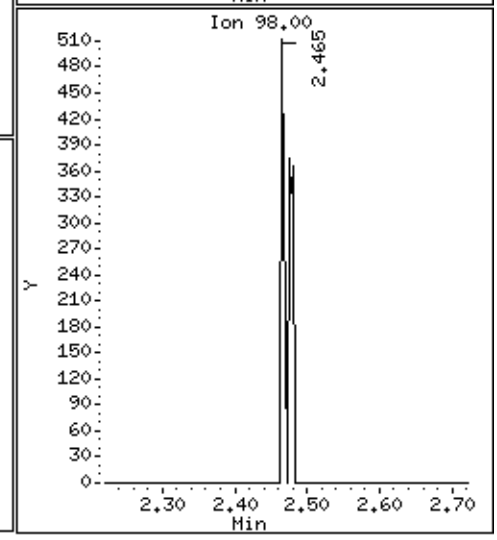


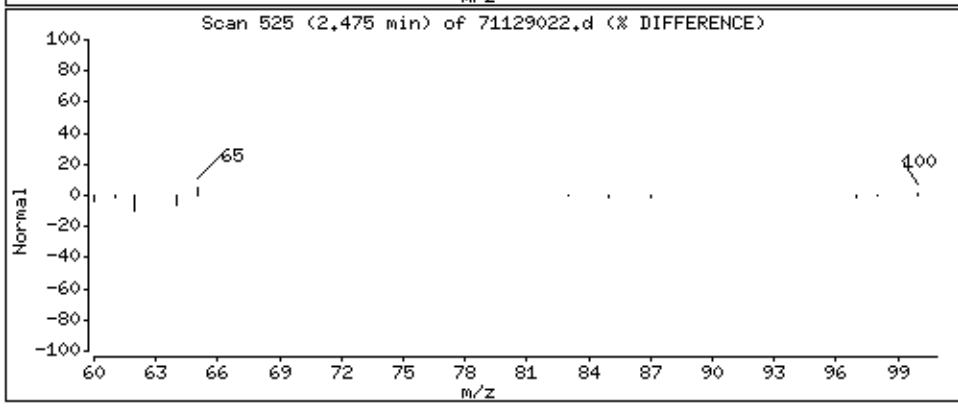












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

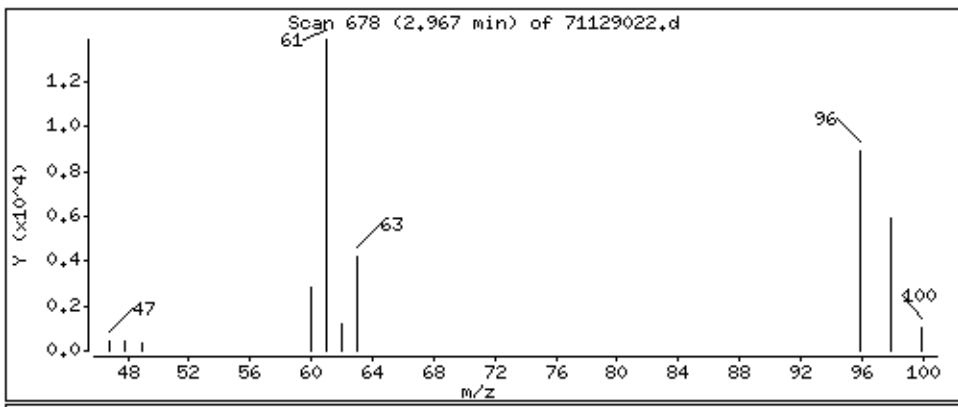
Client ID: MW-03 Instrument: 30mv7b.i

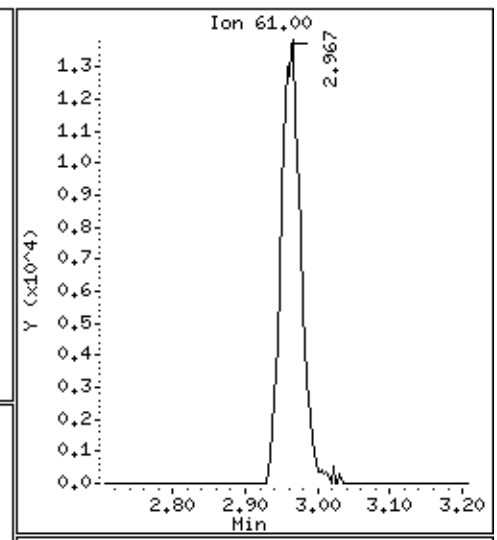
Sample Info: 30337003003

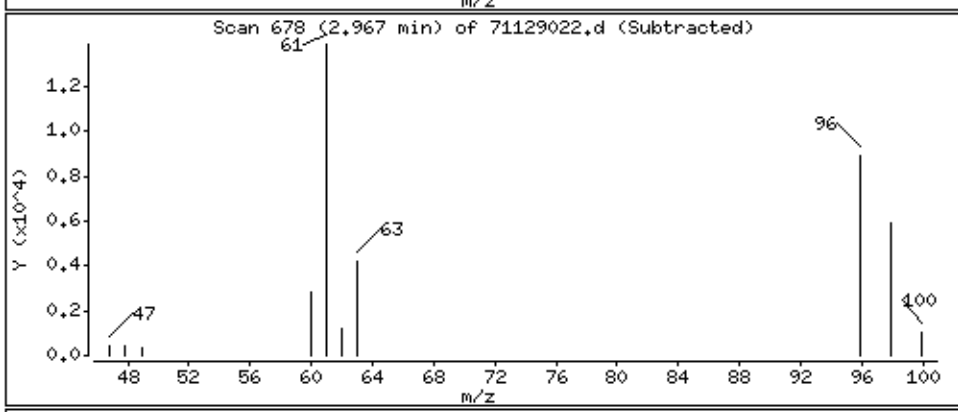
Purge Volume: 5.0 Operator: LEL

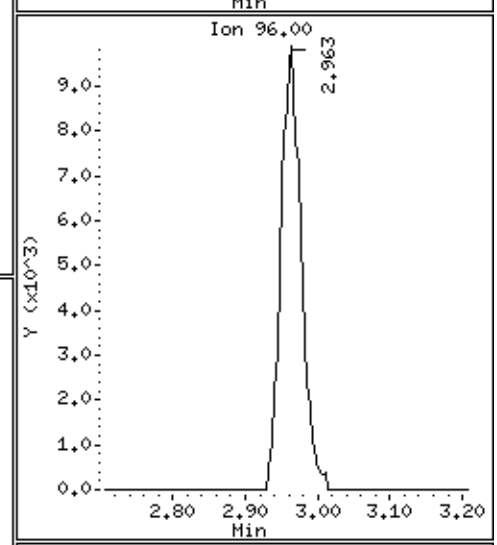
Column phase: RTX-VMS Column diameter: 0.18

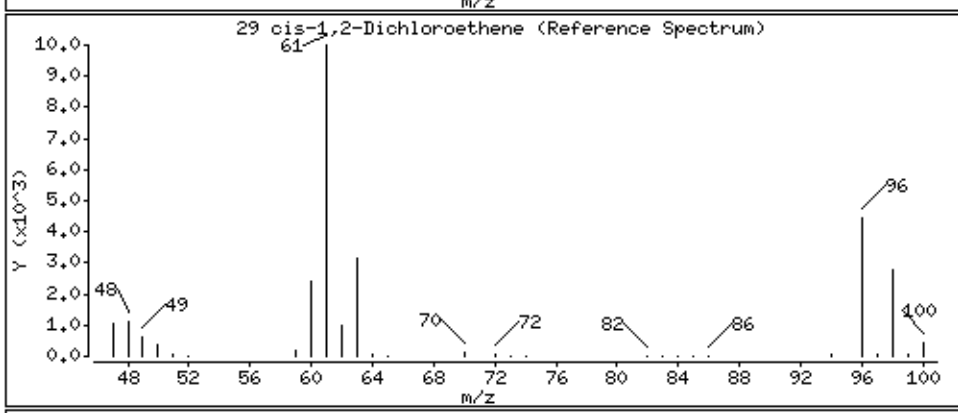
29 cis-1,2-Dichloroethene Concentration: 12.2 ug/L Review Code:

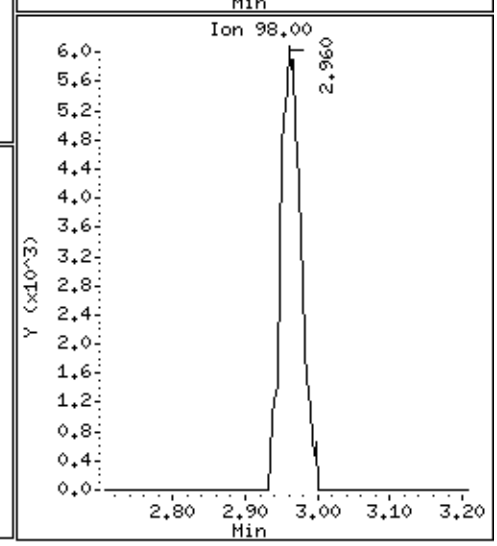


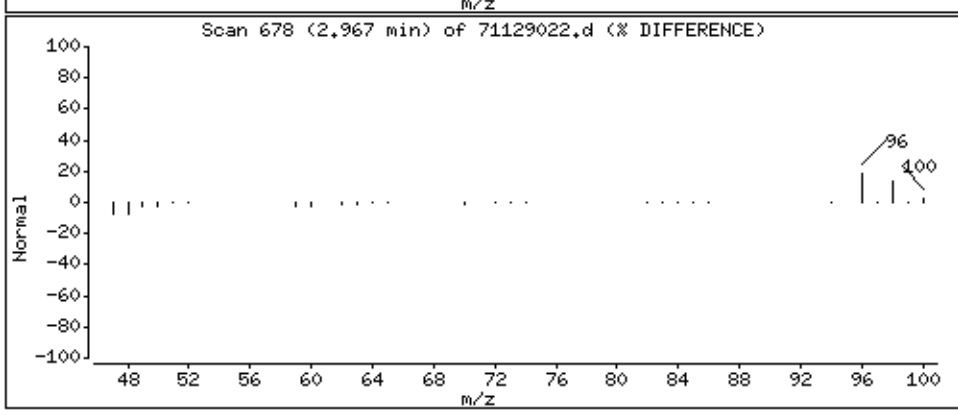












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Date : 29-NOV-2019 12:28

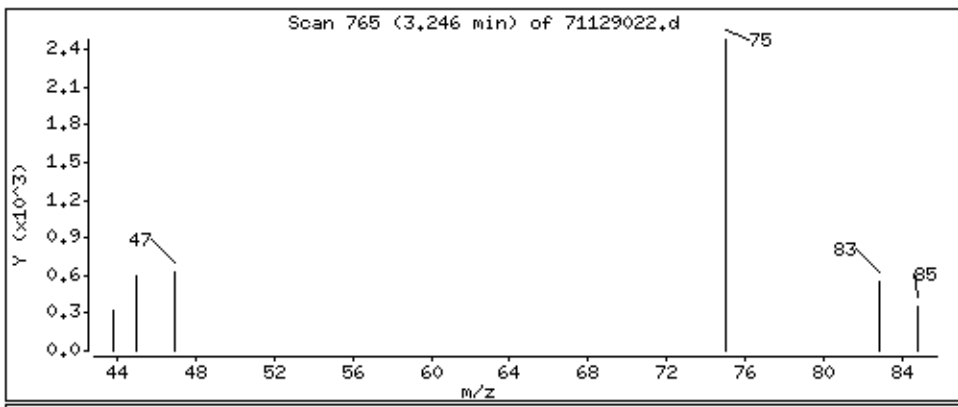
Client ID: MW-03 Instrument: 30mv7b.i

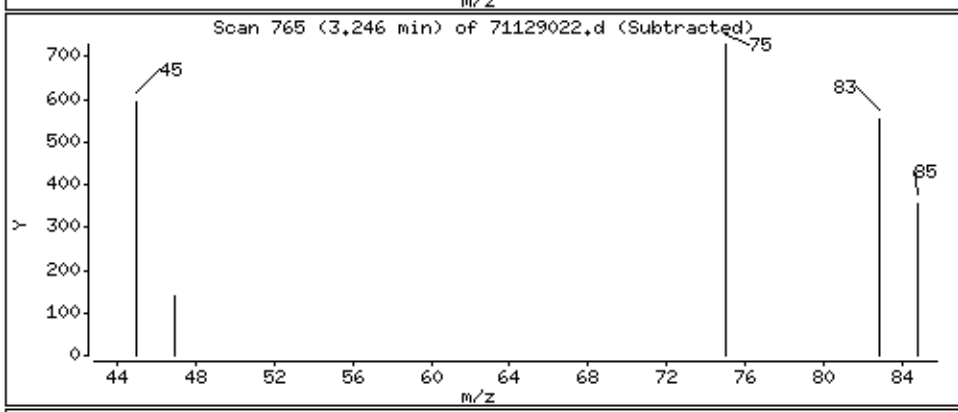
Sample Info: 30337003003

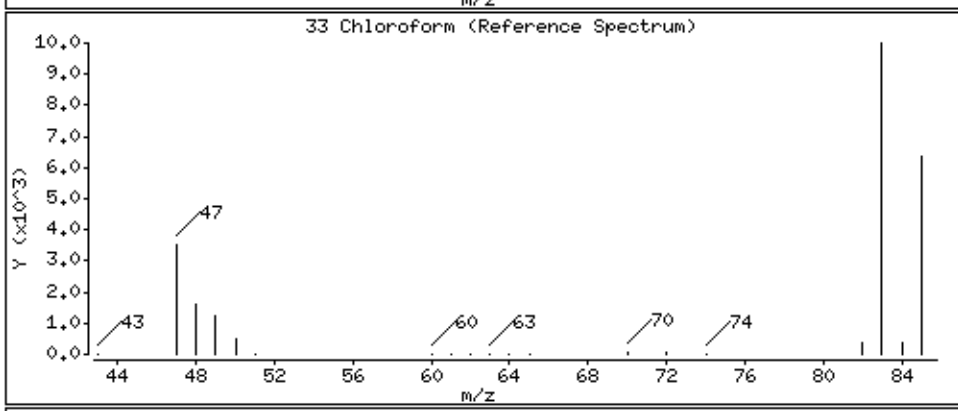
Purge Volume: 5.0 Operator: LEL

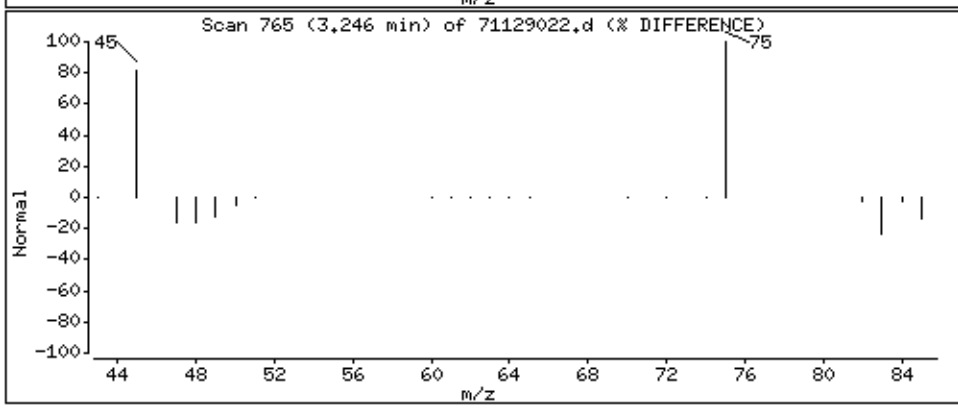
Column phase: RTX-VMS Column diameter: 0.18

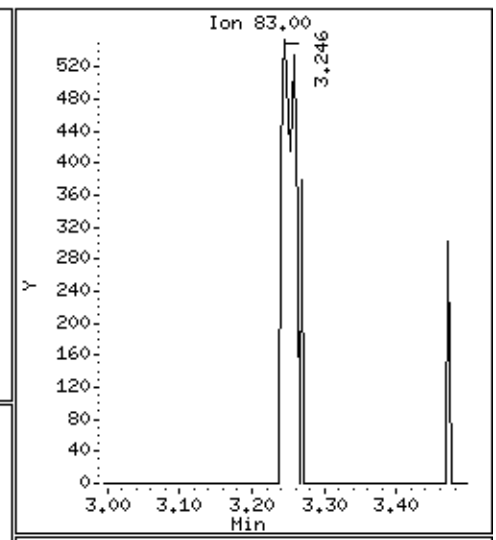
33 Chloroform Concentration: 0.281 ug/L Review Code:

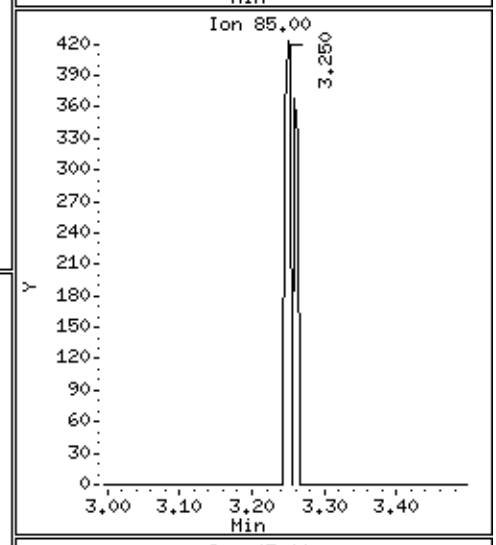


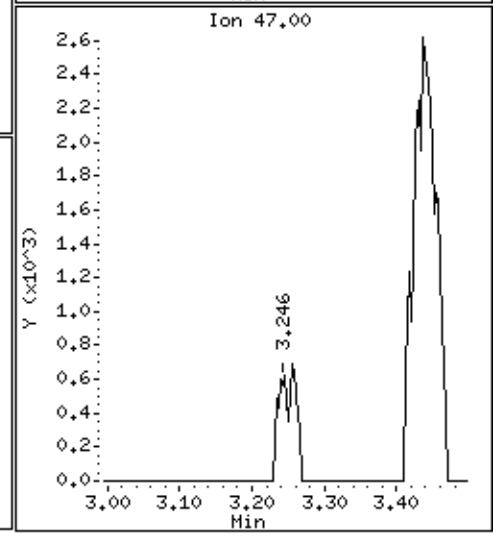












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

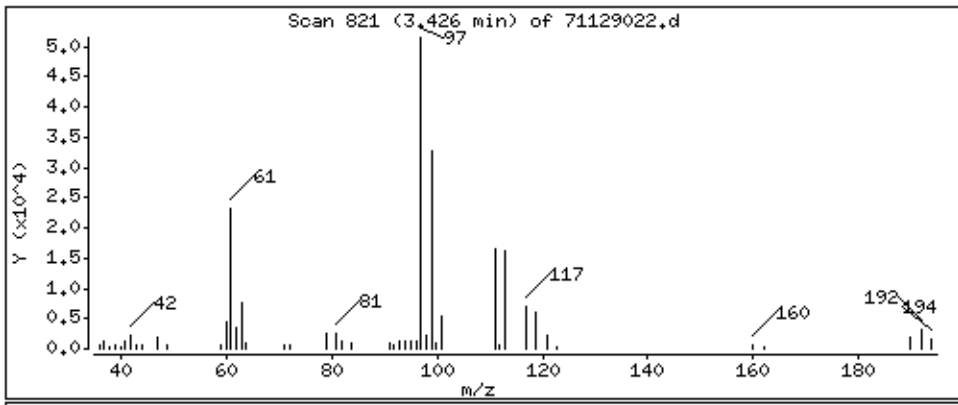
Client ID: MW-03 Instrument: 30mv7b.i

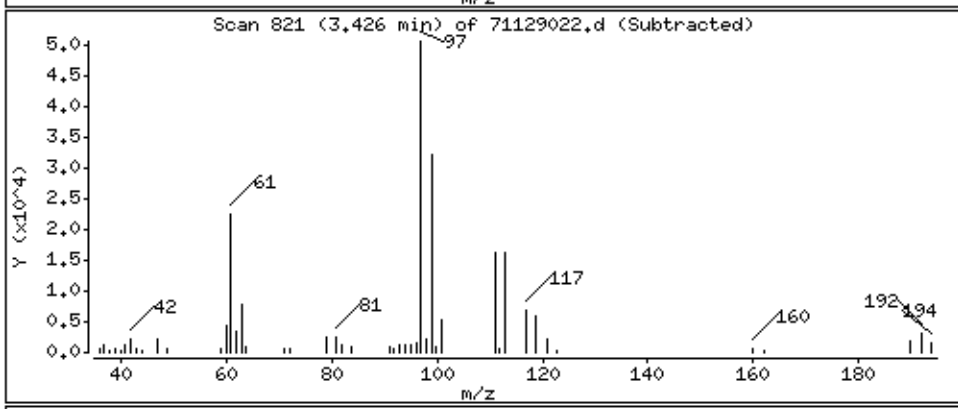
Sample Info: 30337003003

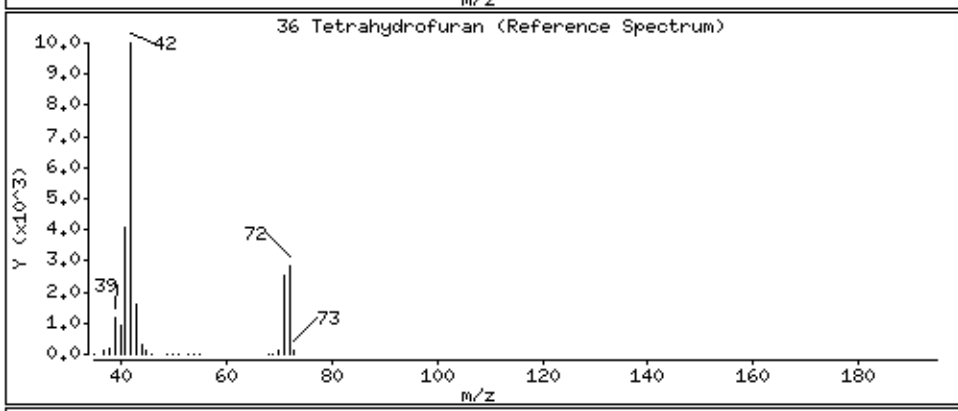
Purge Volume: 5.0 Operator: LEL

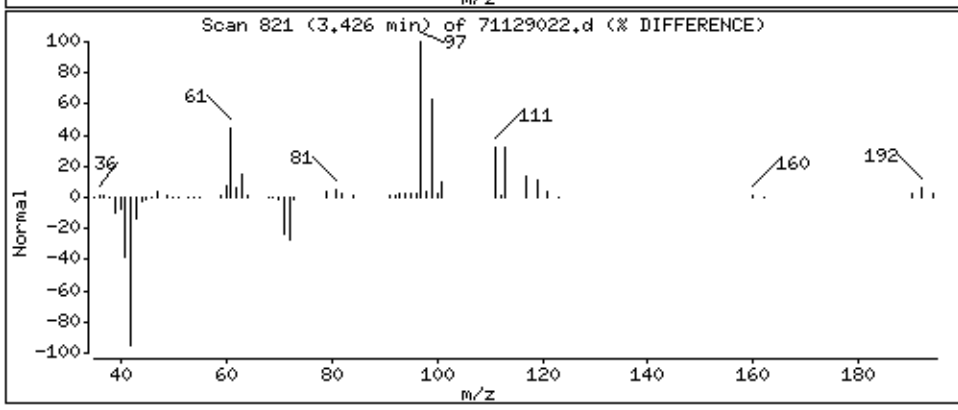
Column phase: RTX-VMS Column diameter: 0.18

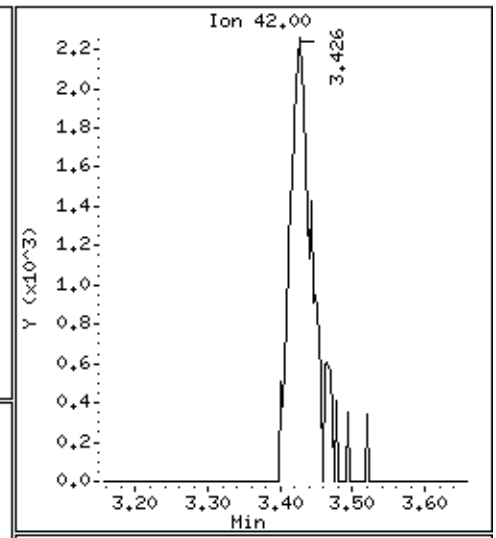
36 Tetrahydrofuran Concentration: 3.98 ug/L Review Code:

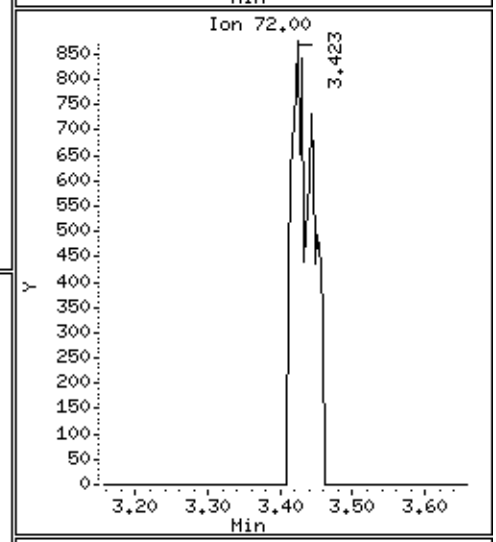


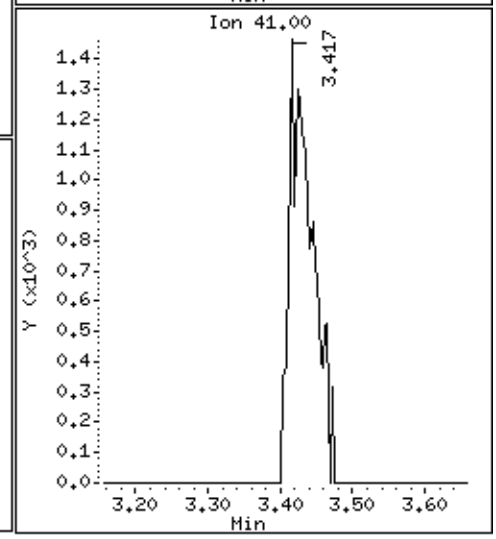












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Date : 29-NOV-2019 12:28

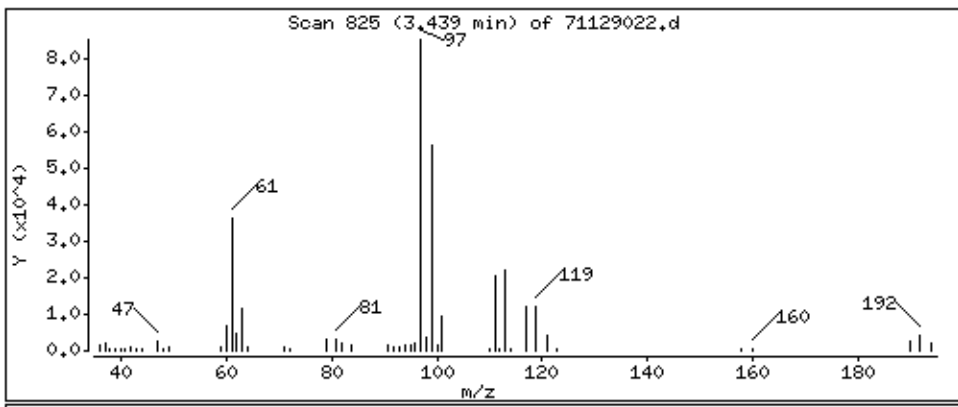
Client ID: MW-03 Instrument: 30mv7b.i

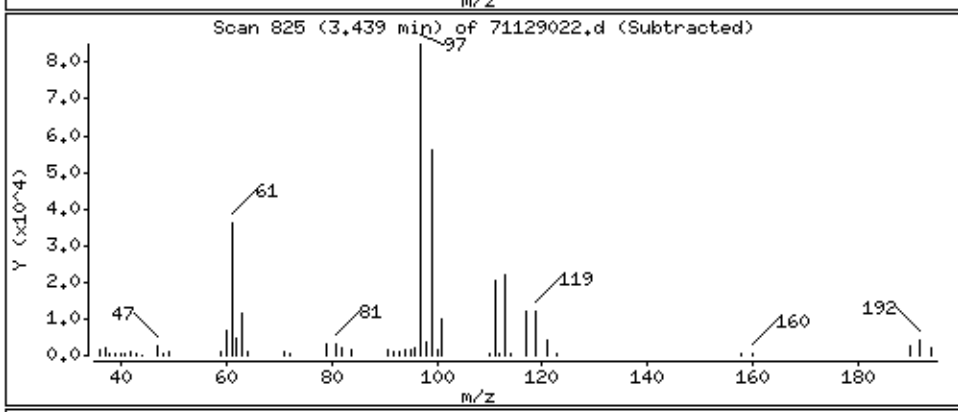
Sample Info: 30337003003

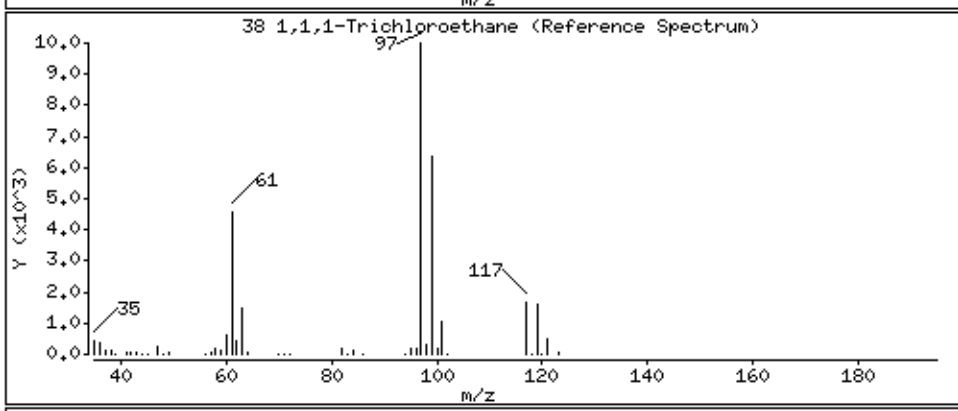
Purge Volume: 5.0 Operator: LEL

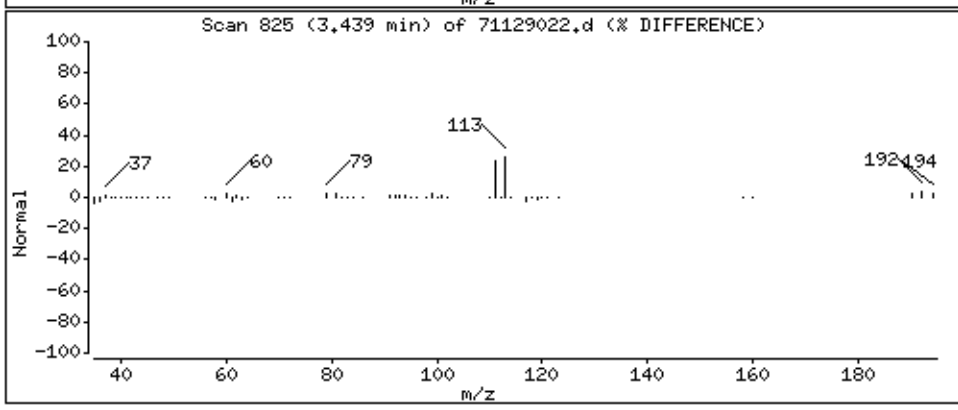
Column phase: RTX-VMS Column diameter: 0.18

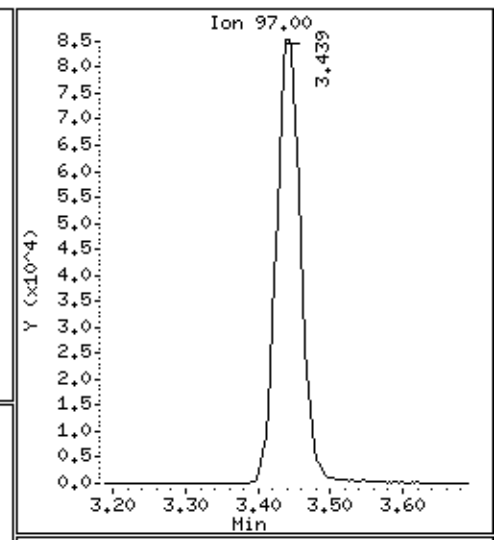
38 1,1,1-Trichloroethane Concentration: 83.7 ug/L Review Code:

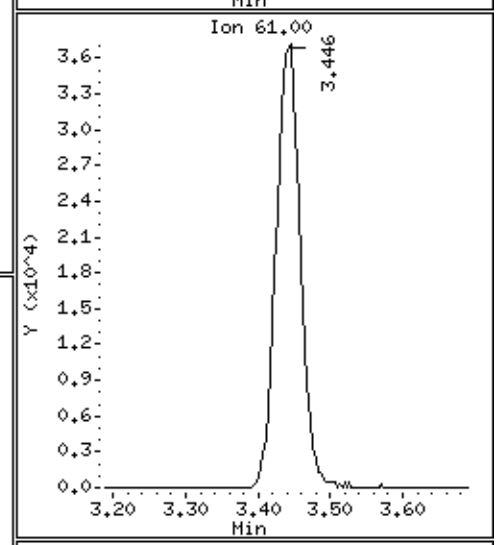


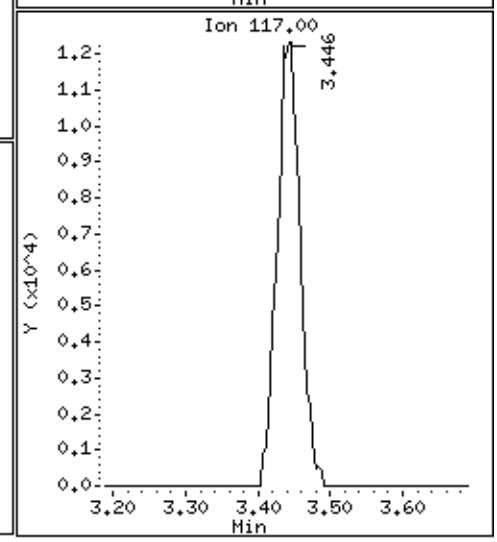












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

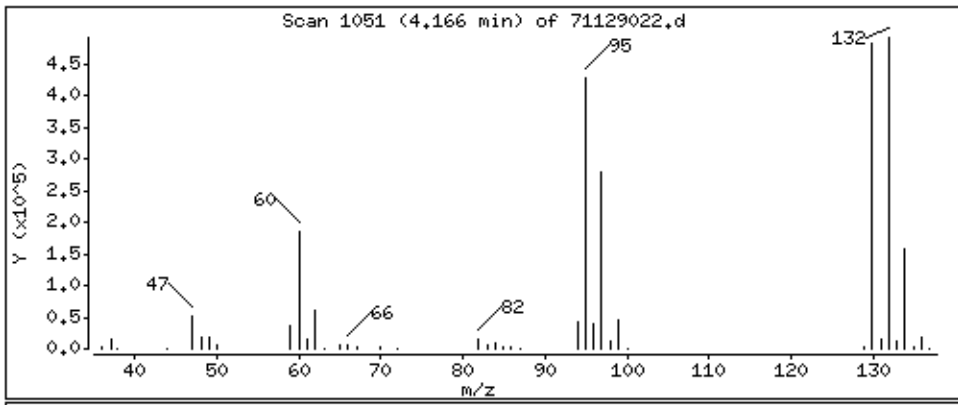
Client ID: MW-03 Instrument: 30mv7b.i

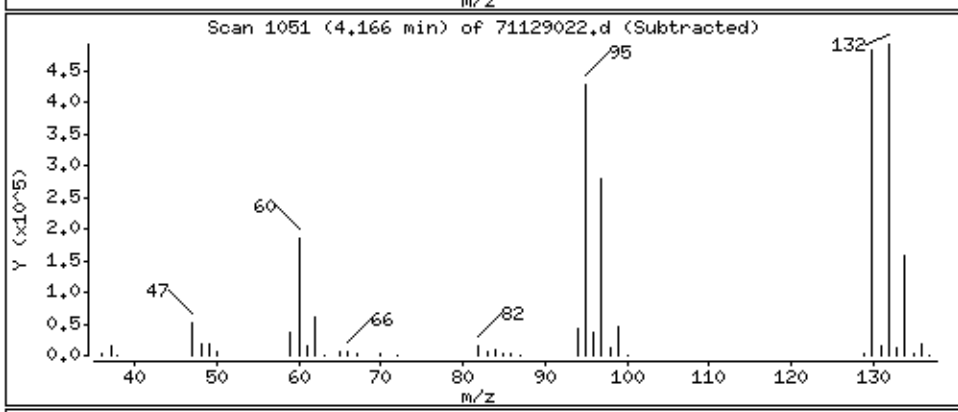
Sample Info: 30337003003

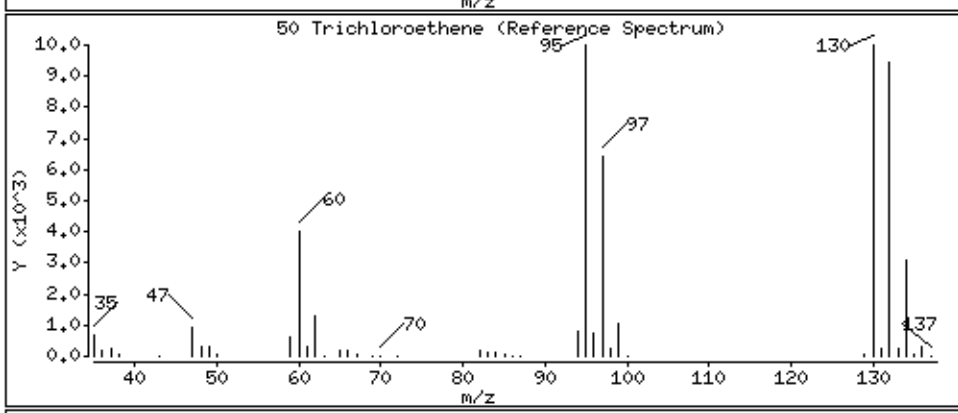
Purge Volume: 5.0 Operator: LEL

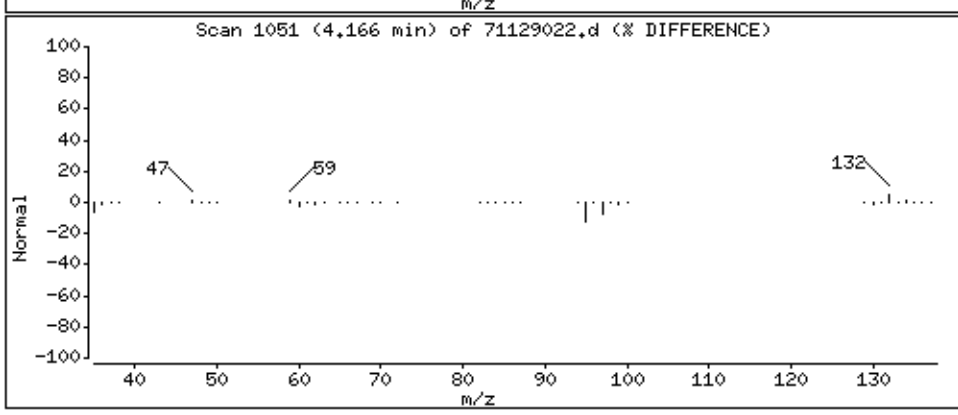
Column phase: RTX-VMS Column diameter: 0.18

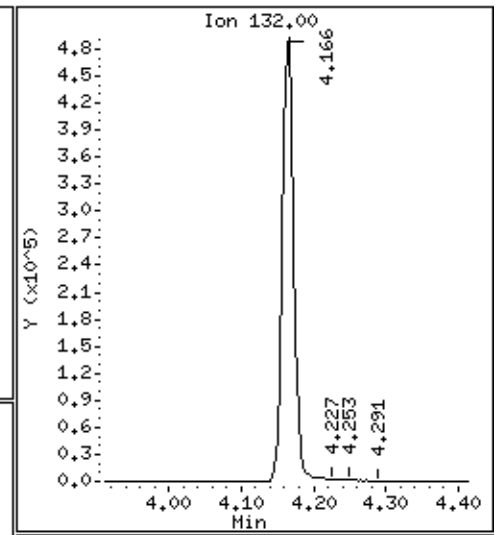
50 Trichloroethene Concentration: 296 ug/L Review Code:

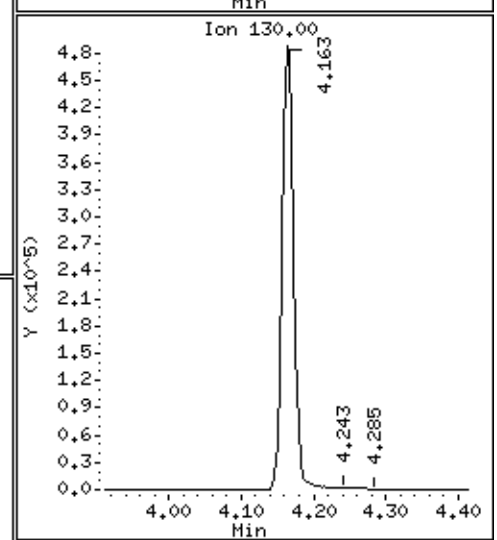


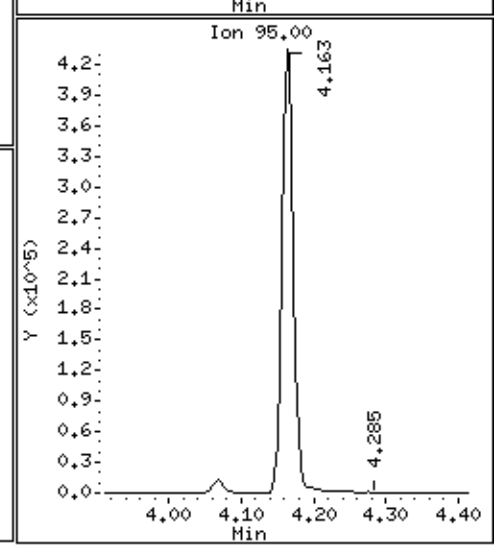












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

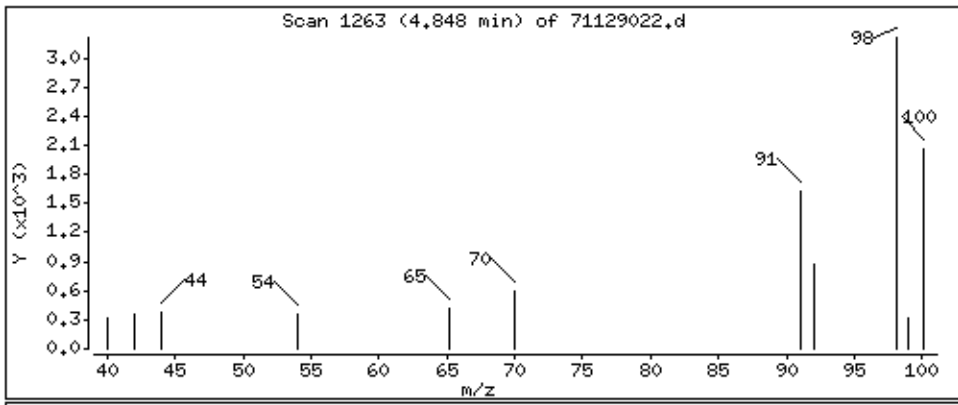
Client ID: MW-03 Instrument: 30mv7b.i

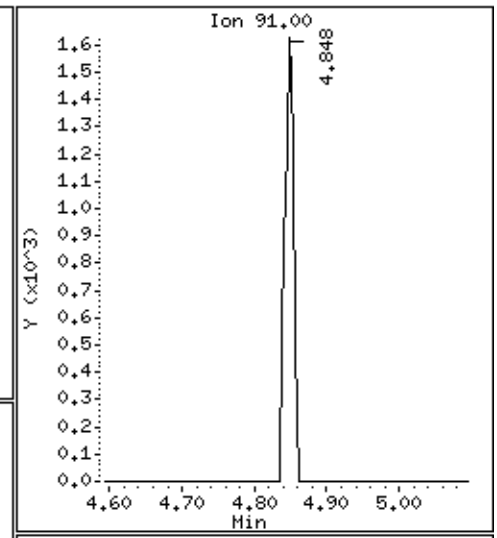
Sample Info: 30337003003

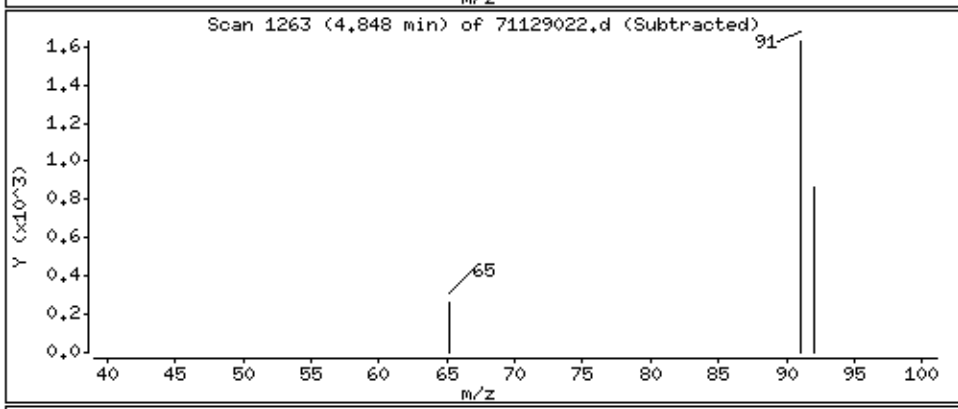
Purge Volume: 5.0 Operator: LEL

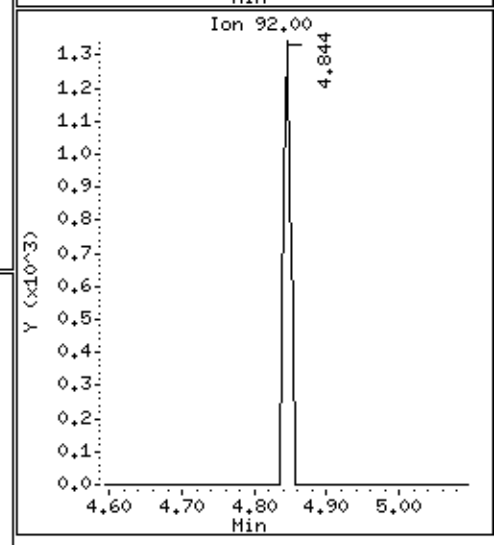
Column phase: RTX-VMS Column diameter: 0.18

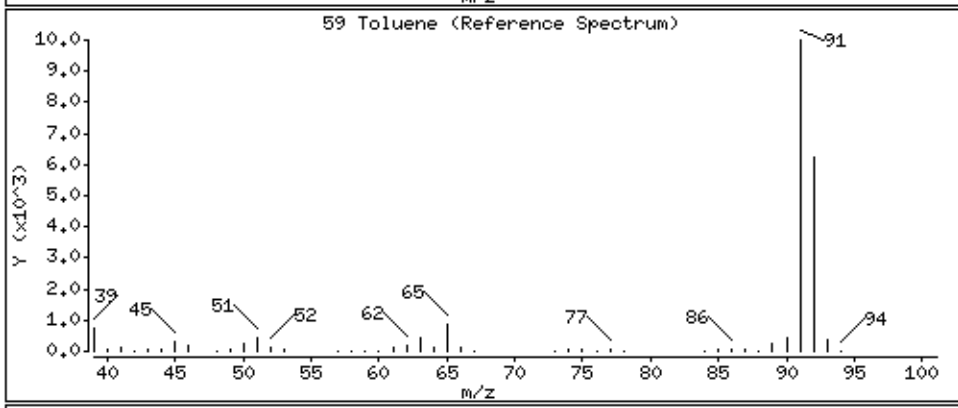
59 Toluene Concentration: 0.220 ug/L Review Code:

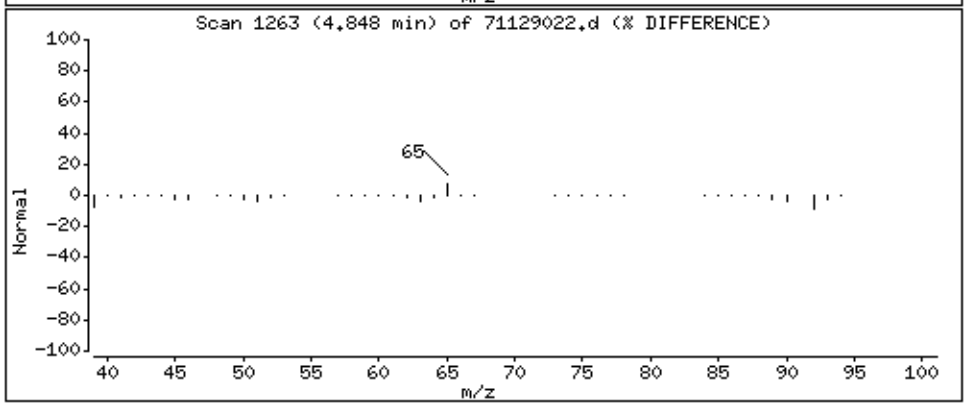












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

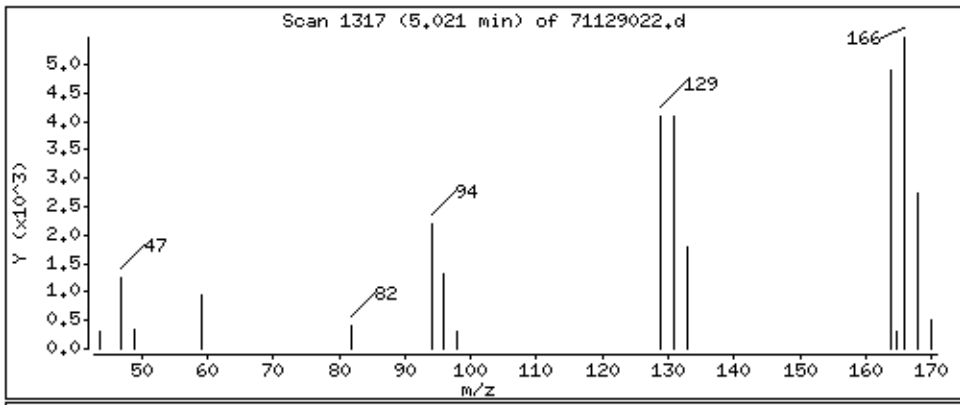
Client ID: MW-03 Instrument: 30mv7b.i

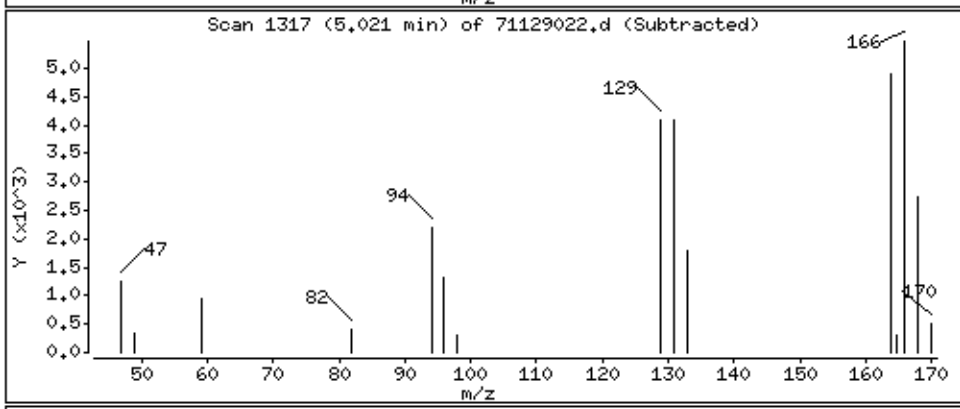
Sample Info: 30337003003

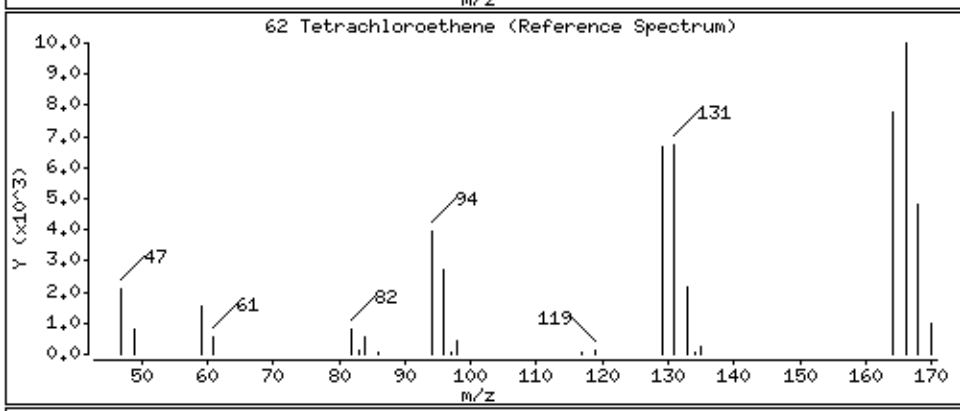
Purge Volume: 5.0 Operator: LEL

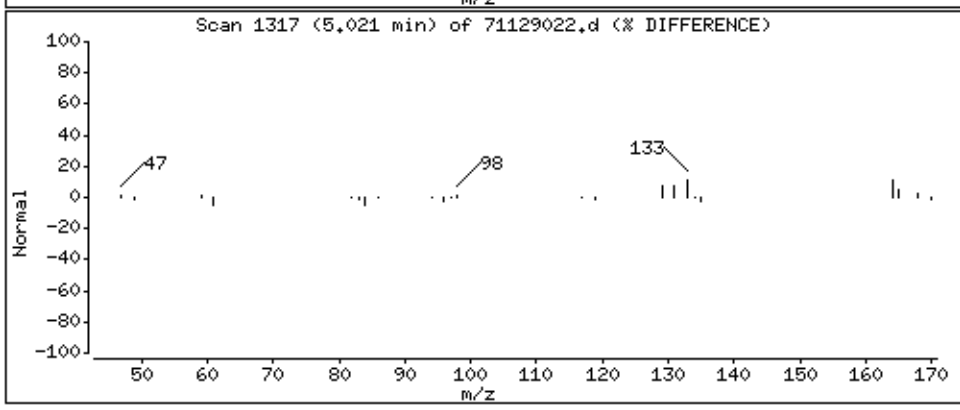
Column phase: RTX-VMS Column diameter: 0.18

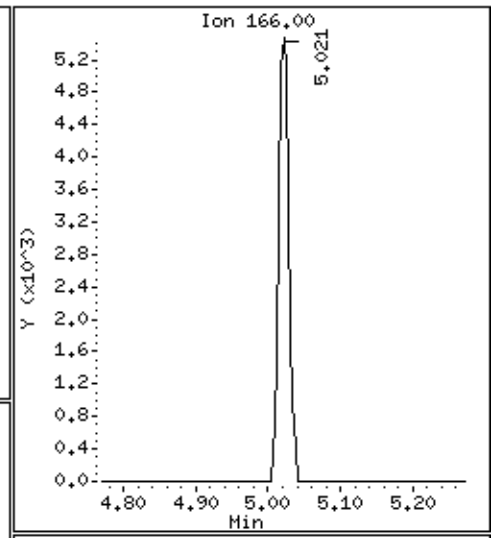
62 Tetrachloroethene Concentration: 2.99 ug/L Review Code:

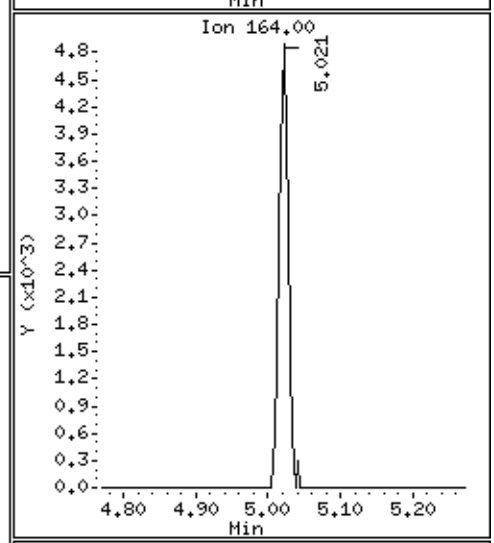


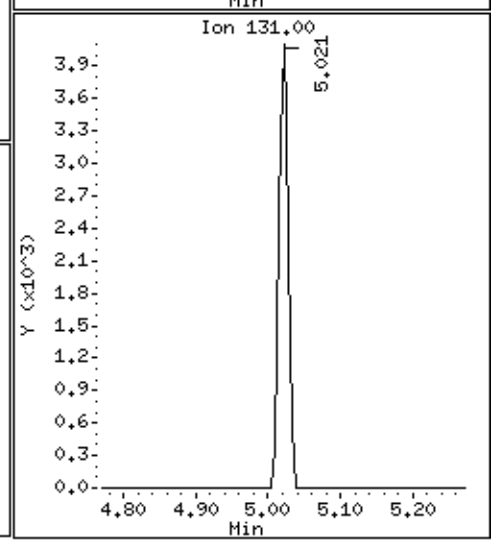












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129022.d

Date : 29-NOV-2019 12:28

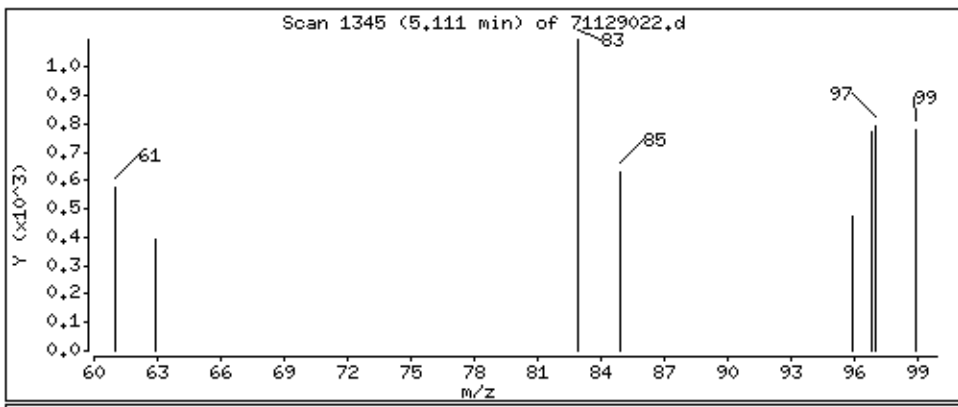
Client ID: MW-03 Instrument: 30mv7b.i

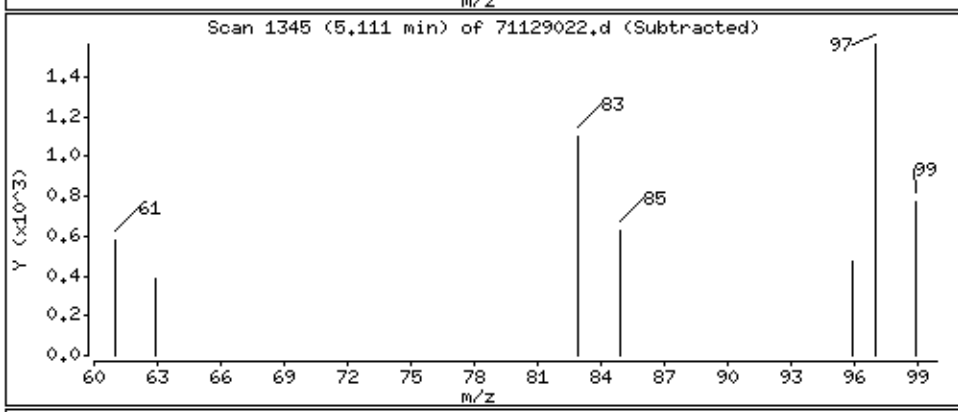
Sample Info: 30337003003

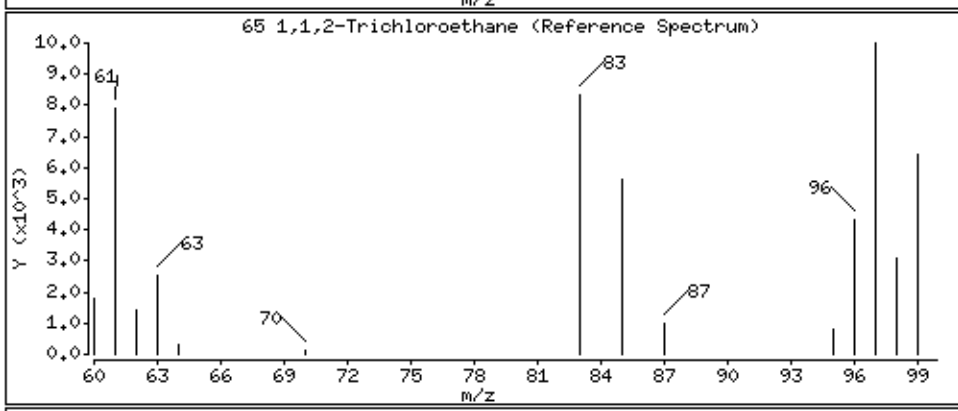
Purge Volume: 5.0 Operator: LEL

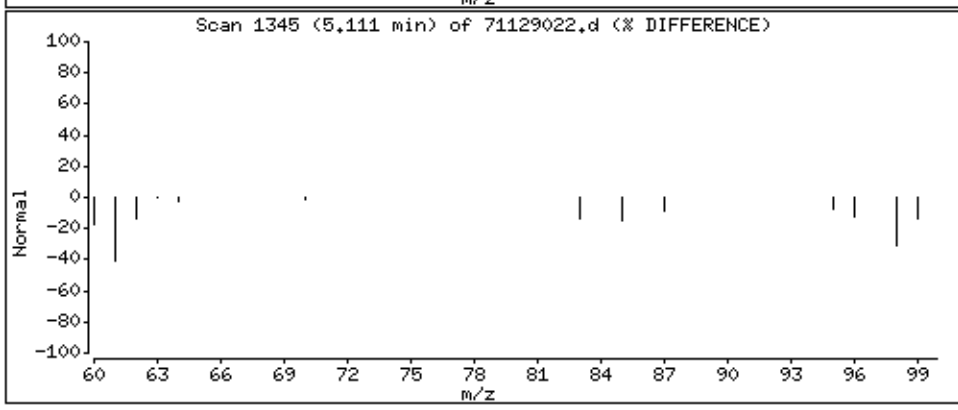
Column phase: RTX-VMS Column diameter: 0.18

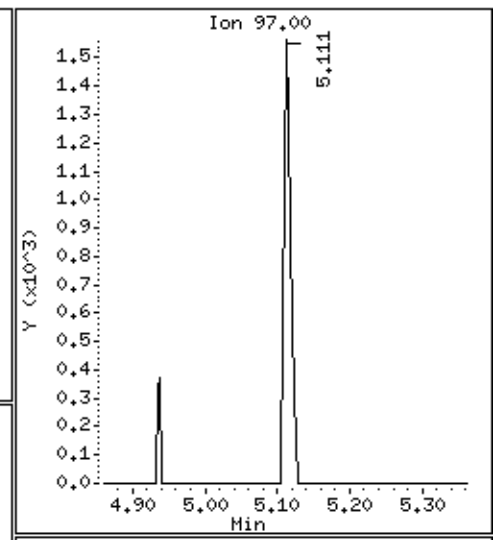
65 1,1,2-Trichloroethane Concentration: 0.692 ug/L Review Code:

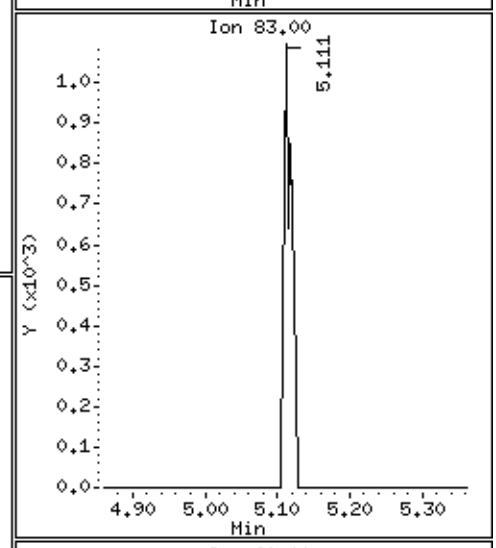


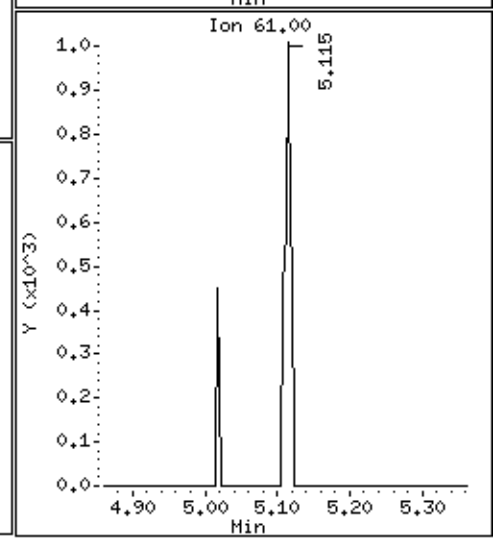












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129022.d
Injection Date: 29-NOV-2019 12:28
Instrument: 30mv7b.i
Lab Sample ID: 30337003003
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MW-04

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 12:52 Lab Sample ID: 30337003004

Date Analyzed: 11/29/2019 12:52 Lab File ID: 7191129.B\2.B\71129024.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	26.6	
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	49.6	
156-59-2	cis-1,2-Dichloroethene	41.9	
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U

SAMPLE NO.

MW-04

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 12:52 Lab Sample ID: 30337003004

Date Analyzed: 11/29/2019 12:52 Lab File ID: 7191129.B\2.B\71129024.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	157	
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	292	
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	5.4	
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d
Lab Smp Id: 30337003004 Client Smp ID: MW-04
Inj Date : 29-NOV-2019 12:52
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003004
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 24
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	Compound Not Detected.						
2	Chloromethane	50	Compound Not Detected.						
3	Vinyl chloride	62	0.979	0.979	(0.241)	11252	5.36023	5.36	
4	Bromomethane	94	Compound Not Detected.						
5	Chloroethane	64	Compound Not Detected.						
6	Trichlorofluoromethane	101	Compound Not Detected.						
7	Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8	Ethanol	46	Compound Not Detected.						
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	134843	49.6108	49.6	
10	1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11	Carbon disulfide	76	Compound Not Detected.						
12	Iodomethane	142	Compound Not Detected.						
13	Acrolein	56	Compound Not Detected.						
14	Allyl chloride	41	Compound Not Detected.						
15	Methylene Chloride	49	Compound Not Detected.						
16	Acetone	58	1.950	1.944	(0.479)	826	2.21329	2.21(Q)	
17	trans-1,2-Dichloroethene	61	2.011	2.008	(0.494)	1567	0.67505	0.675(aQ)	
18	Methyl acetate	74	Compound Not Detected.						
19	n-Hexane	86	Compound Not Detected.						
20	Methyl-tert-butyl ether	73	Compound Not Detected.						
21	tert-Butyl Alcohol	59	Compound Not Detected.						
22	Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	2.471	2.471	(0.607)	76232	26.6239	26.6	
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.727)	91616	41.8556	41.8	
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Ethyl acetate	43	Compound Not Detected.						(D)
	35 Carbon tetrachloride	117	Compound Not Detected.						(D)
	36 Tetrahydrofuran	42	3.426	3.407	(0.842)	4576	3.56454	3.56(Q)	
$	37 Dibromofluoromethane (S)	111	3.439	3.433	(0.845)	47211	32.1280	32.1	
	38 1,1,1-Trichloroethane	97	3.445	3.439	(0.847)	373769	157.070	157	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.955)	48171	31.8645	31.9(Q)	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.069	4.066	(1.000)	169978	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	4.165	4.162	(1.024)	536046	292.163	292	
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	144630	28.2809	28.3	
	59 Toluene	91	4.847	4.844	(0.879)	1693	0.25823	0.258(a)	
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	Compound Not Detected.						
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	113689	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	44665	29.7348	29.7	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	48192	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.027)	22450	30.5529	30.6(Q)	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

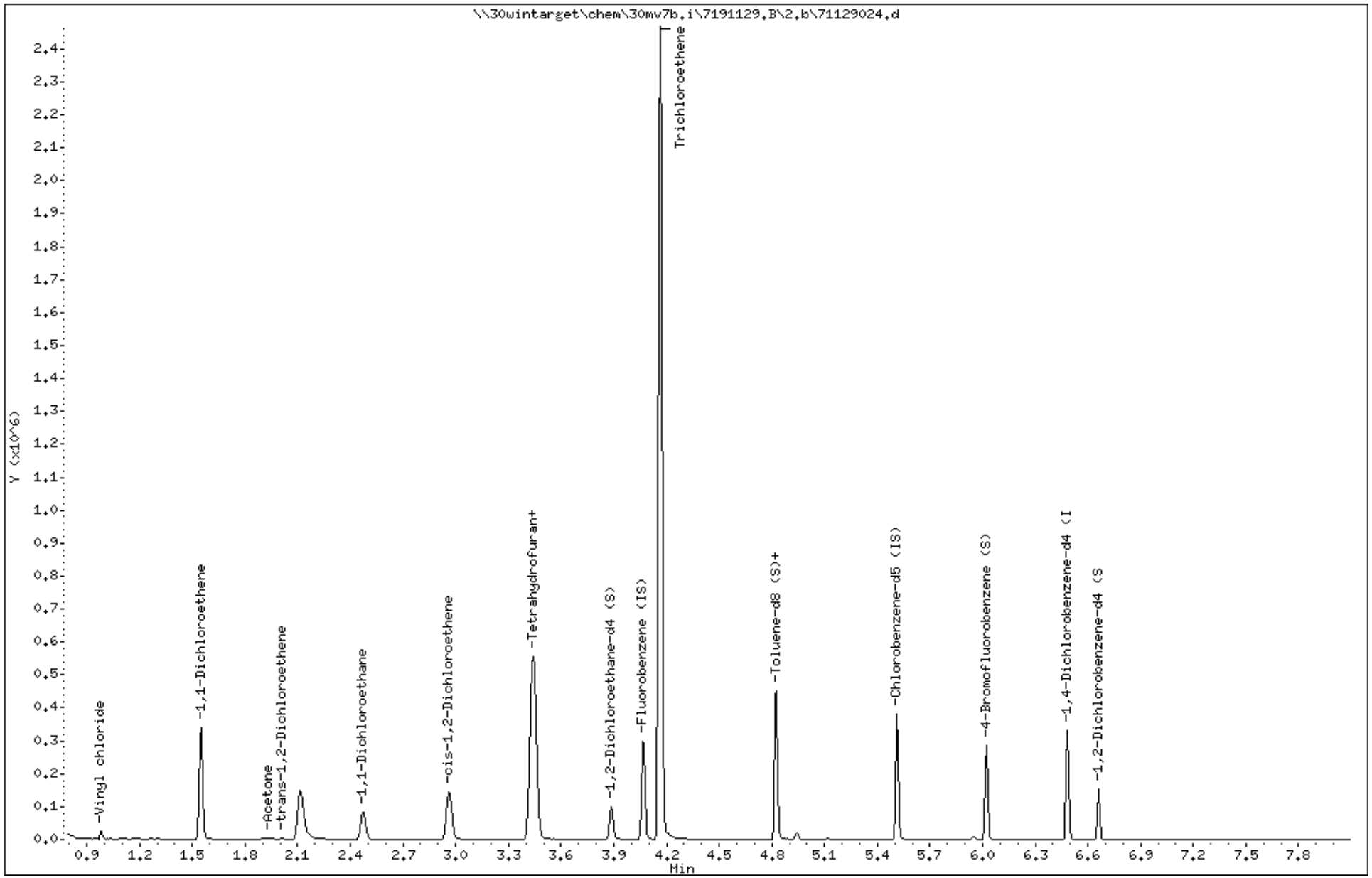
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003004
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-04
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Vinyl chloride	5.36	
75-35-4	1,1-Dichloroethene	49.6	
67-64-1	Acetone	2.21	
156-60-5	trans-1,2-Dichloroethene	0.675	J
75-34-3	1,1-Dichloroethane	26.6	
156-59-2	cis-1,2-Dichloroethene	41.8	
109-99-9	Tetrahydrofuran	3.56	
71-55-6	1,1,1-Trichloroethane	157	
79-01-6	Trichloroethene	292	
108-88-3	Toluene	0.258	J
1868-53-7	Dibromofluoromethane (S)	32.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.9	
2037-26-5	Toluene-d8 (S)	28.3	
460-00-4	4-Bromofluorobenzene (S)	29.7	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	30.6	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d
Date : 29-NOV-2019 12:52
Client ID: MW-04
Instrument: 30mv7b.i
Sample Info: 30337003004
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d

Date : 29-NOV-2019 12:52

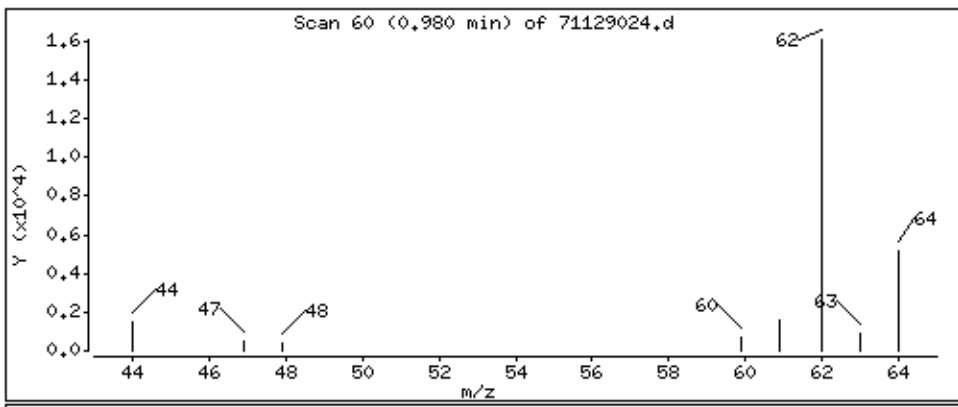
Client ID: MW-04 Instrument: 30mv7b.i

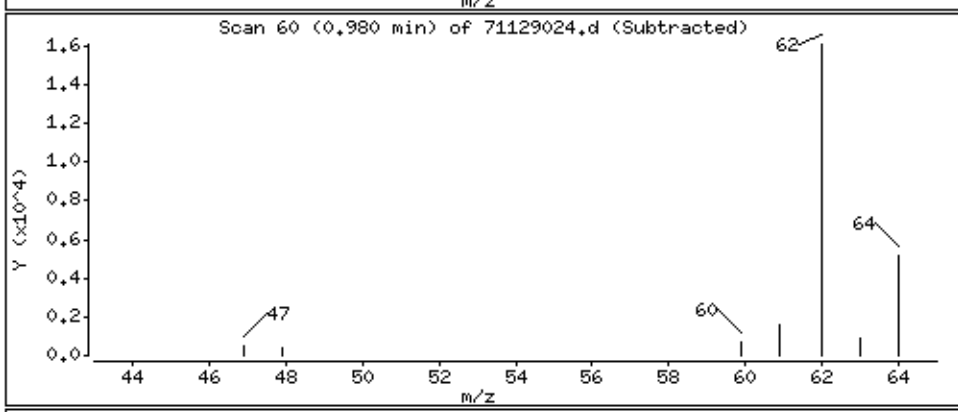
Sample Info: 30337003004

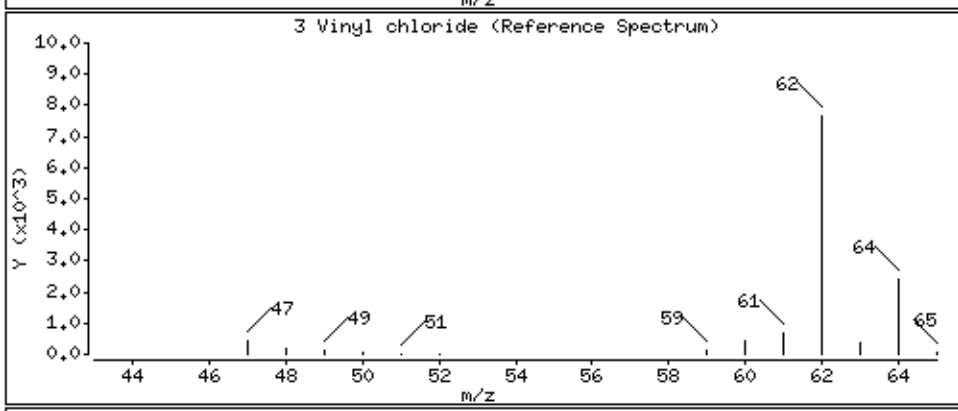
Purge Volume: 5.0 Operator: LEL

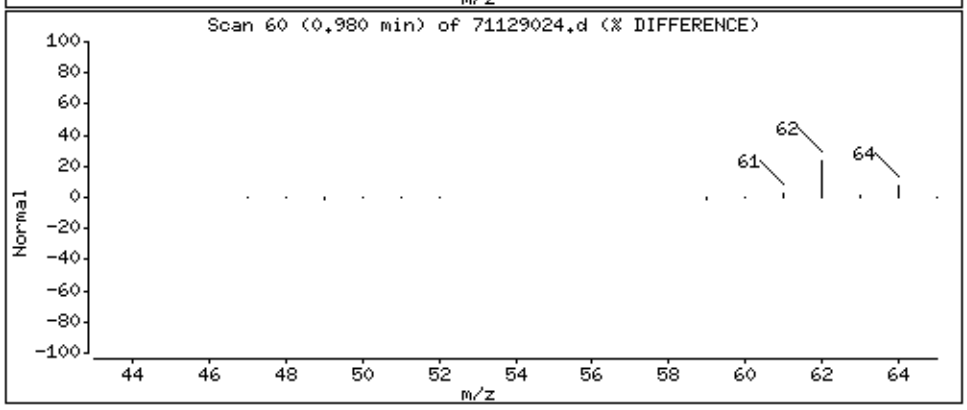
Column phase: RTX-VMS Column diameter: 0.18

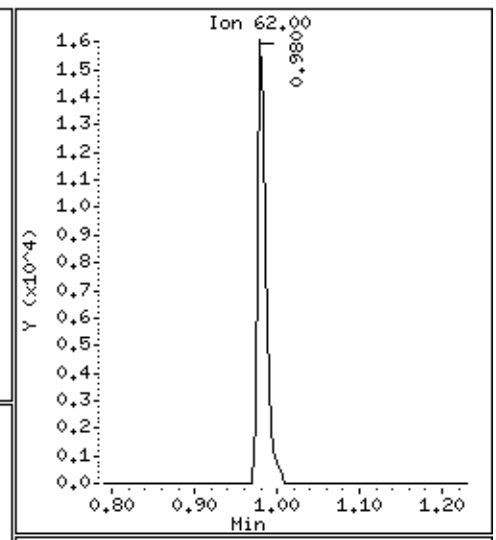
3 Vinyl chloride Concentration: 5.36 ug/L Review Code:

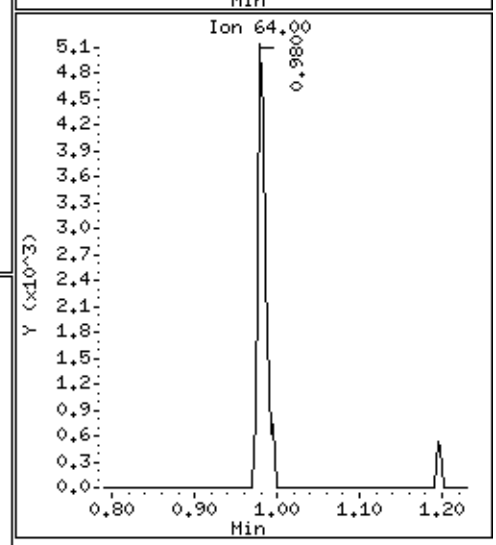












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d

Date : 29-NOV-2019 12:52

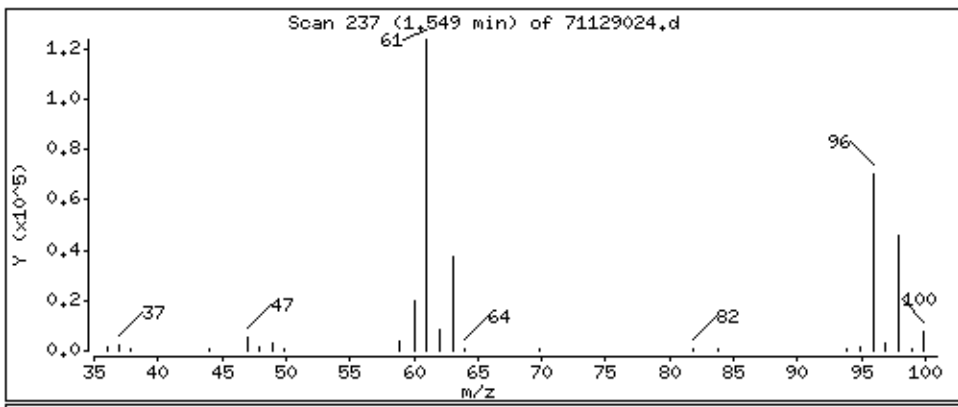
Client ID: MW-04 Instrument: 30mv7b.i

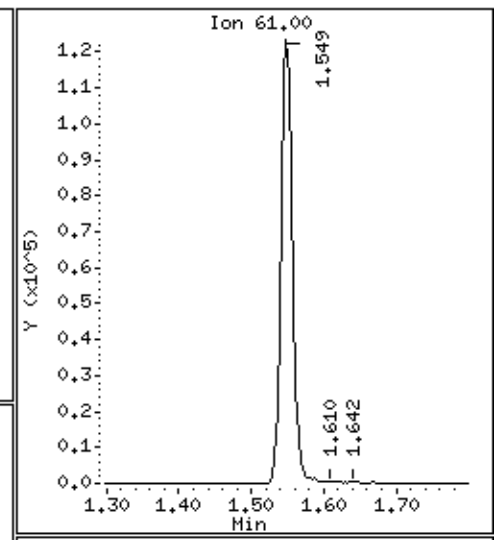
Sample Info: 30337003004

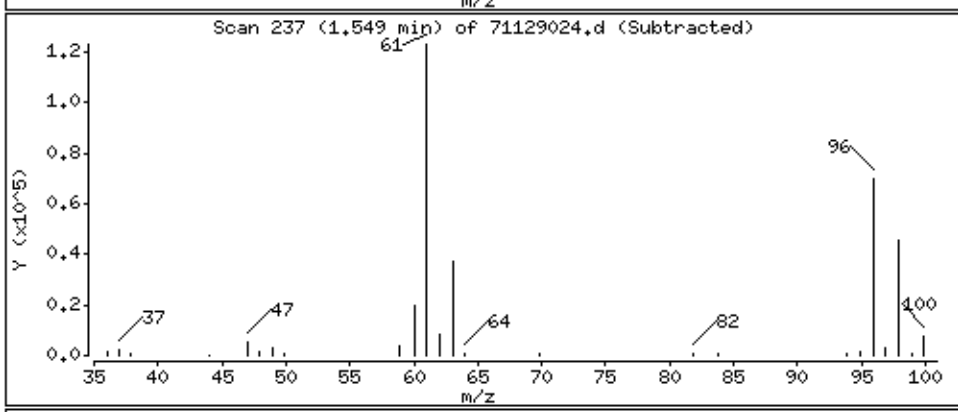
Purge Volume: 5.0 Operator: LEL

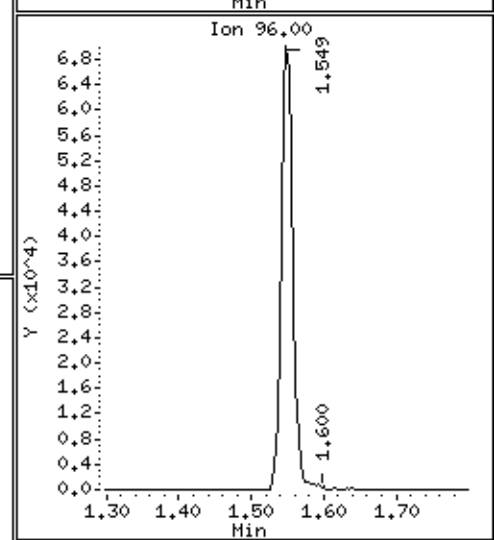
Column phase: RTX-VMS Column diameter: 0.18

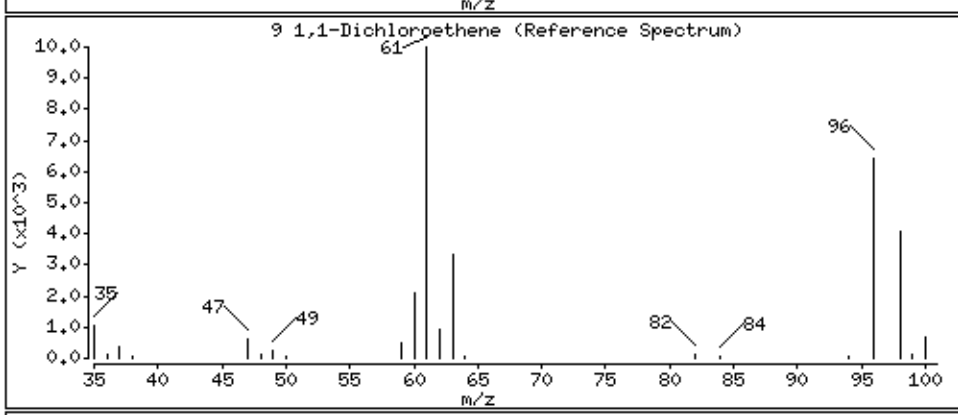
9 1,1-Dichloroethene Concentration: 49.6 ug/L Review Code:

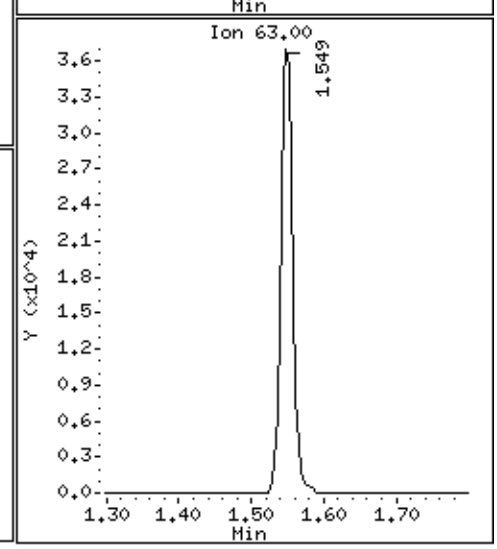


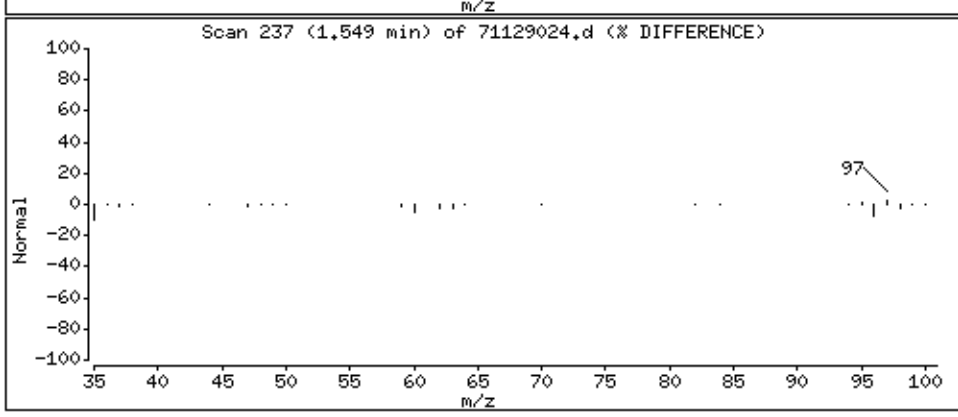












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Date : 29-NOV-2019 12:52

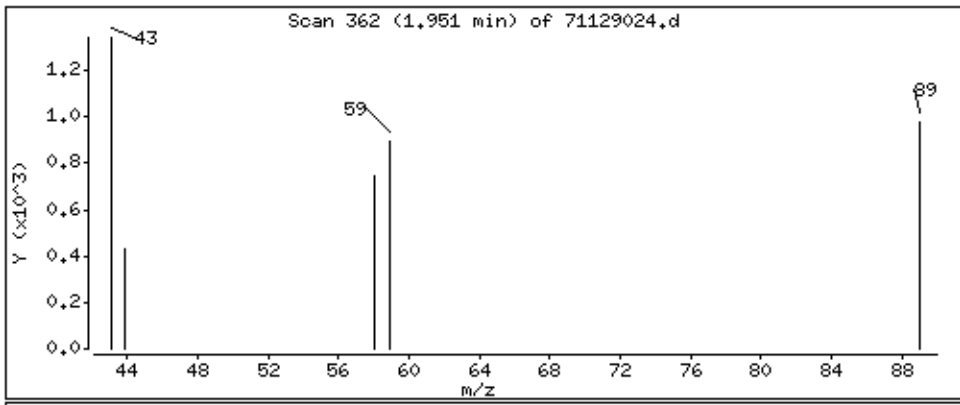
Client ID: MW-04 Instrument: 30mv7b.i

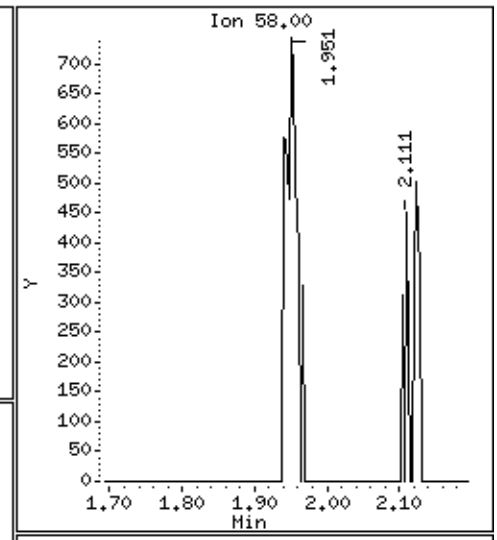
Sample Info: 30337003004

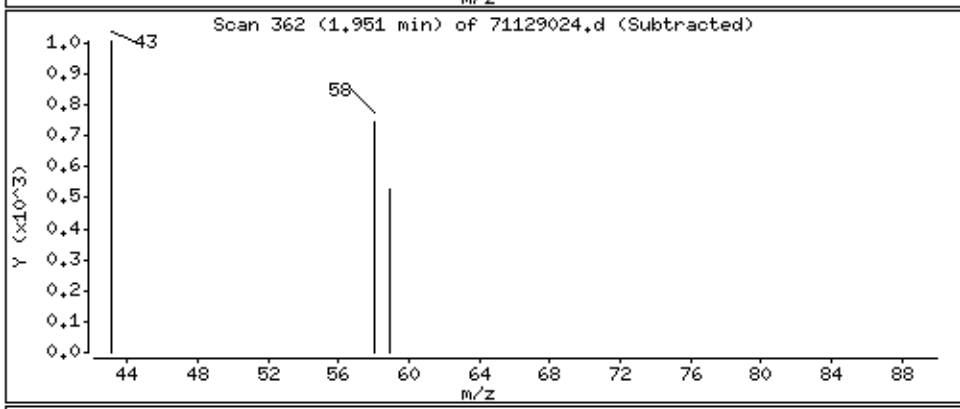
Purge Volume: 5.0 Operator: LEL

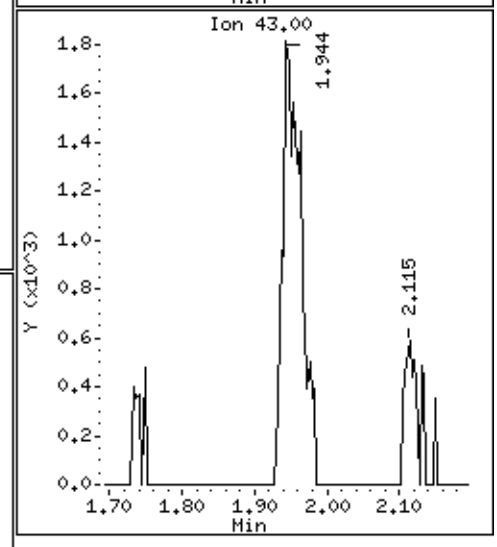
Column phase: RTX-VMS Column diameter: 0.18

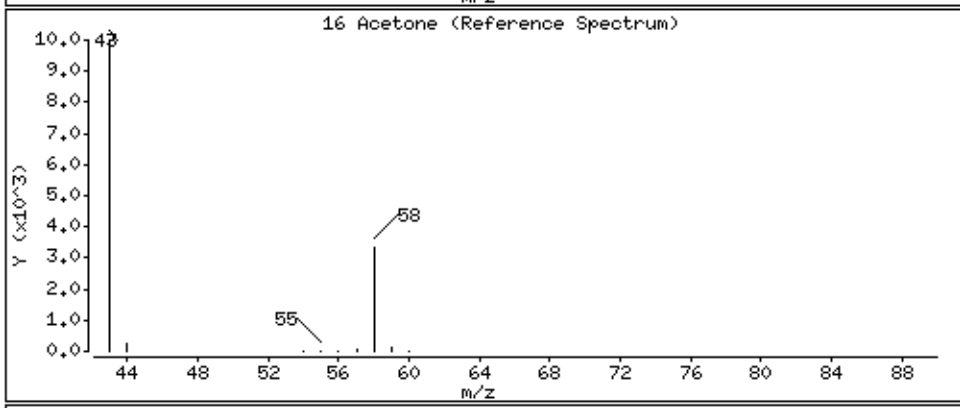
16 Acetone Concentration: 2.21 ug/L Review Code:

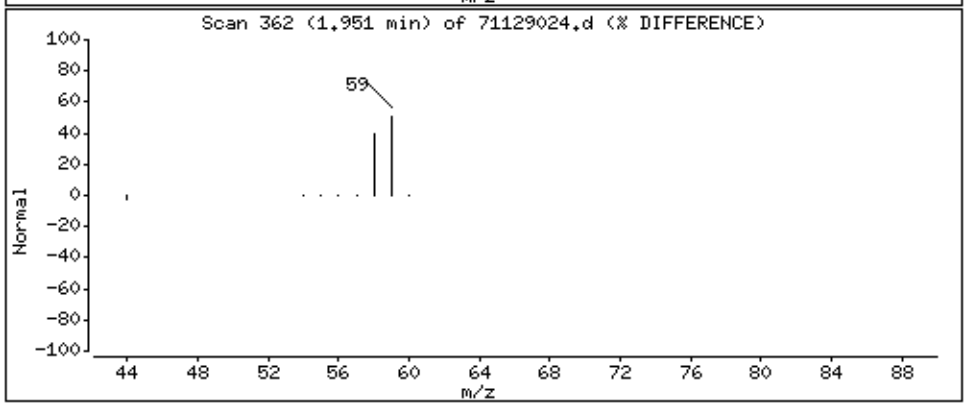












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Date : 29-NOV-2019 12:52

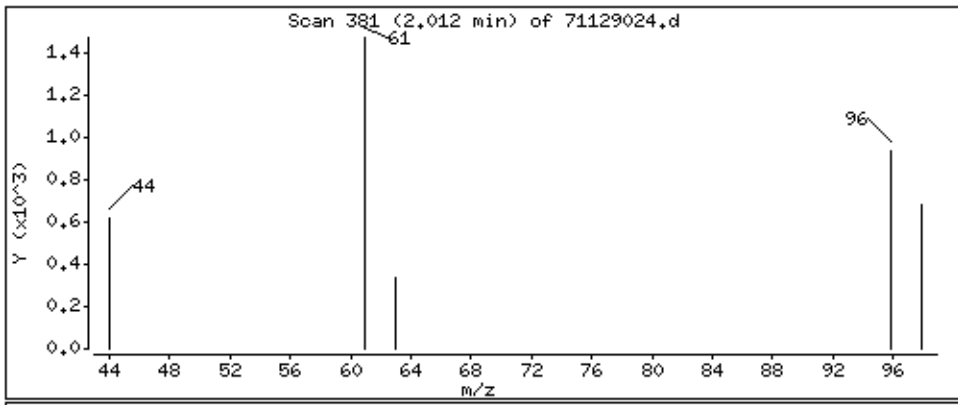
Client ID: MW-04 Instrument: 30mv7b.i

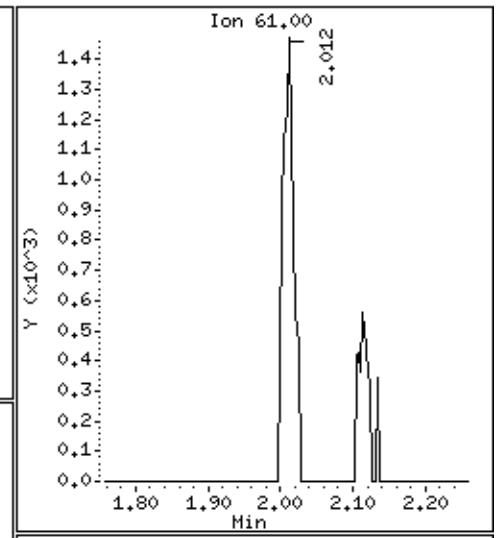
Sample Info: 30337003004

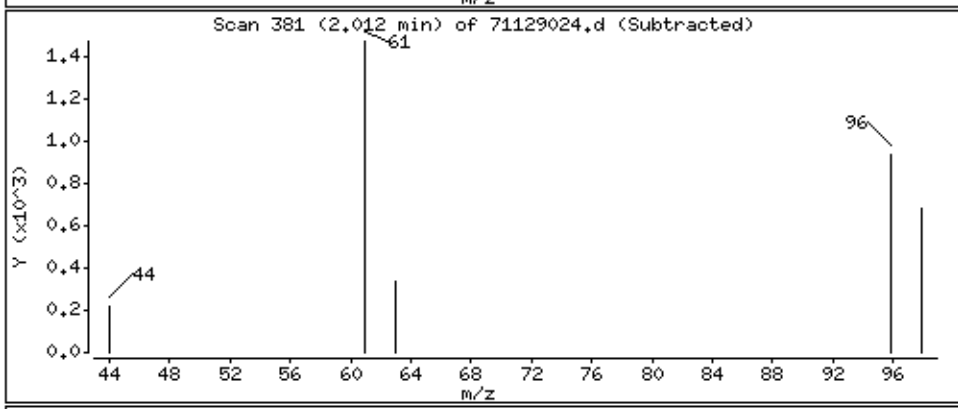
Purge Volume: 5.0 Operator: LEL

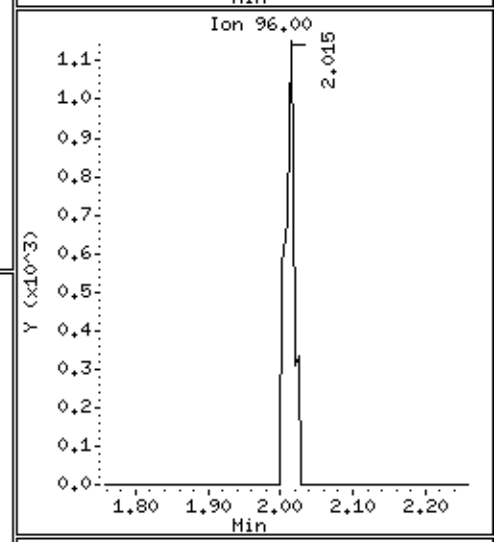
Column phase: RTX-VMS Column diameter: 0.18

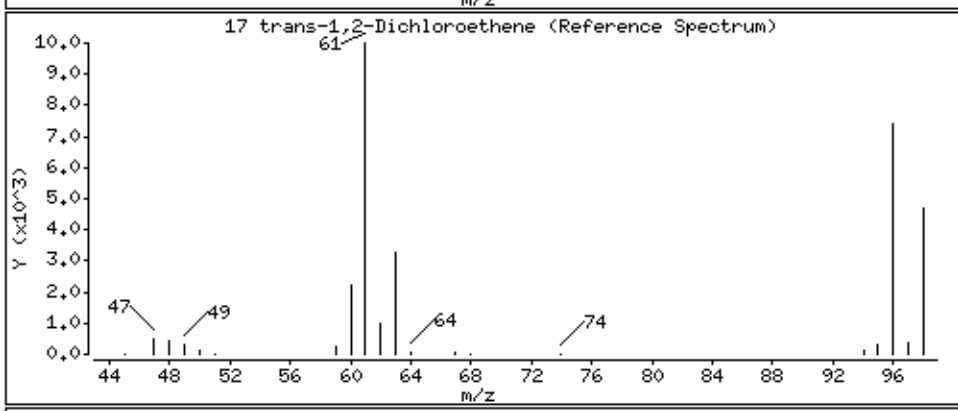
17 trans-1,2-Dichloroethene Concentration: 0.675 ug/L Review Code:

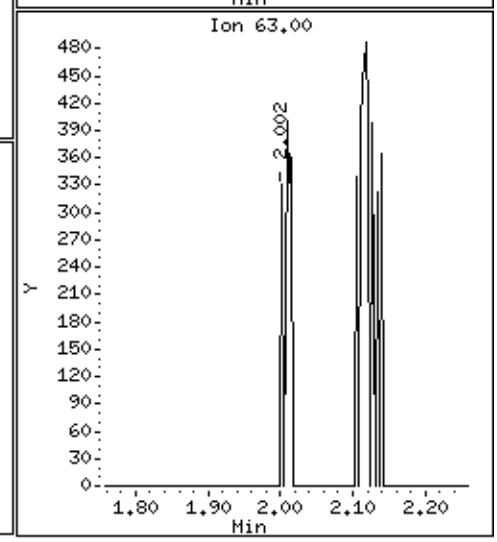


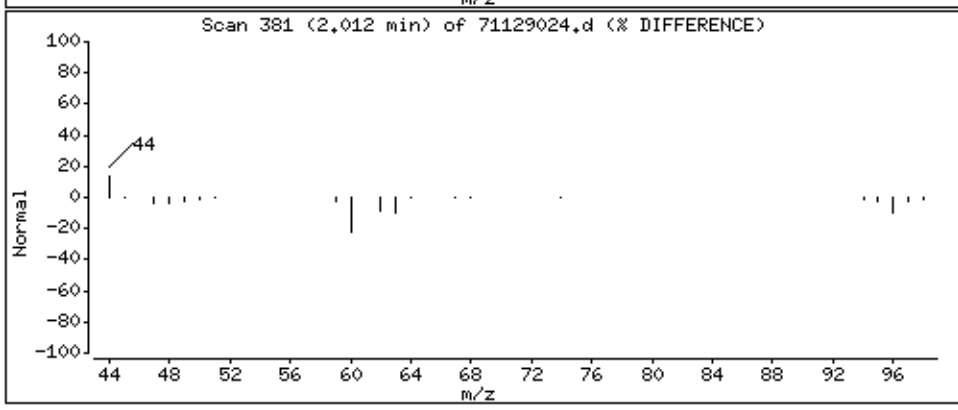












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d

Date : 29-NOV-2019 12:52

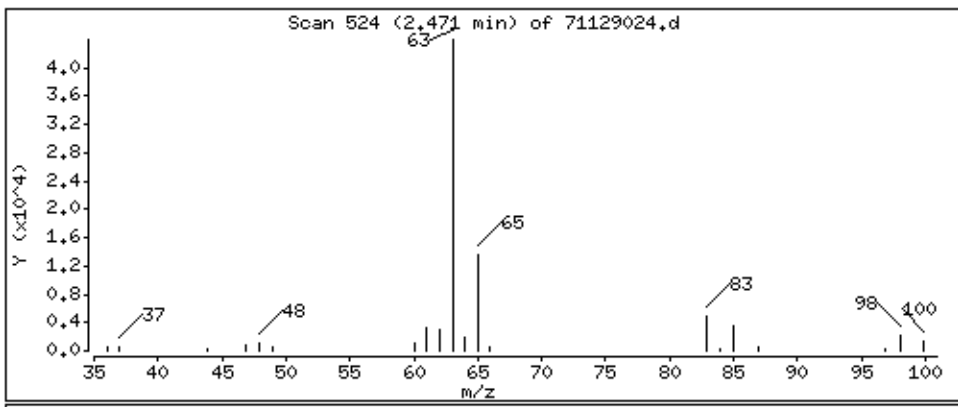
Client ID: MW-04 Instrument: 30mv7b.i

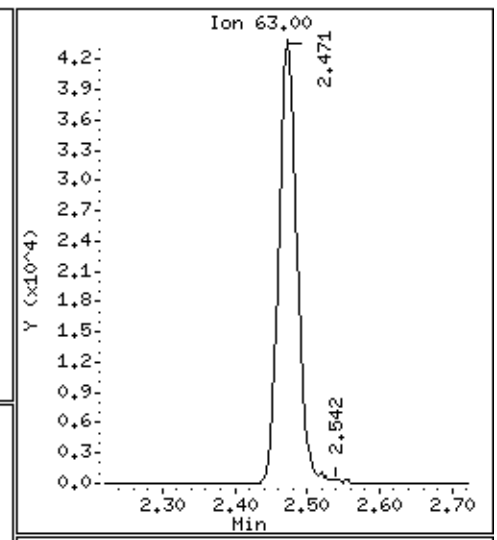
Sample Info: 30337003004

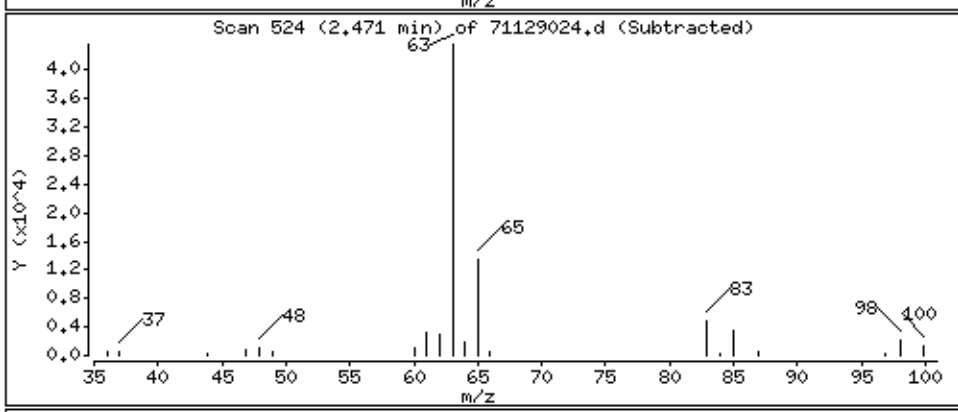
Purge Volume: 5.0 Operator: LEL

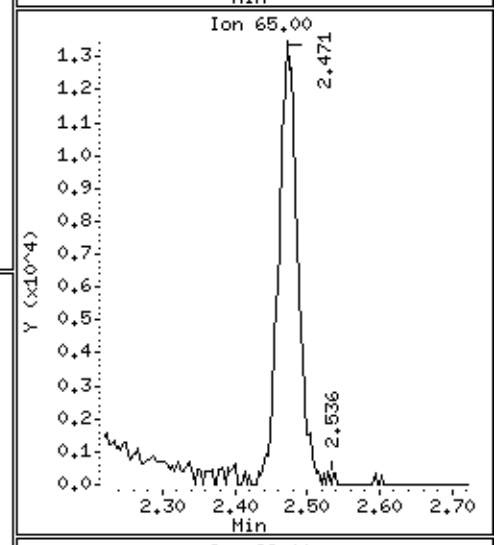
Column phase: RTX-VMS Column diameter: 0.18

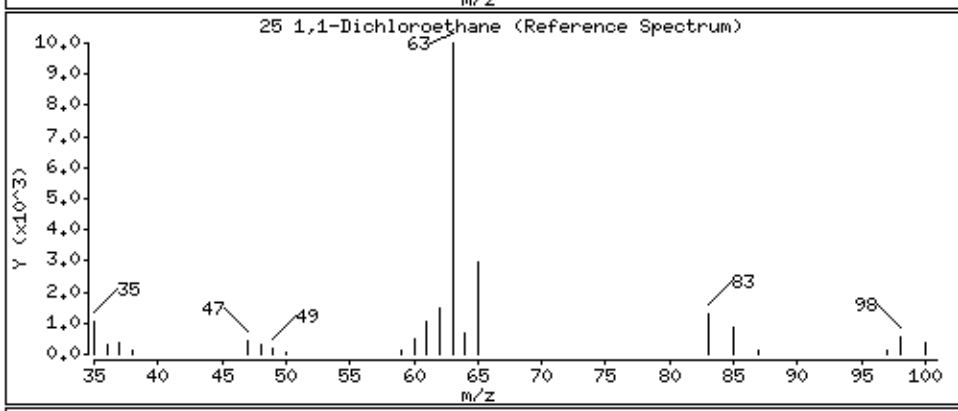
25 1,1-Dichloroethane Concentration: 26.6 ug/L Review Code:

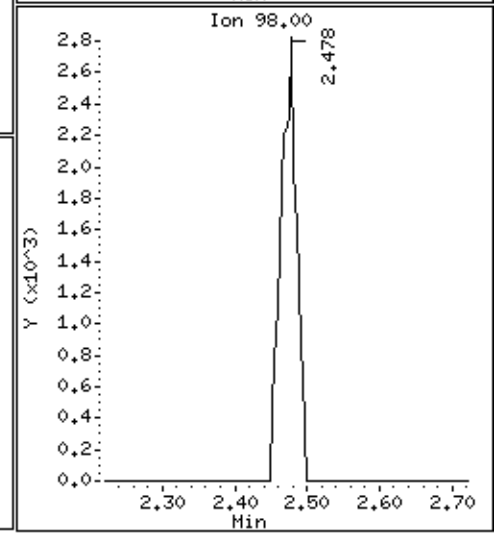


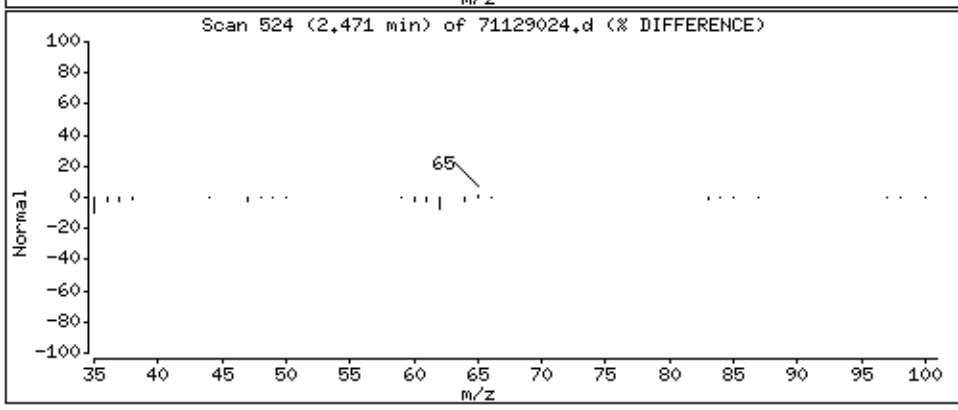












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d

Date : 29-NOV-2019 12:52

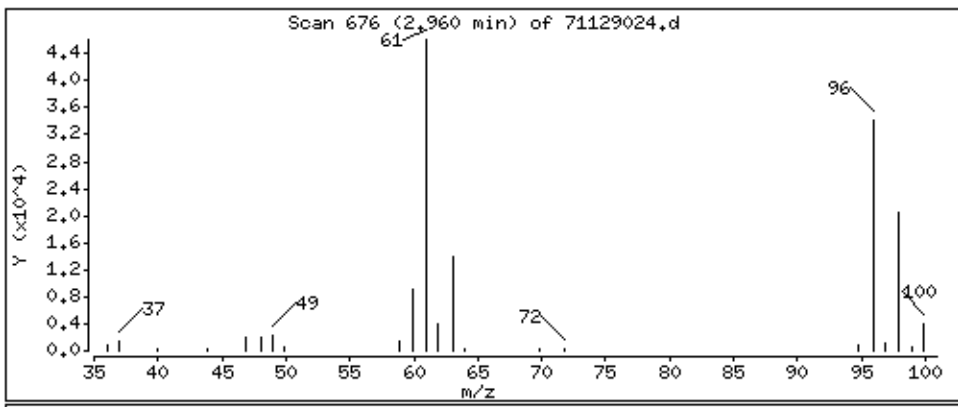
Client ID: MW-04 Instrument: 30mv7b.i

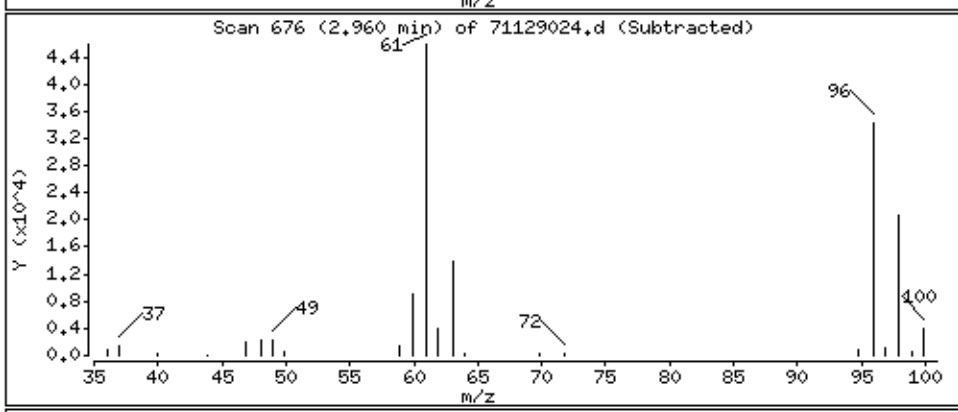
Sample Info: 30337003004

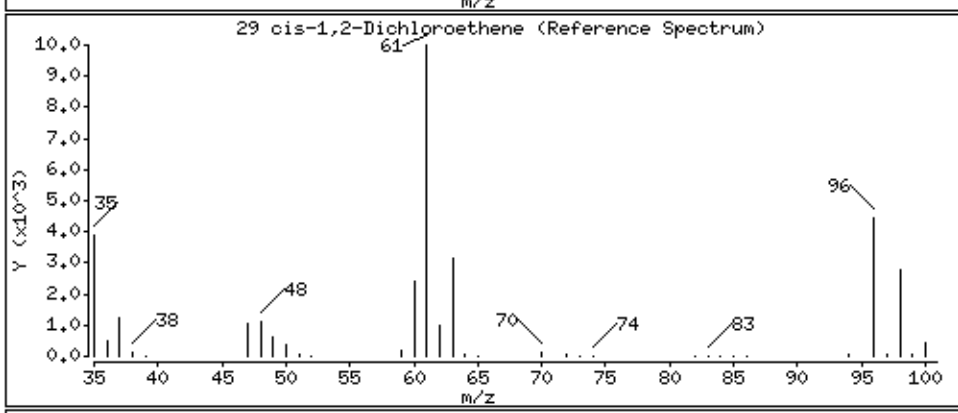
Purge Volume: 5.0 Operator: LEL

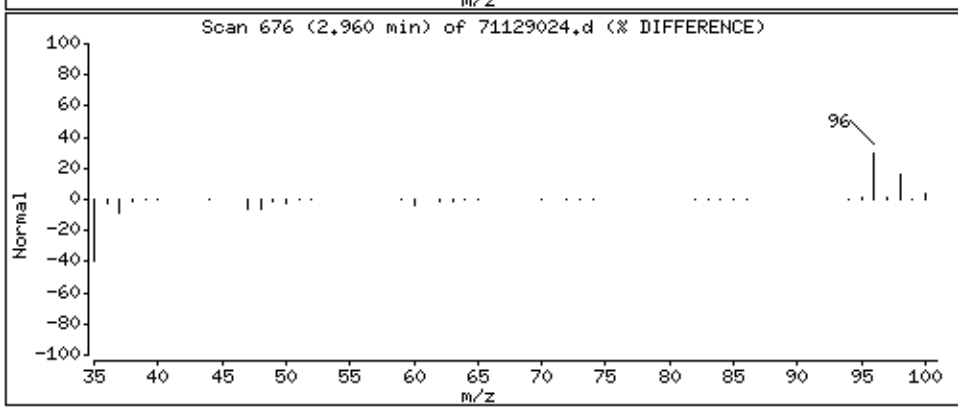
Column phase: RTX-VMS Column diameter: 0.18

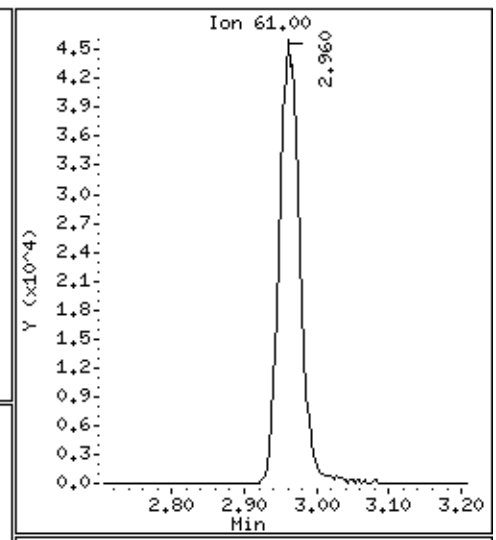
29 cis-1,2-Dichloroethene Concentration: 41.8 ug/L Review Code:

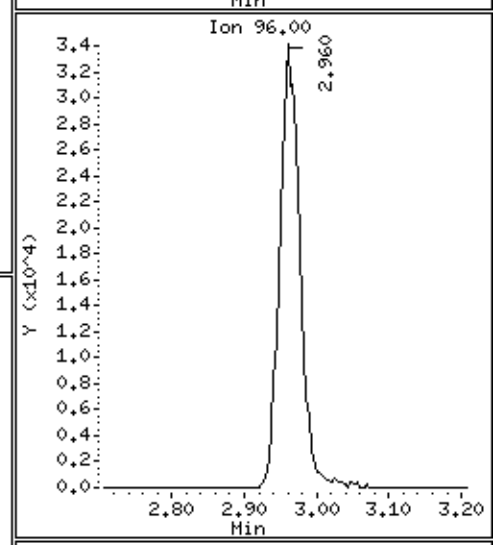


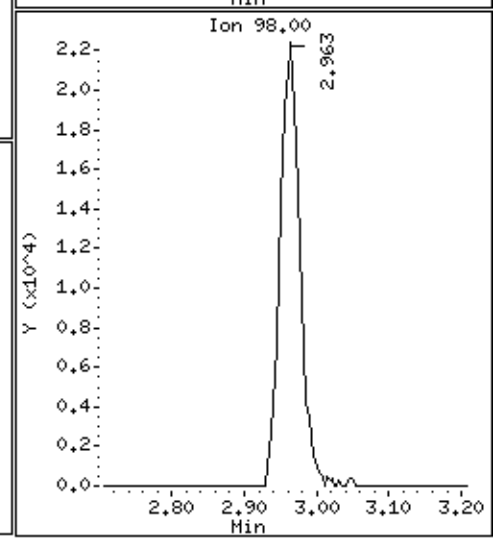












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d

Date : 29-NOV-2019 12:52

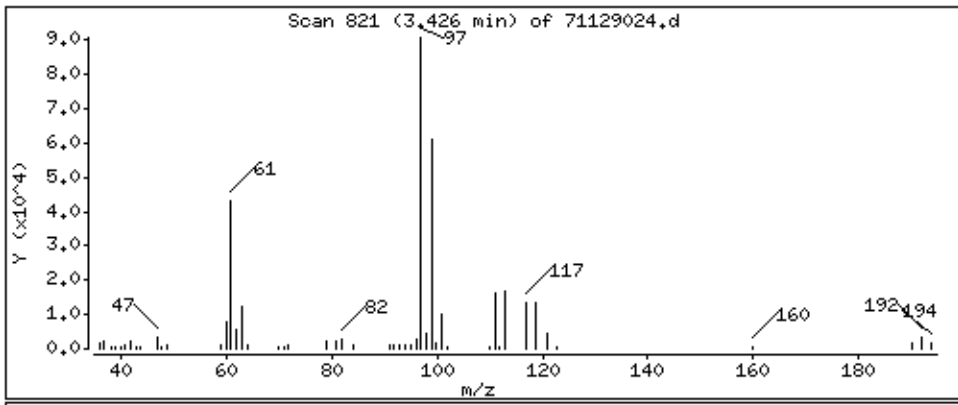
Client ID: MW-04 Instrument: 30mv7b.i

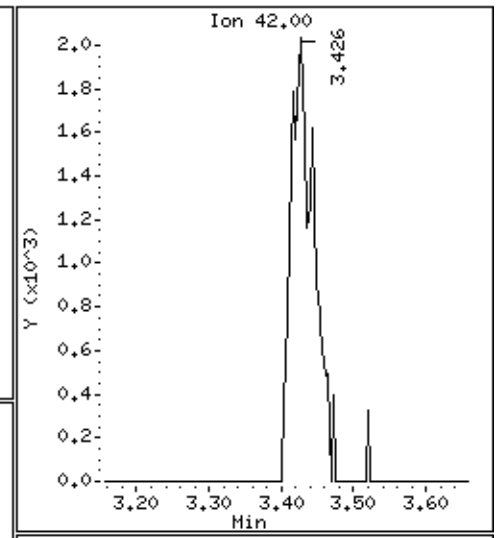
Sample Info: 30337003004

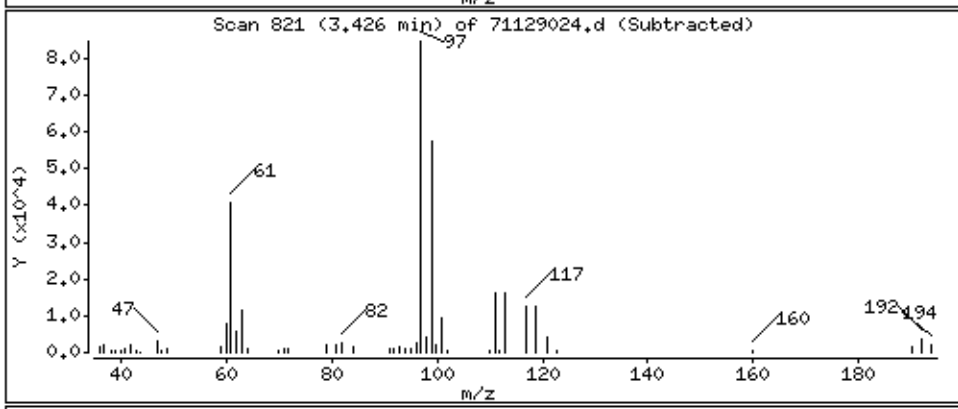
Purge Volume: 5.0 Operator: LEL

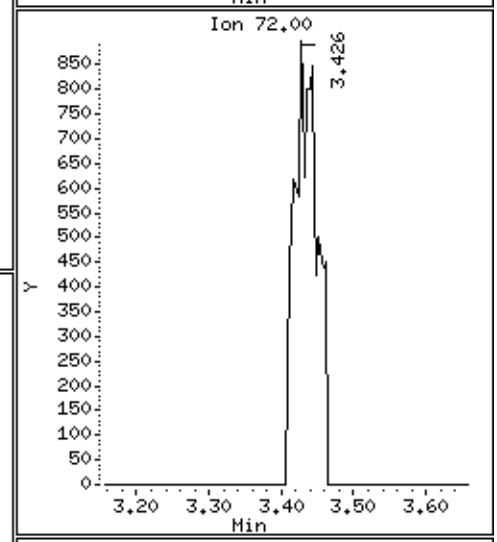
Column phase: RTX-VMS Column diameter: 0.18

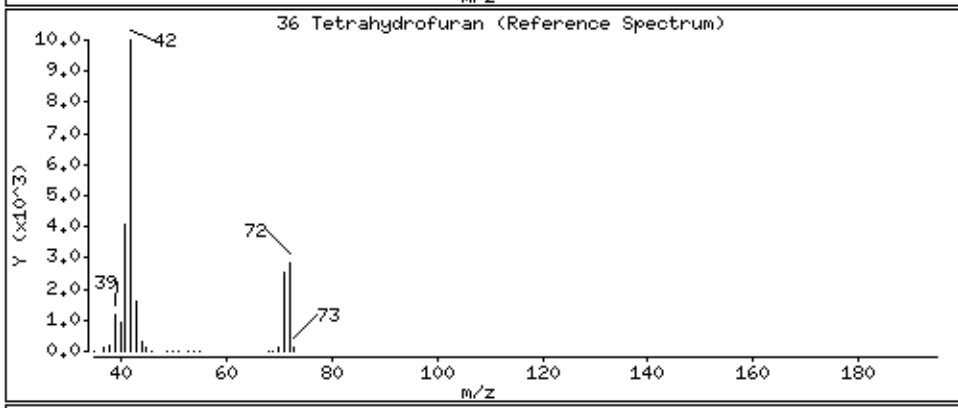
36 Tetrahydrofuran Concentration: 3.56 ug/L Review Code:

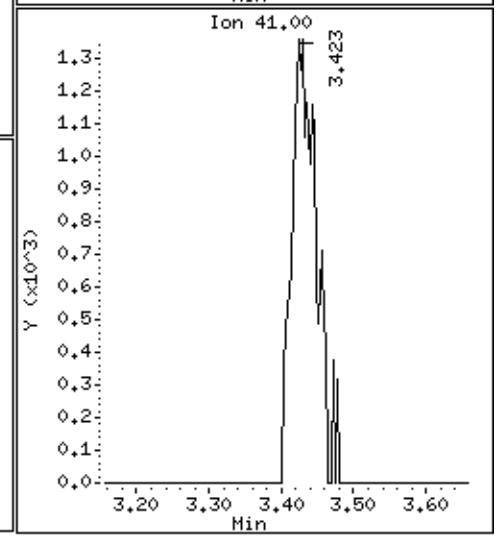


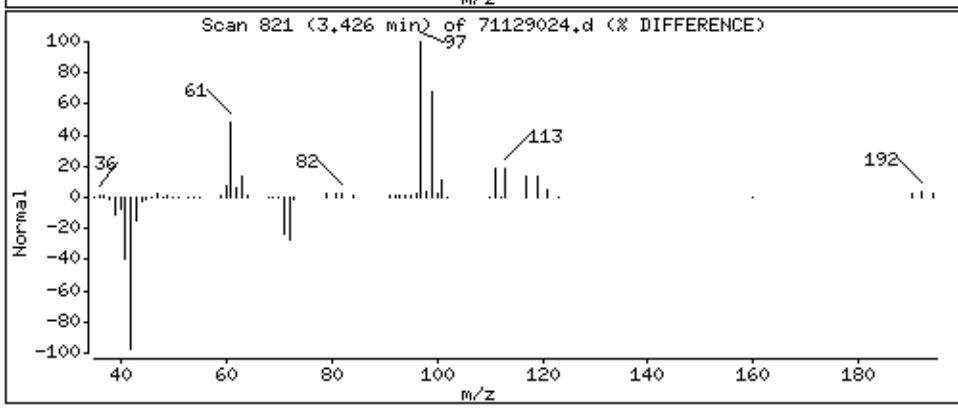












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d

Date : 29-NOV-2019 12:52

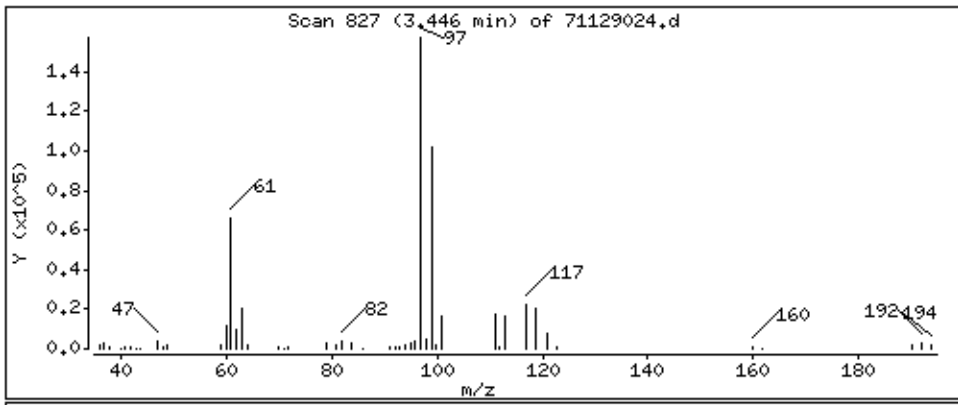
Client ID: MW-04 Instrument: 30mv7b.i

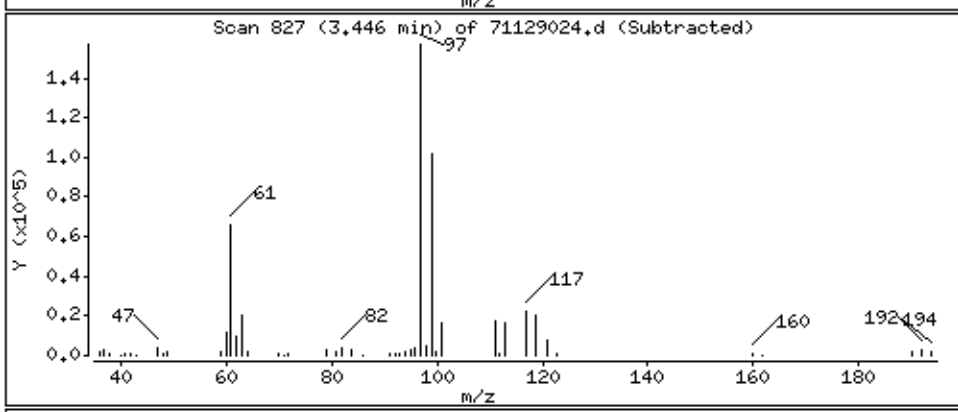
Sample Info: 30337003004

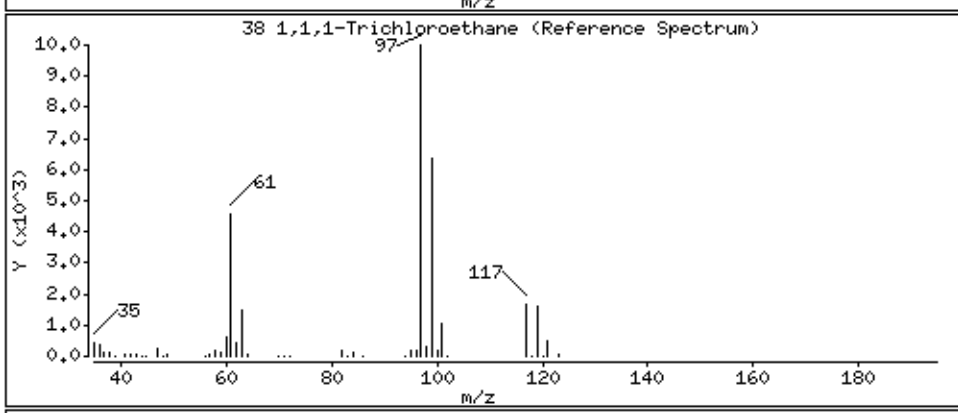
Purge Volume: 5.0 Operator: LEL

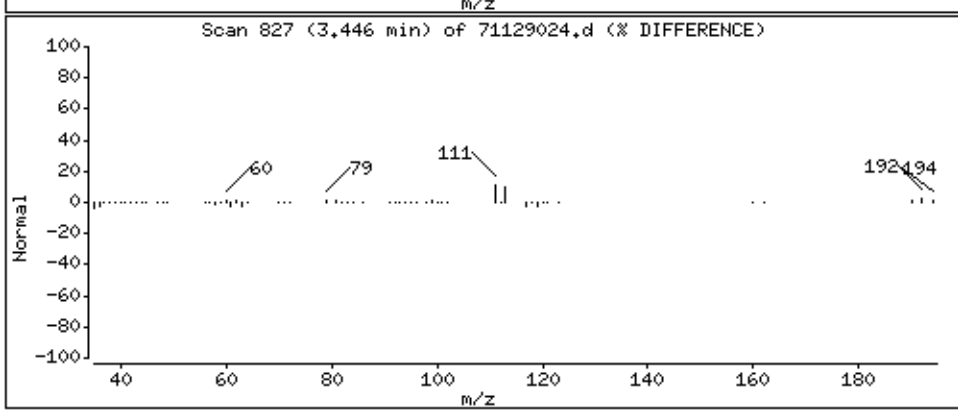
Column phase: RTX-VMS Column diameter: 0.18

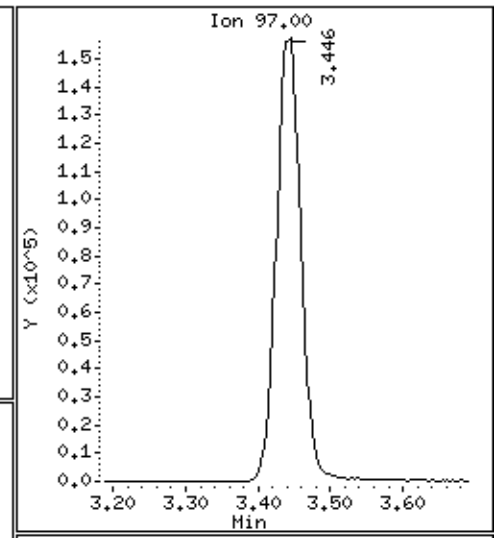
38 1,1,1-Trichloroethane Concentration: 157 ug/L Review Code:

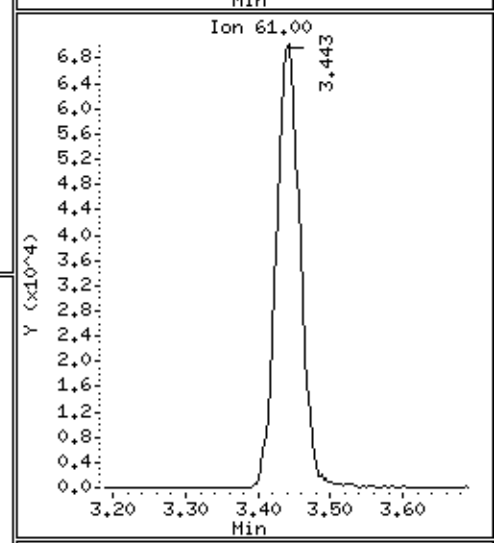


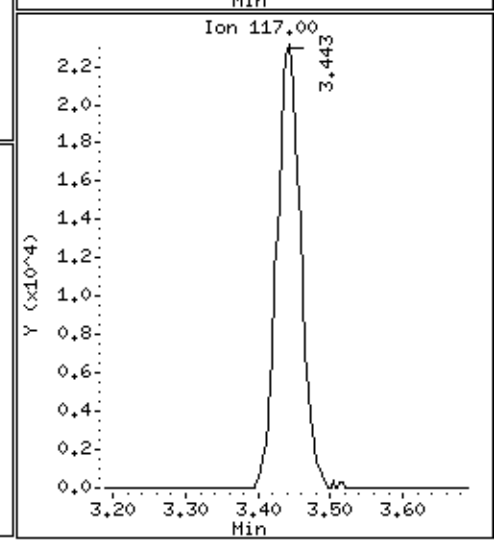












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129024.d

Date : 29-NOV-2019 12:52

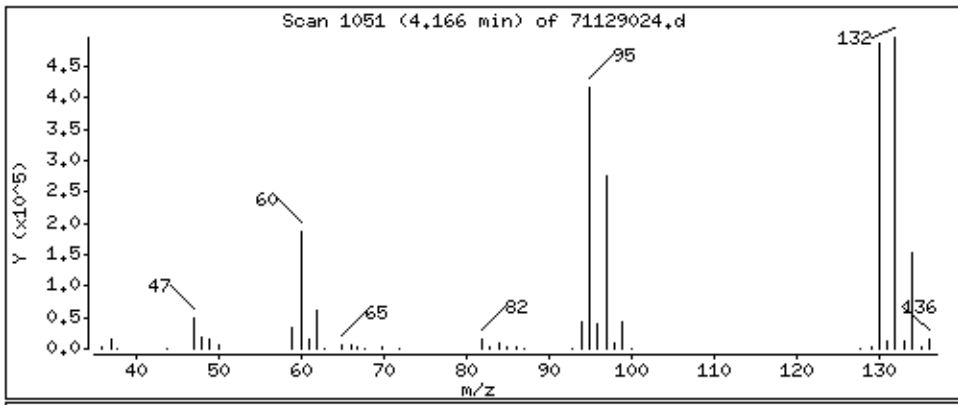
Client ID: MW-04 Instrument: 30mv7b.i

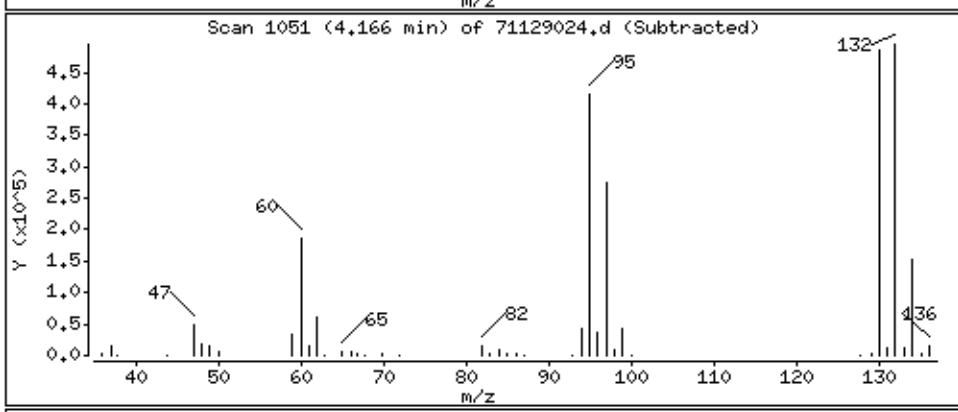
Sample Info: 30337003004

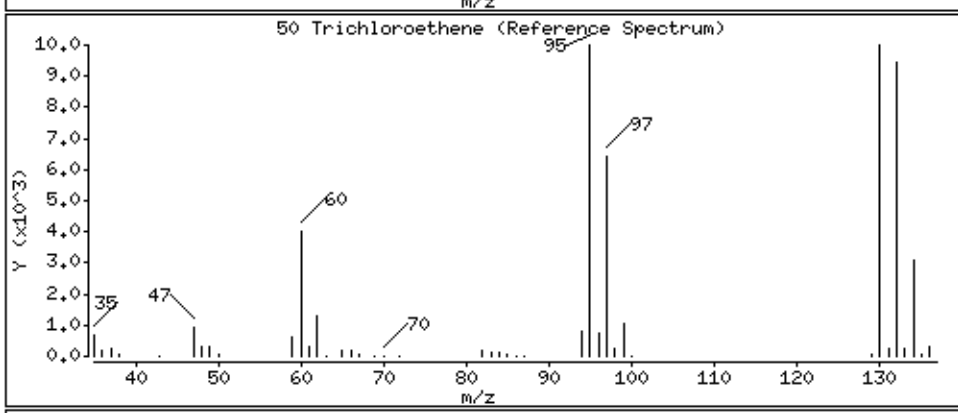
Purge Volume: 5.0 Operator: LEL

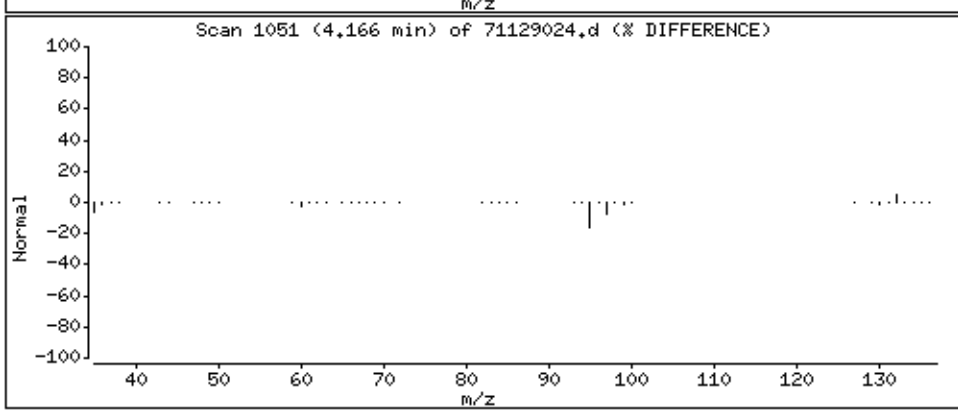
Column phase: RTX-VMS Column diameter: 0.18

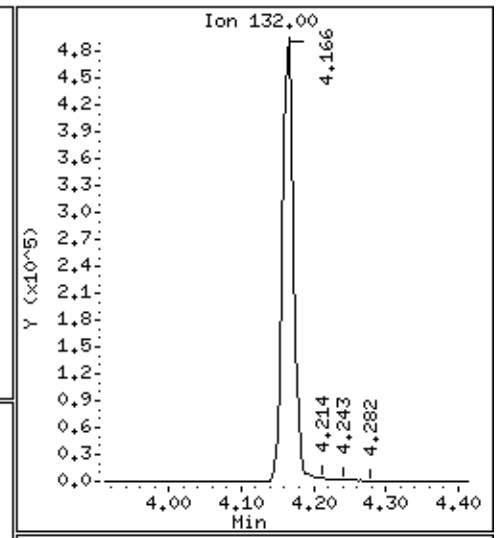
50 Trichloroethene Concentration: 292 ug/L Review Code:

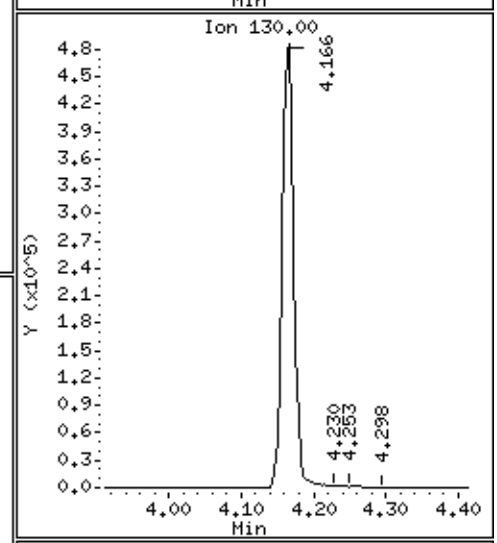


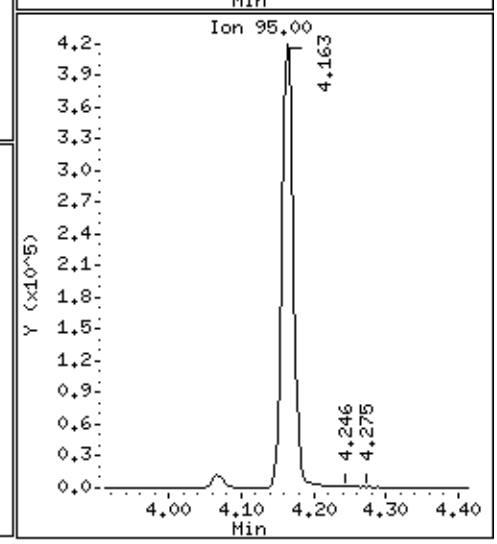












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Date : 29-NOV-2019 12:52

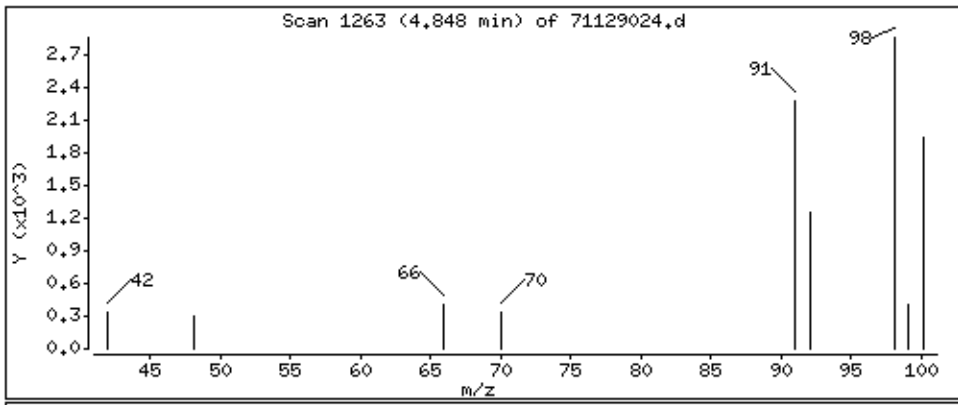
Client ID: MW-04 Instrument: 30mv7b.i

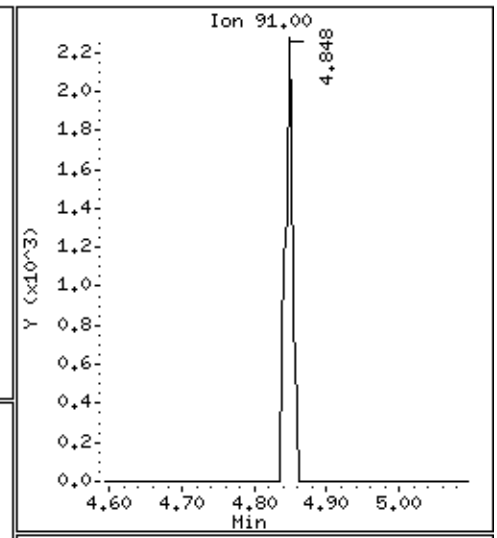
Sample Info: 30337003004

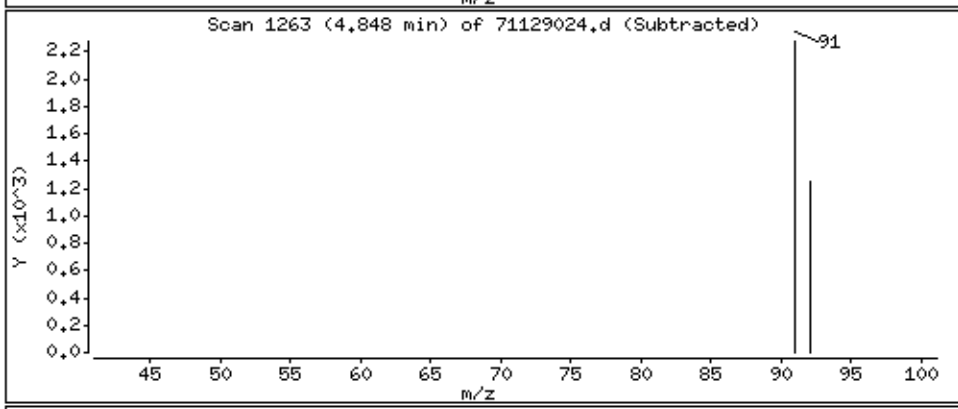
Purge Volume: 5.0 Operator: LEL

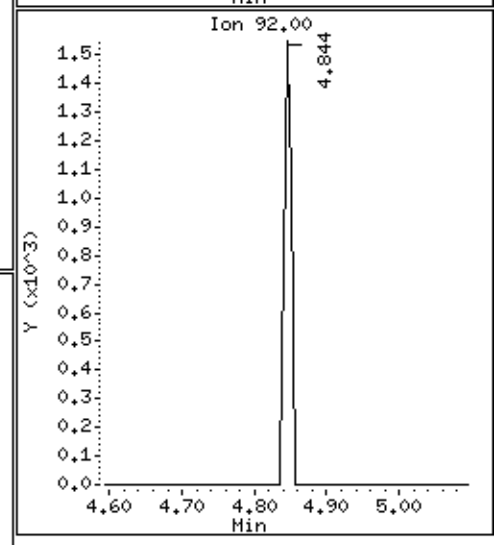
Column phase: RTX-VMS Column diameter: 0.18

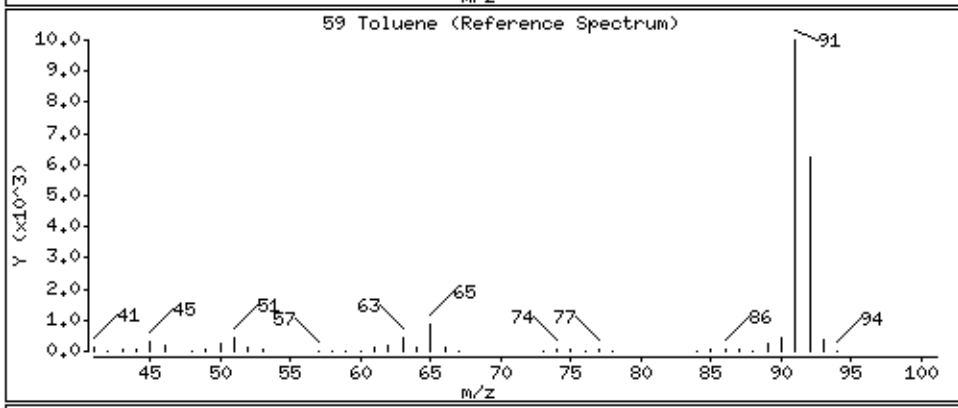
59 Toluene Concentration: 0.258 ug/L Review Code:

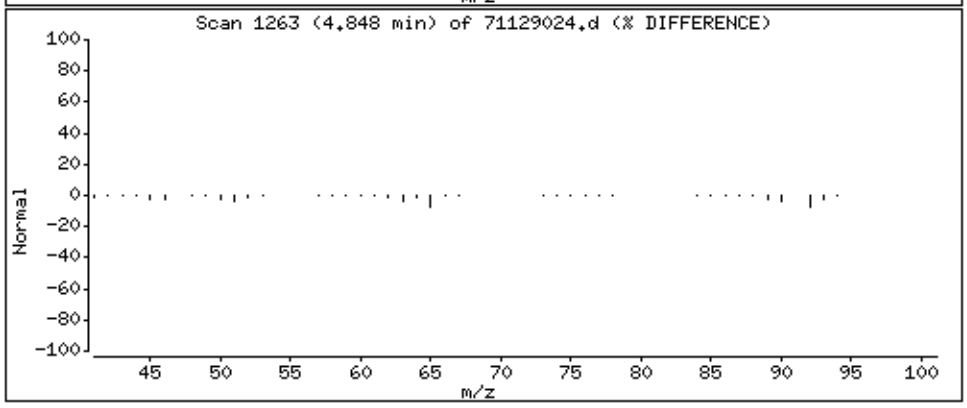












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129024.d
Injection Date: 29-NOV-2019 12:52
Instrument: 30mv7b.i
Lab Sample ID: 30337003004
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MW-05

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 12/02/2019 22:35 Lab Sample ID: 30337003005

Date Analyzed: 12/02/2019 22:35 Lab File ID: 7191202.B\1.B\71202061.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV7A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
75-35-4	1,1-Dichloroethene	735	
71-55-6	1,1,1-Trichloroethane	1580	
79-01-6	Trichloroethene	2200	

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d
Report Date: 03-Dec-2019 09:20

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d
Lab Smp Id: 30337003005 Client Smp ID: MW-05
Inj Date : 02-DEC-2019 22:35
Operator : LEL Inst ID: 30mv7a.i
Smp Info : 30337003005x10
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191202.b\1.b\msv7191112a.m
Meth Date : 02-Dec-2019 11:54 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:00 Cal File: 71112005.d
Als bottle: 61
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	Compound Not Detected.						
2	Chloromethane	50	Compound Not Detected.						
3	Vinyl chloride	62	Compound Not Detected.						
4	Bromomethane	94	Compound Not Detected.						
5	Chloroethane	64	Compound Not Detected.						
6	Trichlorofluoromethane	101	Compound Not Detected.						
7	Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8	Ethanol	46	Compound Not Detected.						
9	1,1-Dichloroethene	61	1.558	1.555	(0.383)	151156	73.4836	735	
10	1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11	Carbon disulfide	76	Compound Not Detected.						
12	Iodomethane	142	Compound Not Detected.						
13	Acrolein	56	Compound Not Detected.						
14	Allyl chloride	41	Compound Not Detected.						
15	Methylene Chloride	49	Compound Not Detected.						
16	Acetone	58	1.960	1.947	(0.482)	4126	10.2057	102	
17	trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	1356	0.72801	7.28(aQ)	
18	Methyl acetate	74	Compound Not Detected.						
19	n-Hexane	86	Compound Not Detected.						
20	Methyl-tert-butyl ether	73	Compound Not Detected.						
21	tert-Butyl Alcohol	59	Compound Not Detected.						(D)
22	Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d
Report Date: 03-Dec-2019 09:20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	Compound Not Detected.						
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	2.969	2.963	(0.730)	14387	8.28404	82.8	
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Ethyl acetate	43	Compound Not Detected.						(D)
	35 Carbon tetrachloride	117	Compound Not Detected.						(D)
	36 Tetrahydrofuran	42	3.426	3.433	(0.842)	9720	8.44806	84.5	
$	37 Dibromofluoromethane (S)	111	3.445	3.439	(0.847)	43799	32.8125	32.8	
	38 1,1,1-Trichloroethane	97	3.449	3.452	(0.848)	302184	158.484	1580	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	45094	33.3718	33.4	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	151572	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	4.169	4.168	(1.024)	316485	219.995	2200	
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	129955	29.2085	29.2	
	59 Toluene	91	Compound Not Detected.						
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	2424	2.13557	21.4(Q)	
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	103178	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d
Report Date: 03-Dec-2019 09:20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.024	6.021	(0.929)	42476	30.1379	30.1	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	45472	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d
Report Date: 03-Dec-2019 09:20

Pace Analytical Services, Inc.

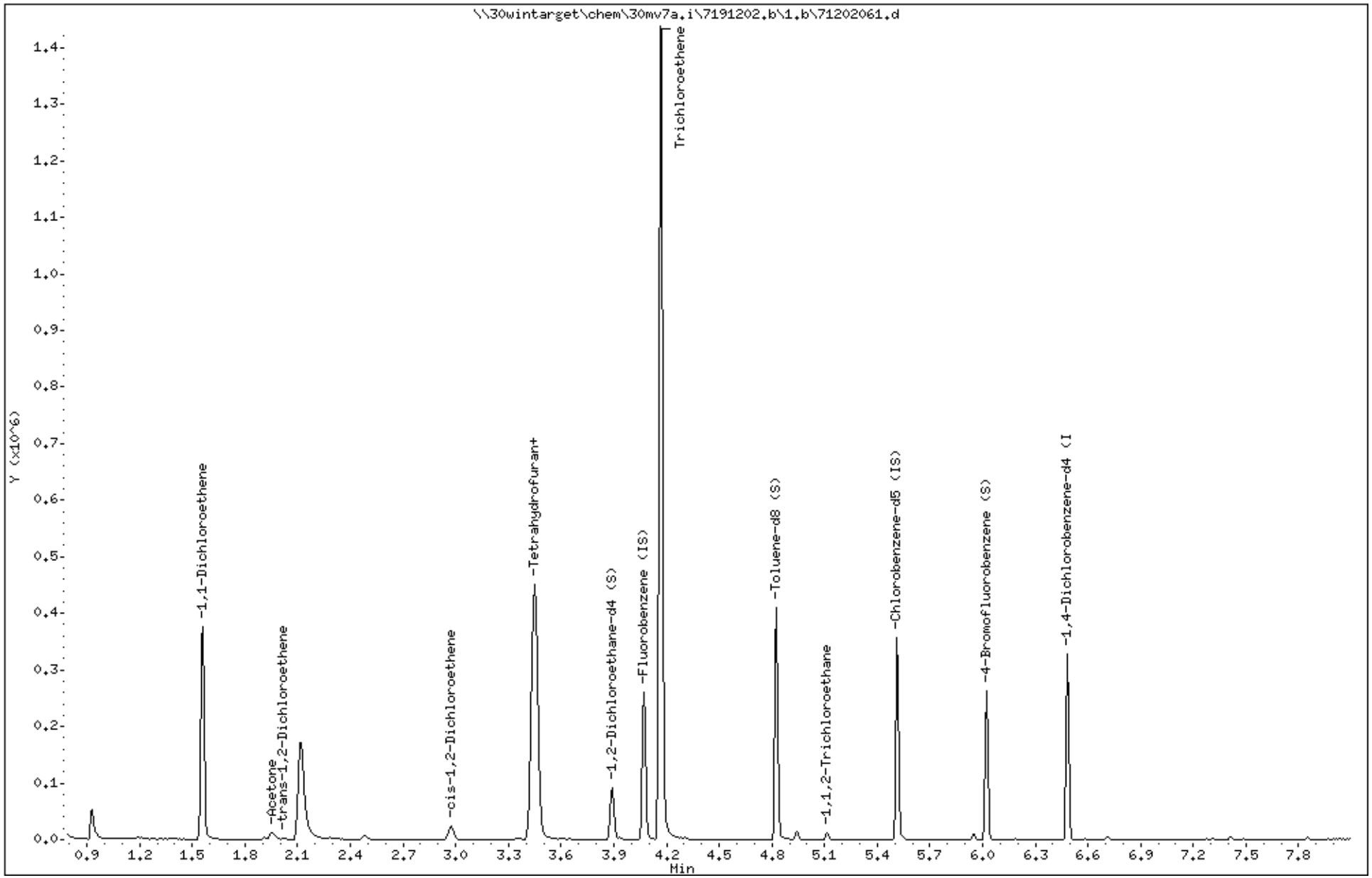
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003005
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-05
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-35-4	1,1-Dichloroethene	735	
67-64-1	Acetone	102	
156-60-5	trans-1,2-Dichloroethene	7.28	J
156-59-2	cis-1,2-Dichloroethene	82.8	
109-99-9	Tetrahydrofuran	84.5	
71-55-6	1,1,1-Trichloroethane	1580	
79-01-6	Trichloroethene	2200	
79-00-5	1,1,2-Trichloroethane	21.4	
1868-53-7	Dibromofluoromethane (S)	32.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.4	
2037-26-5	Toluene-d8 (S)	29.2	
460-00-4	4-Bromofluorobenzene (S)	30.1	

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d
Date : 02-DEC-2019 22:35
Client ID: MW-05
Instrument: 30mv7a.i
Sample Info: 30337003005X10
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

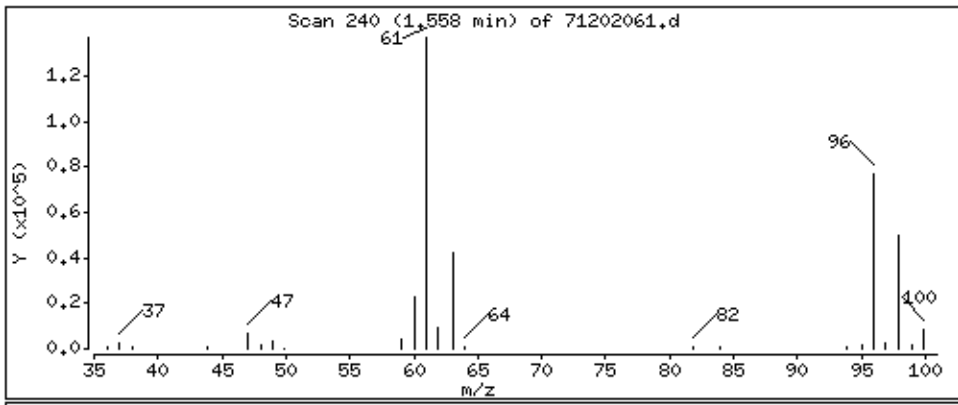
Client ID: MW-05 Instrument: 30mv7a.i

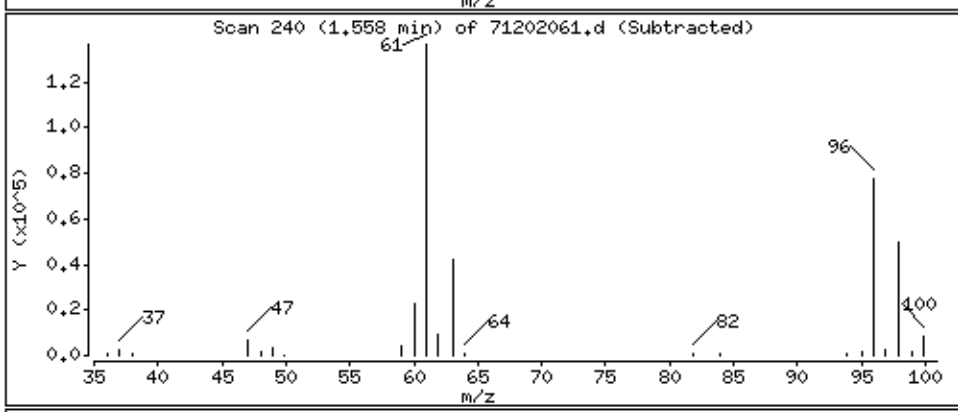
Sample Info: 30337003005X10

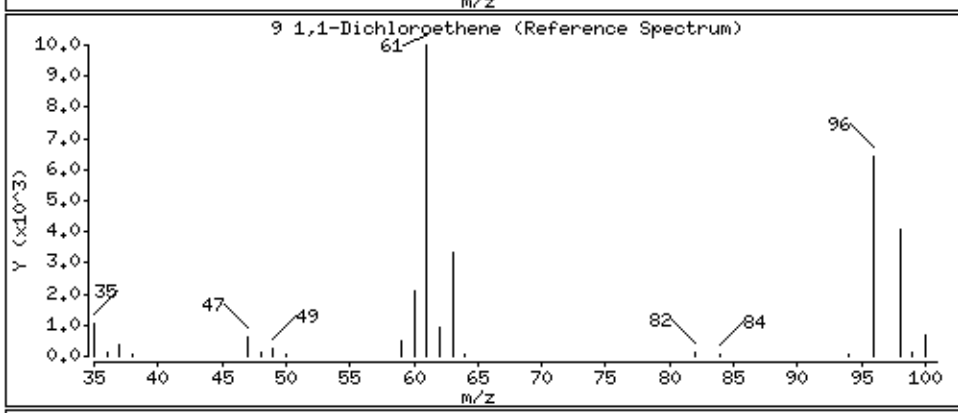
Purge Volume: 5.0 Operator: LEL

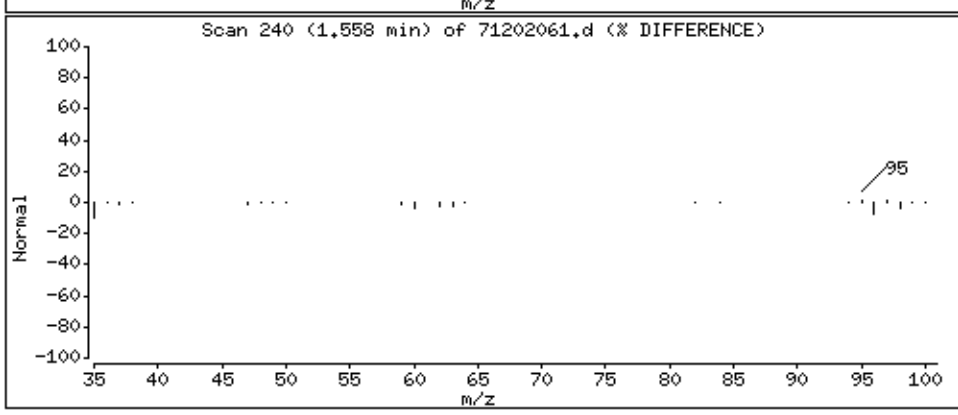
Column phase: RTX-VMS Column diameter: 0.18

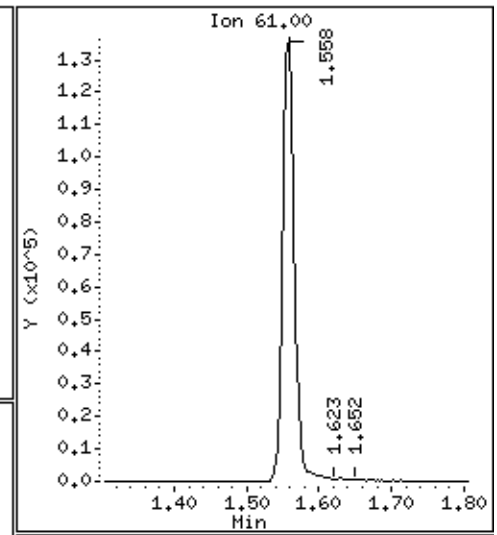
9 1,1-Dichloroethene Concentration: 735 ug/L Review Code:

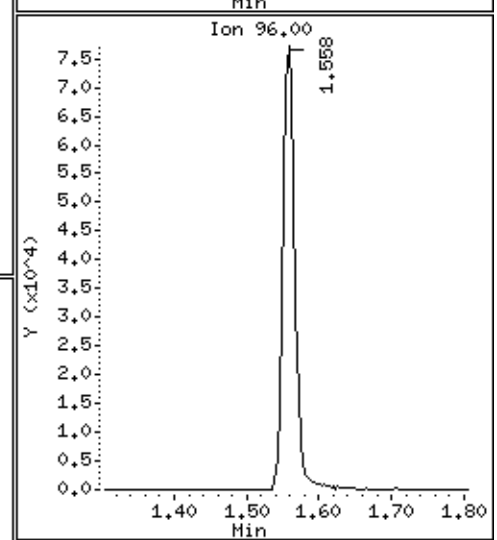


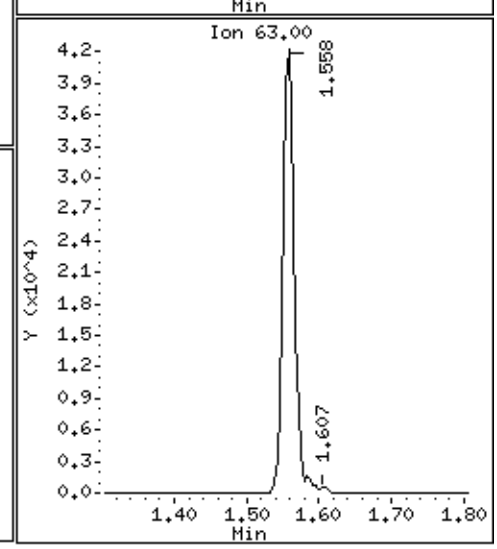












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

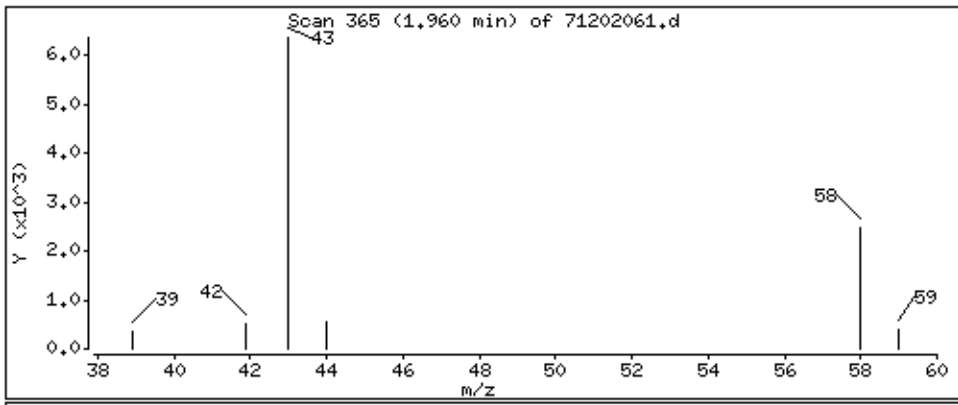
Client ID: MW-05 Instrument: 30mv7a.i

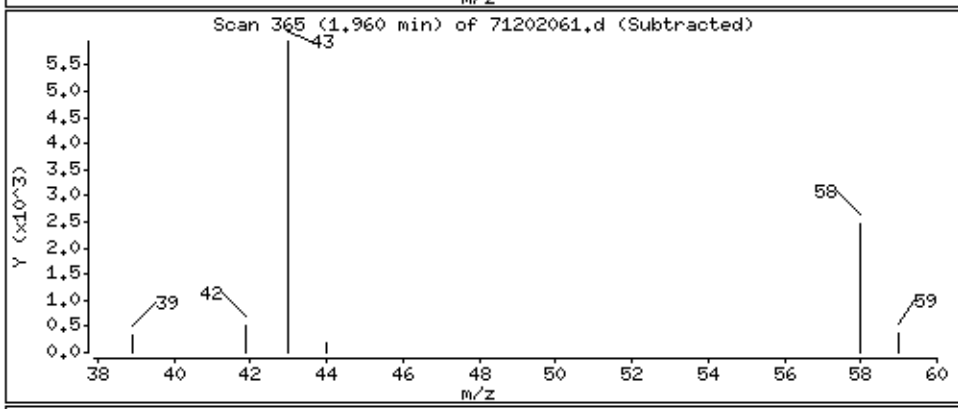
Sample Info: 30337003005X10

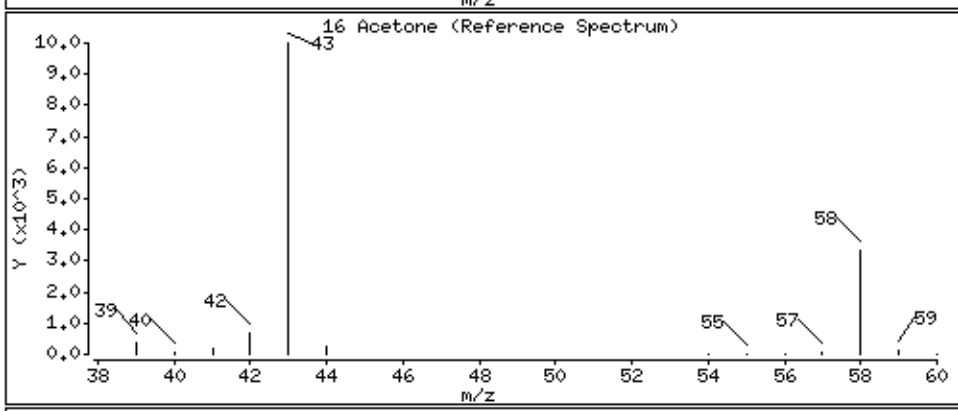
Purge Volume: 5.0 Operator: LEL

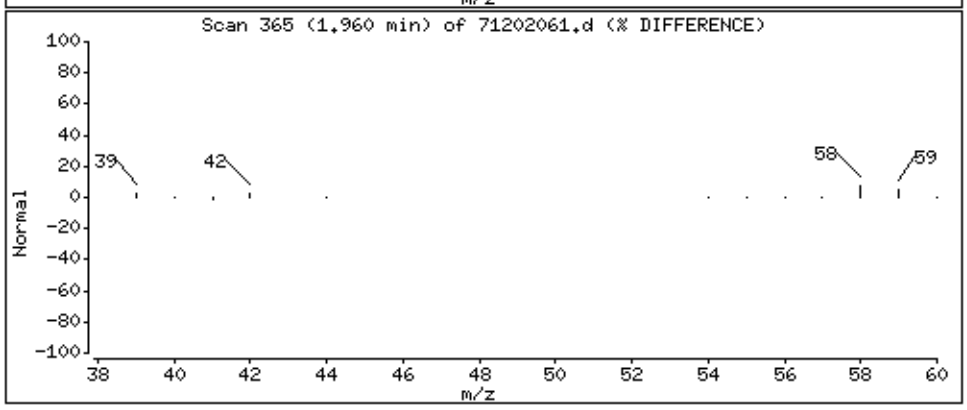
Column phase: RTX-VMS Column diameter: 0.18

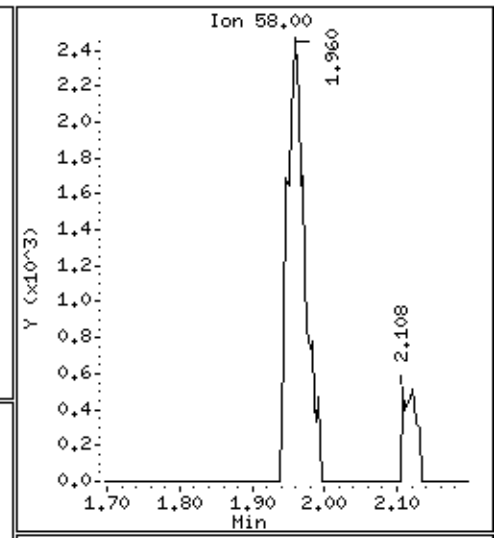
16 Acetone Concentration: 102 ug/L Review Code:

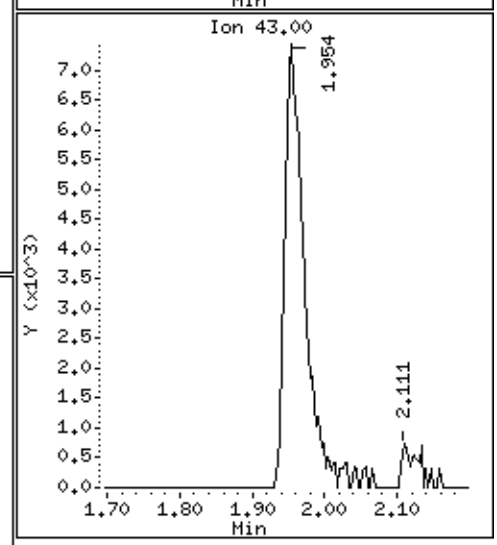












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

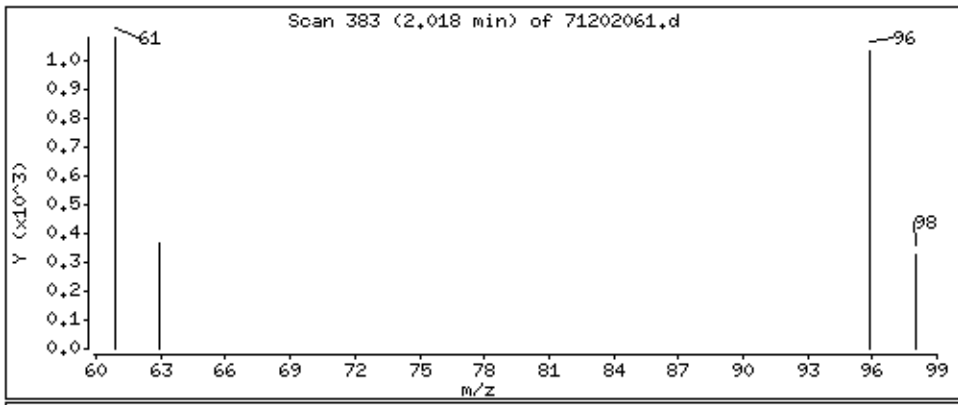
Client ID: MW-05 Instrument: 30mv7a.i

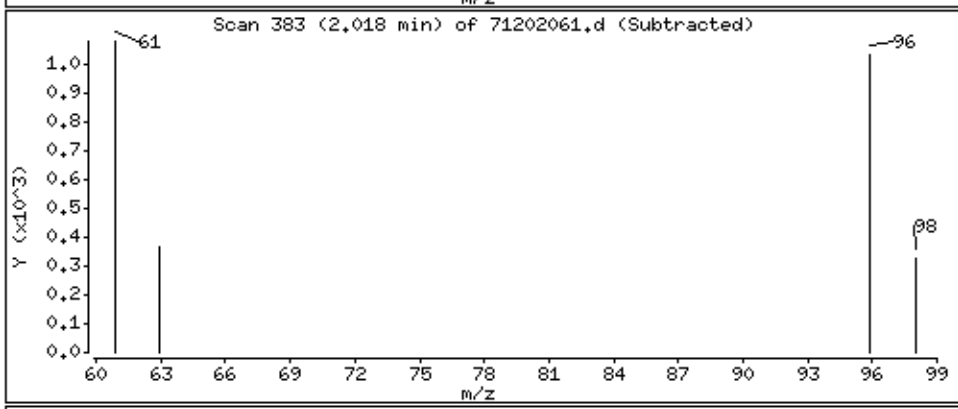
Sample Info: 30337003005X10

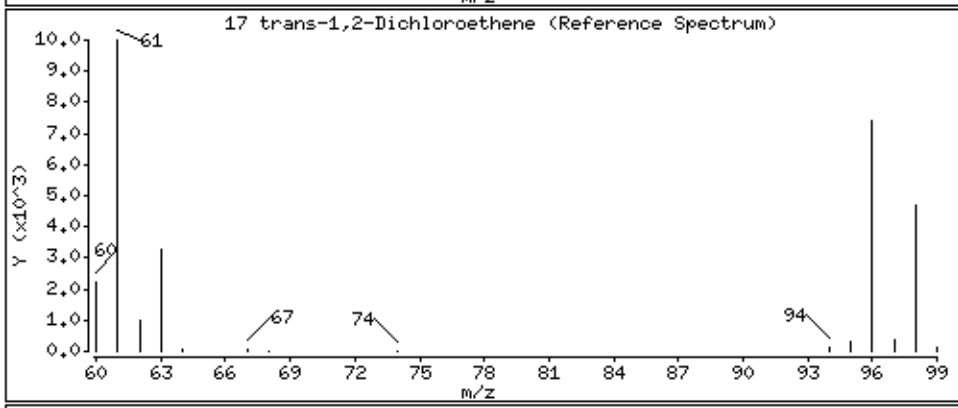
Purge Volume: 5.0 Operator: LEL

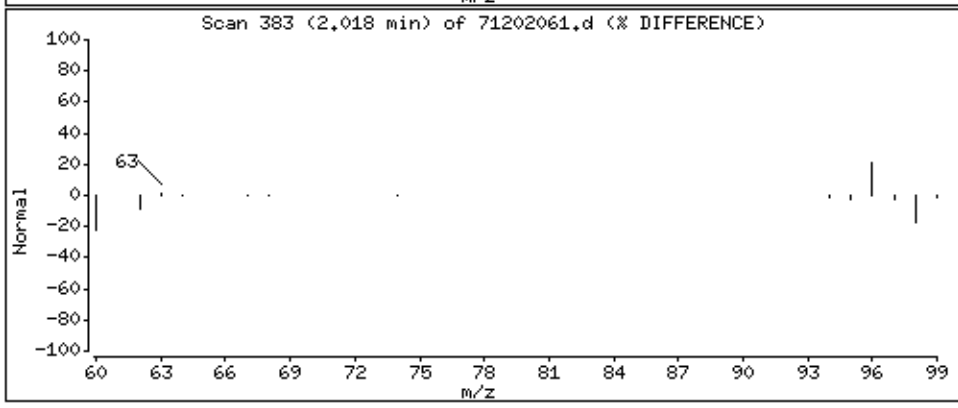
Column phase: RTX-VMS Column diameter: 0.18

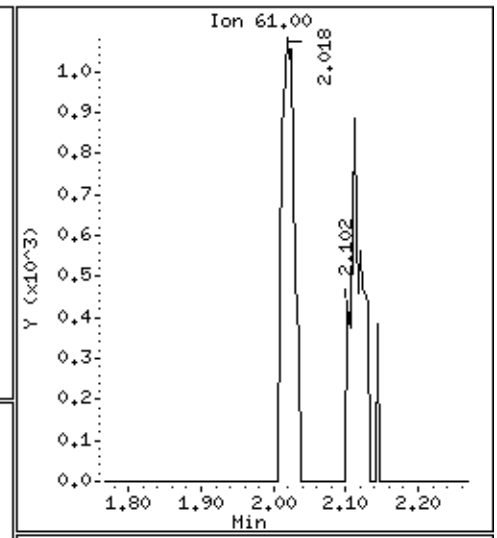
17 trans-1,2-Dichloroethene Concentration: 7.28 ug/L Review Code:

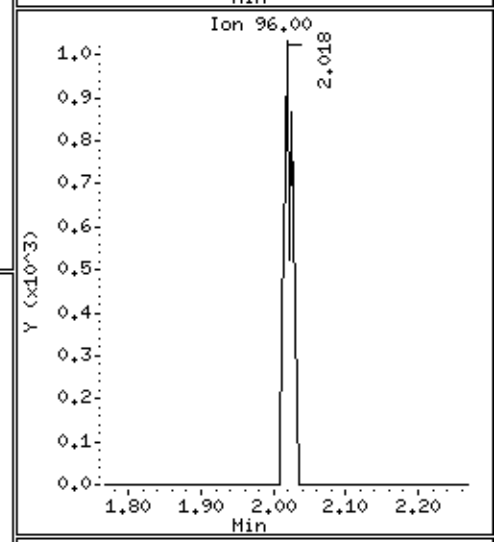


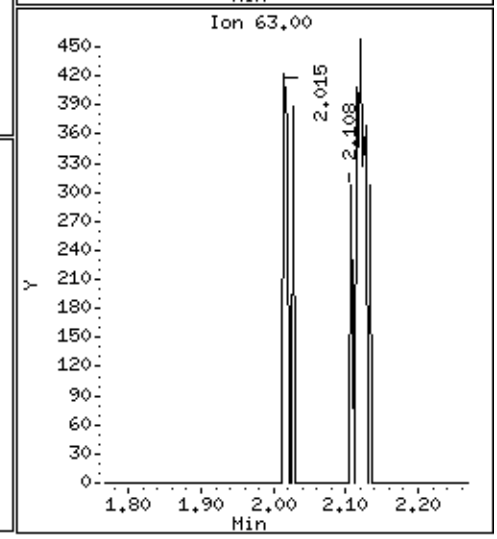












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

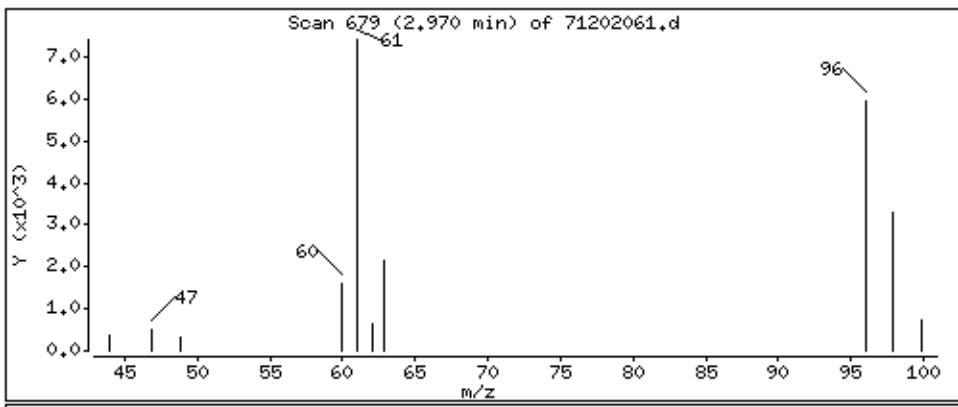
Client ID: MW-05 Instrument: 30mv7a.i

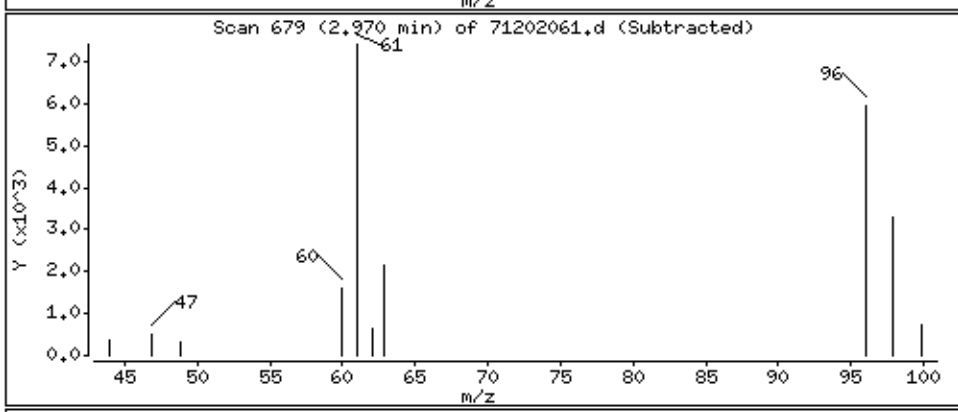
Sample Info: 30337003005X10

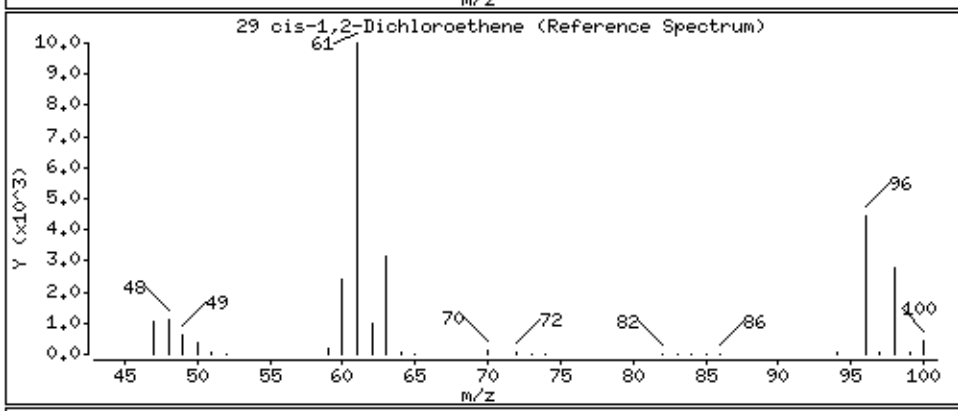
Purge Volume: 5.0 Operator: LEL

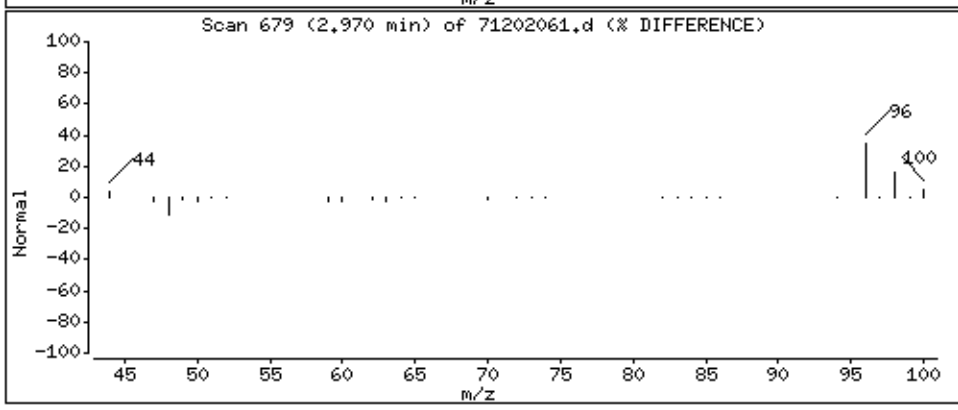
Column phase: RTX-VMS Column diameter: 0.18

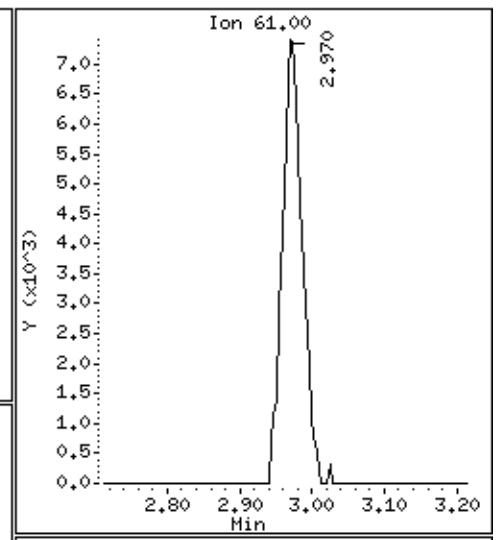
29 cis-1,2-Dichloroethene Concentration: 82.8 ug/L Review Code:

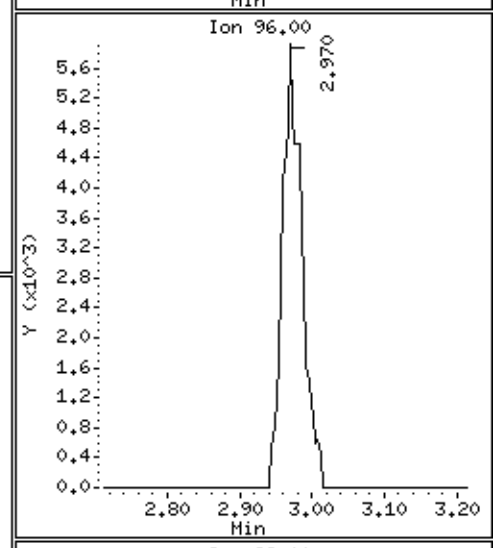


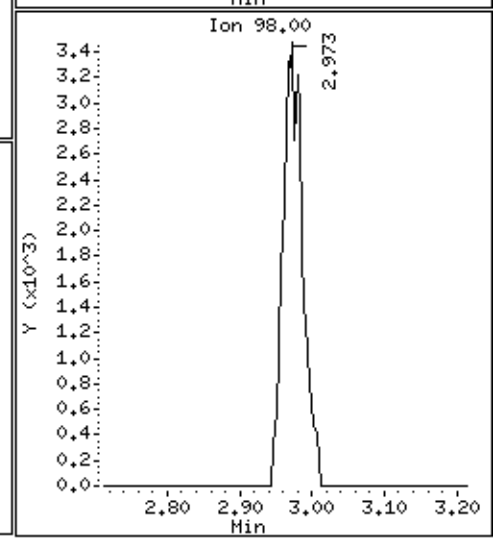












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

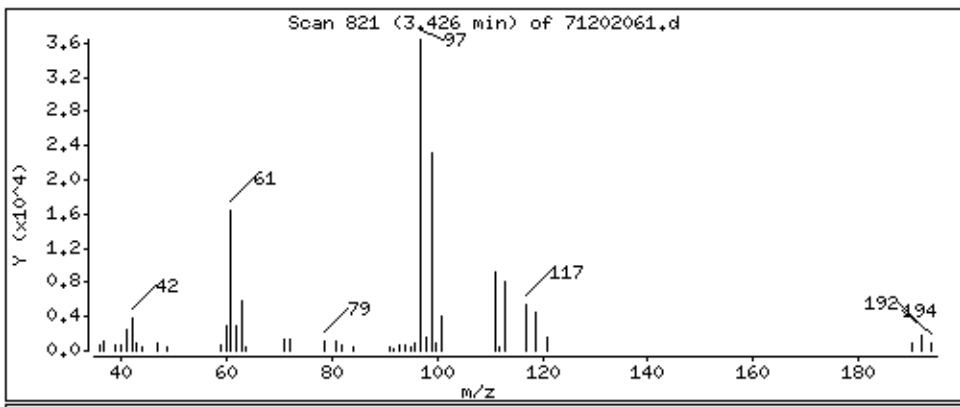
Client ID: MW-05 Instrument: 30mv7a.i

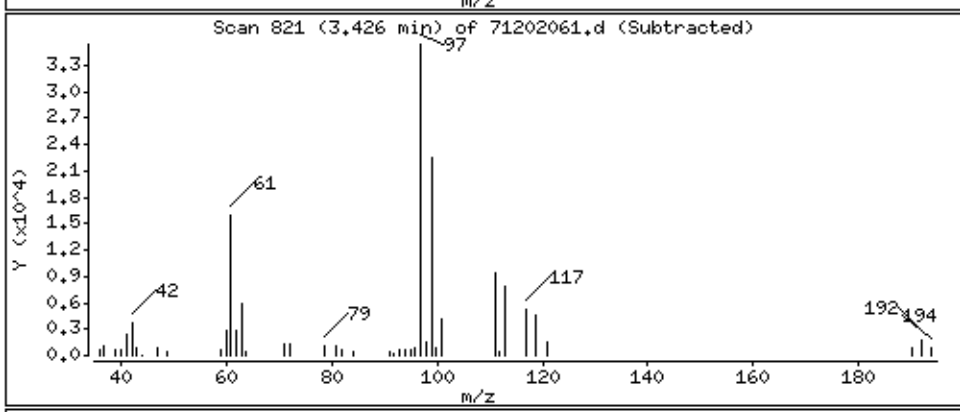
Sample Info: 30337003005X10

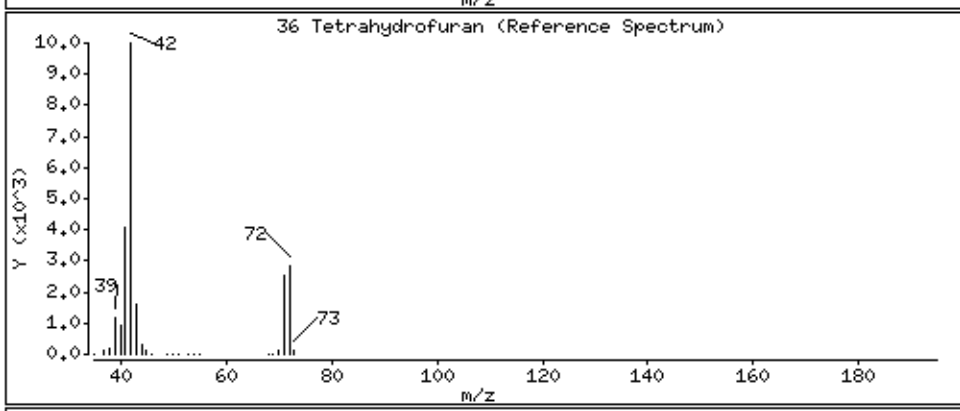
Purge Volume: 5.0 Operator: LEL

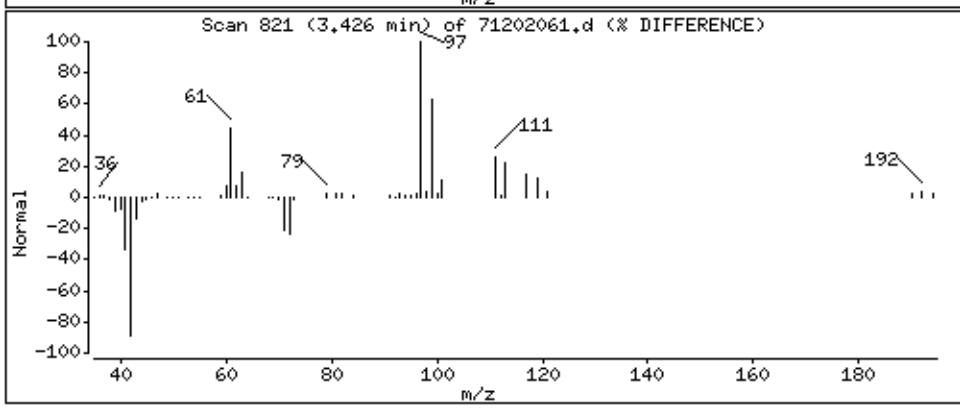
Column phase: RTX-VMS Column diameter: 0.18

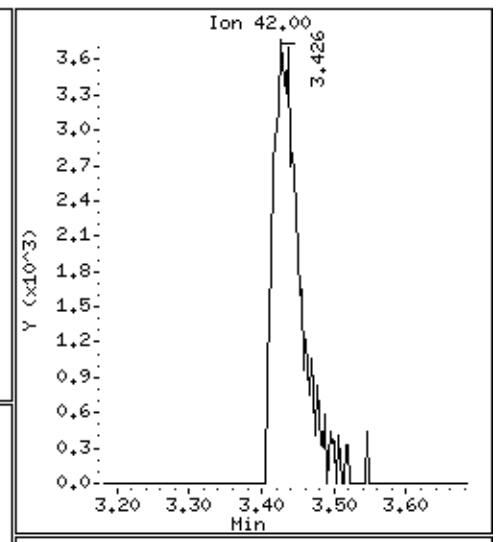
36 Tetrahydrofuran Concentration: 84.5 ug/L Review Code:

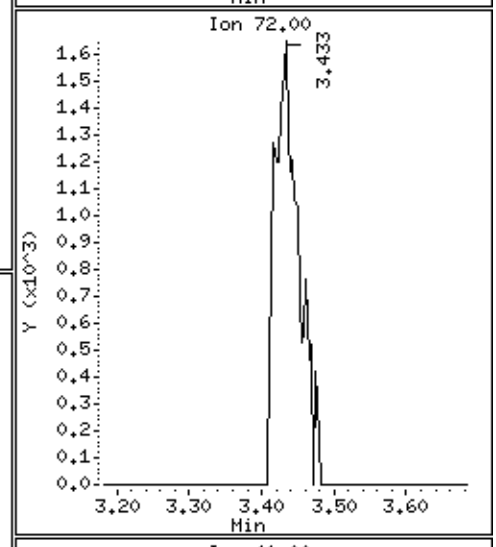


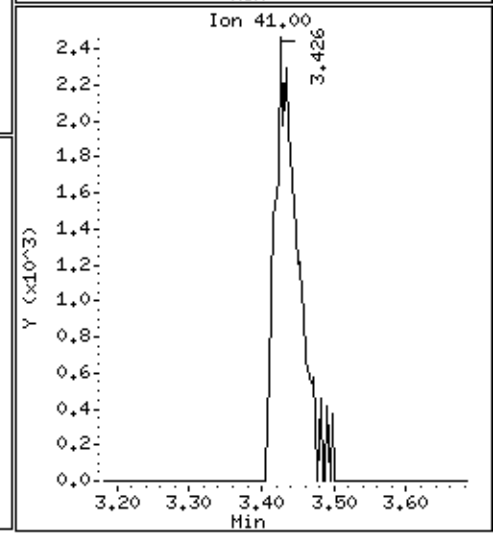












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

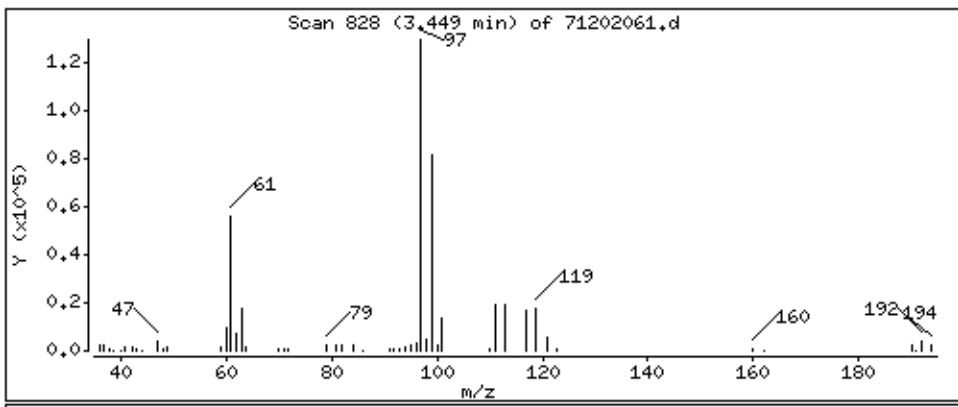
Client ID: MW-05 Instrument: 30mv7a.i

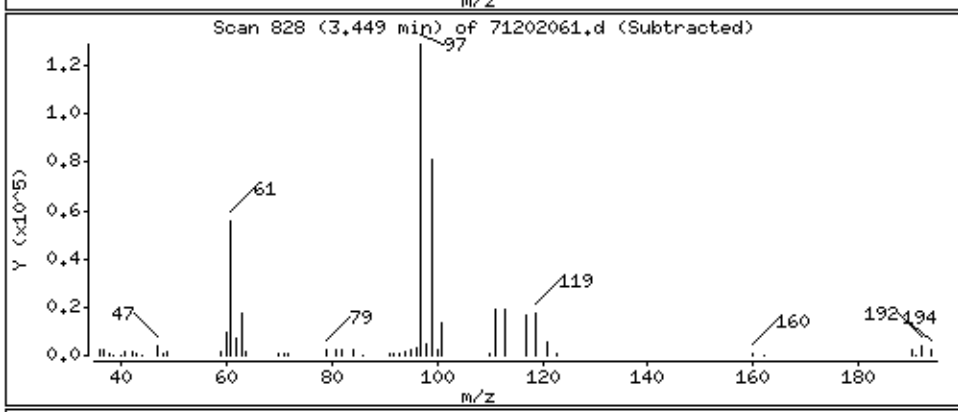
Sample Info: 30337003005X10

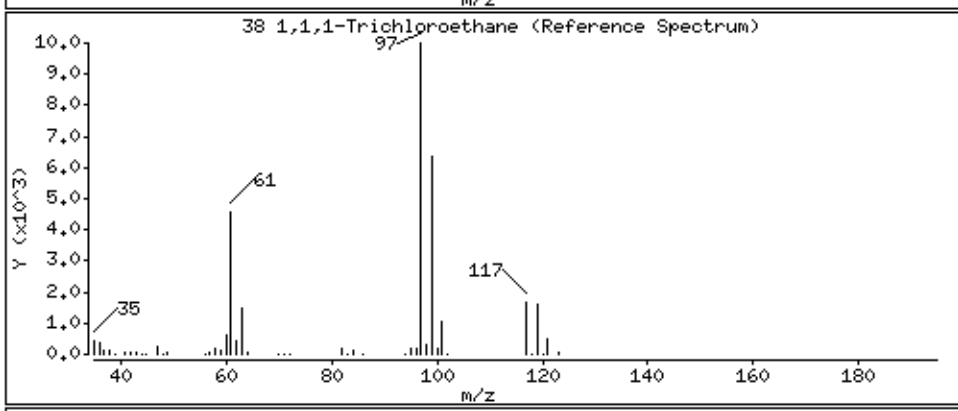
Purge Volume: 5.0 Operator: LEL

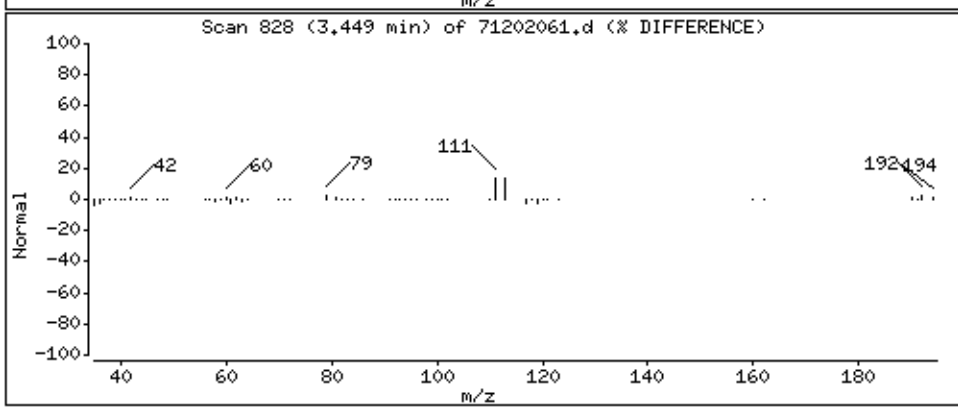
Column phase: RTX-VMS Column diameter: 0.18

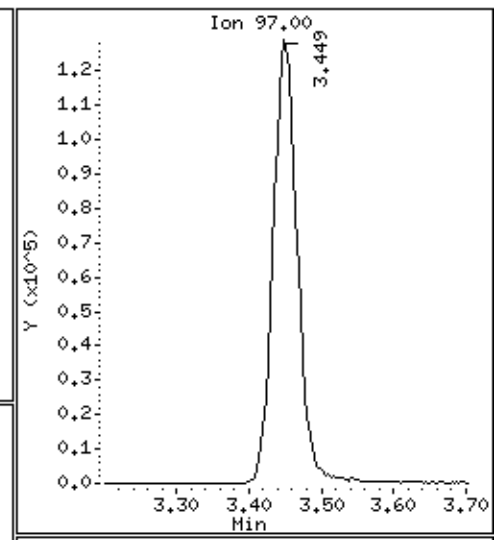
38 1,1,1-Trichloroethane Concentration: 1580 ug/L Review Code:

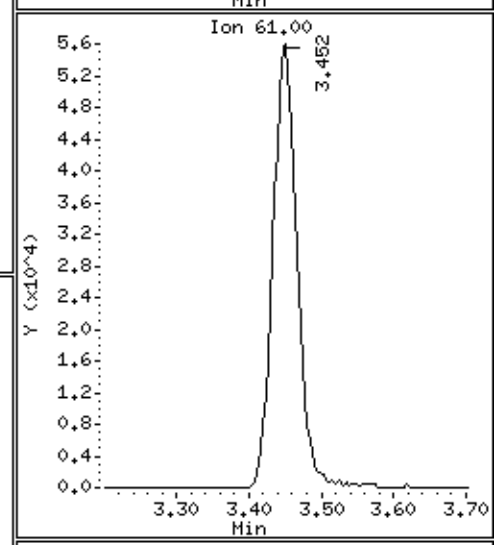


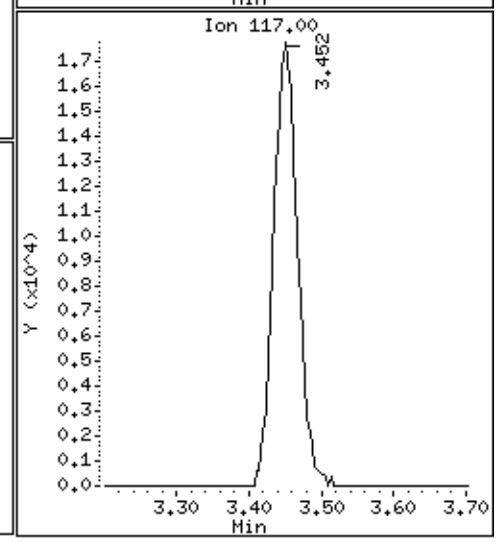












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

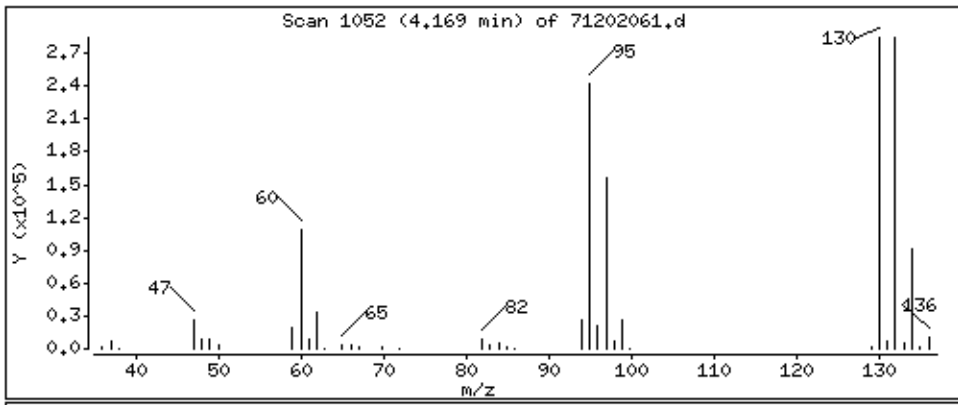
Client ID: MW-05 Instrument: 30mv7a.i

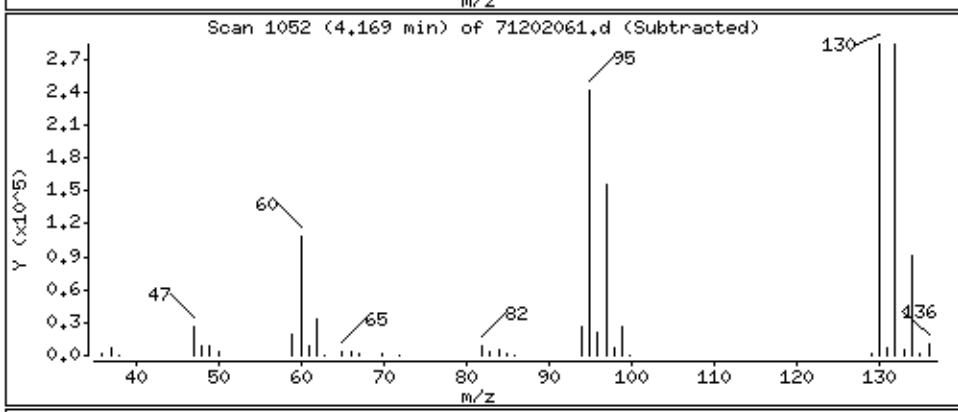
Sample Info: 30337003005X10

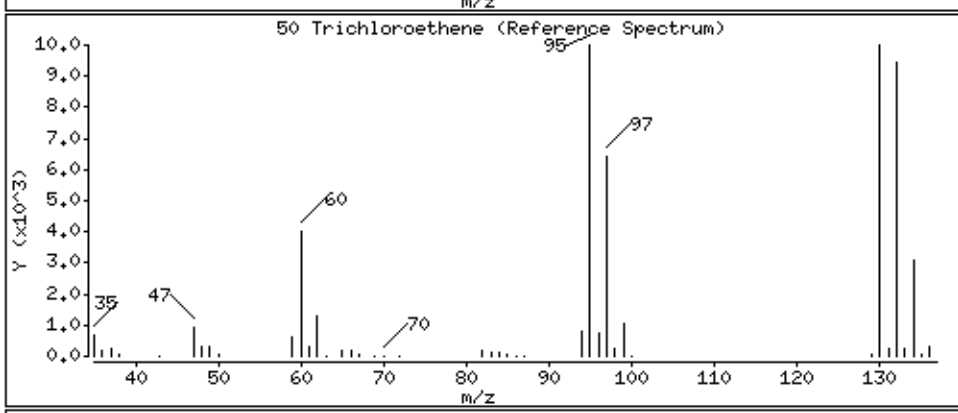
Purge Volume: 5.0 Operator: LEL

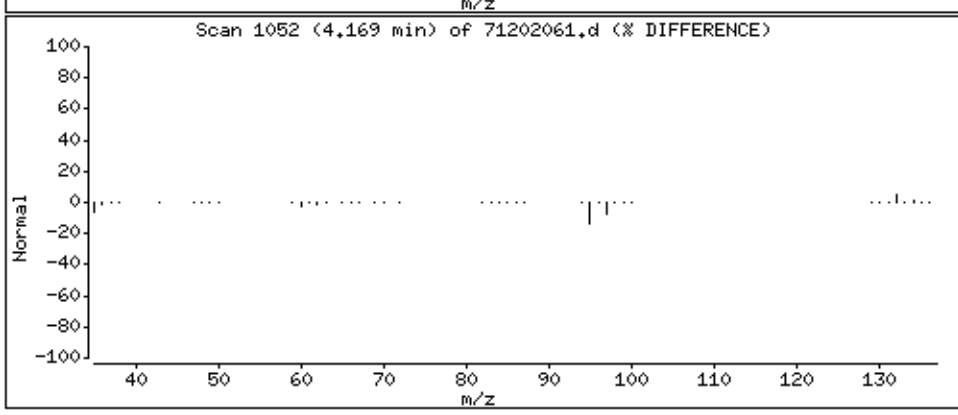
Column phase: RTX-VMS Column diameter: 0.18

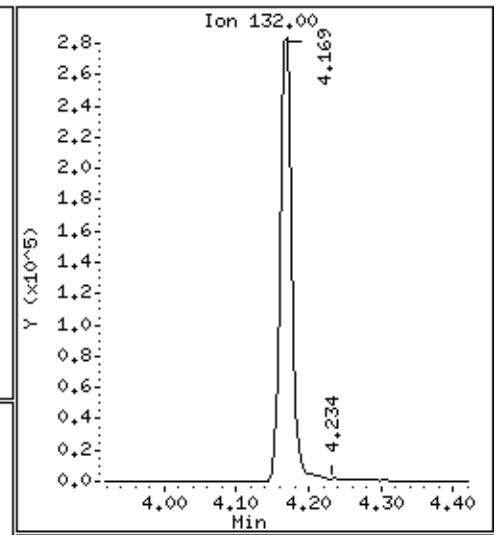
50 Trichloroethene Concentration: 2200 ug/L Review Code:

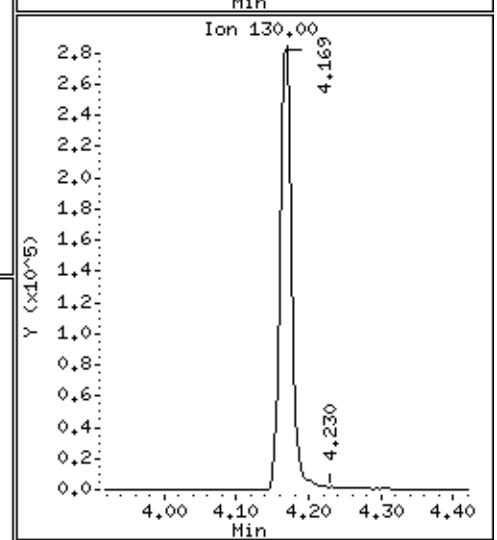


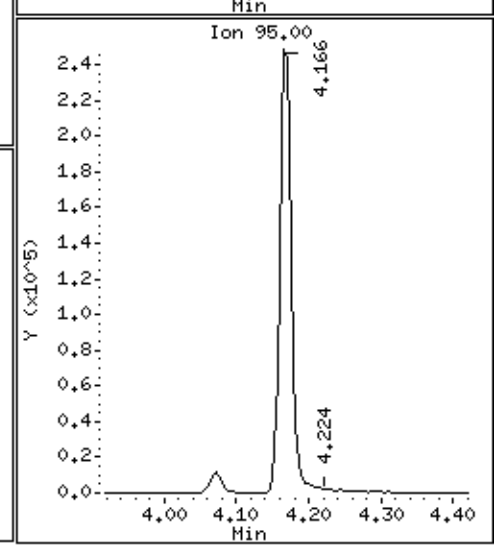












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202061.d

Date : 02-DEC-2019 22:35

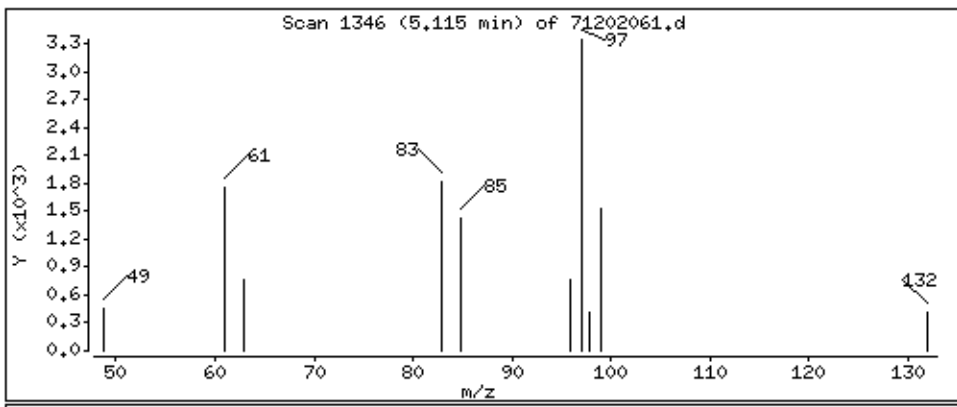
Client ID: MW-05 Instrument: 30mv7a.i

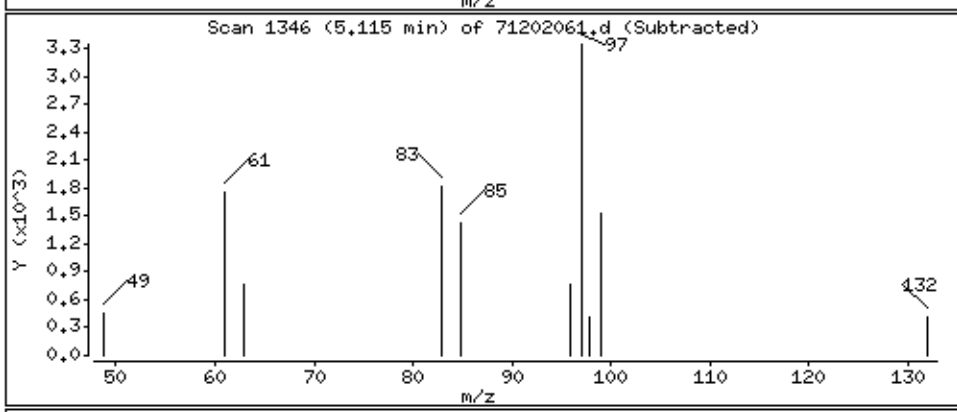
Sample Info: 30337003005X10

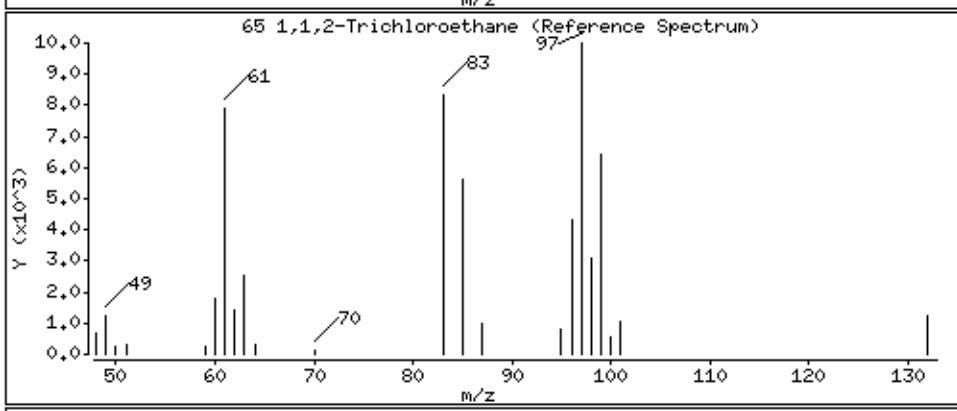
Purge Volume: 5.0 Operator: LEL

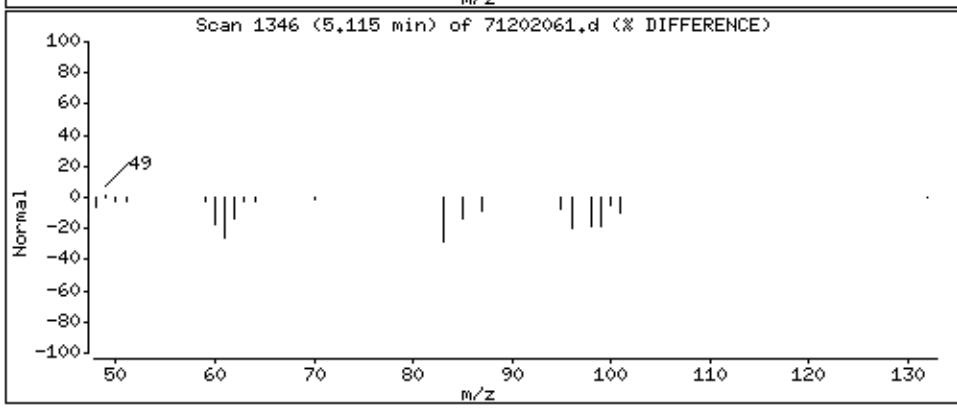
Column phase: RTX-VMS Column diameter: 0.18

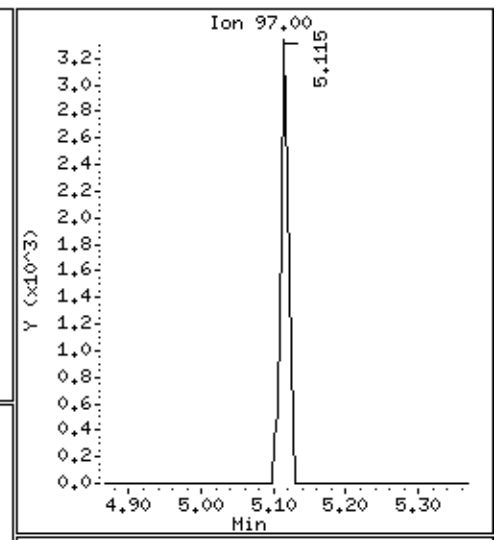
65 1,1,2-Trichloroethane Concentration: 21.4 ug/L Review Code:

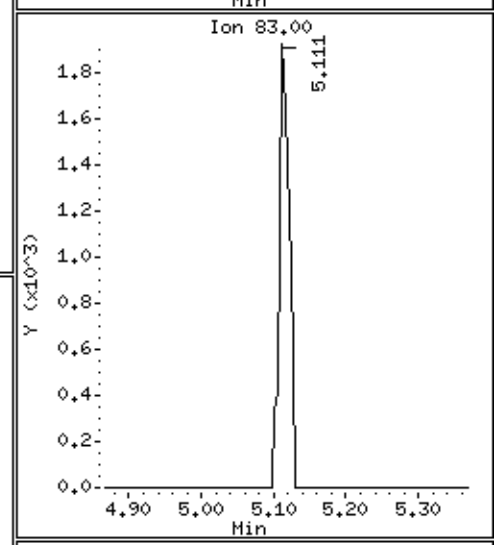


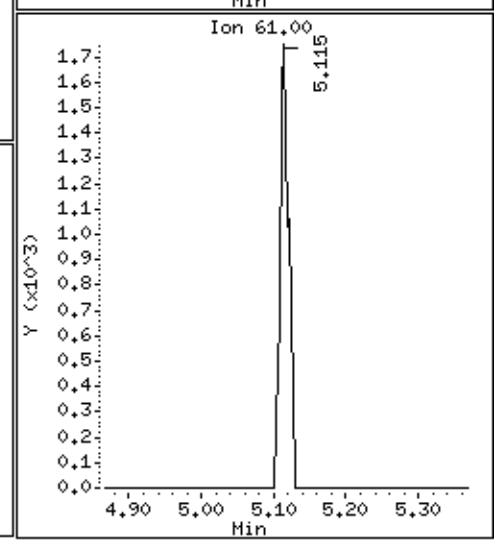












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b/71202061.d
Injection Date: 02-DEC-2019 22:35
Instrument: 30mv7a.i
Lab Sample ID: 30337003005
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MW-05

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 13:17 Lab Sample ID: 30337003005

Date Analyzed: 11/29/2019 13:17 Lab File ID: 7191129.B\2.B\71129026.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	2.2	
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	37.2	
107-06-2	1,2-Dichloroethane	ND	U
156-59-2	cis-1,2-Dichloroethene	88.2	
156-60-5	trans-1,2-Dichloroethene	8.2	
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U

SAMPLE NO.

MW-05

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 13:17 Lab Sample ID: 30337003005

Date Analyzed: 11/29/2019 13:17 Lab File ID: 7191129.B\2.B\71129026.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	2.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	1.2	
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
79-00-5	1,1,2-Trichloroethane	19.3	
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d
Lab Smp Id: 30337003005 Client Smp ID: MW-05
Inj Date : 29-NOV-2019 13:17
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003005
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 26
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 Bromomethane	94	Compound Not Detected.						
5 Chloroethane	64	Compound Not Detected.						
6 Trichlorofluoromethane	101	Compound Not Detected.						
7 Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8 Ethanol	46	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	2165176	785.642	786(A)	
10 1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	Compound Not Detected.						
15 Methylene Chloride	49	1.902	1.902	(0.468)	4750	2.42127	2.42	
16 Acetone	58	1.947	1.944	(0.479)	851	2.24892	2.25(Q)	
17 trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	19226	8.16848	8.17	
18 Methyl acetate	74	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 tert-Butyl Alcohol	59	Compound Not Detected.						(D)
22 Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW	C
	23 Diisopropyl ether	45	Compound Not Detected.							
	24 Chloroprene	53	Compound Not Detected.							
	25 1,1-Dichloroethane	63	2.474	2.471	(0.609)	107996	37.1985	37.2		
	26 Acrylonitrile	53	Compound Not Detected.							
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.							
	28 Vinyl acetate	43	Compound Not Detected.							
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	195718	88.1855	88.2		
	30 2,2-Dichloropropane	77	Compound Not Detected.							
	31 Cyclohexane	56	Compound Not Detected.							
	32 Bromochloromethane	130	Compound Not Detected.							
	33 Chloroform	83	3.249	3.246	(0.799)	6310	2.24933	2.25		
	34 Ethyl acetate	43	Compound Not Detected.							(D)
	35 Carbon tetrachloride	117	Compound Not Detected.							(D)
	36 Tetrahydrofuran	42	Compound Not Detected.							(D)
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	46845	31.4404	31.4		
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	4206752	1743.50	1740(A)		
	39 2-Butanone (MEK)	43	Compound Not Detected.							
	40 1,1-Dichloropropene	75	Compound Not Detected.							
	41 Benzene	78	3.783	3.780	(0.930)	4537	0.70152	0.702(aQM)	LT	
	42 Propionitrile	54	Compound Not Detected.							
	43 Methacrylonitrile	41	Compound Not Detected.							
	44 tert-Amylmethyl ether	73	Compound Not Detected.							
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	47961	31.2892	31.3		
	45 Isobutanol	43	Compound Not Detected.							
	47 1,2-Dichloroethane	62	Compound Not Detected.							(D)
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	172349	30.0000			
	49 Methylcyclohexane	55	Compound Not Detected.							
	50 Trichloroethene	132	4.169	4.162	(1.025)	3916670	2105.35	2100(A)		
	51 Dibromomethane	174	Compound Not Detected.							
	52 1,2-Dichloropropane	63	Compound Not Detected.							
	53 Bromodichloromethane	83	Compound Not Detected.							
	54 Methyl methacrylate	69	Compound Not Detected.							
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.							
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.							
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.							
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	145601	27.9834	28.0		
	59 Toluene	91	4.850	4.844	(0.880)	1605	0.24062	0.241(a)		
	60 2-Nitropropane	43	Compound Not Detected.							(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.							
	62 Tetrachloroethene	166	5.018	5.021	(0.910)	2189	1.19261	1.19		
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.							
	64 Ethyl methacrylate	41	Compound Not Detected.							
	65 1,1,2-Trichloroethane	97	5.114	5.111	(0.928)	28653	19.3403	19.3(Q)		
	66 Dibromochloromethane	129	Compound Not Detected.							
	67 1,3-Dichloropropane	76	Compound Not Detected.							
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.							
	69 2-Hexanone	43	Compound Not Detected.							
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	115669	30.0000			
	71 Ethylbenzene	106	Compound Not Detected.							
	72 Chlorobenzene	112	Compound Not Detected.							
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.							
	74 m&p-Xylene	106	Compound Not Detected.							
	75 o-Xylene	106	Compound Not Detected.							
	76 Styrene	104	Compound Not Detected.							

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	44765	29.3922	29.4	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	48863	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.027)	23343	31.3319	31.3(Q)	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately
integrated to an area less than what it should be (e.g., Peak
area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

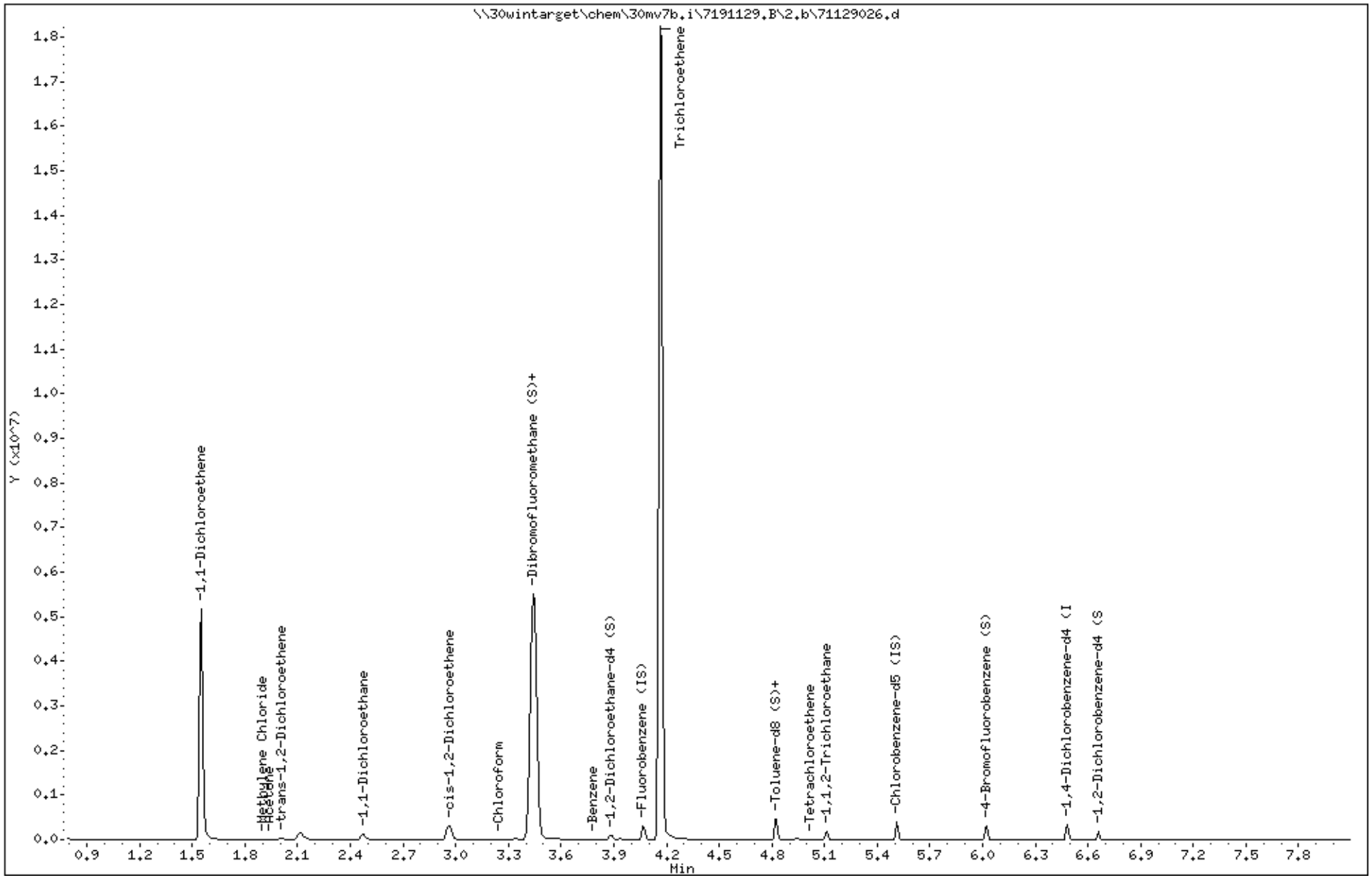
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003005
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-05
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-35-4	1,1-Dichloroethene	786	E
75-09-2	Methylene Chloride	2.42	
67-64-1	Acetone	2.25	
156-60-5	trans-1,2-Dichloroethene	8.17	
75-34-3	1,1-Dichloroethane	37.2	
156-59-2	cis-1,2-Dichloroethene	88.2	
67-66-3	Chloroform	2.25	
71-55-6	1,1,1-Trichloroethane	1740	E
71-43-2	Benzene	0.702	J
79-01-6	Trichloroethene	2100	E
108-88-3	Toluene	0.241	J
127-18-4	Tetrachloroethene	1.19	
79-00-5	1,1,2-Trichloroethane	19.3	
1868-53-7	Dibromofluoromethane (S)	31.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.3	
2037-26-5	Toluene-d8 (S)	28.0	
460-00-4	4-Bromofluorobenzene (S)	29.4	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	31.3	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d
Date : 29-NOV-2019 13:17
Client ID: MW-05
Instrument: 30mv7b.i
Sample Info: 30337003005
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

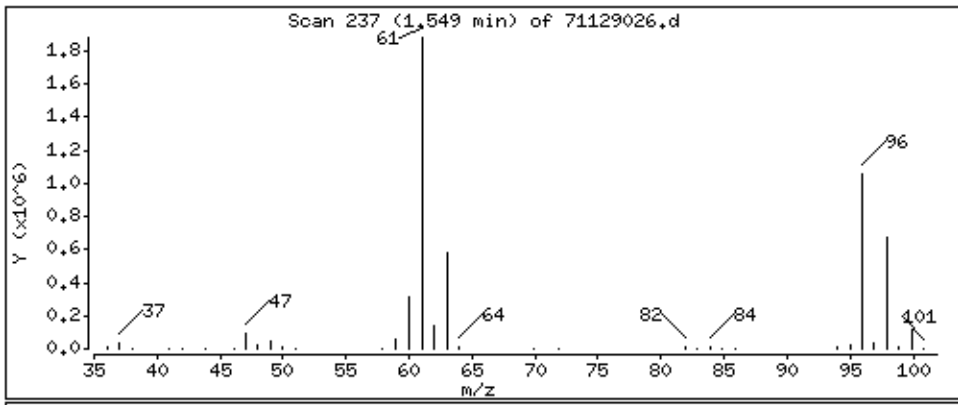
Client ID: MW-05 Instrument: 30mv7b.i

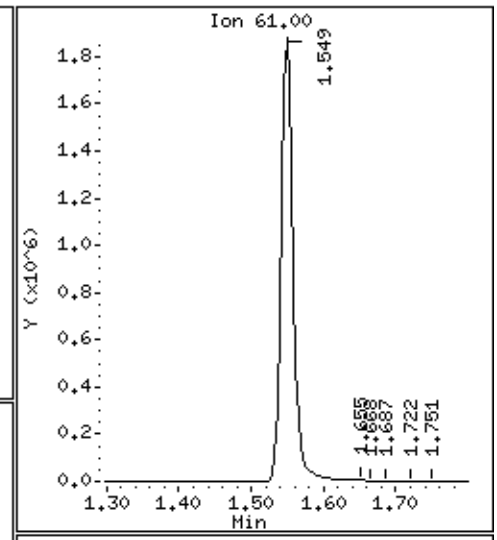
Sample Info: 30337003005

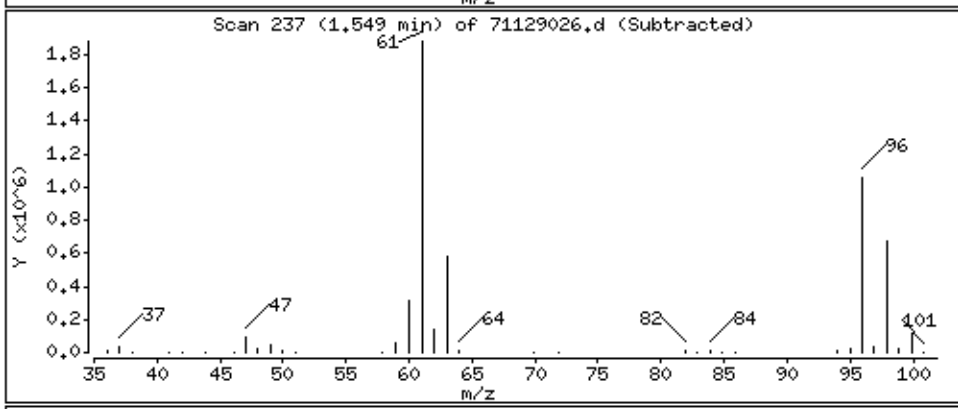
Purge Volume: 5.0 Operator: LEL

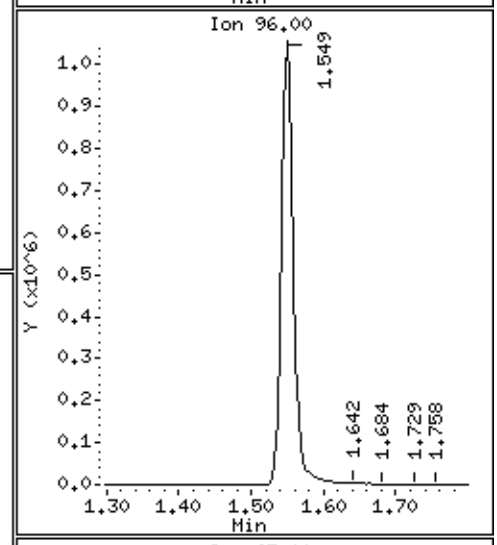
Column phase: RTX-VMS Column diameter: 0.18

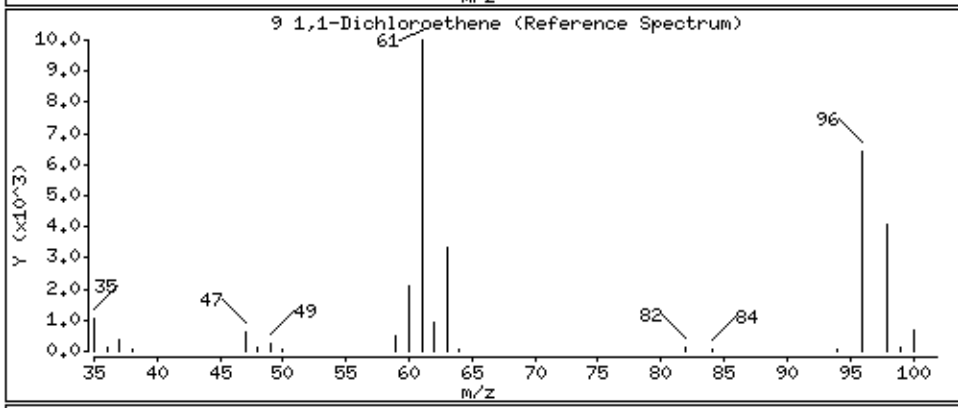
9 1,1-Dichloroethene Concentration: 786 ug/L Review Code:

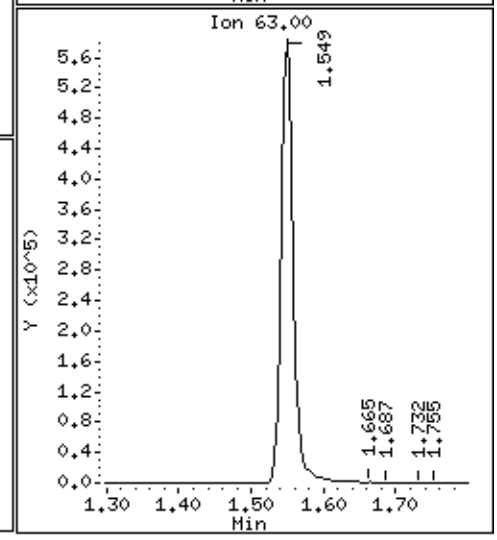


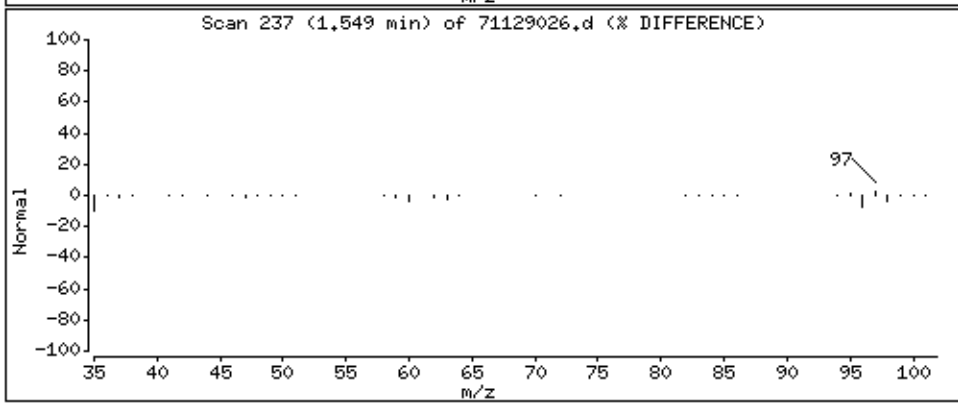












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

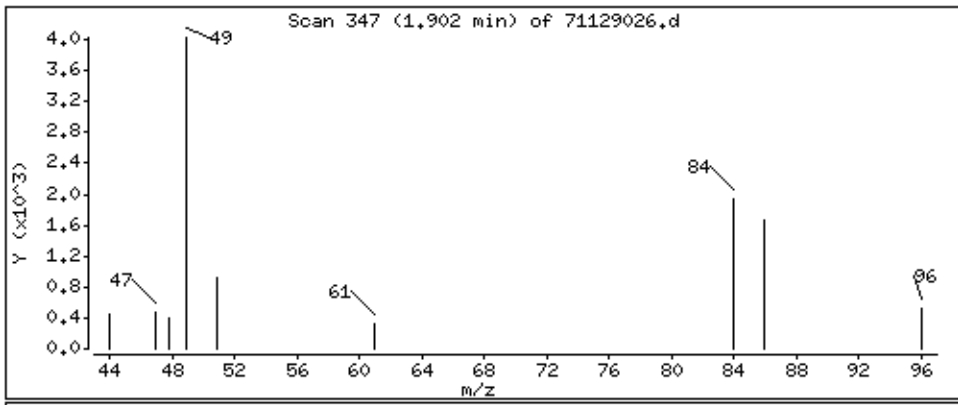
Client ID: MW-05 Instrument: 30mv7b.i

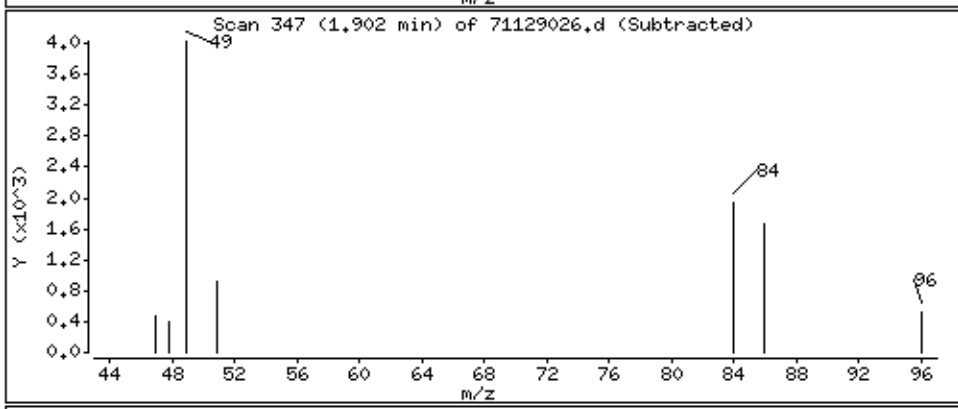
Sample Info: 30337003005

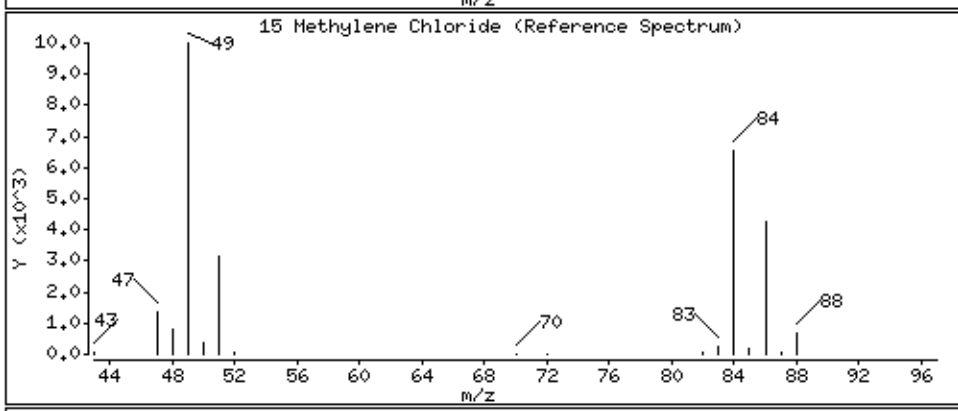
Purge Volume: 5.0 Operator: LEL

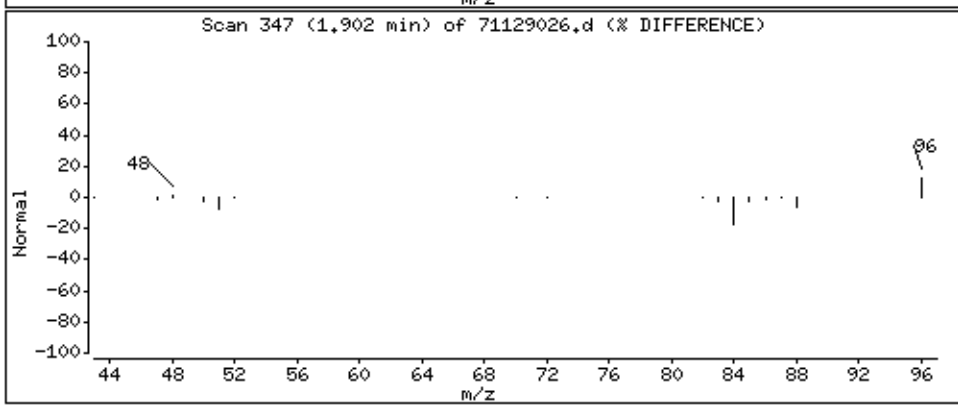
Column phase: RTX-VMS Column diameter: 0.18

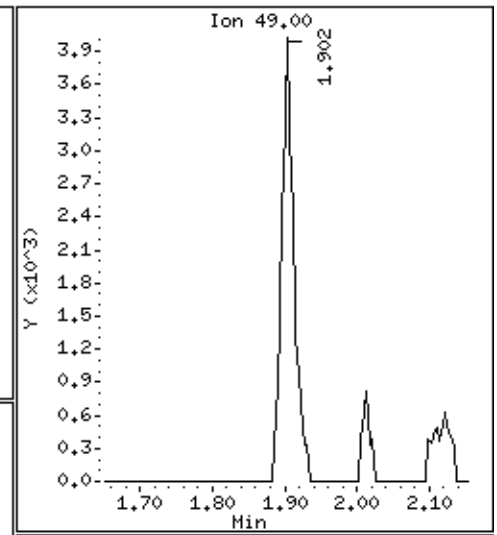
15 Methylene Chloride Concentration: 2.42 ug/L Review Code:

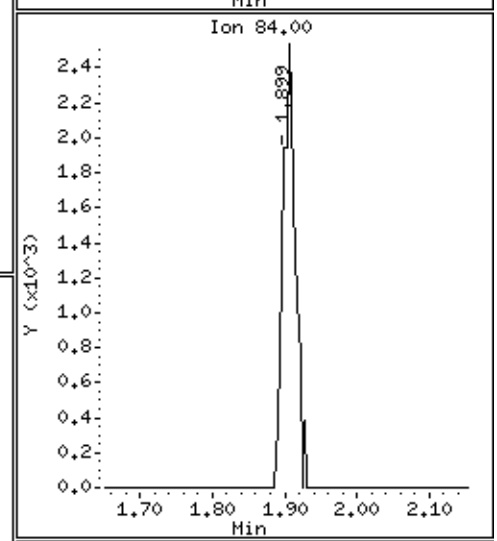


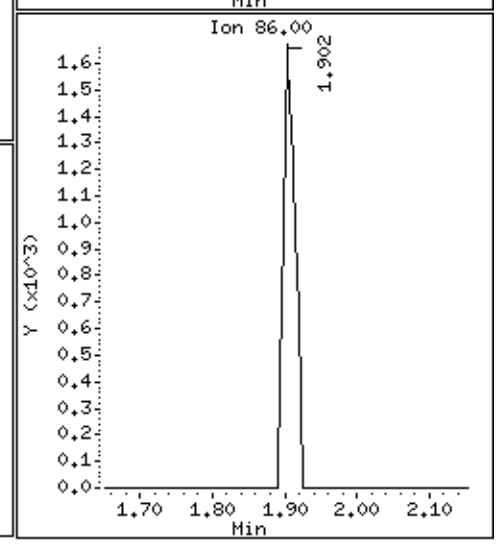












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

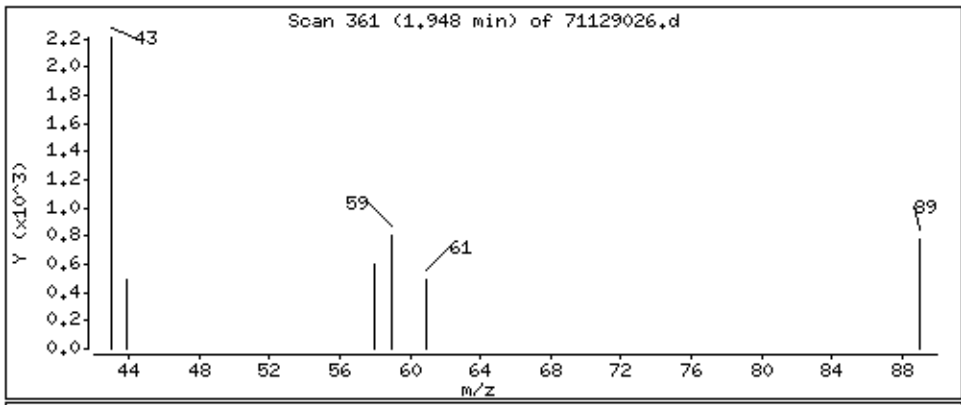
Client ID: MW-05 Instrument: 30mv7b.i

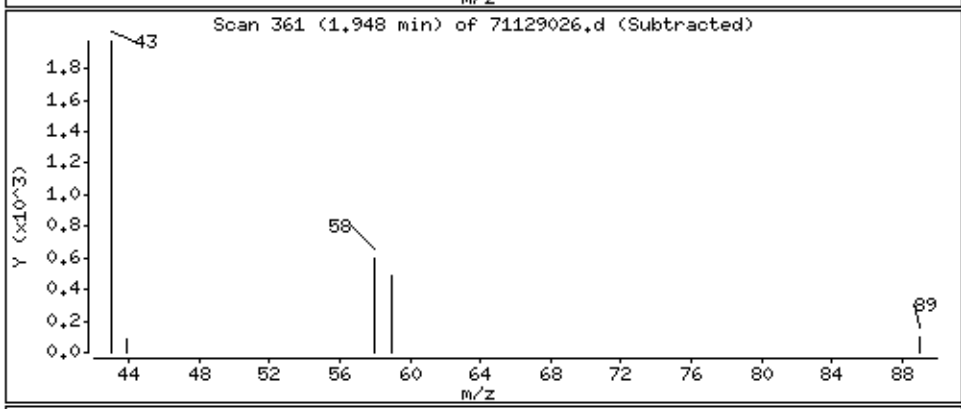
Sample Info: 30337003005

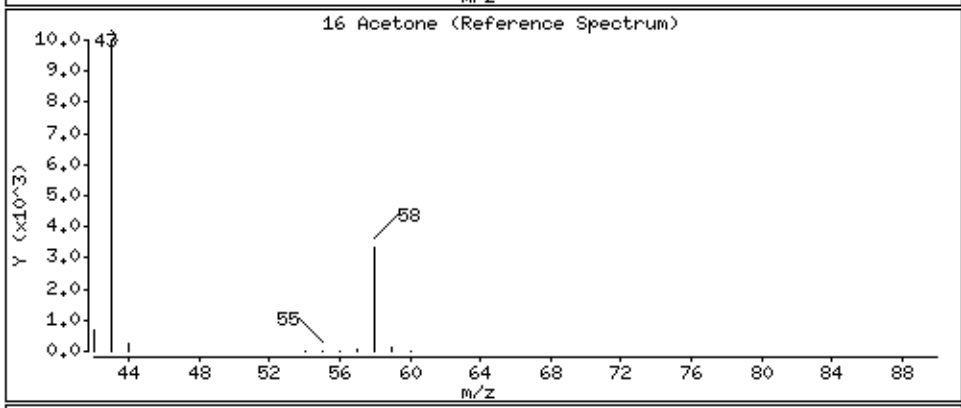
Purge Volume: 5.0 Operator: LEL

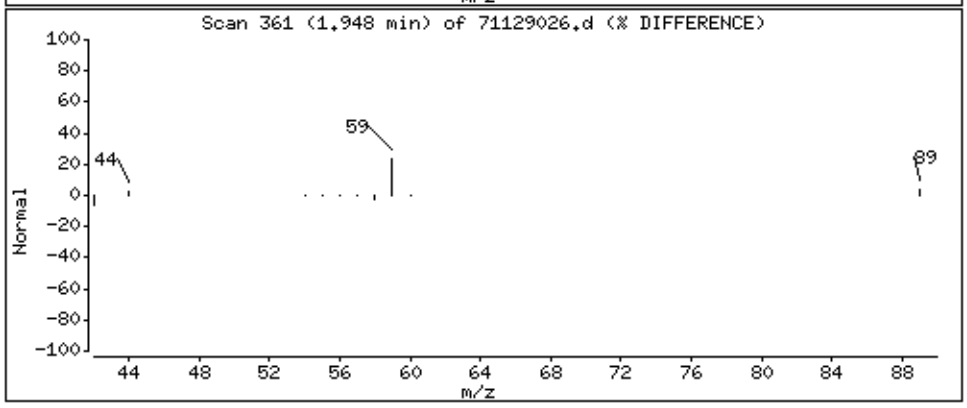
Column phase: RTX-VMS Column diameter: 0.18

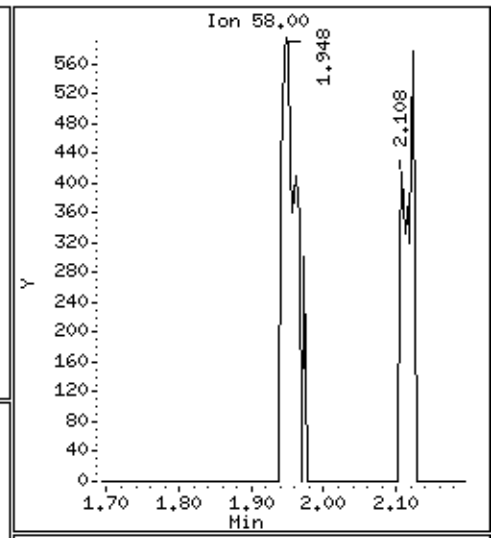
16 Acetone Concentration: 2.25 ug/L Review Code:

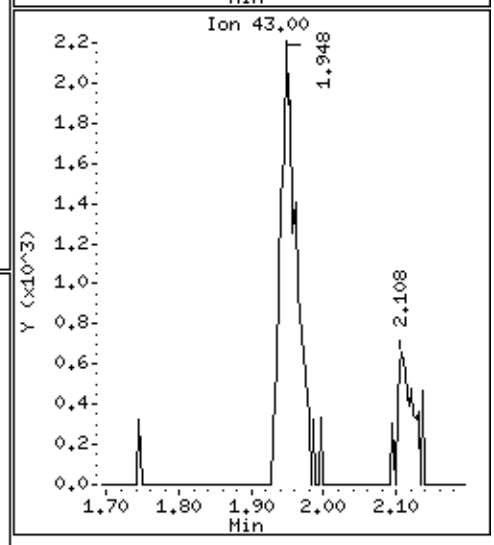












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

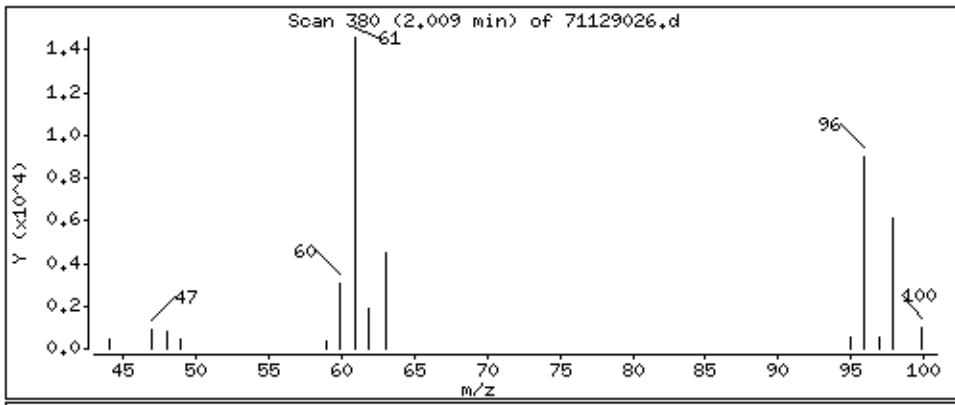
Client ID: MW-05 Instrument: 30mv7b.i

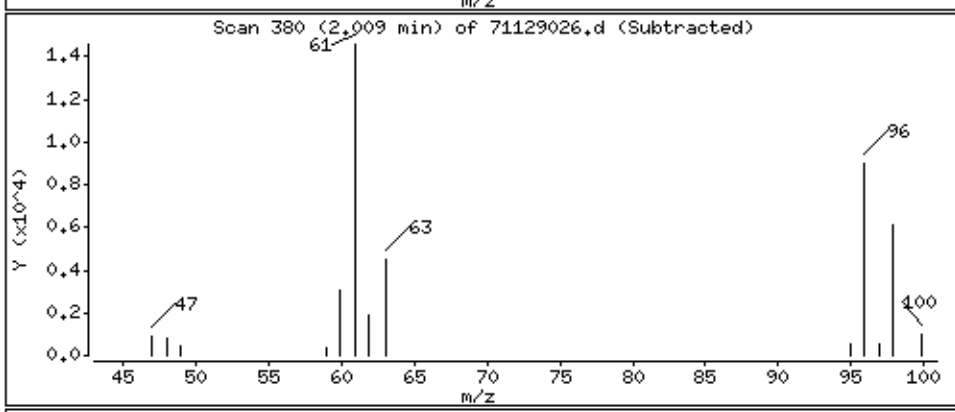
Sample Info: 30337003005

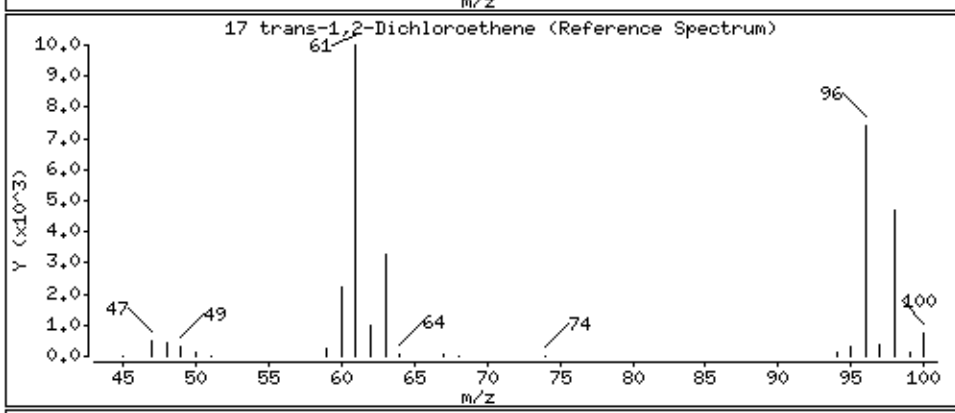
Purge Volume: 5.0 Operator: LEL

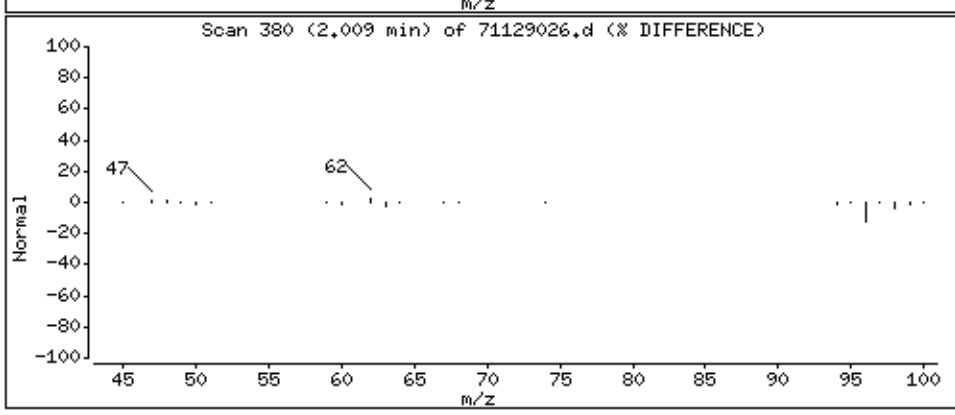
Column phase: RTX-VMS Column diameter: 0.18

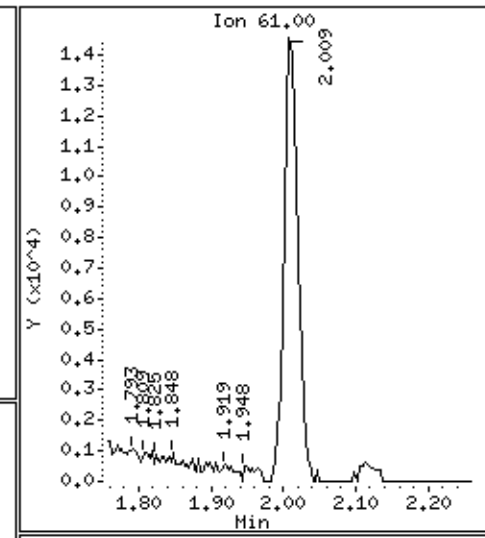
17 trans-1,2-Dichloroethene Concentration: 8.17 ug/L Review Code:

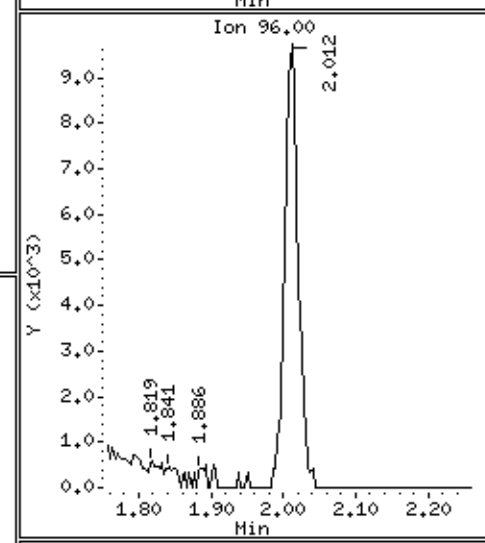


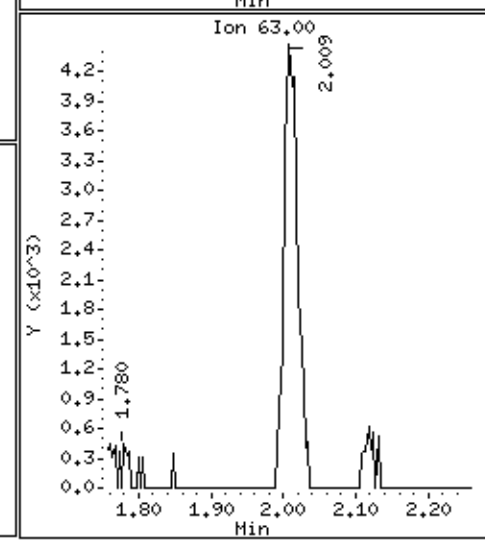












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Date : 29-NOV-2019 13:17

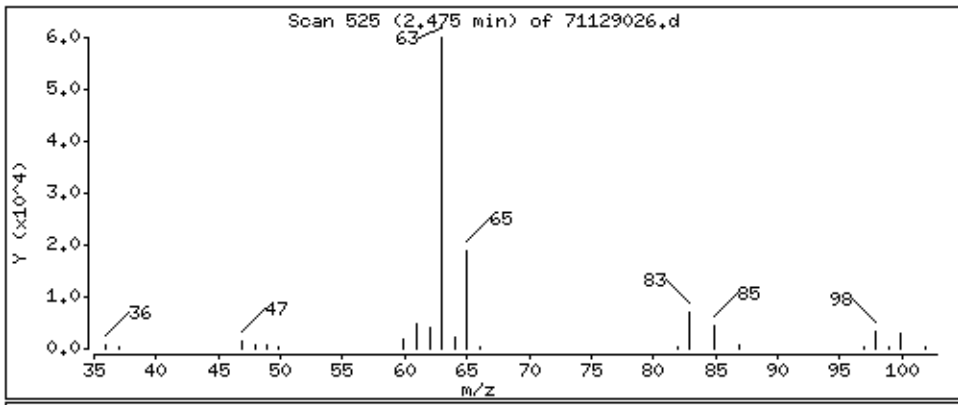
Client ID: MW-05 Instrument: 30mv7b.i

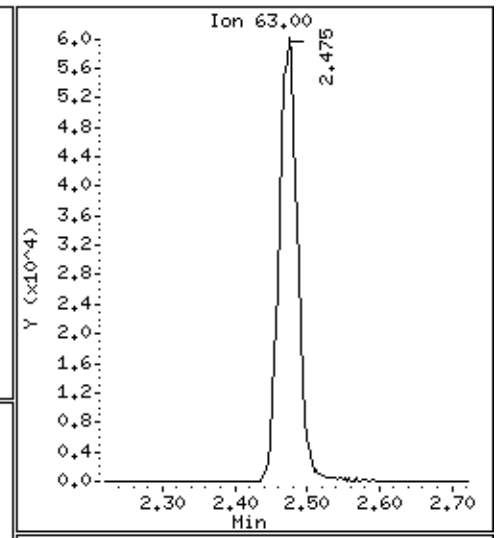
Sample Info: 30337003005

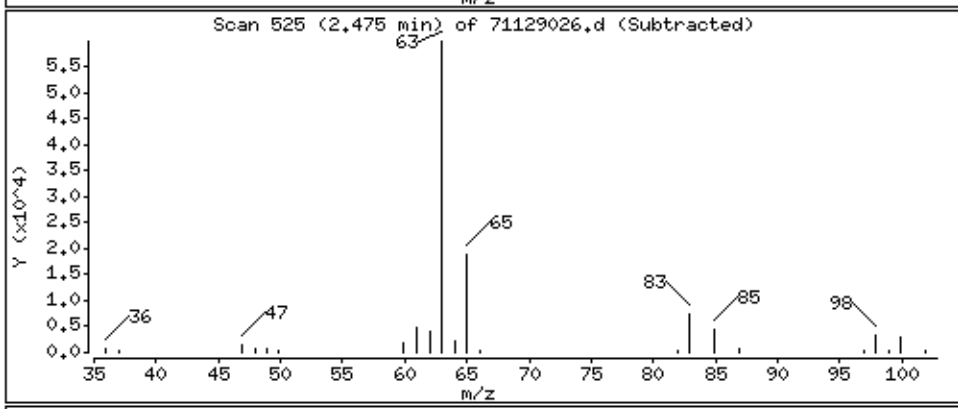
Purge Volume: 5.0 Operator: LEL

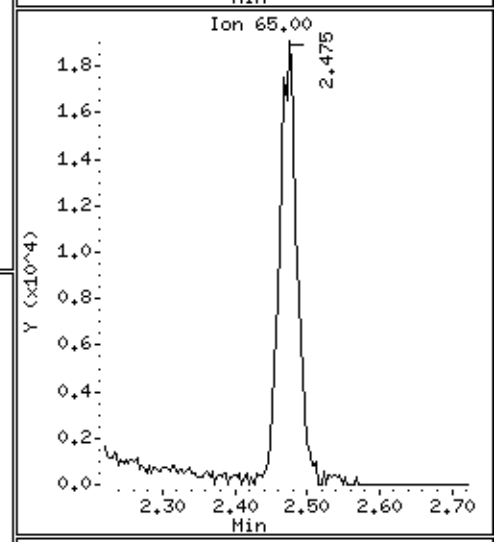
Column phase: RTX-VMS Column diameter: 0.18

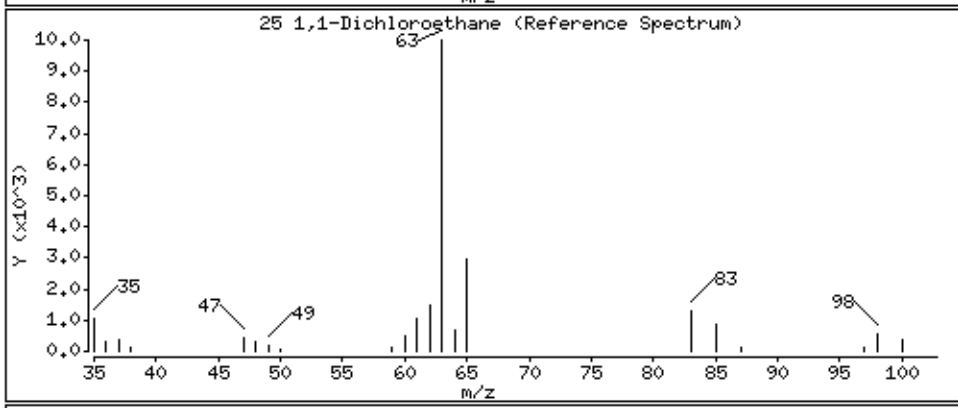
25 1,1-Dichloroethane Concentration: 37.2 ug/L Review Code:

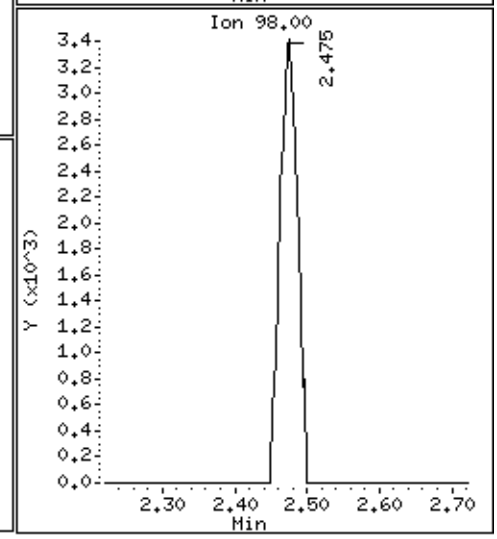


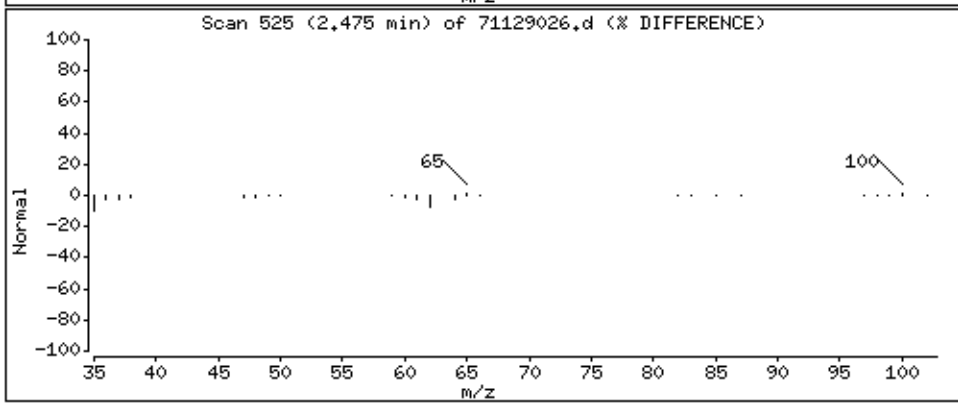












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

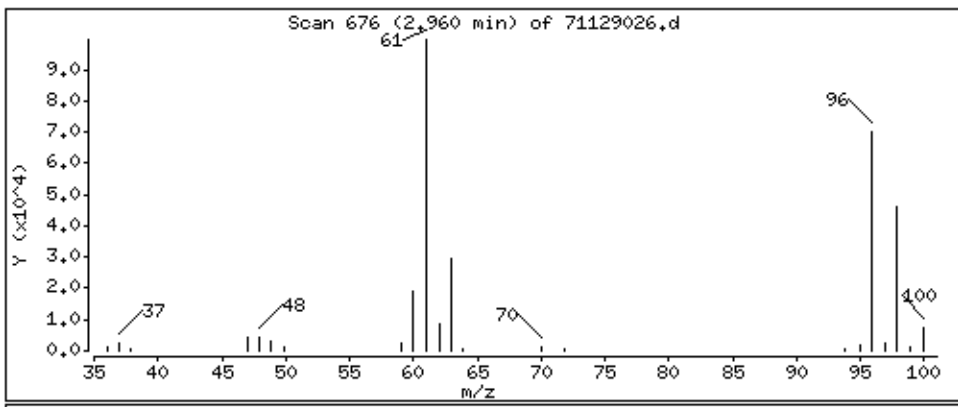
Client ID: MW-05 Instrument: 30mv7b.i

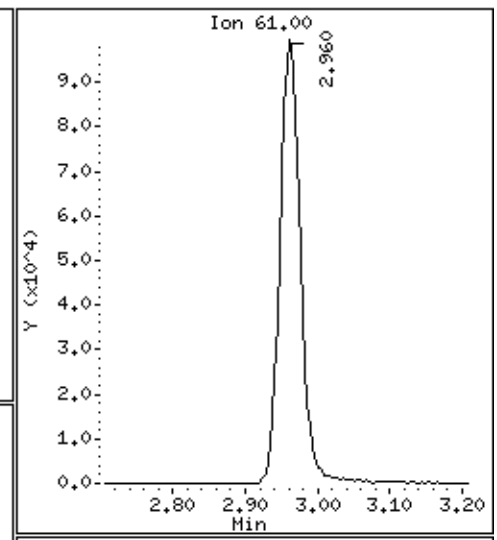
Sample Info: 30337003005

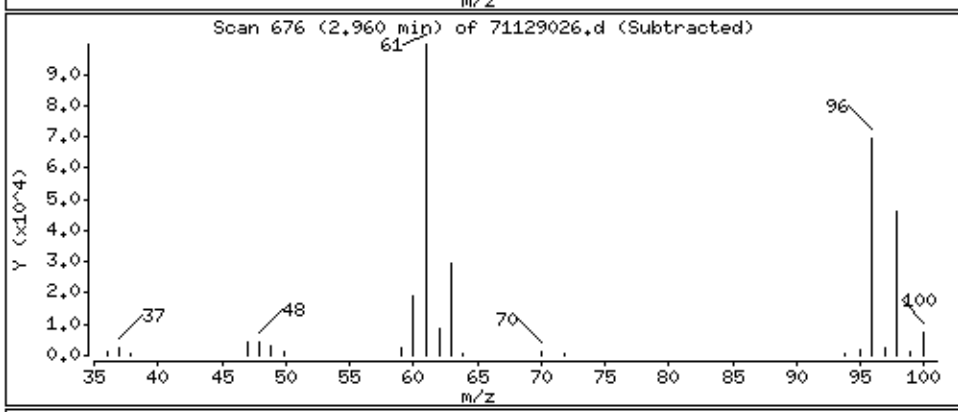
Purge Volume: 5.0 Operator: LEL

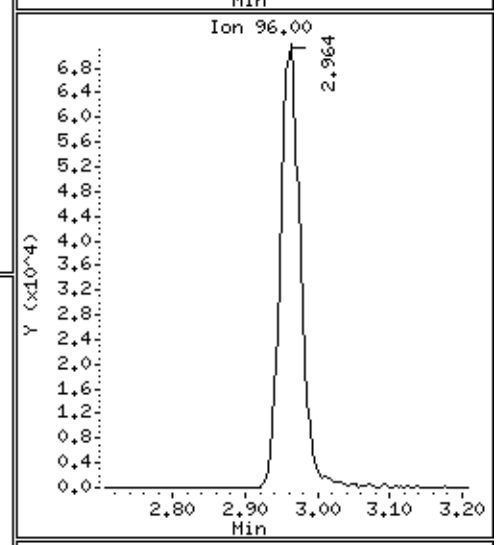
Column phase: RTX-VMS Column diameter: 0.18

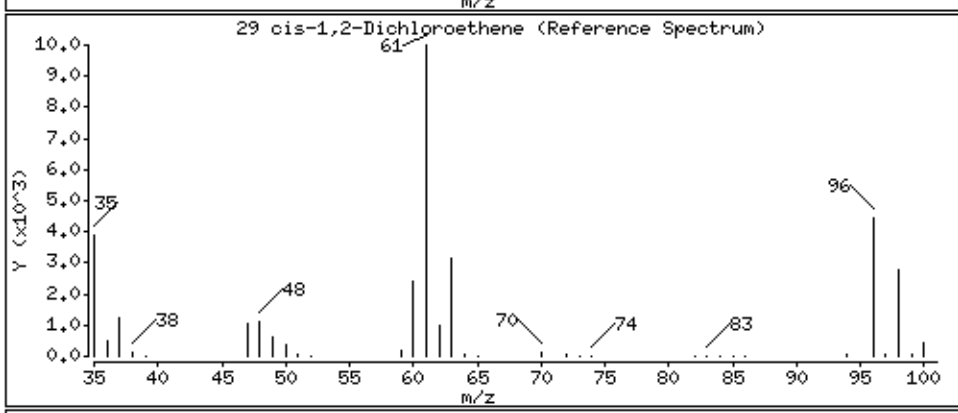
29 cis-1,2-Dichloroethene Concentration: 88.2 ug/L Review Code:

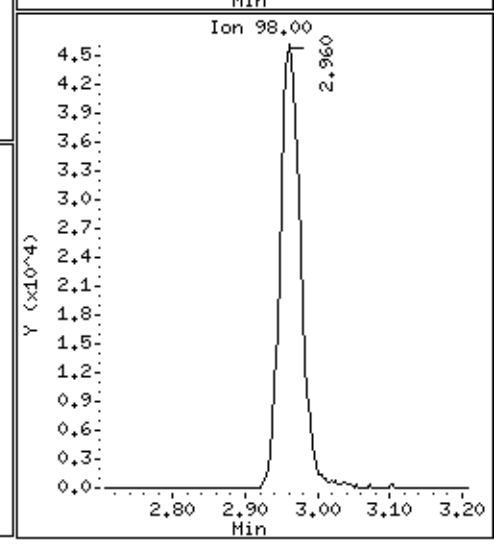


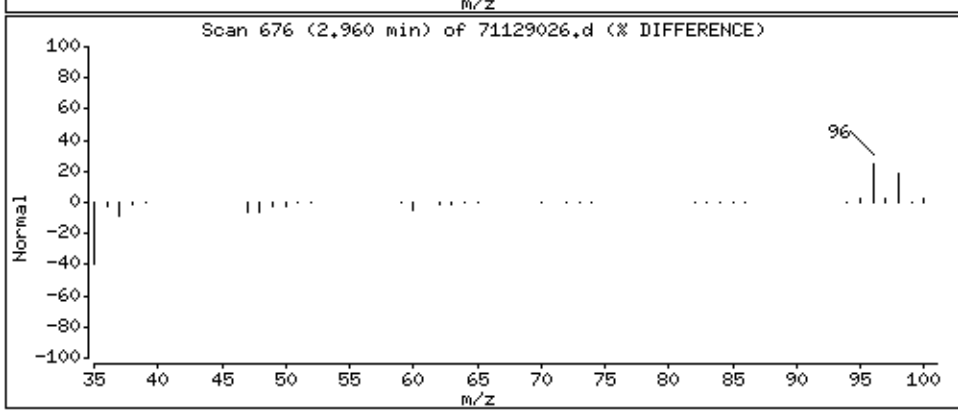












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

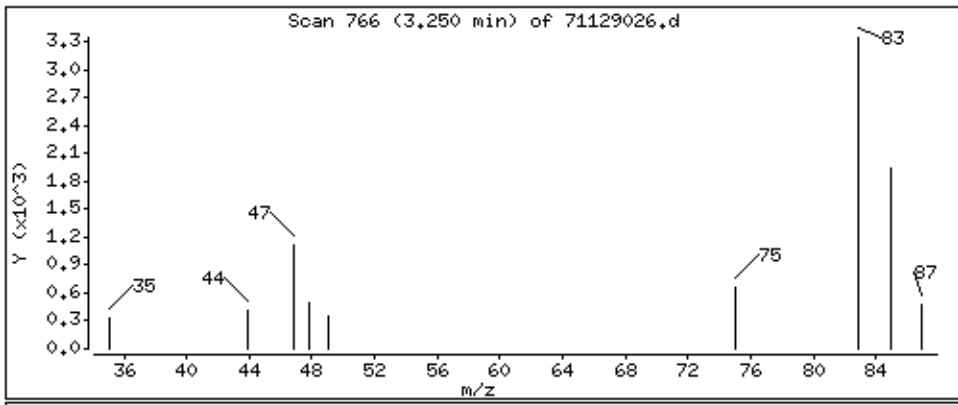
Client ID: MW-05 Instrument: 30mv7b.i

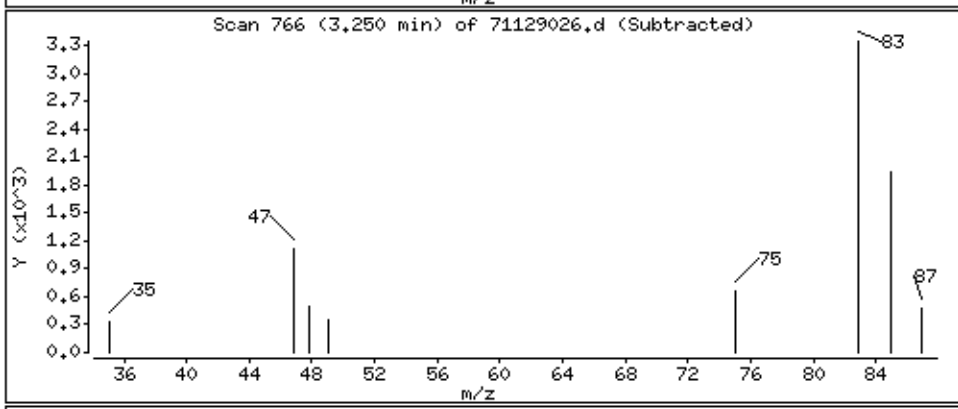
Sample Info: 30337003005

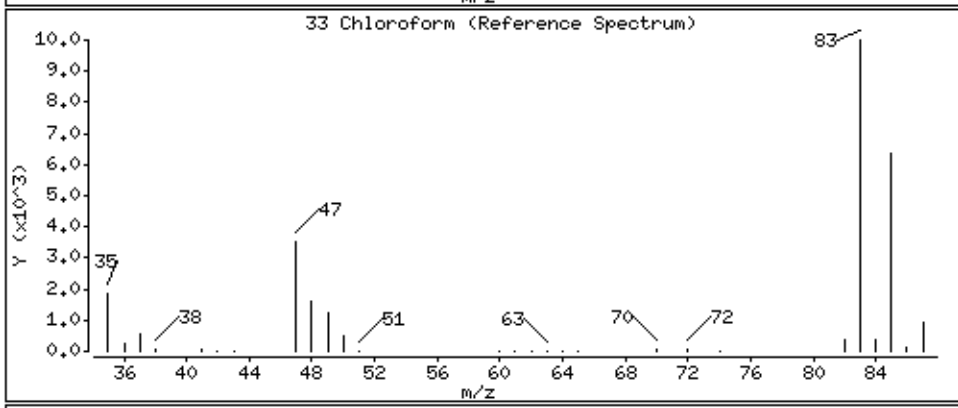
Purge Volume: 5.0 Operator: LEL

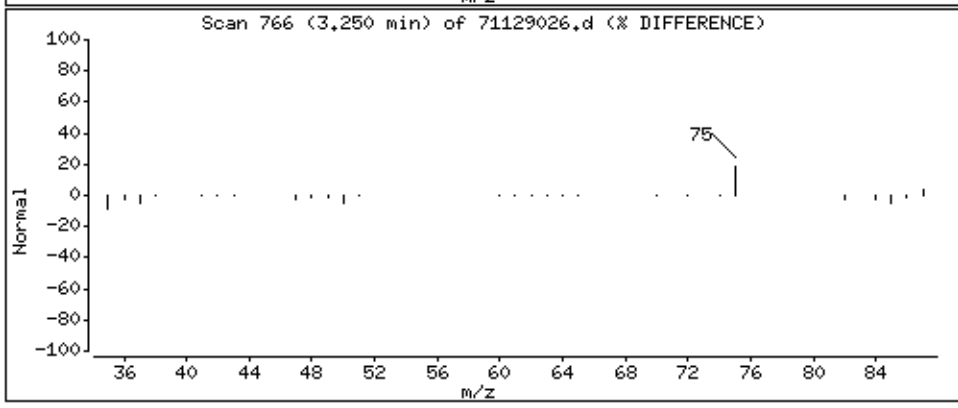
Column phase: RTX-VMS Column diameter: 0.18

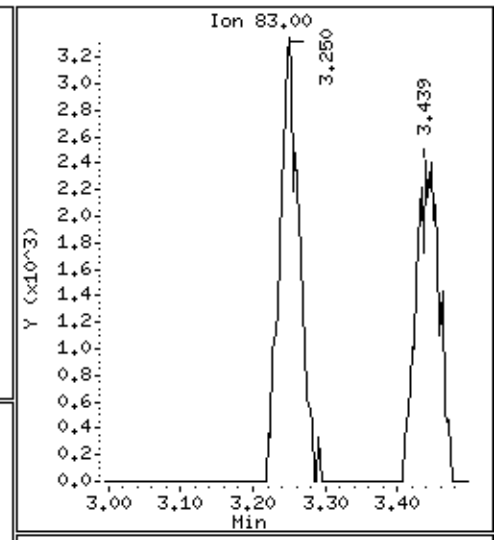
33 Chloroform Concentration: 2.25 ug/L Review Code:

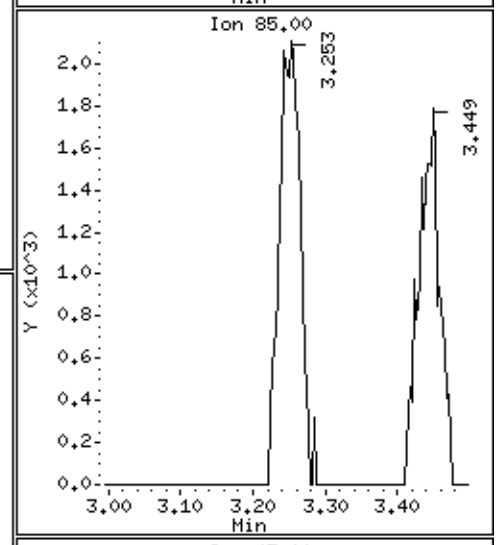


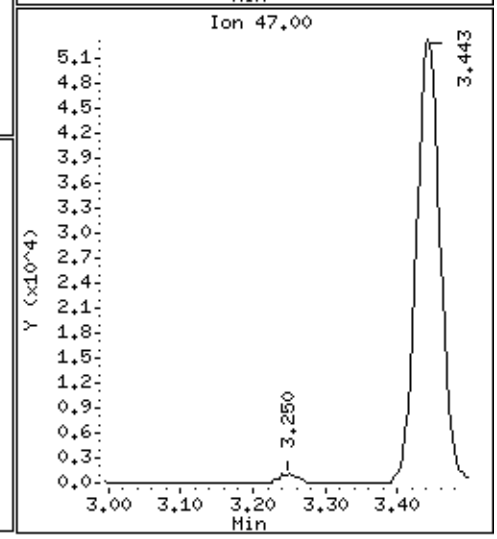












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

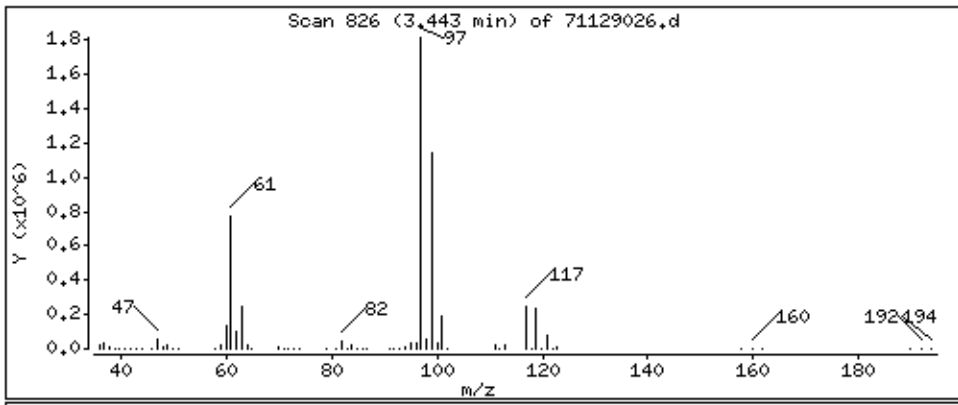
Client ID: MW-05 Instrument: 30mv7b.i

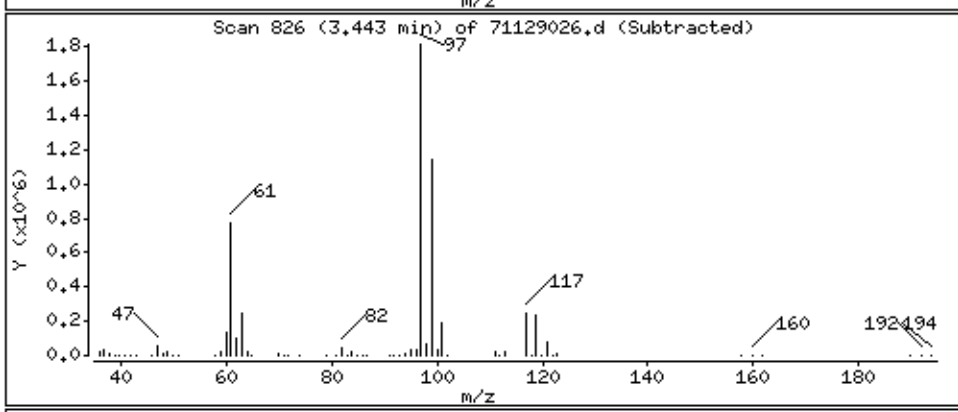
Sample Info: 30337003005

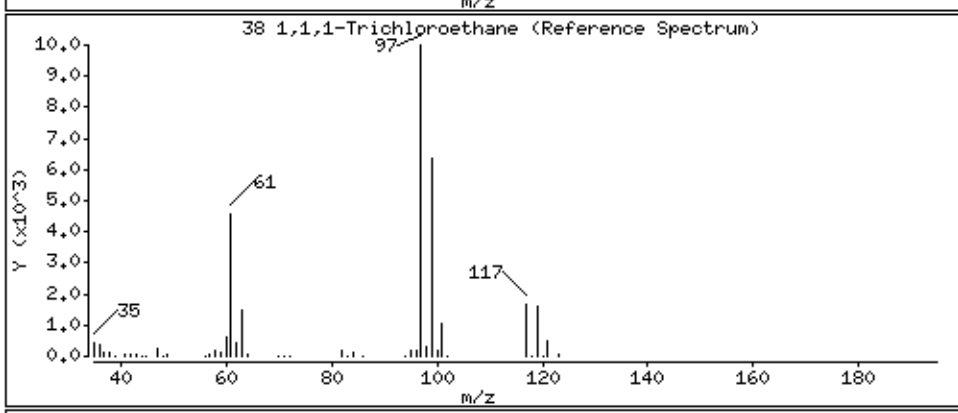
Purge Volume: 5.0 Operator: LEL

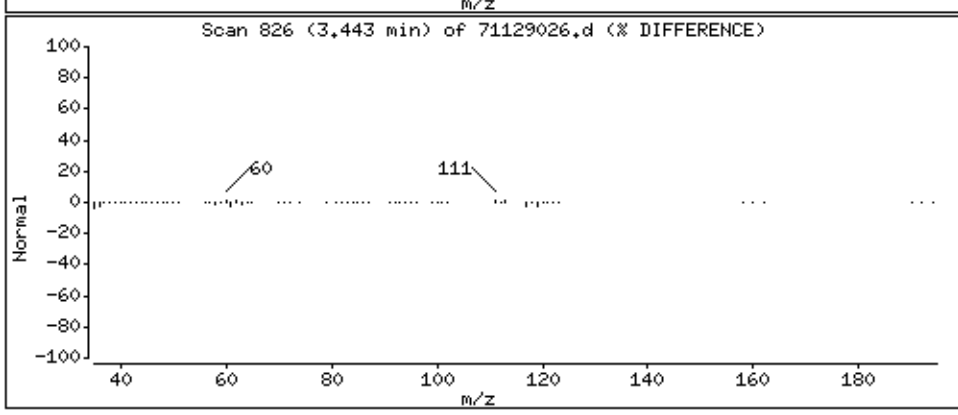
Column phase: RTX-VMS Column diameter: 0.18

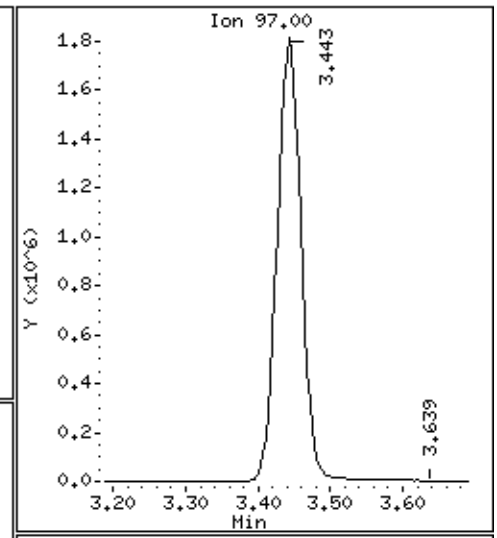
38 1,1,1-Trichloroethane Concentration: 1740 ug/L Review Code:

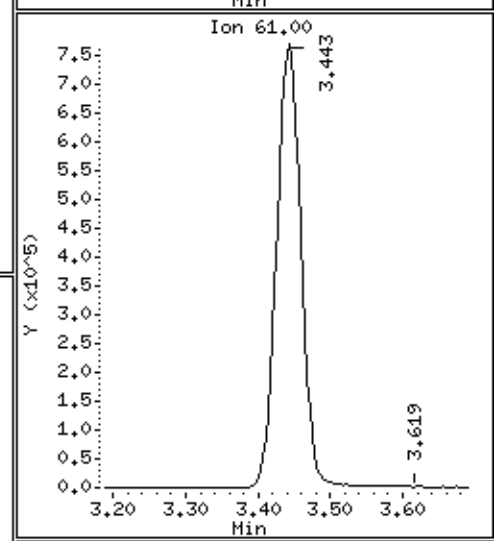


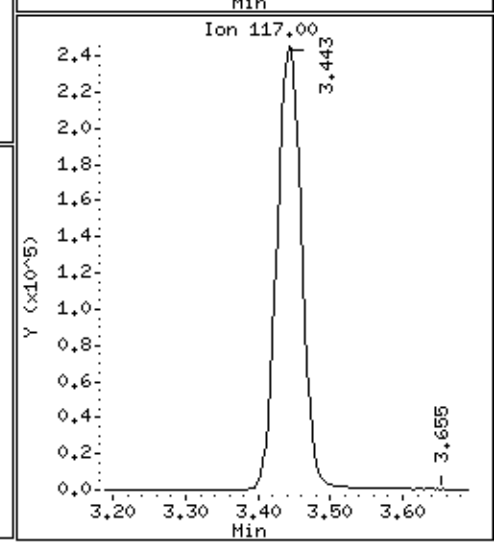












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

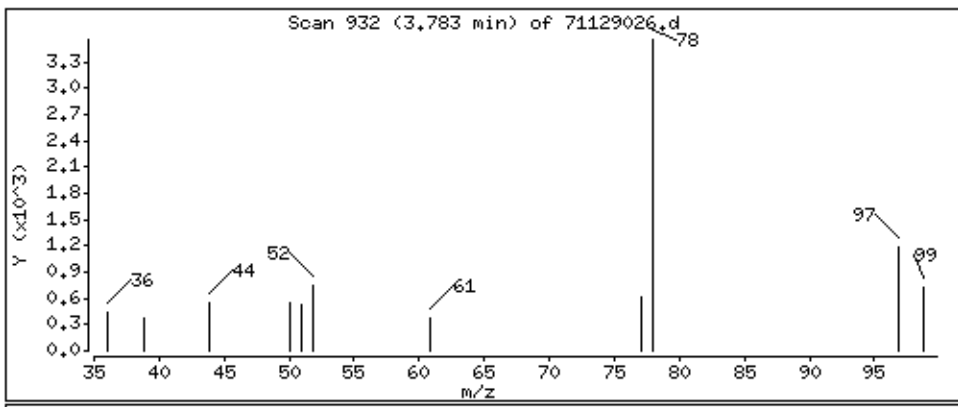
Client ID: MW-05 Instrument: 30mv7b.i

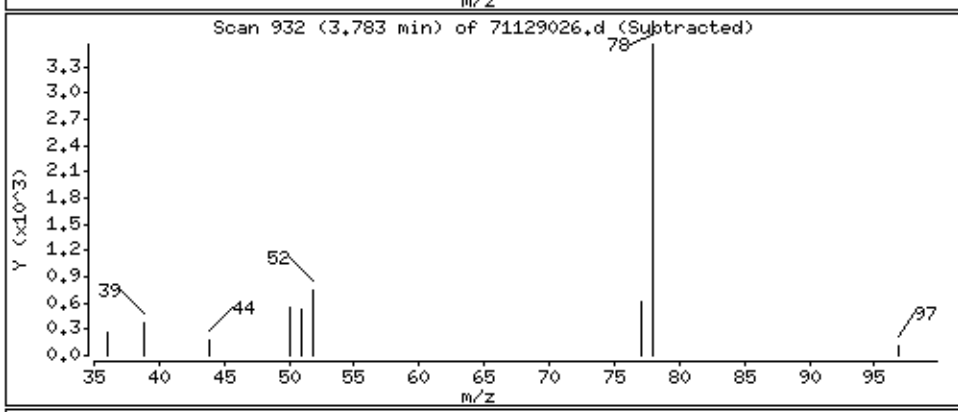
Sample Info: 30337003005

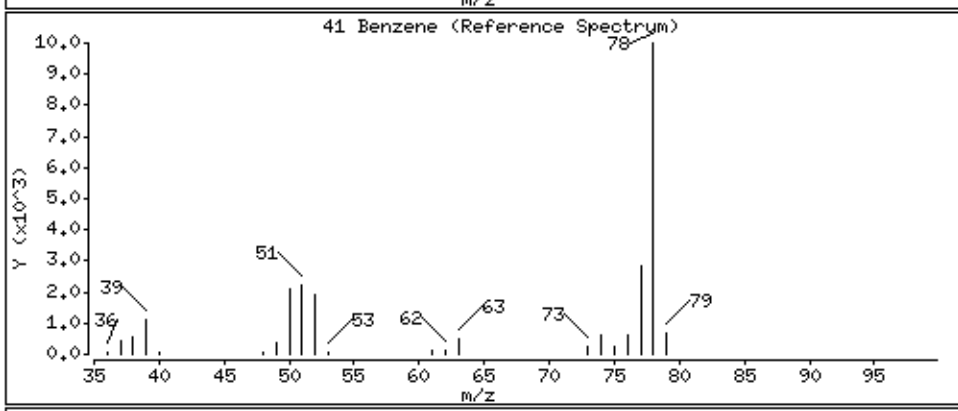
Purge Volume: 5.0 Operator: LEL

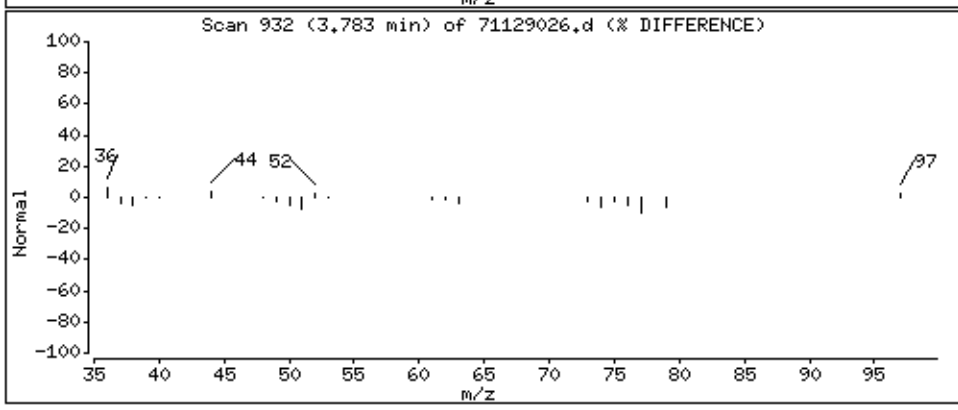
Column phase: RTX-VMS Column diameter: 0.18

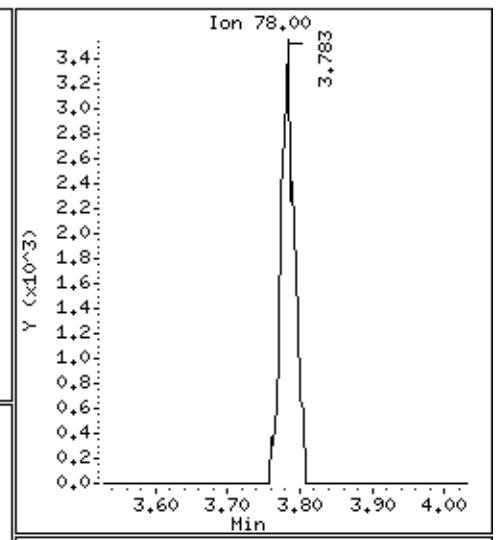
41 Benzene Concentration: 0.702 ug/L Review Code: LT

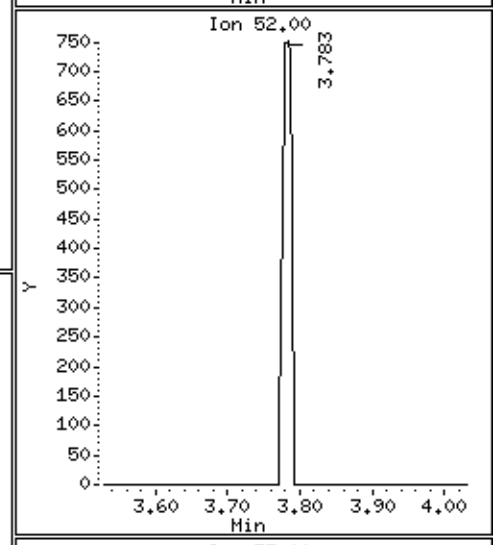


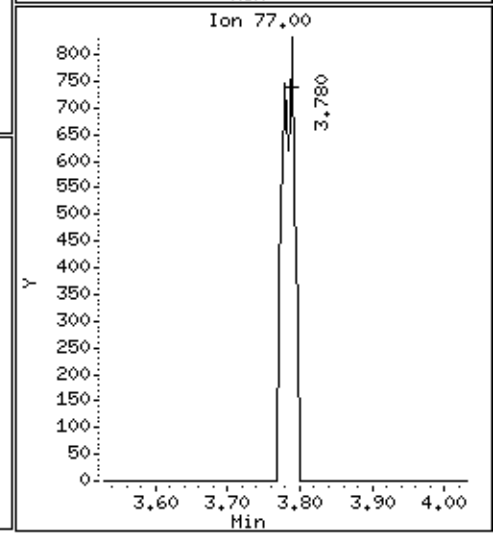












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

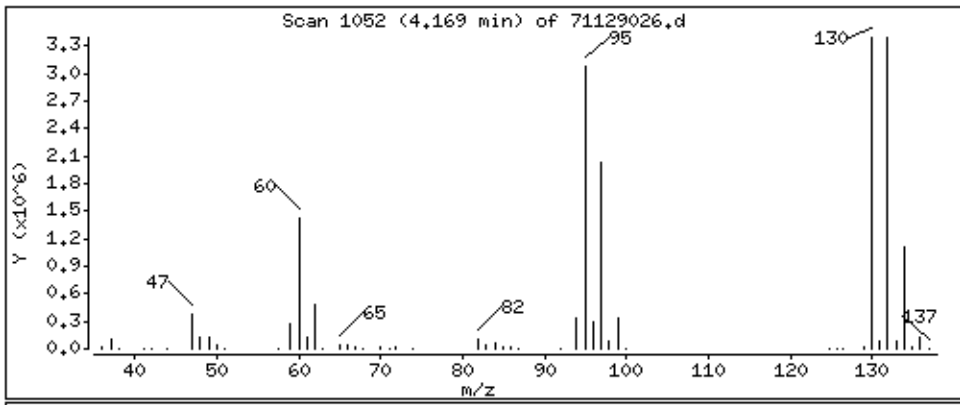
Client ID: MW-05 Instrument: 30mv7b.i

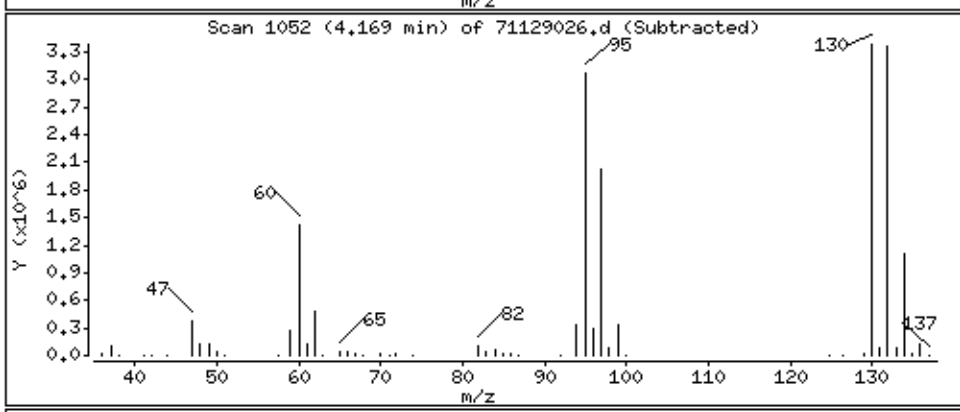
Sample Info: 30337003005

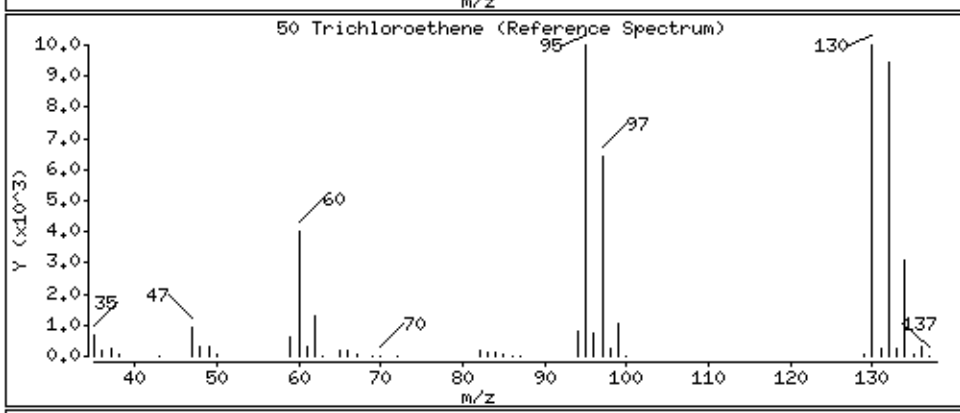
Purge Volume: 5.0 Operator: LEL

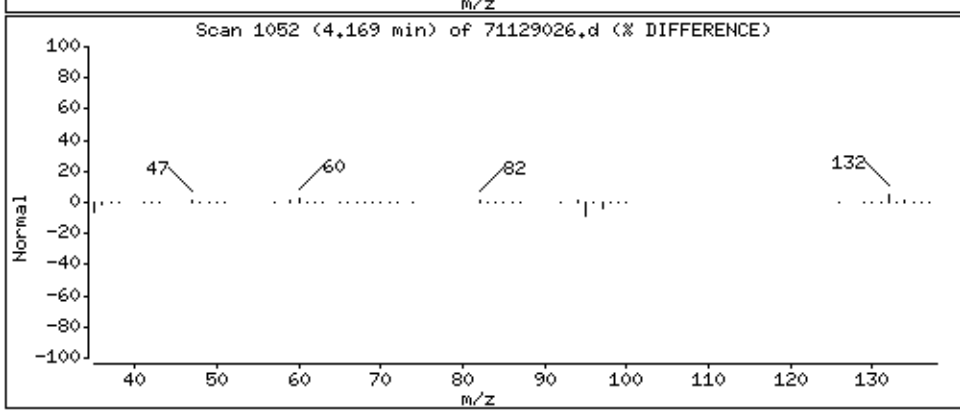
Column phase: RTX-VMS Column diameter: 0.18

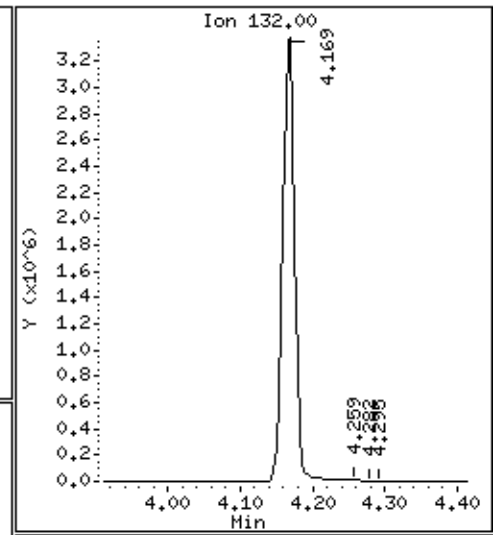
50 Trichloroethene Concentration: 2100 ug/L Review Code:

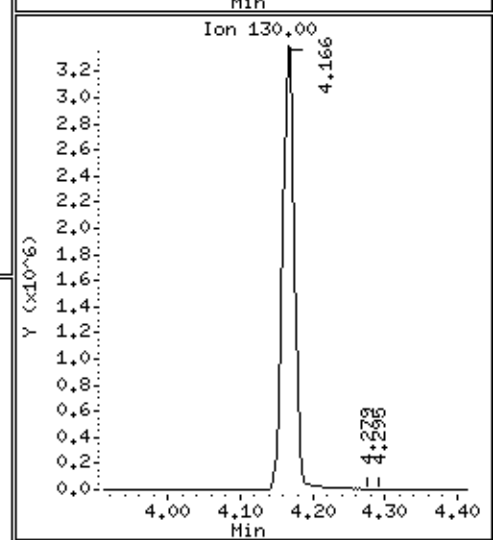


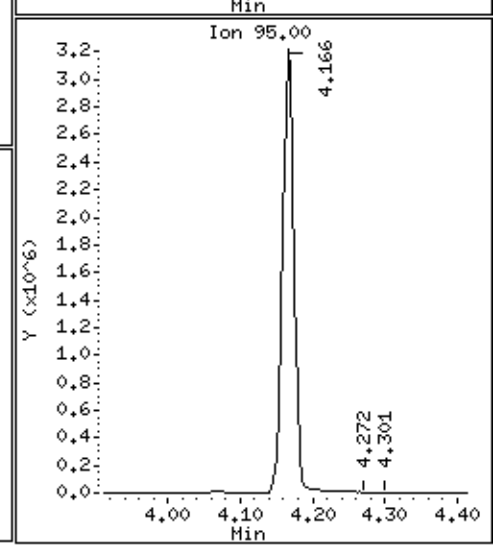












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

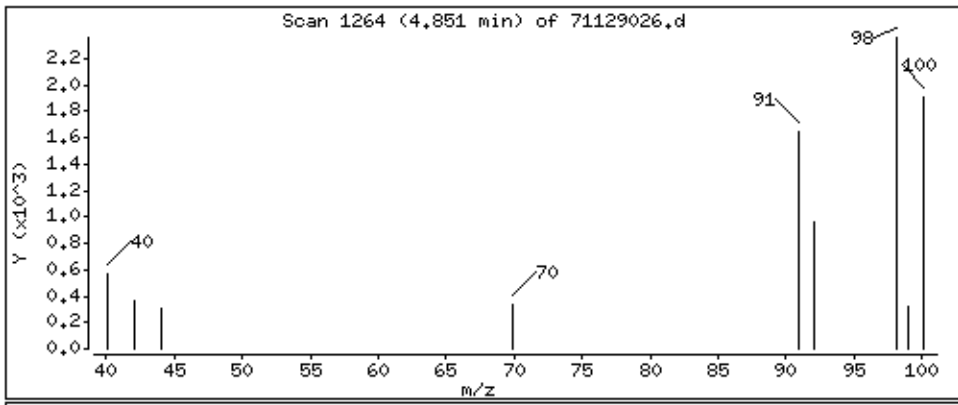
Client ID: MW-05 Instrument: 30mv7b.i

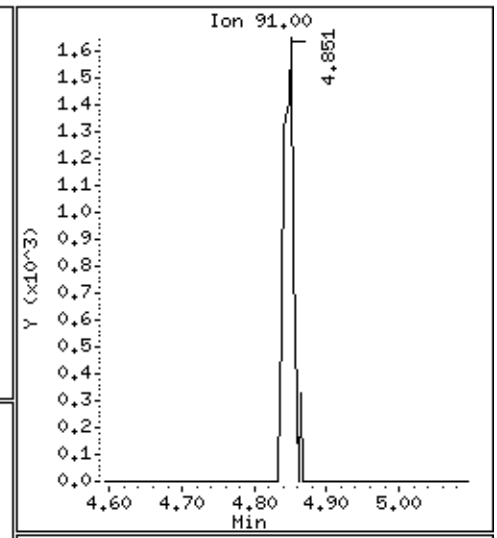
Sample Info: 30337003005

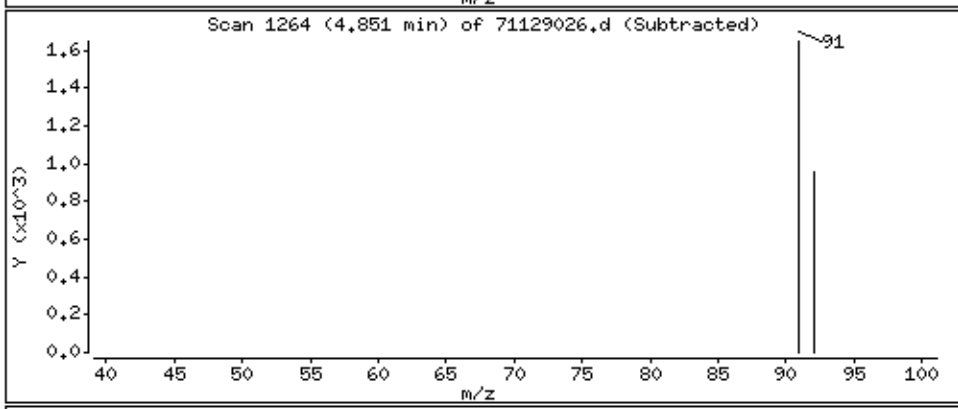
Purge Volume: 5.0 Operator: LEL

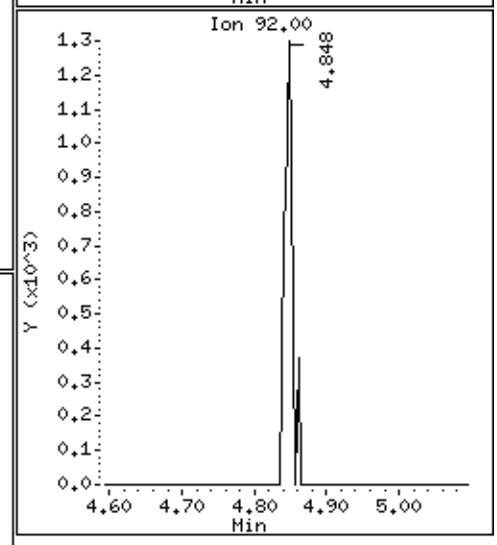
Column phase: RTX-VMS Column diameter: 0.18

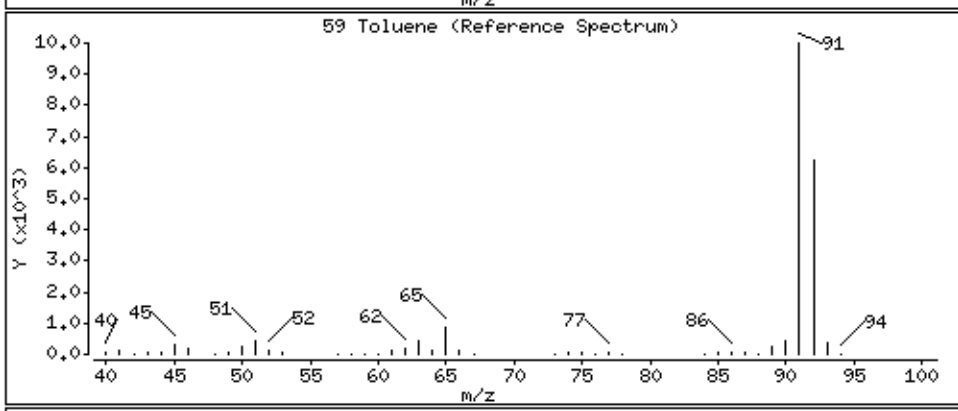
59 Toluene Concentration: 0.241 ug/L Review Code:

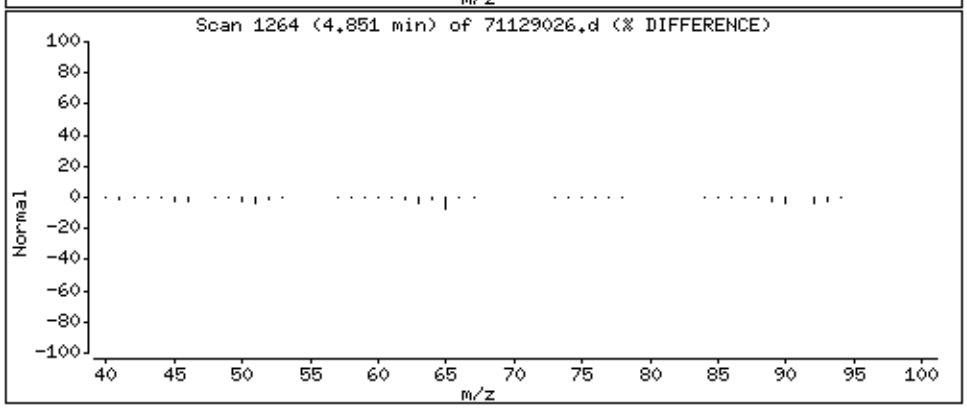












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

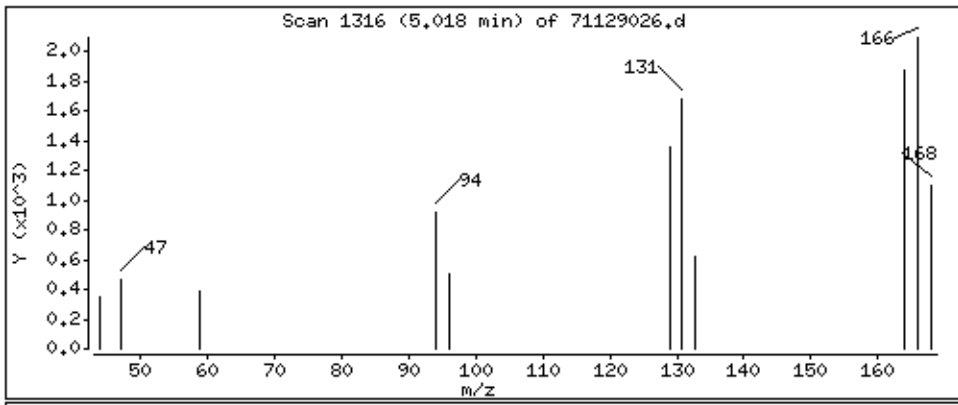
Client ID: MW-05 Instrument: 30mv7b.i

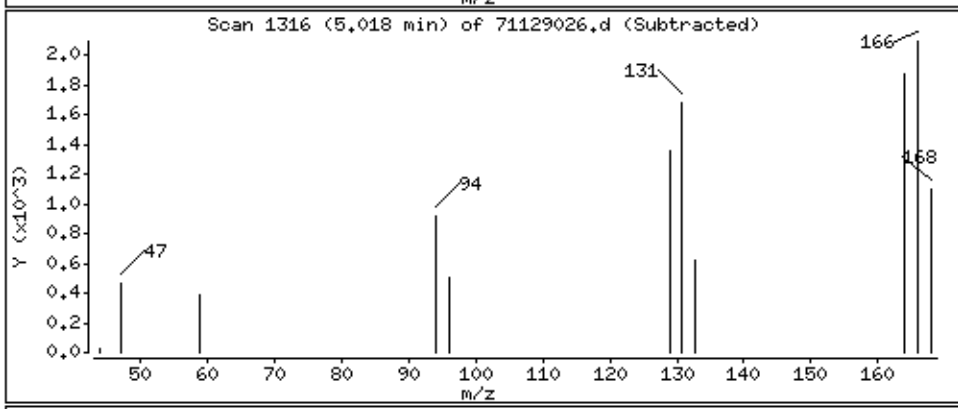
Sample Info: 30337003005

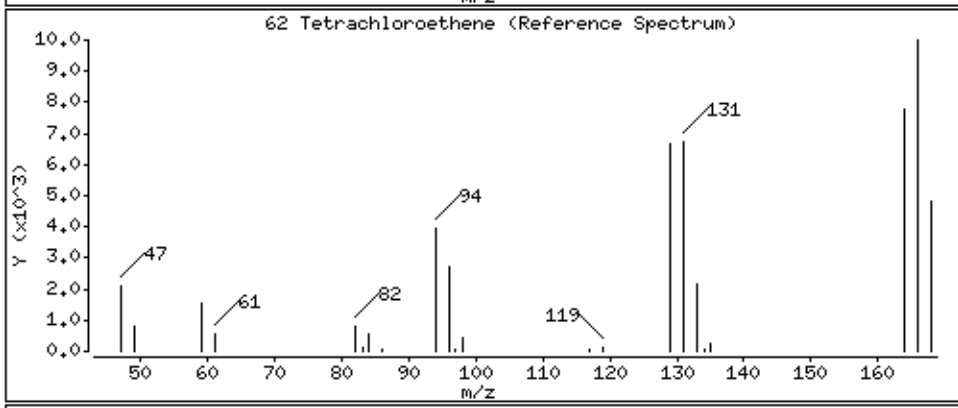
Purge Volume: 5.0 Operator: LEL

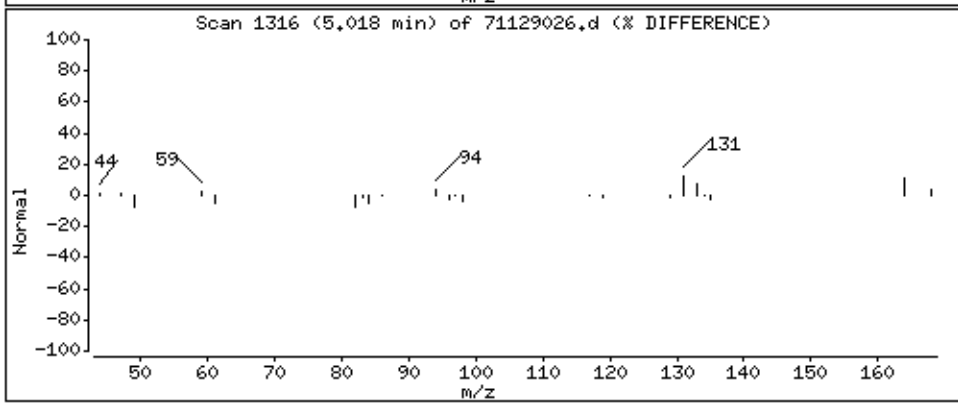
Column phase: RTX-VMS Column diameter: 0.18

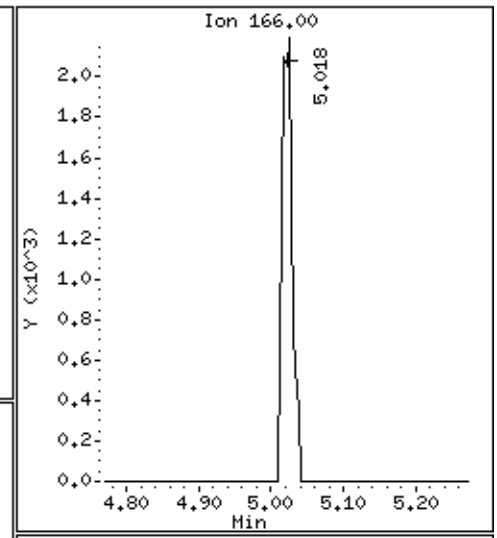
62 Tetrachloroethene Concentration: 1.19 ug/L Review Code:

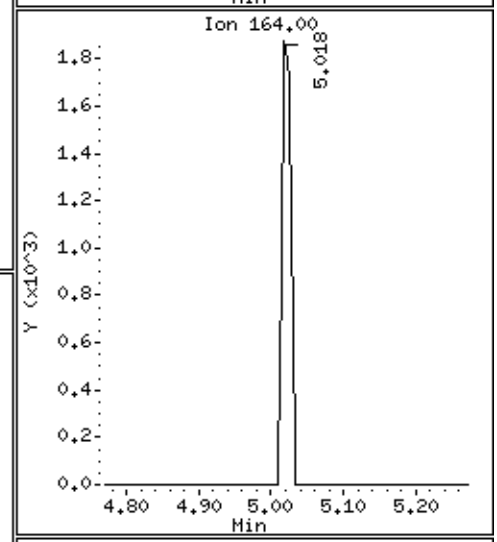


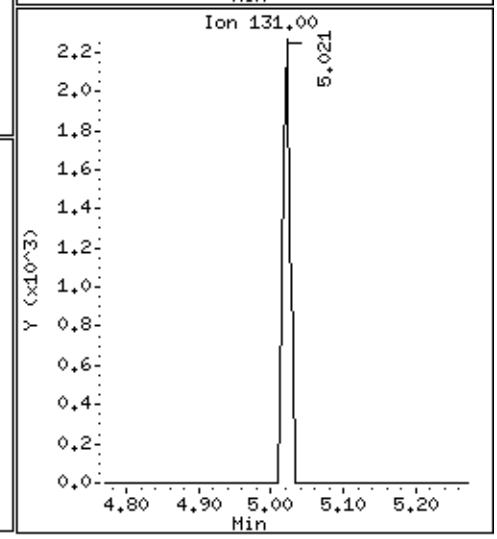












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129026.d

Date : 29-NOV-2019 13:17

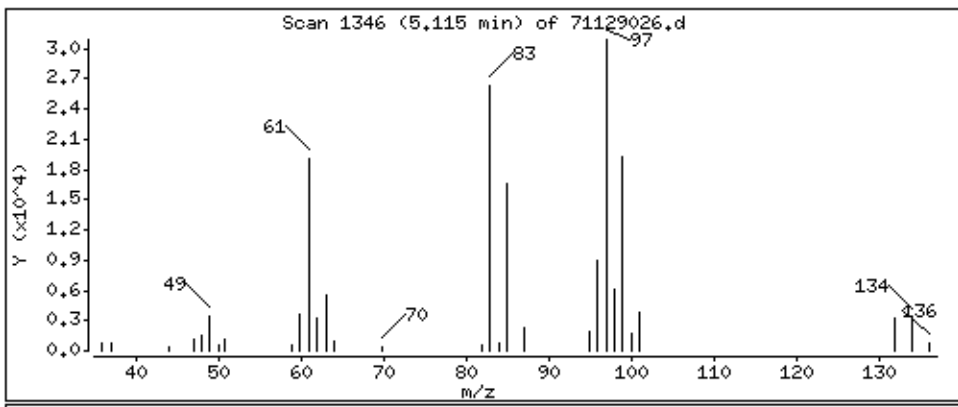
Client ID: MW-05 Instrument: 30mv7b.i

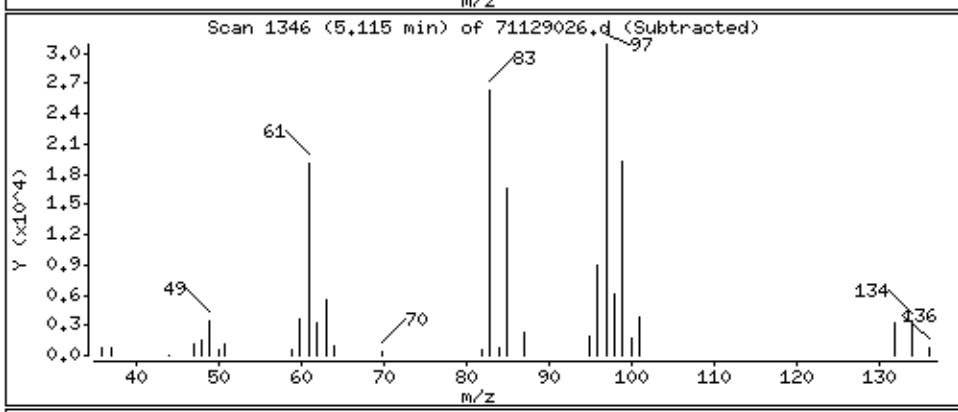
Sample Info: 30337003005

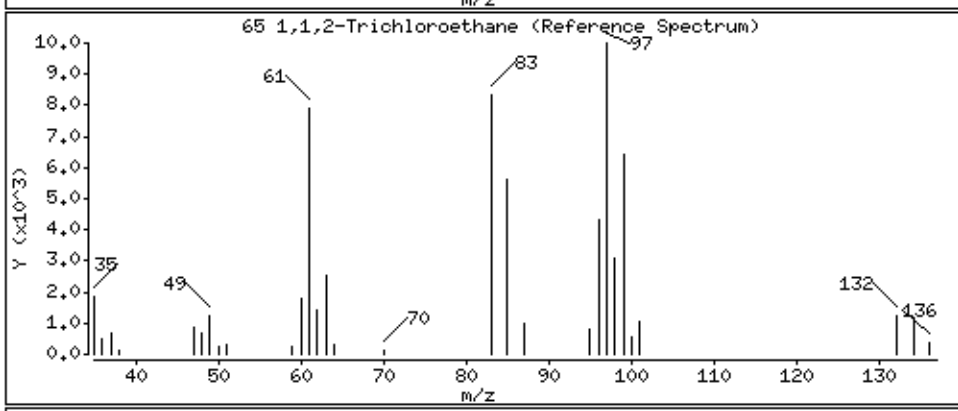
Purge Volume: 5.0 Operator: LEL

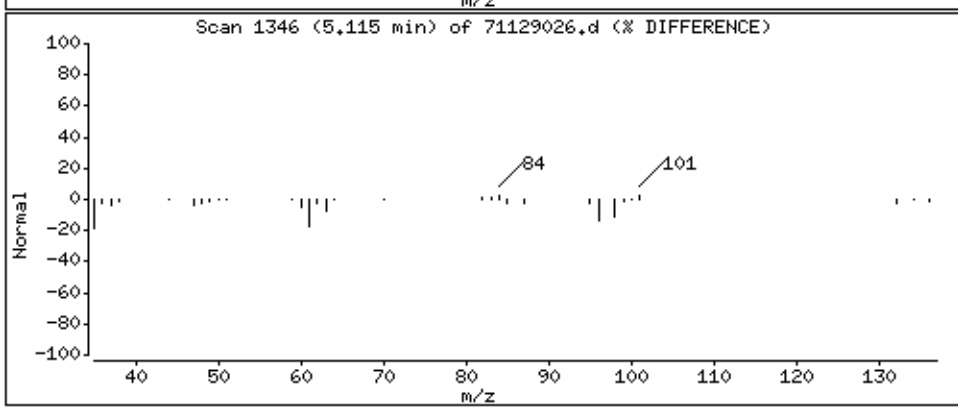
Column phase: RTX-VMS Column diameter: 0.18

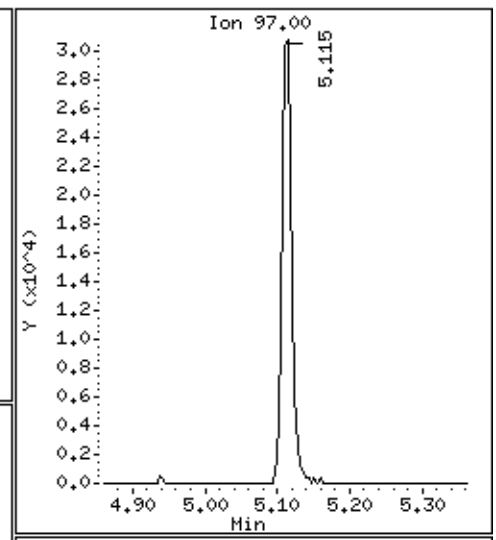
65 1,1,2-Trichloroethane Concentration: 19.3 ug/L Review Code:

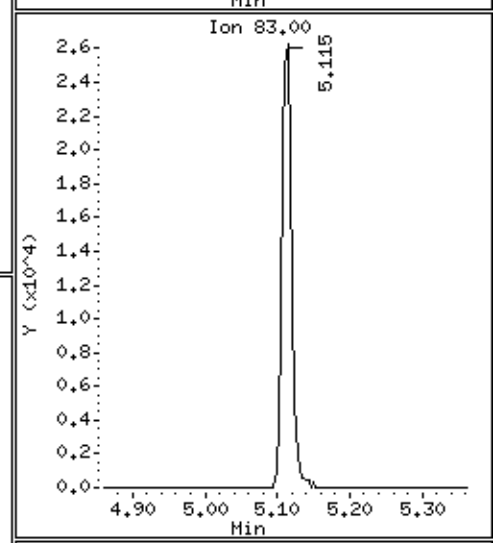


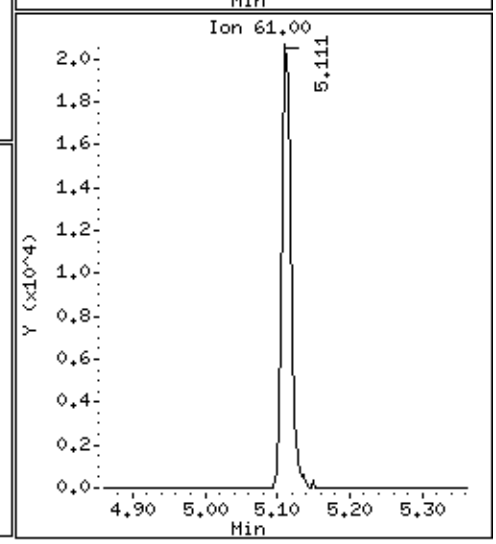






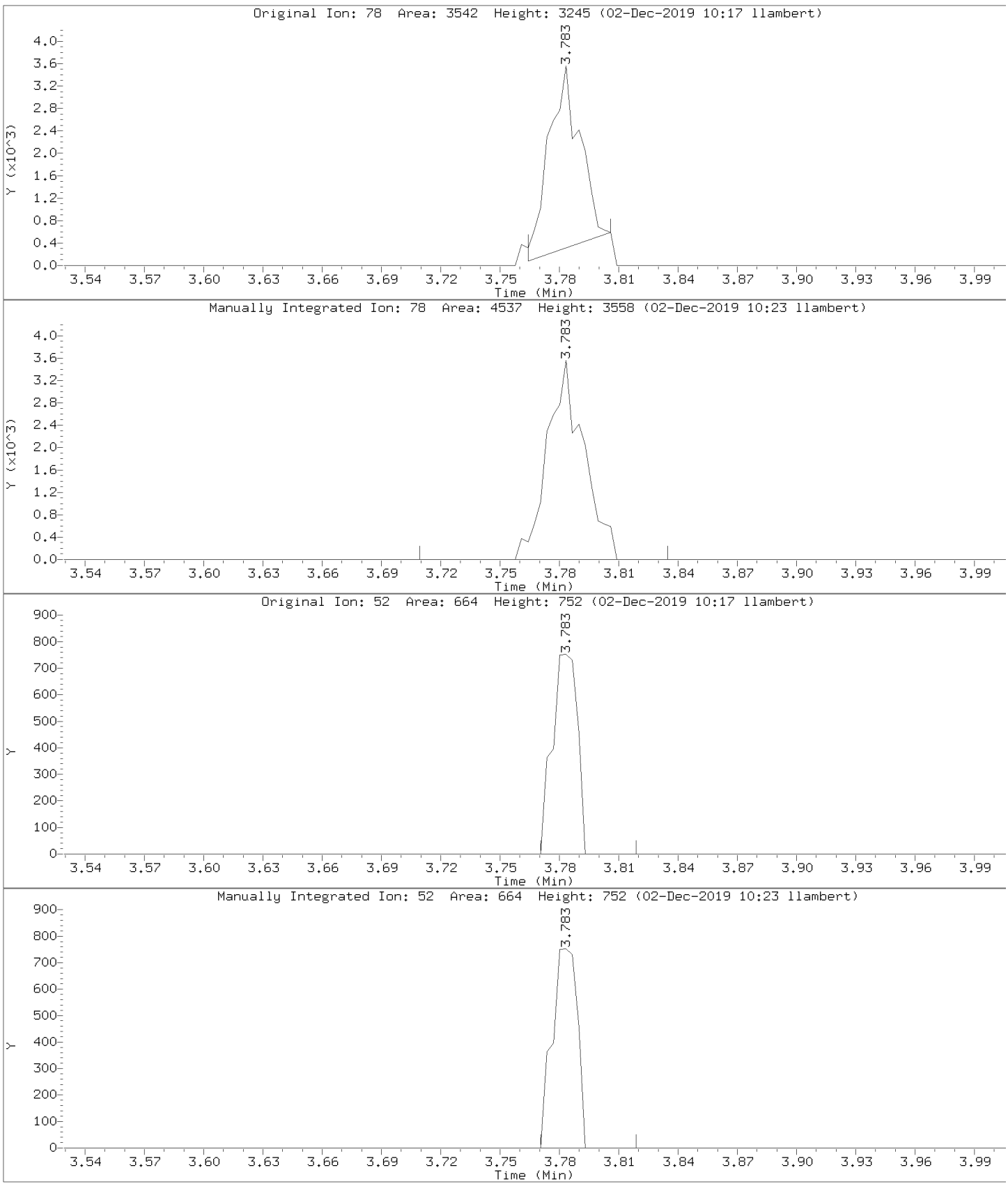






Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129026.d
Injection Date: 29-NOV-2019 13:17
Instrument: 30mv7b.i
Lab Sample ID: 30337003005

Compound: Benzene Review Code: LT
CAS Number: 71-43-2



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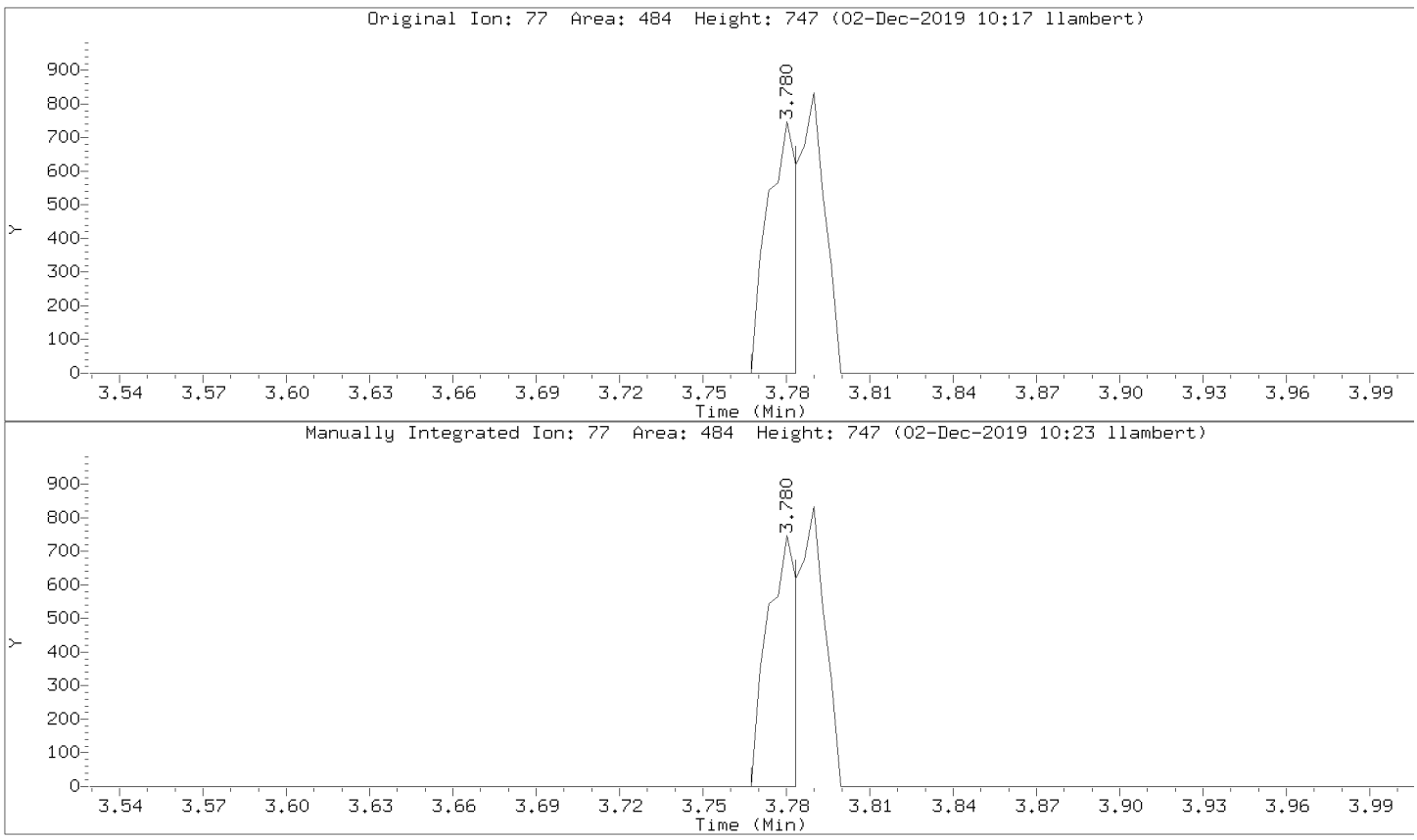
Injection Date: 29-NOV-2019 13:17
Instrument: 30mv7b.i
Lab Sample ID: 30337003005



SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:12 Lab Sample ID: 30337003006

Date Analyzed: 11/29/2019 16:12 Lab File ID: 7191129.B\2.B\71129040.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	20.4	
71-43-2	Benzene	16.2	
108-86-1	Bromobenzene	14.3	
74-97-5	Bromochloromethane	16.9	
75-27-4	Bromodichloromethane	16.3	
75-25-2	Bromoform	12.4	
74-83-9	Bromomethane	4.7	
78-93-3	2-Butanone (MEK)	17.2	
104-51-8	n-Butylbenzene	14.3	
135-98-8	sec-Butylbenzene	15.4	
98-06-6	tert-Butylbenzene	16.2	
75-15-0	Carbon disulfide	14.0	
56-23-5	Carbon tetrachloride	17.7	
108-90-7	Chlorobenzene	16.8	
75-00-3	Chloroethane	21.7	
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	16.5	
74-87-3	Chloromethane	16.4	
95-49-8	2-Chlorotoluene	16.2	
106-43-4	4-Chlorotoluene	15.6	
96-12-8	1,2-Dibromo-3-chloropropane	13.3	
124-48-1	Dibromochloromethane	14.6	
106-93-4	1,2-Dibromoethane (EDB)	15.0	
74-95-3	Dibromomethane	15.5	
95-50-1	1,2-Dichlorobenzene	15.1	
541-73-1	1,3-Dichlorobenzene	15.6	
106-46-7	1,4-Dichlorobenzene	14.8	
75-71-8	Dichlorodifluoromethane	22.2	
75-34-3	1,1-Dichloroethane	44.5	
107-06-2	1,2-Dichloroethane	18.1	
75-35-4	1,1-Dichloroethene	67.9	
156-59-2	cis-1,2-Dichloroethene	59.9	
156-60-5	trans-1,2-Dichloroethene	18.5	
78-87-5	1,2-Dichloropropane	17.1	
142-28-9	1,3-Dichloropropane	14.5	
594-20-7	2,2-Dichloropropane	17.2	
563-58-6	1,1-Dichloropropene	16.8	

SAMPLE NO.

MS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:12 Lab Sample ID: 30337003006

Date Analyzed: 11/29/2019 16:12 Lab File ID: 7191129.B\2.B\71129040.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	15.2	
10061-02-6	trans-1,3-Dichloropropene	15.5	
100-41-4	Ethylbenzene	16.5	
87-68-3	Hexachloro-1,3-butadiene	11.8	
591-78-6	2-Hexanone	18.0	
98-82-8	Isopropylbenzene (Cumene)	17.4	
99-87-6	p-Isopropyltoluene	15.7	
75-09-2	Methylene Chloride	20.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2	
1634-04-4	Methyl-tert-butyl ether	15.8	
91-20-3	Naphthalene	13.6	
103-65-1	n-Propylbenzene	15.8	
100-42-5	Styrene	16.8	
630-20-6	1,1,1,2-Tetrachloroethane	16.9	
79-34-5	1,1,2,2-Tetrachloroethane	15.2	
127-18-4	Tetrachloroethene	17.2	
108-88-3	Toluene	16.0	
87-61-6	1,2,3-Trichlorobenzene	13.3	
120-82-1	1,2,4-Trichlorobenzene	13.4	
71-55-6	1,1,1-Trichloroethane	183	
79-00-5	1,1,2-Trichloroethane	16.0	
79-01-6	Trichloroethene	317	
75-69-4	Trichlorofluoromethane	18.7	
95-63-6	1,2,4-Trimethylbenzene	15.4	
108-67-8	1,3,5-Trimethylbenzene	15.3	
108-05-4	Vinyl acetate	13.4	
75-01-4	Vinyl chloride	24.4	
1330-20-7	Xylene (Total)	47.8	
179601-23-1	m&p-Xylene	32.5	
95-47-6	o-Xylene	15.3	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Lab Smp Id: 30337003006 Client Smp ID: MS
Inj Date : 29-NOV-2019 16:12
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003006
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 40
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.844	0.841	(0.208)	39054	22.2188	22.2	
2 Chloromethane	50	0.941	0.941	(0.231)	36285	16.3601	16.4	
3 Vinyl chloride	62	0.983	0.979	(0.242)	51747	24.4066	24.4	
4 Bromomethane	94	1.140	1.140	(0.280)	3307	4.69441	4.69	
5 Chloroethane	64	1.195	1.198	(0.294)	13699	21.7196	21.7	
6 Trichlorofluoromethane	101	1.269	1.269	(0.312)	55354	18.7021	18.7	
7 Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	25109	16.2542	16.2	
8 Ethanol	46	1.536	1.542	(0.237)	3167	141.094	141(Q)	
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	186407	67.9013	67.9	
10 1,1,2-Trichlorotrifluoroethane	151	1.568	1.571	(0.386)	24861	16.7610	16.8	
11 Carbon disulfide	76	1.568	1.568	(0.386)	64422	13.9610	14.0	
12 Iodomethane	142	1.635	1.635	(0.402)	3301	3.86720	3.87(Q)	
13 Acrolein	56	1.757	1.754	(0.432)	7431	15.6089	15.6	
14 Allyl chloride	41	1.835	1.835	(0.451)	227981	97.4174	97.4	
15 Methylene Chloride	49	1.905	1.902	(0.469)	40772	20.8430	20.8	
16 Acetone	58	1.947	1.944	(0.479)	7676	20.4211	20.4	
17 trans-1,2-Dichloroethene	61	2.011	2.008	(0.495)	43396	18.5091	18.5	
18 Methyl acetate	74	2.028	2.024	(0.499)	13075	17.5078	17.5	
19 n-Hexane	86	2.060	2.063	(0.507)	4000	14.3872	14.4	
20 Methyl-tert-butyl ether	73	2.089	2.089	(0.514)	75445	15.8427	15.8(Q)	
21 tert-Butyl Alcohol	59	2.169	2.172	(0.533)	67206	94.6645	94.7(Q)	
22 Acetonitrile	41	2.278	2.278	(0.560)	38626	98.8337	98.8	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Report Date: 02-Dec-2019 10:32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.378	2.375	(0.585)	99307	19.3491	19.3	
	24 Chloroprene	53	2.452	2.452	(0.603)	34874	19.5829	19.6	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	128796	44.5353	44.5	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	23113	19.0085	19.0	
	27 Ethyl-tert-butyl ether	59	2.690	2.687	(0.662)	85319	17.4223	17.4	
	28 Vinyl acetate	43	2.712	2.706	(0.667)	59720	13.3822	13.4	
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	132401	59.8883	59.9	
	30 2,2-Dichloropropane	77	3.063	3.066	(0.753)	37969	17.1946	17.2	
	31 Cyclohexane	56	3.146	3.146	(0.774)	48697	18.5113	18.5	
	32 Bromochloromethane	130	3.166	3.159	(0.779)	18618	16.9318	16.9	
	33 Chloroform	83	3.253	3.246	(0.800)	46076	16.4886	16.5	
	34 Ethyl acetate	43	3.417	3.407	(0.840)	25903	17.1568	17.2(Q)	
	35 Carbon tetrachloride	117	3.365	3.365	(0.828)	39844	17.7381	17.7	
	36 Tetrahydrofuran	42	3.417	3.407	(0.840)	29568	22.8038	22.8	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	47176	31.7856	31.8	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	441023	183.493	183	
	39 2-Butanone (MEK)	43	3.590	3.584	(0.883)	33712	17.1519	17.2	
	40 1,1-Dichloropropene	75	3.577	3.571	(0.880)	36843	16.7830	16.8	
	41 Benzene	78	3.783	3.780	(0.930)	104235	16.1796	16.2	
	42 Propionitrile	54	3.825	3.822	(0.941)	9014	19.1980	19.2(Q)	
	43 Methacrylonitrile	41	3.835	3.831	(0.943)	26763	17.6049	17.6	
	44 tert-Amylmethyl ether	73	3.889	3.886	(0.957)	63845	15.5351	15.5	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	50451	33.0415	33.0(Q)	
	45 Isobutanol	43	3.995	3.992	(0.983)	18739	94.2737	94.3(Q)	
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	36773	18.1012	18.1	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	171682	30.0000		
	49 Methylcyclohexane	55	4.146	4.150	(1.020)	29133	18.8516	18.8(Q)	
	50 Trichloroethene	132	4.166	4.162	(1.025)	588074	317.339	317	
	51 Dibromomethane	174	4.384	4.384	(1.078)	19839	15.5143	15.5	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	25998	17.1435	17.1	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	28404	16.3463	16.3	
	54 Methyl methacrylate	69	4.552	4.551	(1.119)	20655	15.4647	15.5	
	55 1,4-Dioxane (p-Dioxane)	88	4.577	4.568	(1.126)	4583	159.145	159	
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	4.748	4.744	(1.168)	32801	15.2236	15.2	
$	58 Toluene-d8 (S)	98	4.822	4.822	(0.875)	150454	28.2828	28.3	
	59 Toluene	91	4.847	4.844	(0.879)	109241	16.0185	16.0	
	60 2-Nitropropane	43	4.957	4.957	(1.219)	78161	94.3641	94.4	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	52737	19.2029	19.2	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	32221	17.1701	17.2	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	32137	15.4612	15.5	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	24966	17.5894	17.6	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	24251	16.0105	16.0	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	24454	14.6156	14.6	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	36900	14.4941	14.5	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	26137	15.0297	15.0	
	69 2-Hexanone	43	5.391	5.391	(0.978)	44091	17.9977	18.0	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	118259	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	35437	16.5383	16.5	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	68571	16.8372	16.8	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	25519	16.9059	16.9	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	84340	32.4805	32.5	
	75 o-Xylene	106	5.770	5.770	(1.047)	38596	15.3269	15.3	
	76 Styrene	104	5.793	5.793	(1.051)	64168	16.8206	16.8	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Report Date: 02-Dec-2019 10:32

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	77	Bromoform	173	5.809	5.809	(0.896)	16357	12.3903	12.4	
	78	Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	92824	17.3633	17.4	
$	79	4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	46987	28.4456	28.4	
	80	n-Propylbenzene	91	6.069	6.069	(0.936)	93840	15.7875	15.8	
	81	Bromobenzene	77	6.066	6.066	(0.936)	37264	14.2516	14.2	
	82	1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	34229	15.2423	15.2	
	83	1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	63296	15.3234	15.3	
	84	2-Chlorotoluene	126	6.140	6.140	(0.947)	22741	16.2266	16.2	
	85	1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	12464	15.5844	15.6	
	86	trans-1,4-Dichloro-2-butene	53	6.172	6.172	(0.952)	6965	9.63063	9.63	
	87	Cyclohexanone	55	6.185	6.185	(0.954)	11932	54.8566	54.8	
	88	4-Chlorotoluene	126	6.207	6.207	(0.958)	23125	15.5892	15.6	
	89	tert-Butylbenzene	119	6.281	6.278	(0.969)	54167	16.1839	16.2	
	90	1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	62945	15.3528	15.4	
	91	sec-Butylbenzene	105	6.352	6.352	(0.980)	69048	15.4242	15.4	
	92	p-Isopropyltoluene	119	6.407	6.407	(0.989)	59496	15.6979	15.7	
	93	1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	40054	15.5803	15.6	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	52995	30.0000		
	95	1,4-Dichlorobenzene	146	6.487	6.487	(1.001)	40877	14.8268	14.8	
	96	n-Butylbenzene	91	6.584	6.584	(1.016)	41992	14.3003	14.3	
$	98	1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	24107	29.8345	29.8	
	97	1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	37813	15.0733	15.1	
	99	1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	10941	13.3093	13.3	
	103	1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	18548	13.7255	13.7	
	100	Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	7229	11.7878	11.8	
	101	1,2,4-Trichlorobenzene	180	7.272	7.272	(1.122)	16758	13.4289	13.4	
	102	Naphthalene	128	7.410	7.410	(1.143)	74860	13.5780	13.6	
	104	1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	16493	13.2538	13.2	
	105	2-Methylnaphthalene	142	7.847	7.847	(1.211)	28727	12.4847	12.5	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Review Codes Legend

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Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003006
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MS
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	22.2	
74-87-3	Chloromethane	16.4	
75-01-4	Vinyl chloride	24.4	
74-83-9	Bromomethane	4.69	
75-00-3	Chloroethane	21.7	
75-69-4	Trichlorofluoromethane	18.7	
60-29-7	Diethyl ether (Ethyl ether)	16.2	
64-17-5	Ethanol	141	
75-35-4	1,1-Dichloroethene	67.9	
76-13-1	1,1,2-Trichlorotrifluoroetha	16.8	
75-15-0	Carbon disulfide	14.0	
74-88-4	Iodomethane	3.87	
107-02-8	Acrolein	15.6	
107-05-1	Allyl chloride	97.4	
75-09-2	Methylene Chloride	20.8	
67-64-1	Acetone	20.4	
156-60-5	trans-1,2-Dichloroethene	18.5	
79-20-9	Methyl acetate	17.5	
110-54-3	n-Hexane	14.4	
1634-04-4	Methyl-tert-butyl ether	15.8	
75-65-0	tert-Butyl Alcohol	94.7	
75-05-8	Acetonitrile	98.8	
108-20-3	Diisopropyl ether	19.3	
126-99-8	Chloroprene	19.6	
75-34-3	1,1-Dichloroethane	44.5	
107-13-1	Acrylonitrile	19.0	
637-92-3	Ethyl-tert-butyl ether	17.4	
108-05-4	Vinyl acetate	13.4	
156-59-2	cis-1,2-Dichloroethene	59.9	
594-20-7	2,2-Dichloropropane	17.2	
110-82-7	Cyclohexane	18.5	
74-97-5	Bromochloromethane	16.9	
67-66-3	Chloroform	16.5	
141-78-6	Ethyl acetate	17.2	
56-23-5	Carbon tetrachloride	17.7	
109-99-9	Tetrahydrofuran	22.8	
71-55-6	1,1,1-Trichloroethane	183	
78-93-3	2-Butanone (MEK)	17.2	
563-58-6	1,1-Dichloropropene	16.8	
71-43-2	Benzene	16.2	
107-12-0	Propionitrile	19.2	
126-98-7	Methacrylonitrile	17.6	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003006
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MS
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	15.5	
78-83-1	Isobutanol	94.3	
107-06-2	1,2-Dichloroethane	18.1	
108-87-2	Methylcyclohexane	18.8	
79-01-6	Trichloroethene	317	
74-95-3	Dibromomethane	15.5	
78-87-5	1,2-Dichloropropane	17.1	
75-27-4	Bromodichloromethane	16.3	
80-62-6	Methyl methacrylate	15.5	
123-91-1	1,4-Dioxane (p-Dioxane)	159	
10061-01-5	cis-1,3-Dichloropropene	15.2	
108-88-3	Toluene	16.0	
79-46-9	2-Nitropropane	94.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2	
127-18-4	Tetrachloroethene	17.2	
10061-02-6	trans-1,3-Dichloropropene	15.5	
97-63-2	Ethyl methacrylate	17.6	
79-00-5	1,1,2-Trichloroethane	16.0	
124-48-1	Dibromochloromethane	14.6	
142-28-9	1,3-Dichloropropane	14.5	
106-93-4	1,2-Dibromoethane (EDB)	15.0	
591-78-6	2-Hexanone	18.0	
100-41-4	Ethylbenzene	16.5	
108-90-7	Chlorobenzene	16.8	
630-20-6	1,1,1,2-Tetrachloroethane	16.9	
7816-60-0	m&p-Xylene	32.5	
95-47-6	o-Xylene	15.3	
100-42-5	Styrene	16.8	
75-25-2	Bromoform	12.4	
98-82-8	Isopropylbenzene (Cumene)	17.4	
103-65-1	n-Propylbenzene	15.8	
108-86-1	Bromobenzene	14.2	
79-34-5	1,1,2,2-Tetrachloroethane	15.2	
108-67-8	1,3,5-Trimethylbenzene	15.3	
95-49-8	2-Chlorotoluene	16.2	
96-18-4	1,2,3-Trichloropropane	15.6	
110-57-6	trans-1,4-Dichloro-2-butene	9.63	
108-94-1	Cyclohexanone	54.8	
106-43-4	4-Chlorotoluene	15.6	
98-06-6	tert-Butylbenzene	16.2	
95-63-6	1,2,4-Trimethylbenzene	15.4	
135-98-8	sec-Butylbenzene	15.4	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Report Date: 02-Dec-2019 10:32

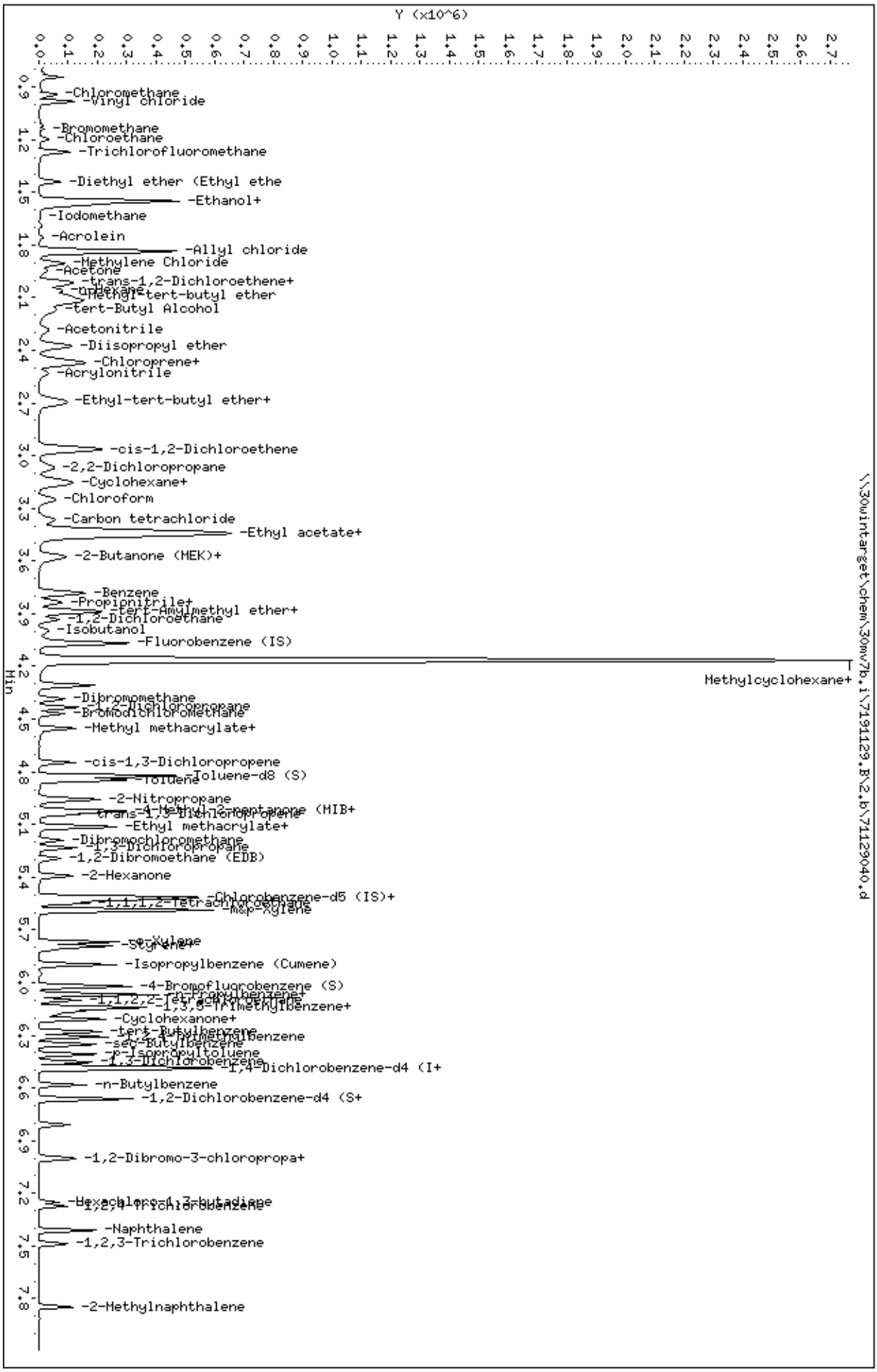
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003006
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MS
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
99-87-6	p-Isopropyltoluene	15.7	
541-73-1	1,3-Dichlorobenzene	15.6	
106-46-7	1,4-Dichlorobenzene	14.8	
104-51-8	n-Butylbenzene	14.3	
95-50-1	1,2-Dichlorobenzene	15.1	
96-12-8	1,2-Dibromo-3-chloropropane	13.3	
108-70-3	1,3,5-Trichlorobenzene	13.7	
87-68-3	Hexachloro-1,3-butadiene	11.8	
120-82-1	1,2,4-Trichlorobenzene	13.4	
91-20-3	Naphthalene	13.6	
87-61-6	1,2,3-Trichlorobenzene	13.2	
91-57-6	2-Methylnaphthalene	12.5	
1868-53-7	Dibromofluoromethane (S)	31.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.0	
2037-26-5	Toluene-d8 (S)	28.3	
460-00-4	4-Bromofluorobenzene (S)	28.4	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.8	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Date : 29-NOV-2019 16:12
Client ID: MS
Sample Info: 30337003006
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
trans-1,3-Dichloropropene
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-2-Chlorotoluene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

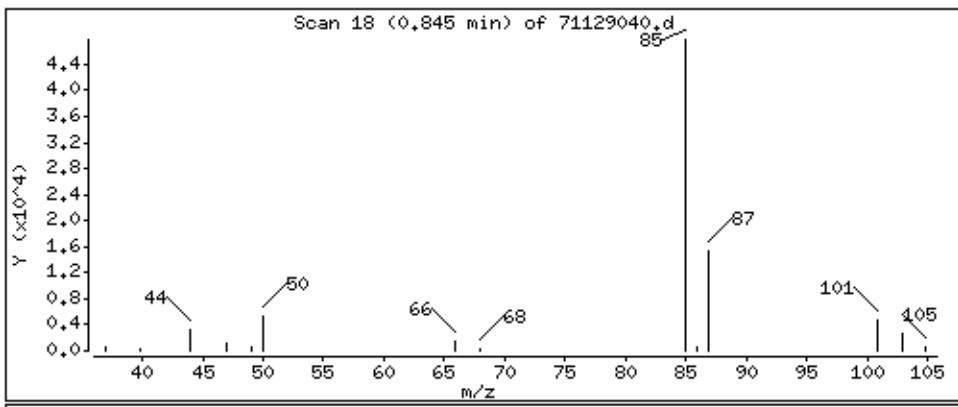
Column phase: RTX-VMS

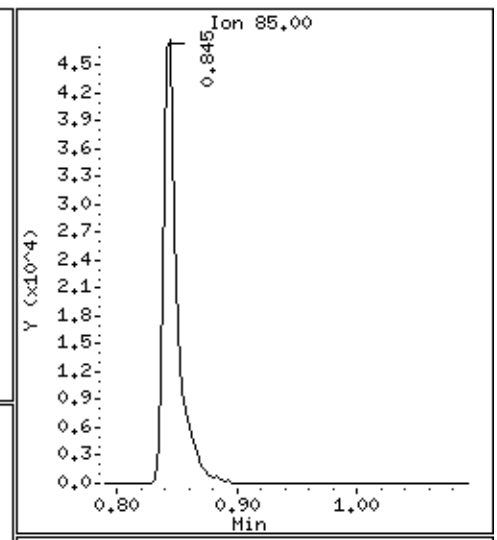
Column diameter: 0.18

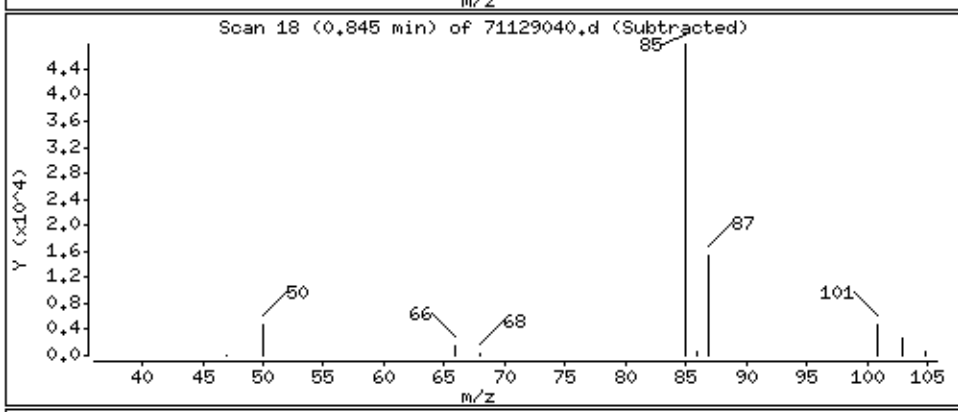
1 Dichlorodifluoromethane

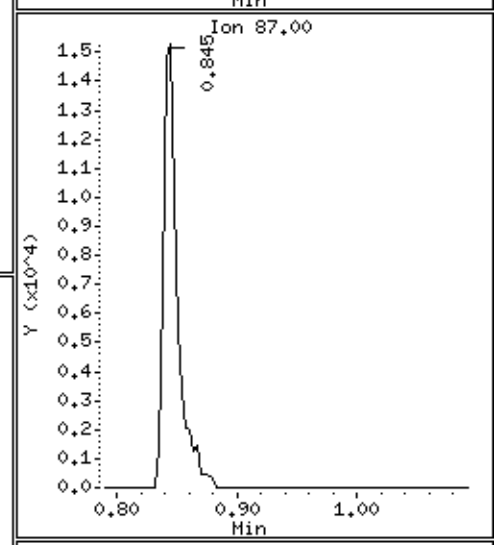
Concentration: 22.2 ug/L

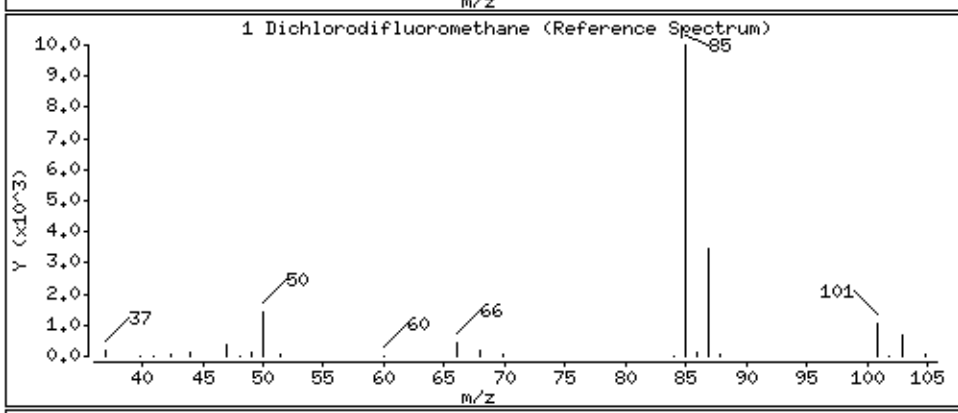
Review Code:

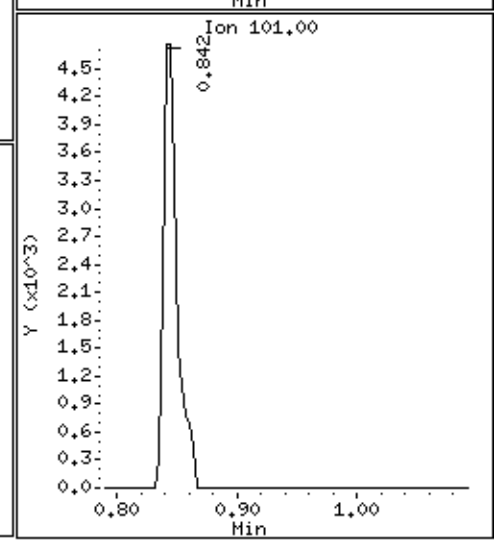


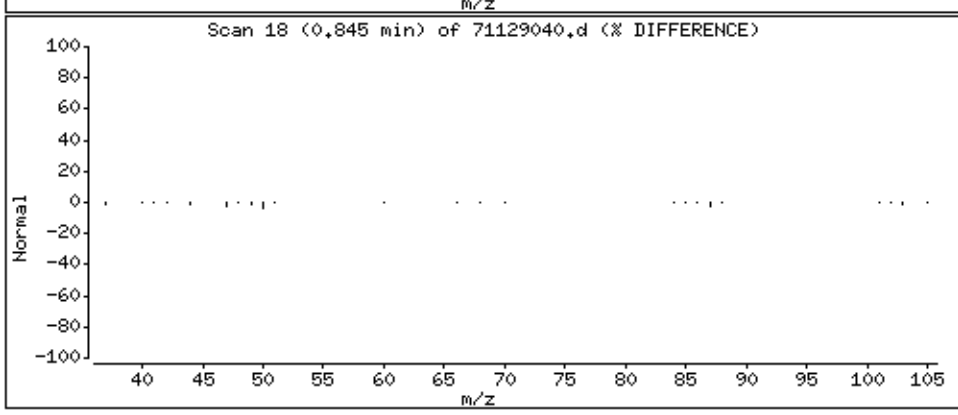












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

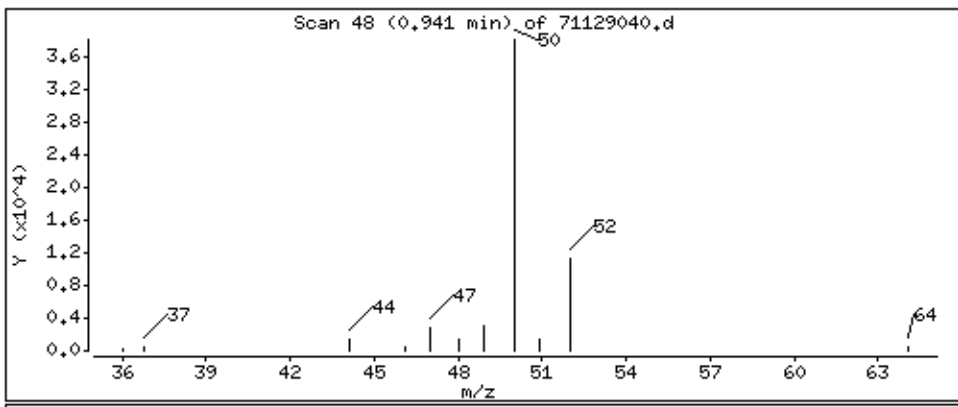
Column phase: RTX-VMS

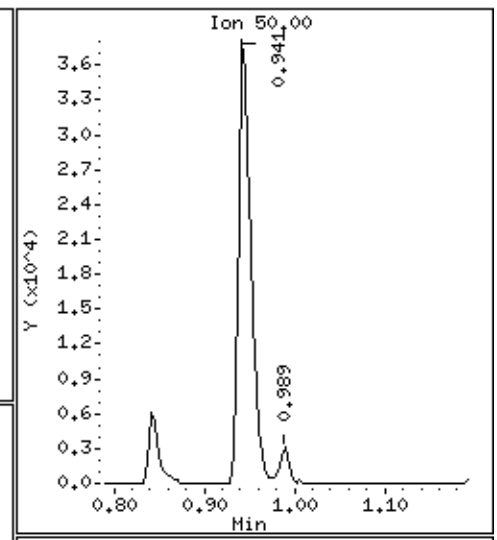
Column diameter: 0.18

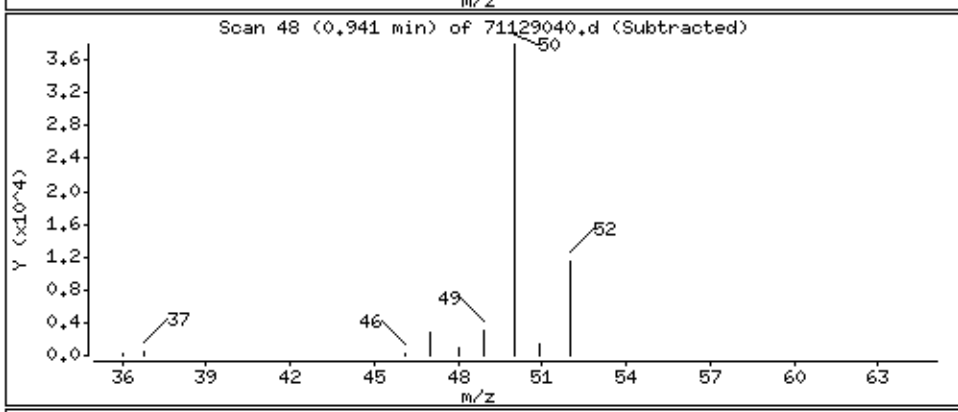
2 Chloromethane

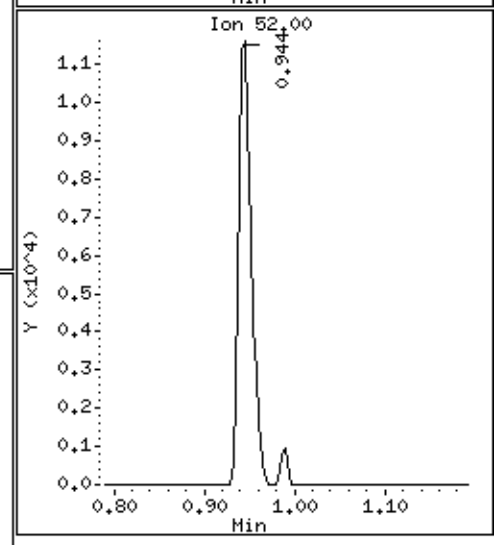
Concentration: 16.4 ug/L

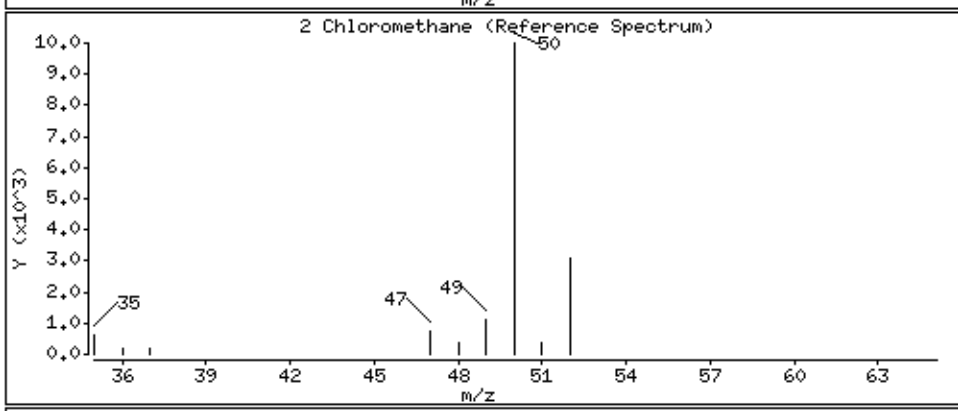
Review Code:

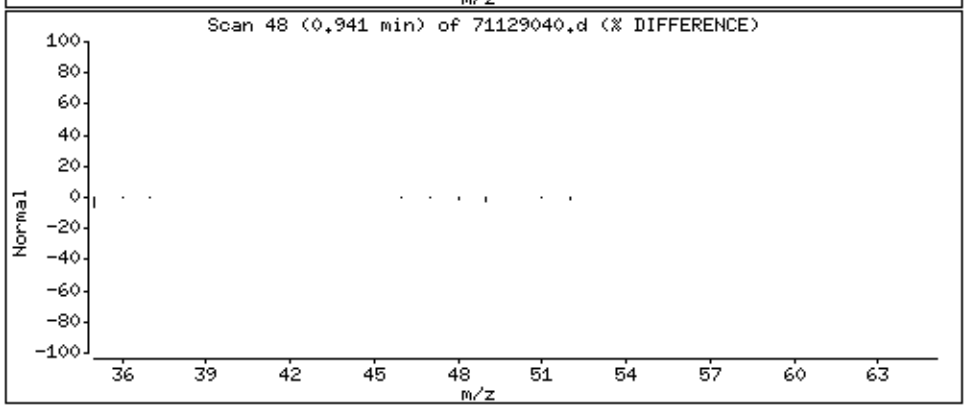












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

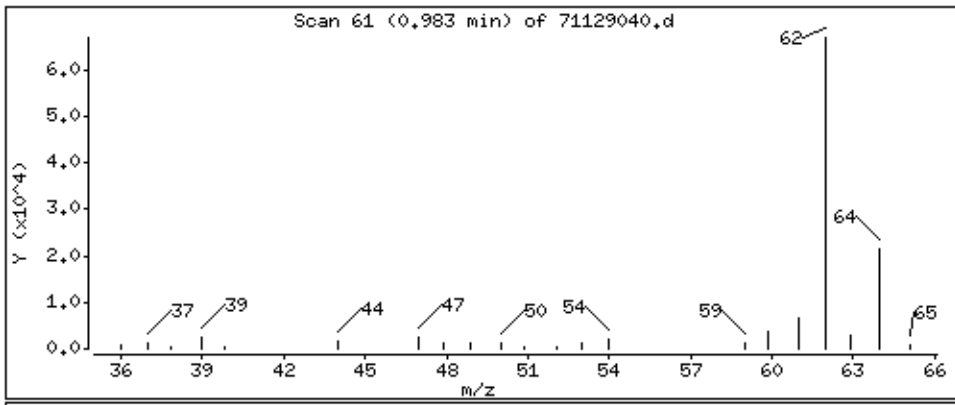
Column phase: RTX-VMS

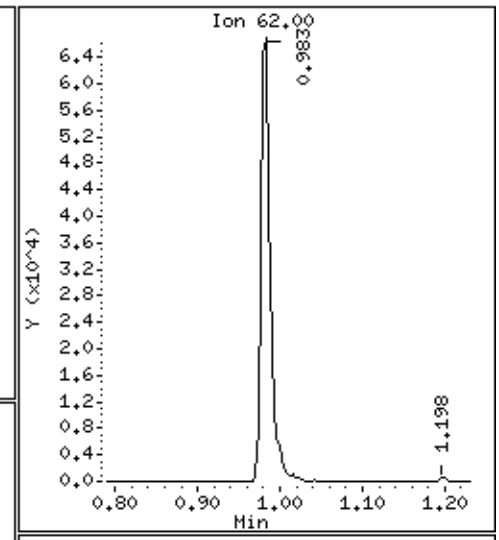
Column diameter: 0.18

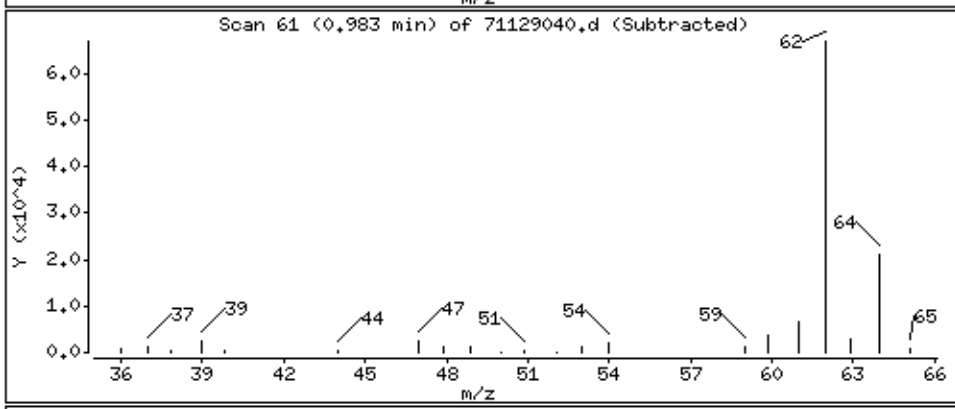
3 Vinyl chloride

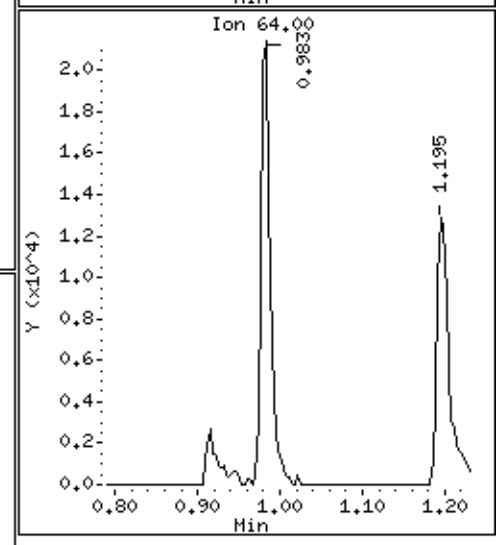
Concentration: 24.4 ug/L

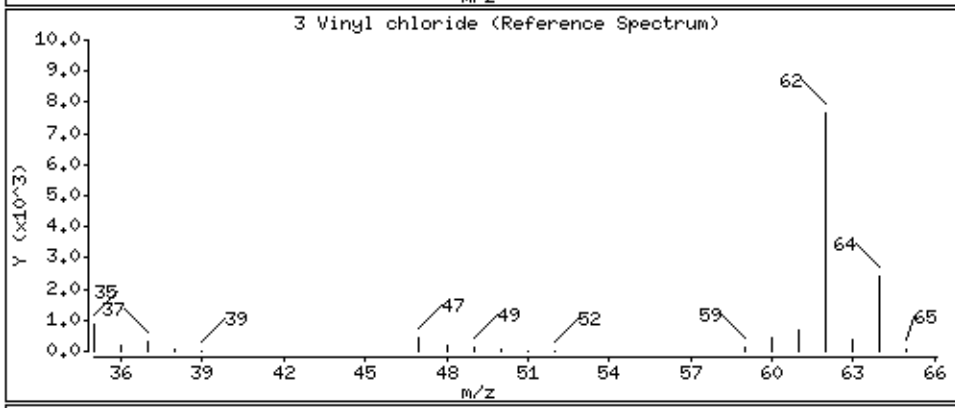
Review Code:

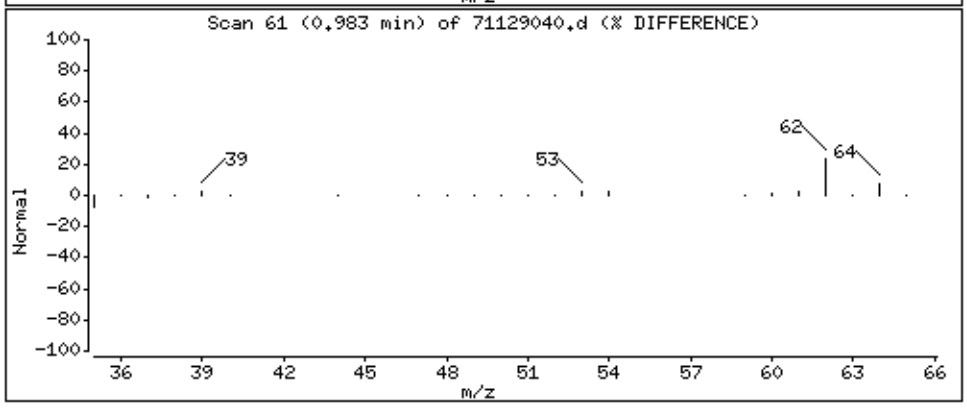












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

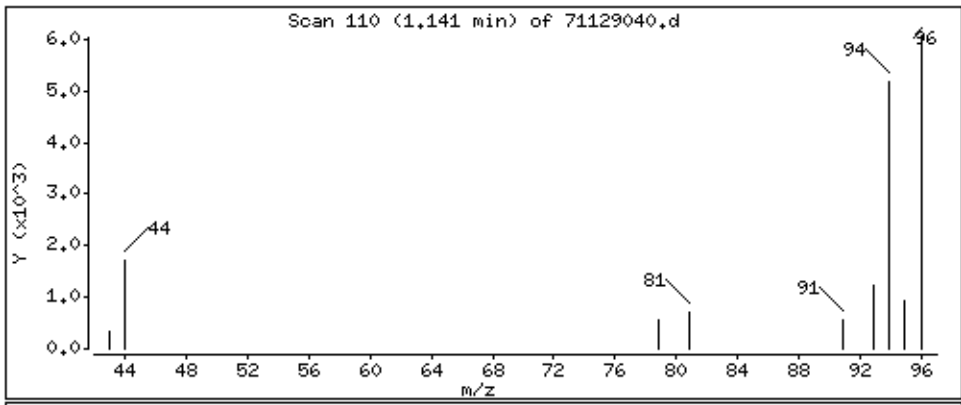
Column phase: RTX-VMS

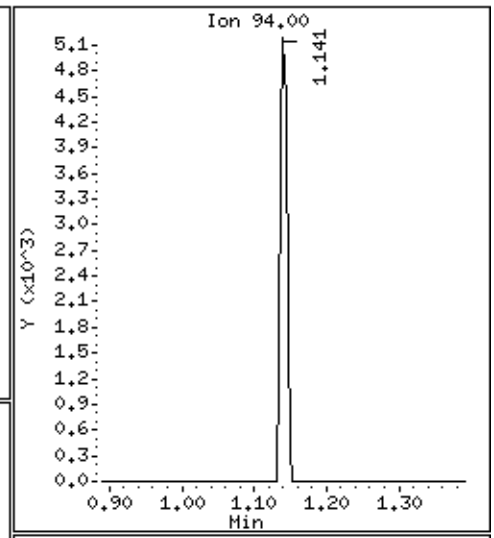
Column diameter: 0.18

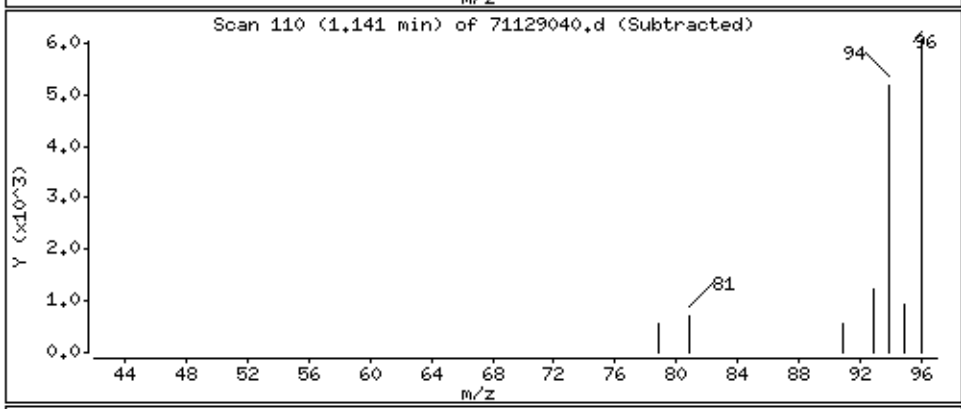
4 Bromomethane

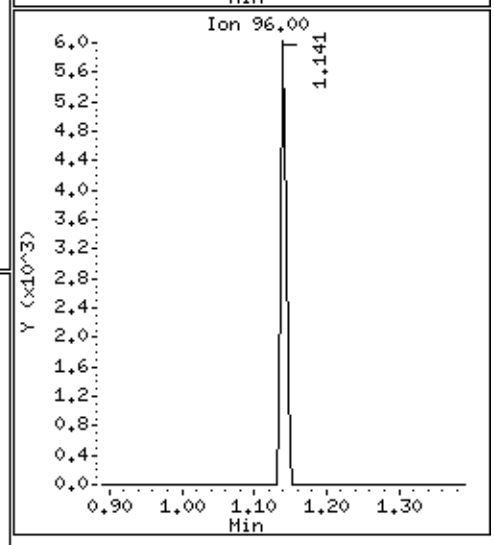
Concentration: 4.69 ug/L

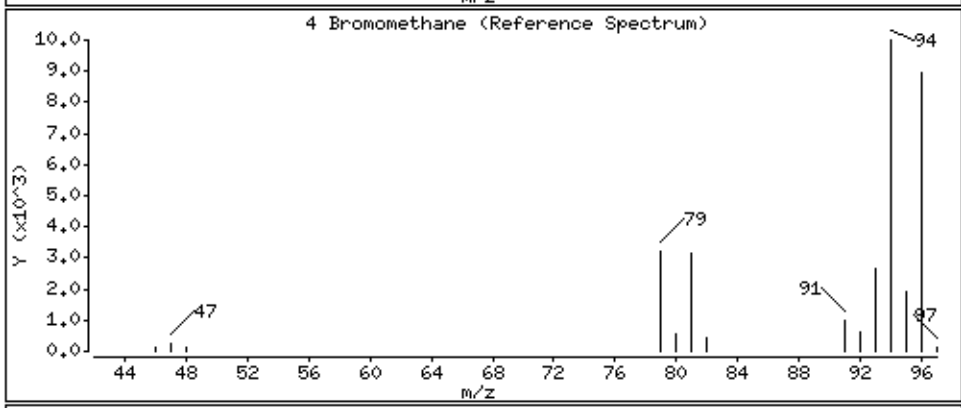
Review Code:

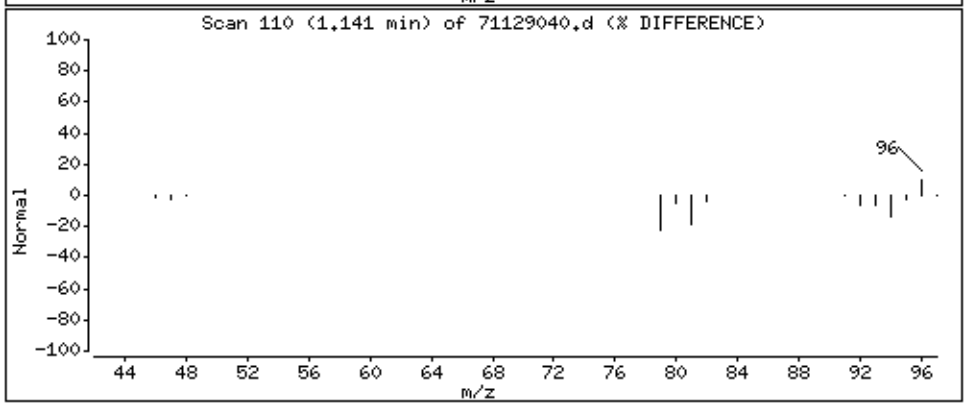












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

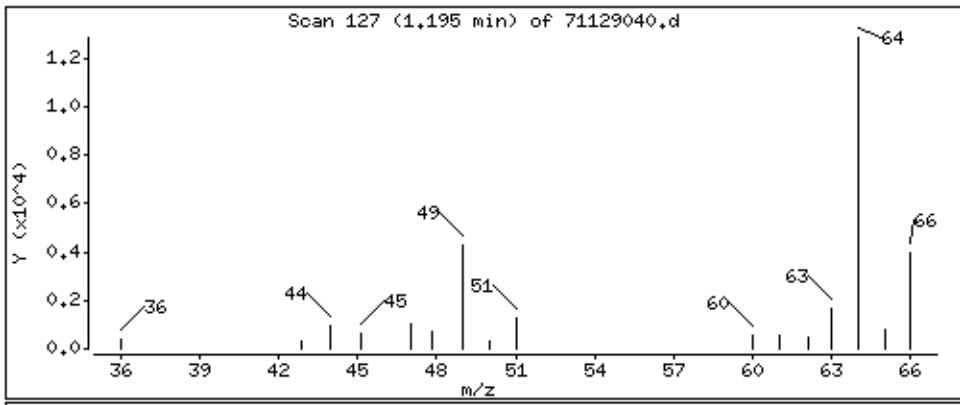
Column phase: RTX-VMS

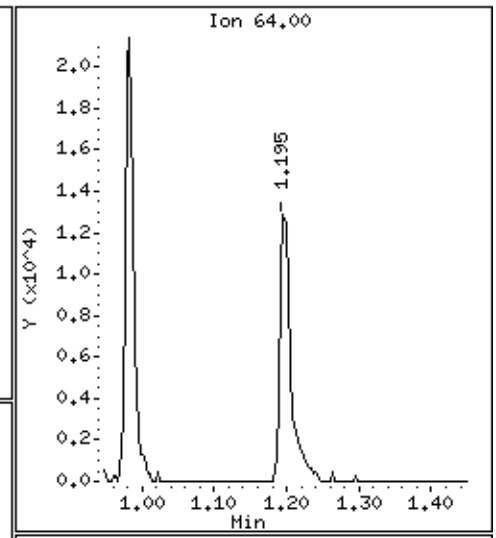
Column diameter: 0.18

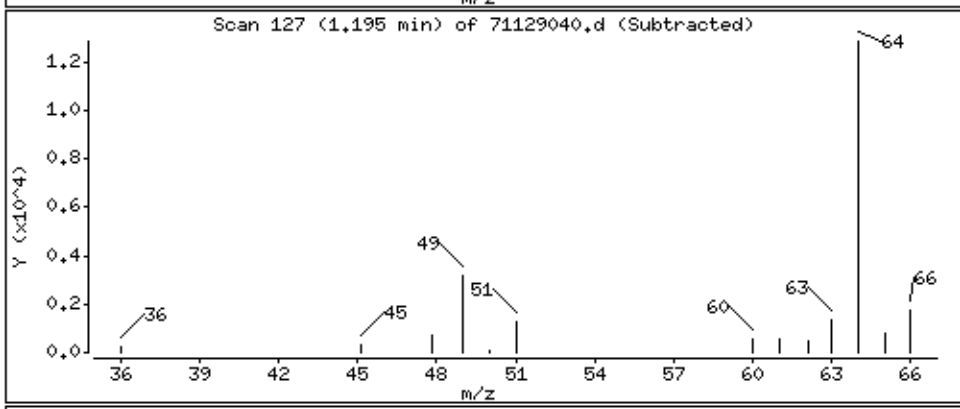
5 Chloroethane

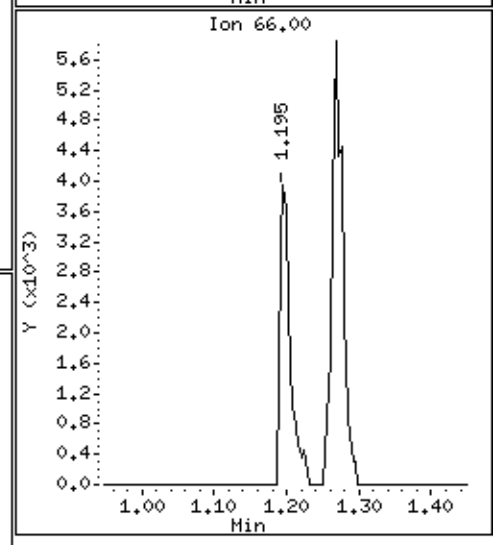
Concentration: 21.7 ug/L

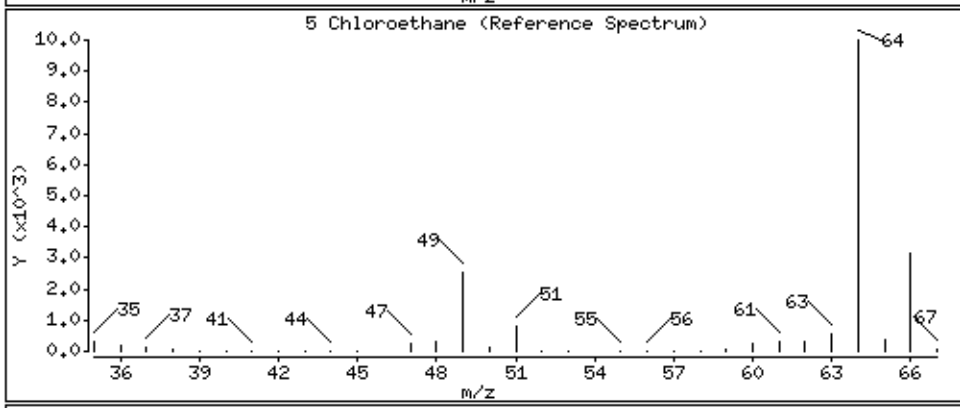
Review Code:

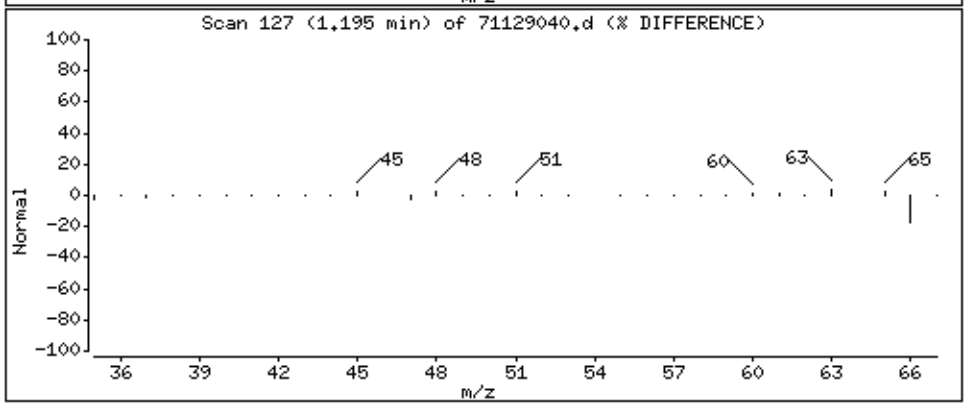












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

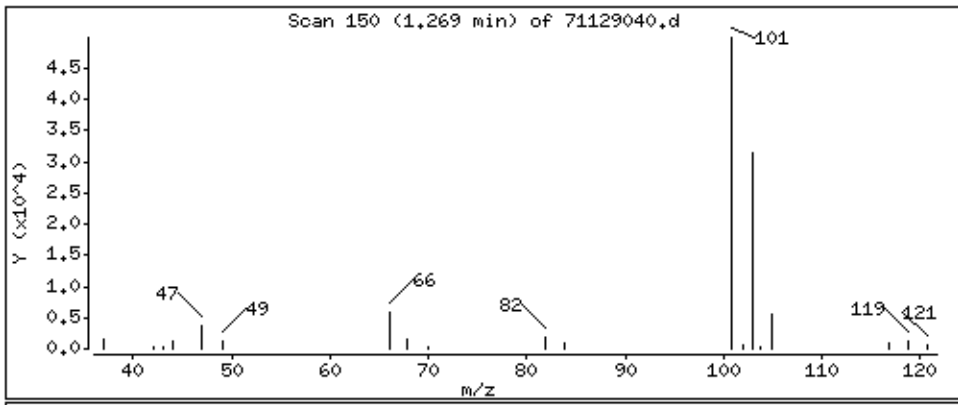
Column phase: RTX-VMS

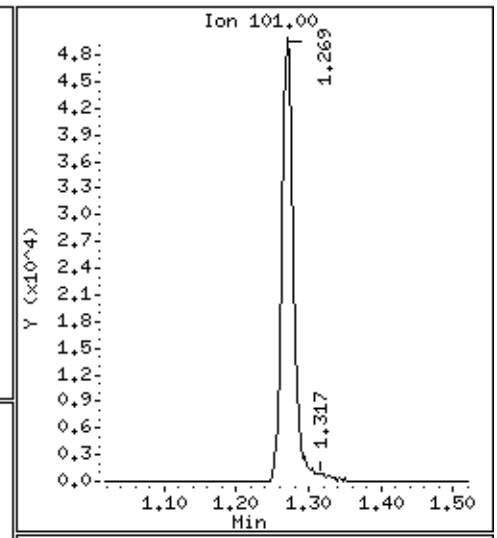
Column diameter: 0.18

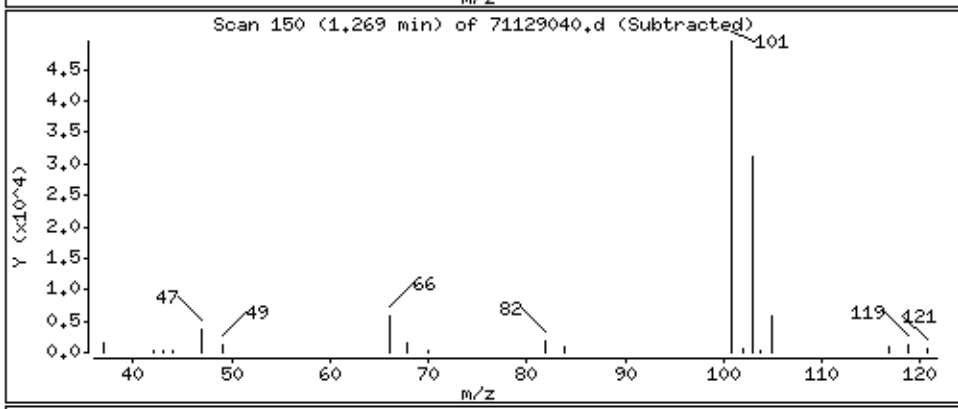
6 Trichlorofluoromethane

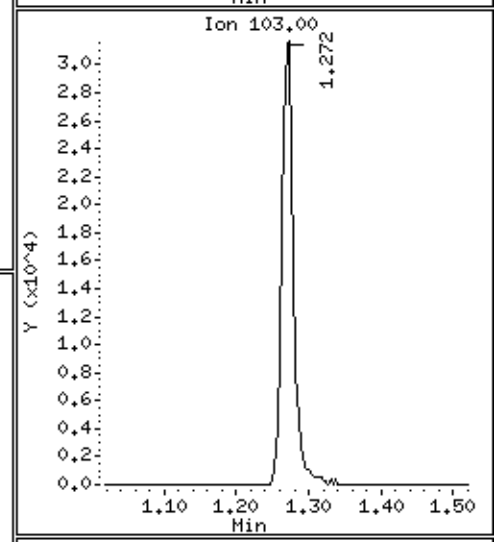
Concentration: 18.7 ug/L

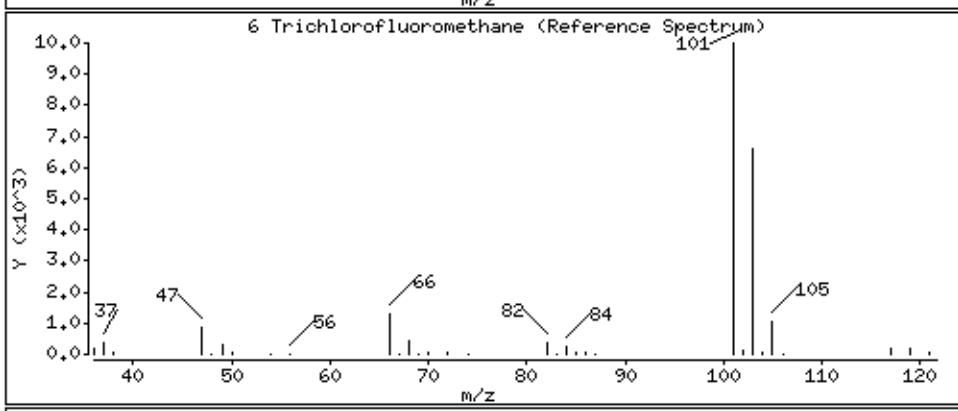
Review Code:

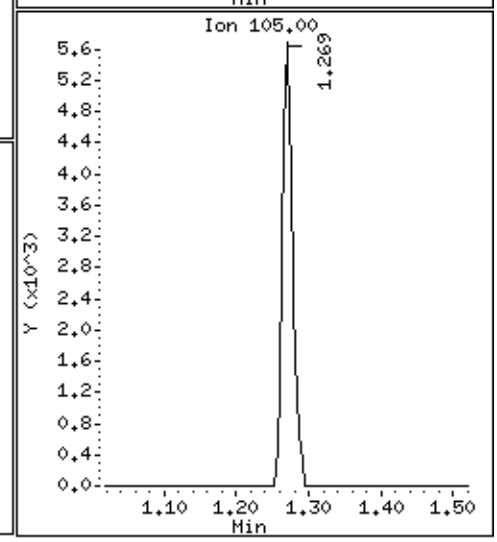


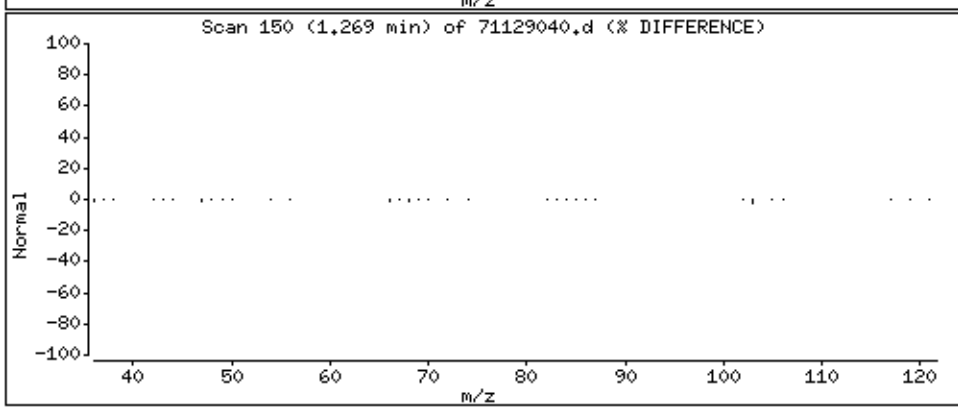












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

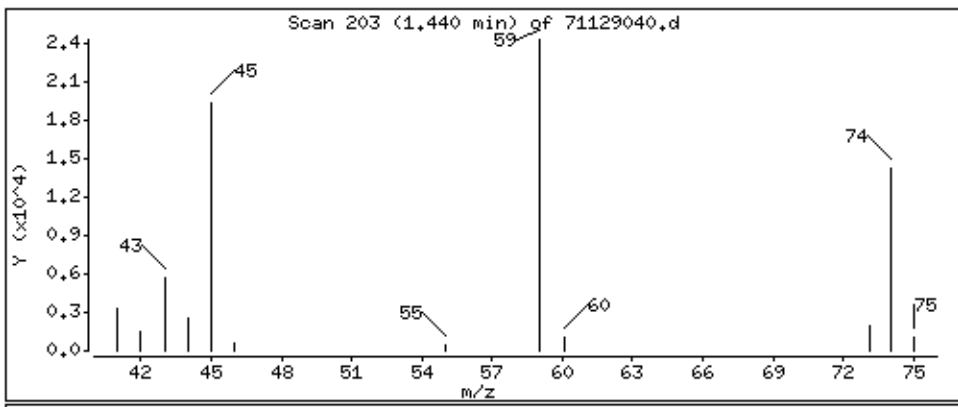
Column phase: RTX-VMS

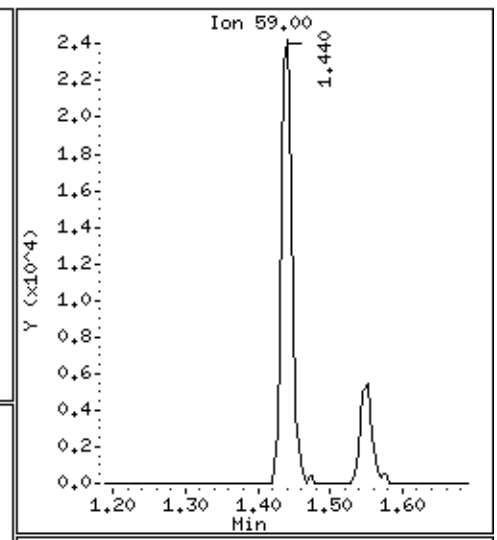
Column diameter: 0.18

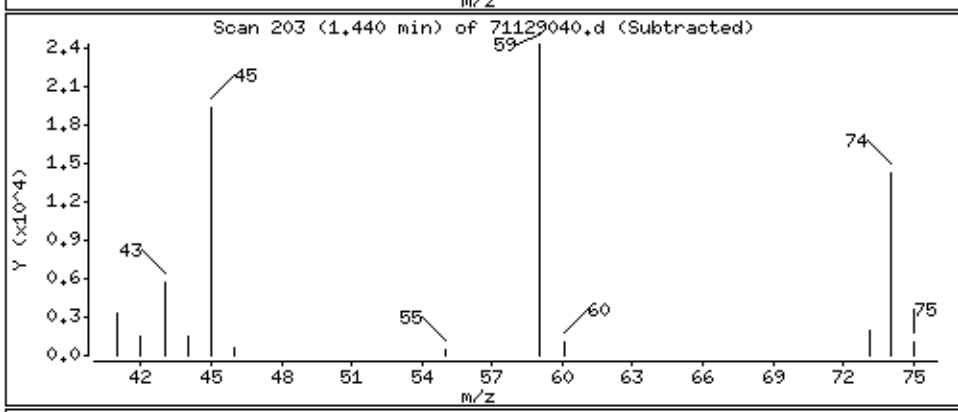
7 Diethyl ether (Ethyl ether)

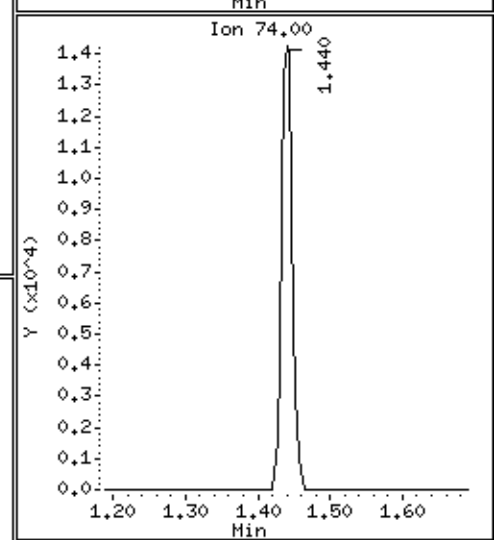
Concentration: 16.2 ug/L

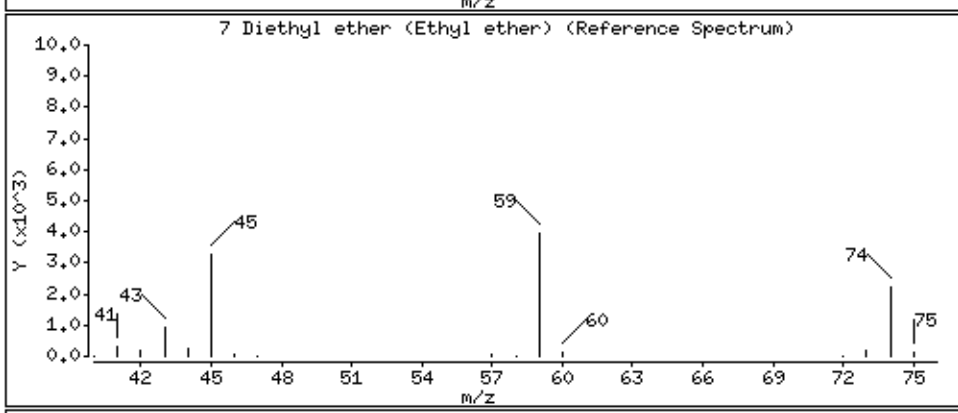
Review Code:

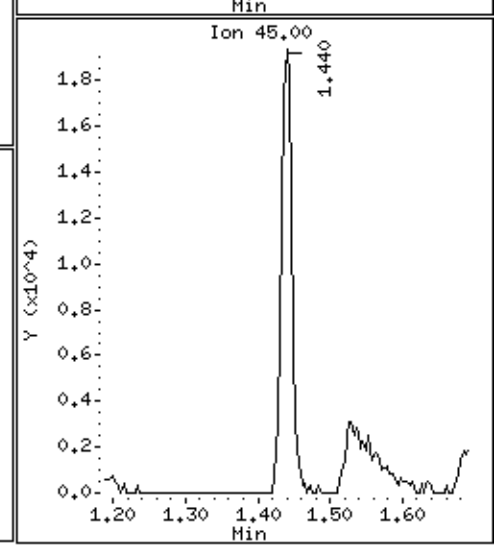


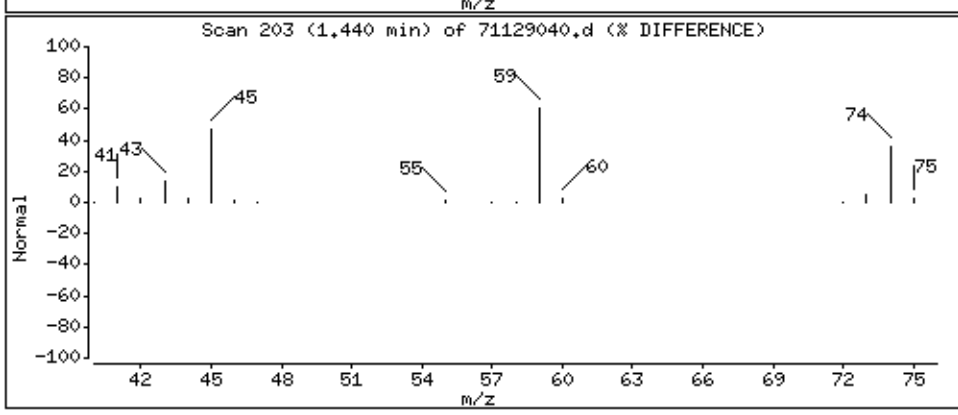












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

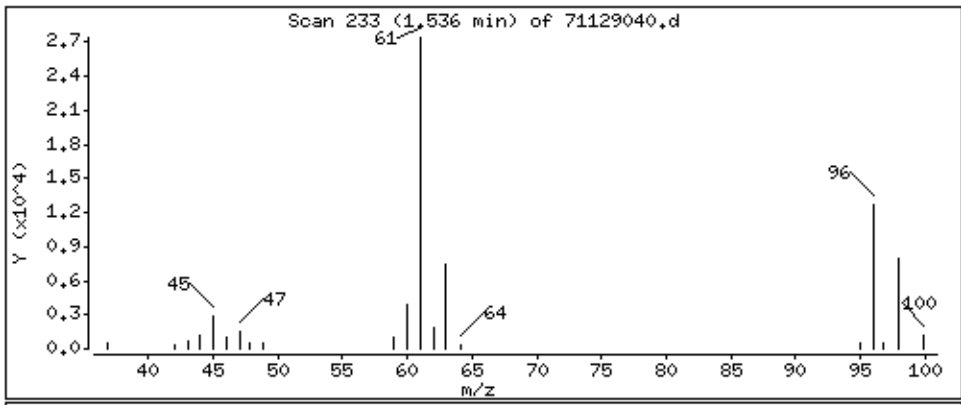
Column phase: RTX-VMS

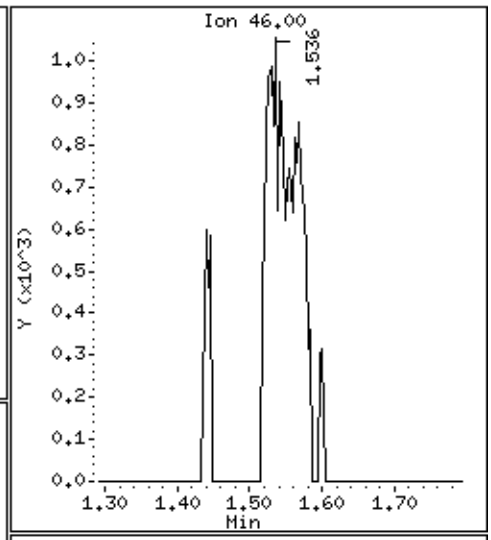
Column diameter: 0.18

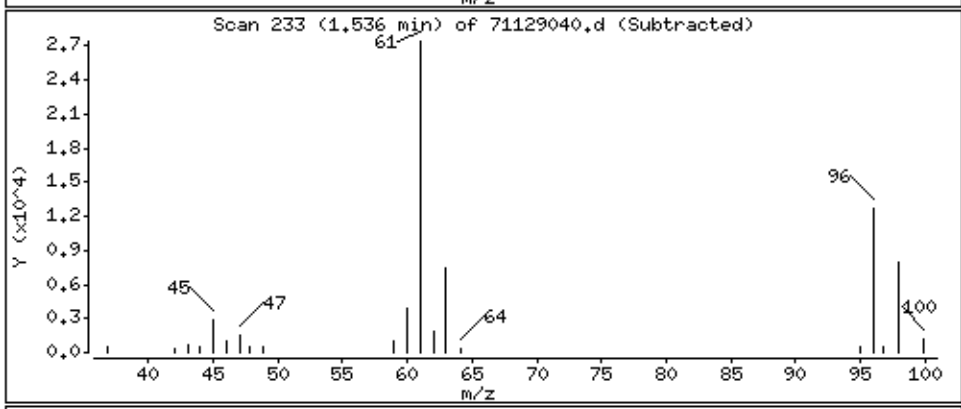
8 Ethanol

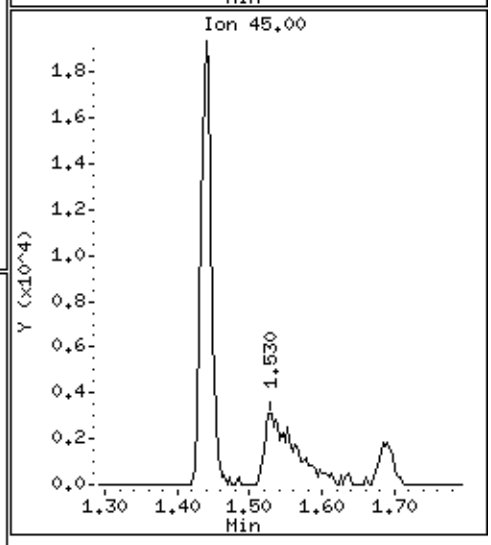
Concentration: 141 ug/L

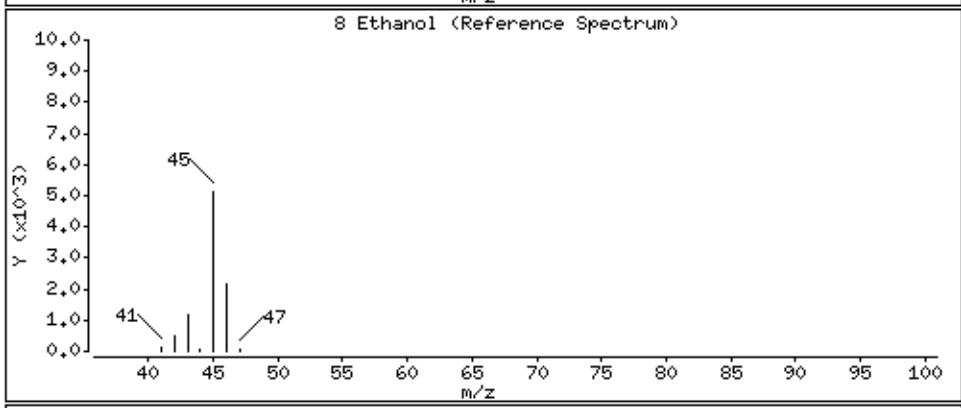
Review Code:

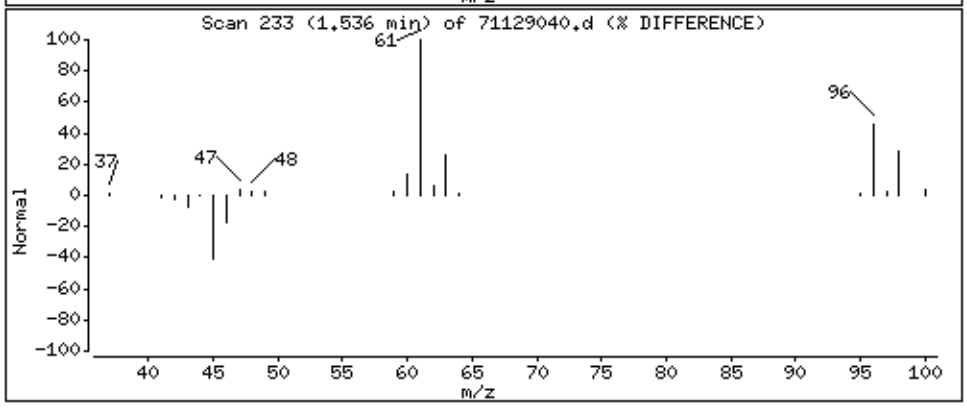












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

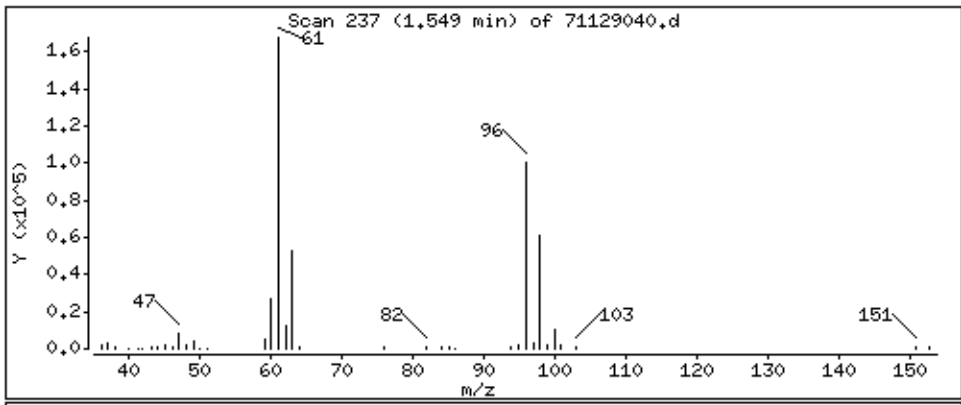
Column phase: RTX-VMS

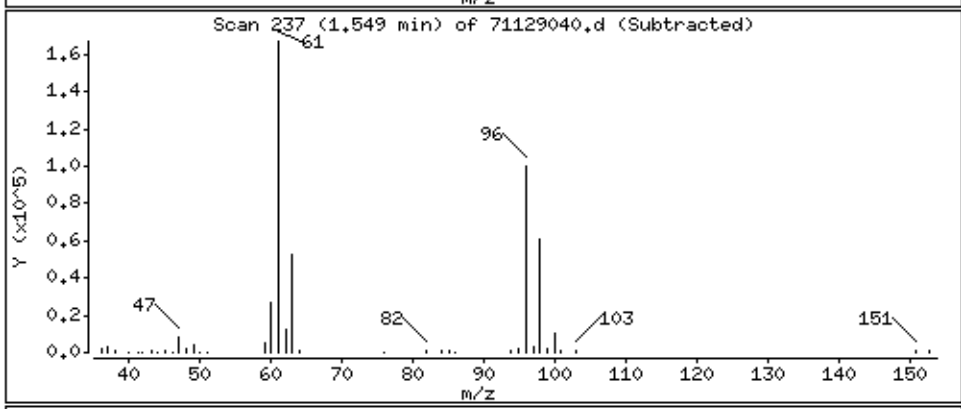
Column diameter: 0.18

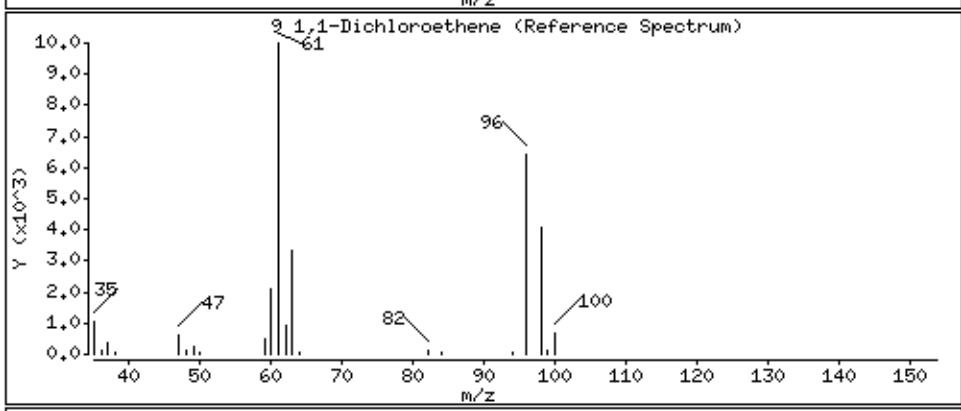
9 1,1-Dichloroethene

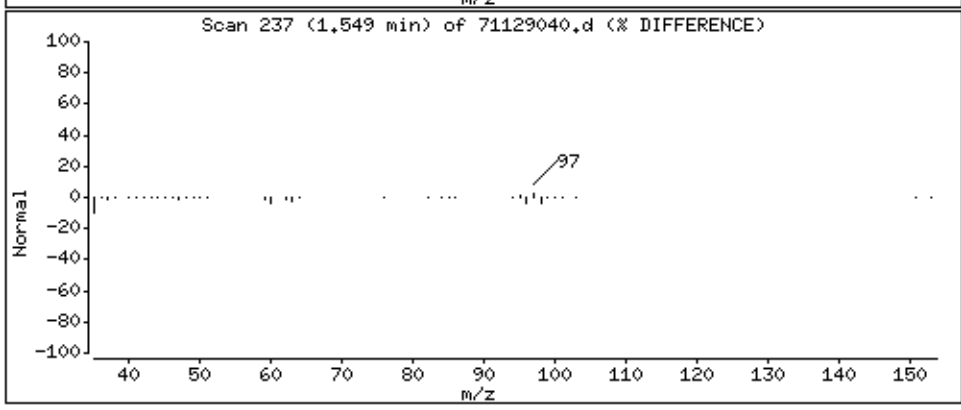
Concentration: 67.9 ug/L

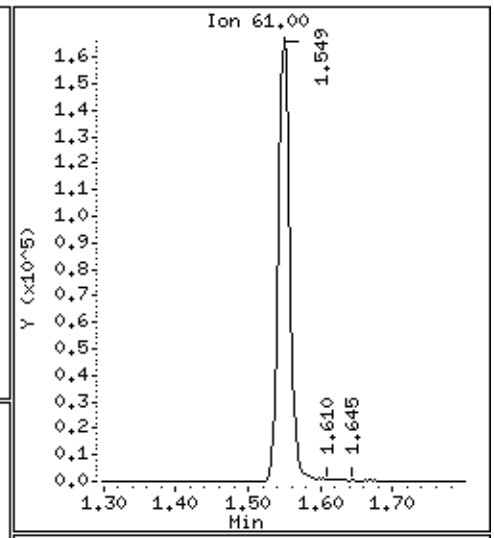
Review Code:

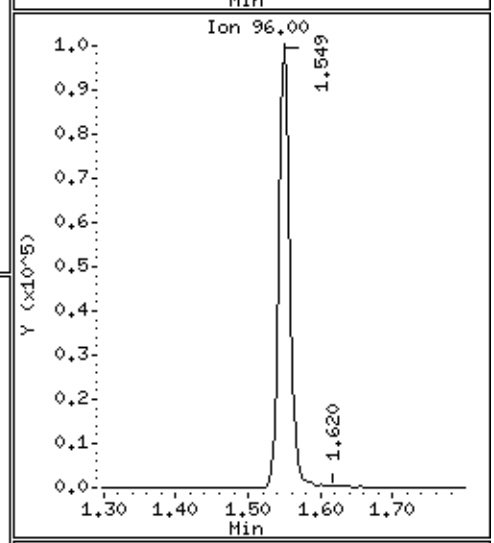


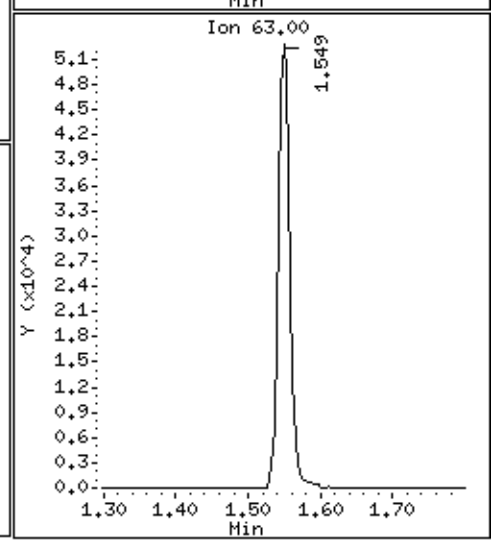












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

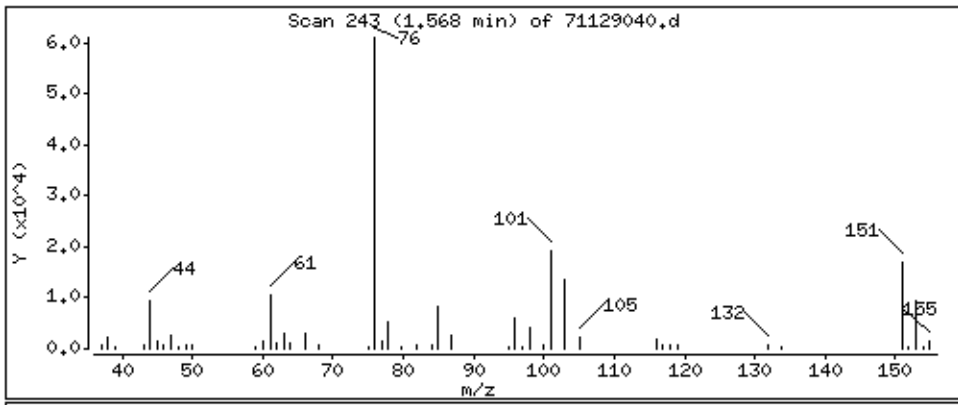
Column phase: RTX-VMS

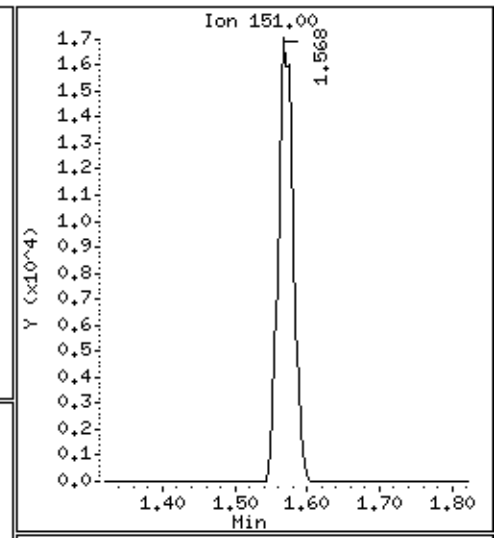
Column diameter: 0.18

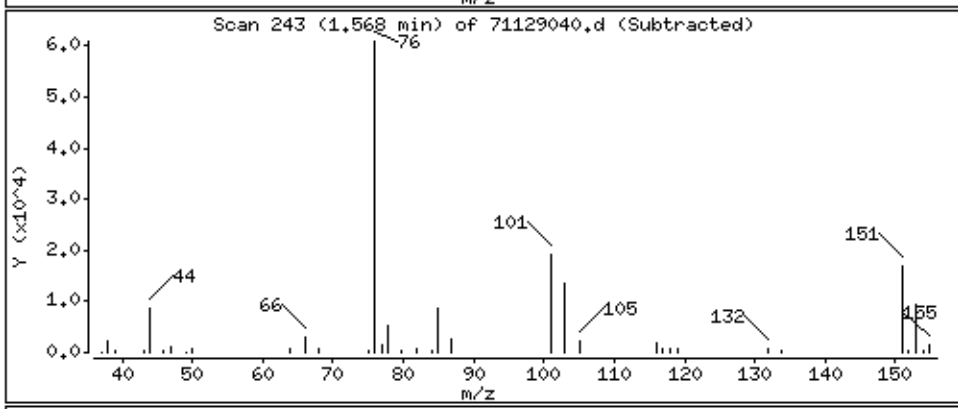
10 1,1,2-Trichlorotrifluoroethane

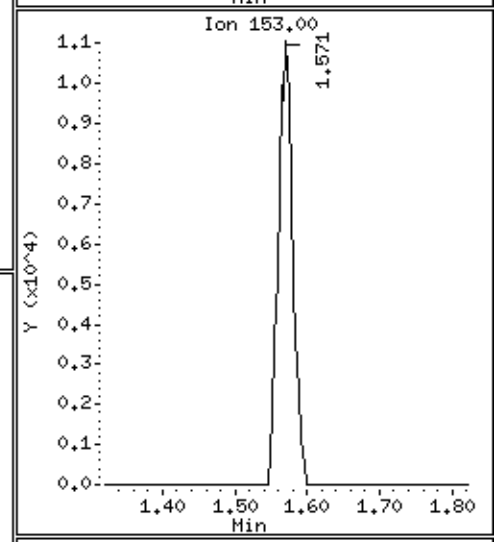
Concentration: 16.8 ug/L

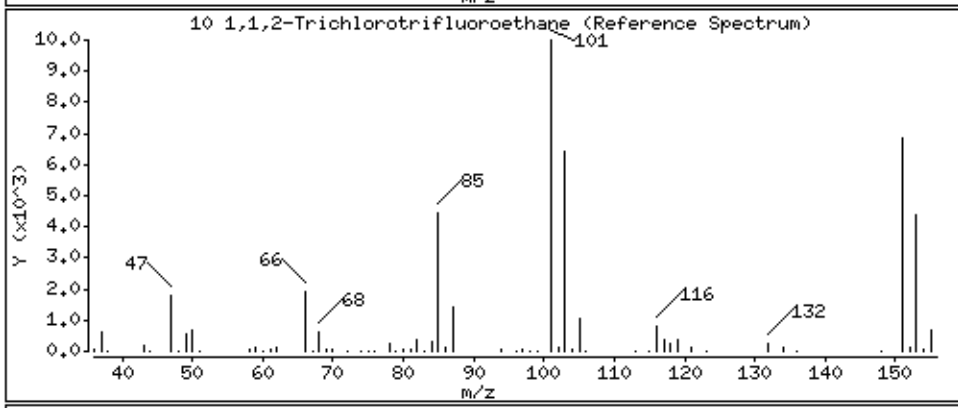
Review Code:

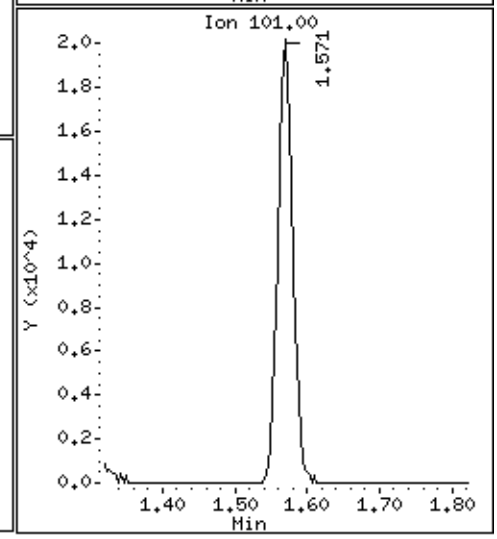


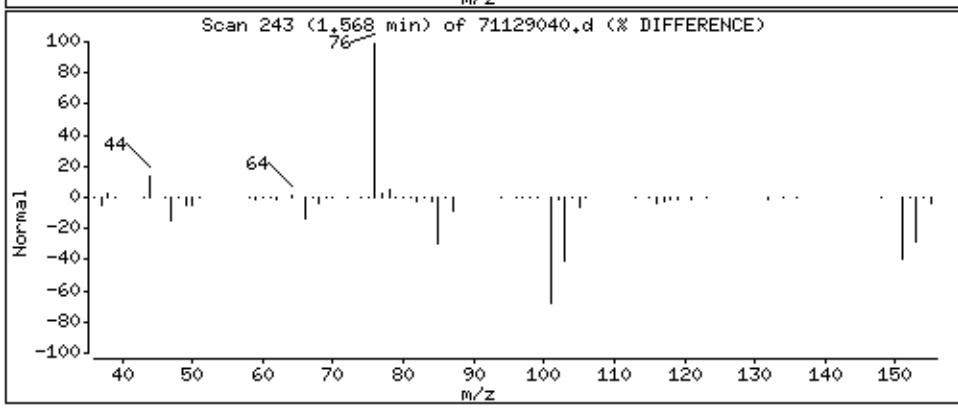












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

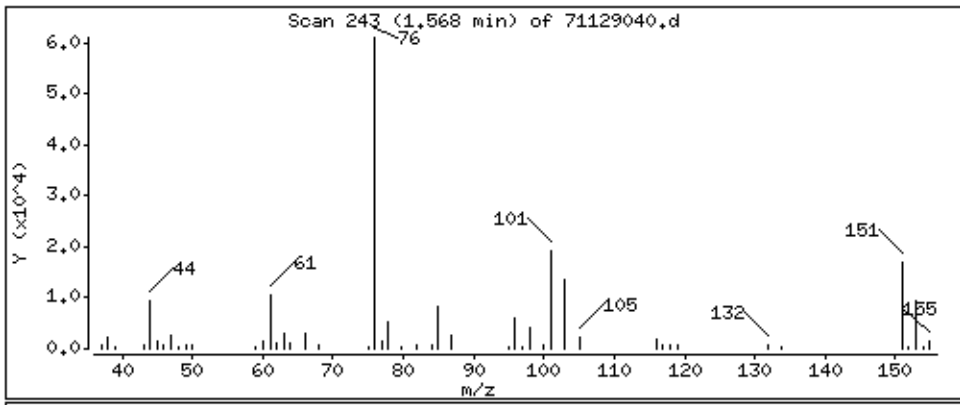
Column phase: RTX-VMS

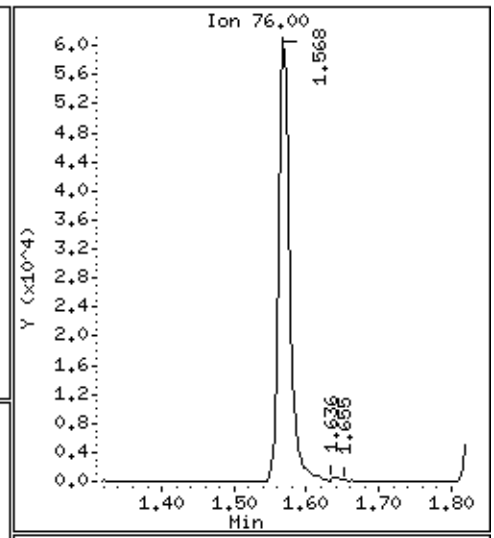
Column diameter: 0.18

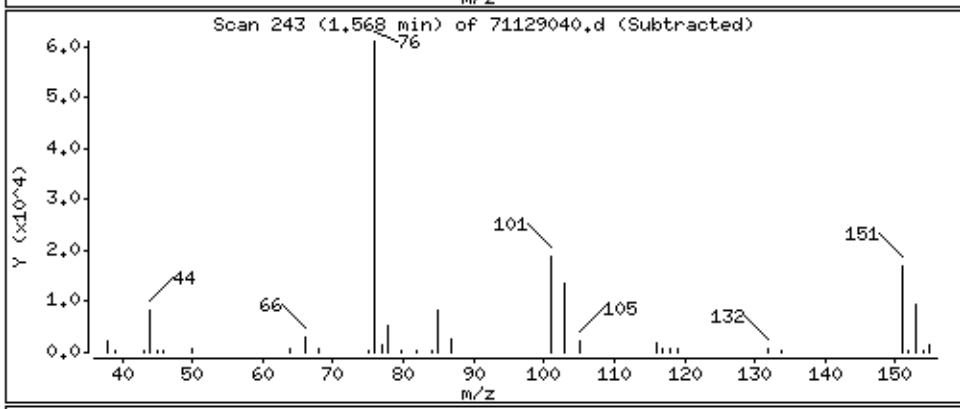
11 Carbon disulfide

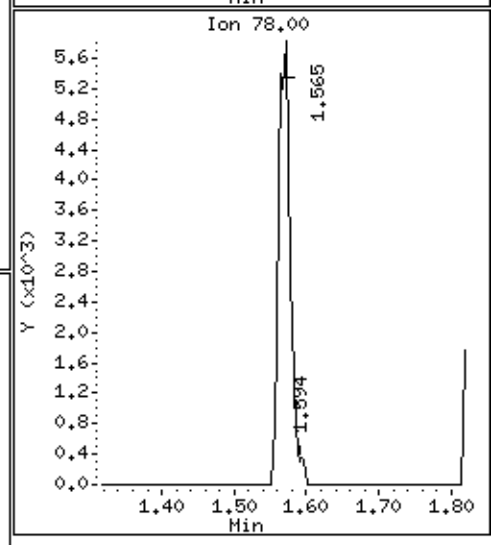
Concentration: 14.0 ug/L

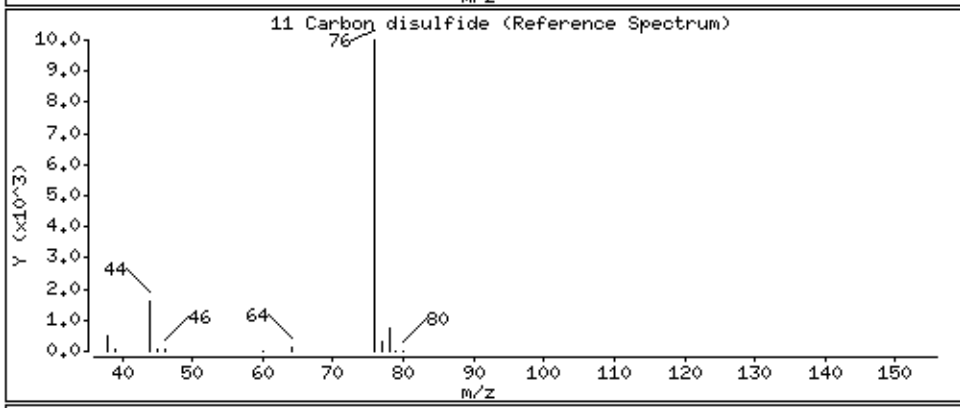
Review Code:

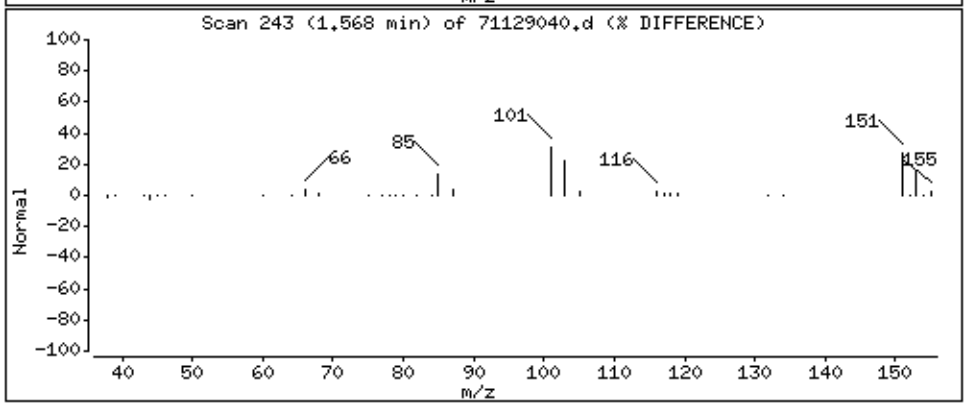












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

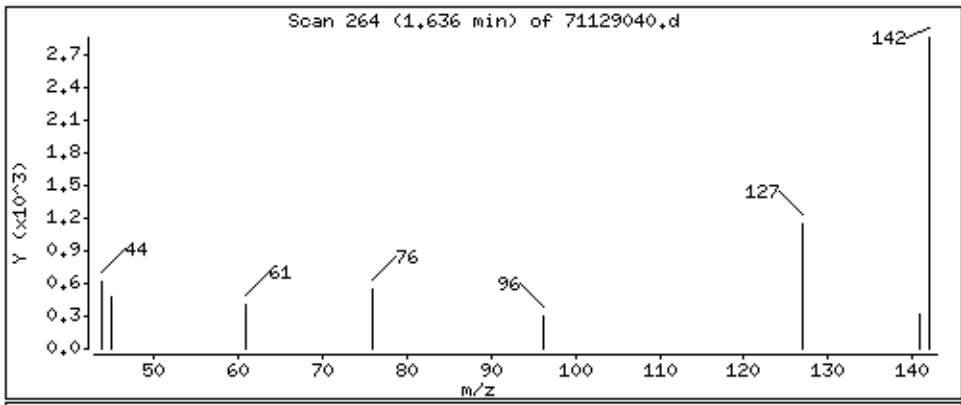
Column phase: RTX-VMS

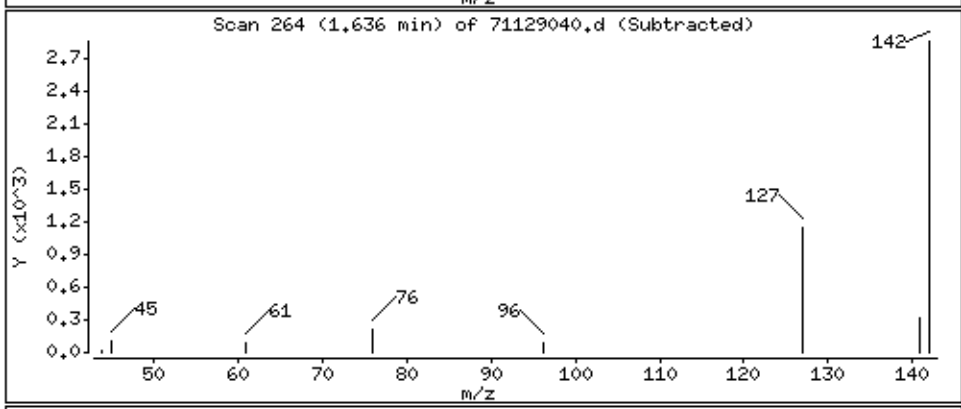
Column diameter: 0.18

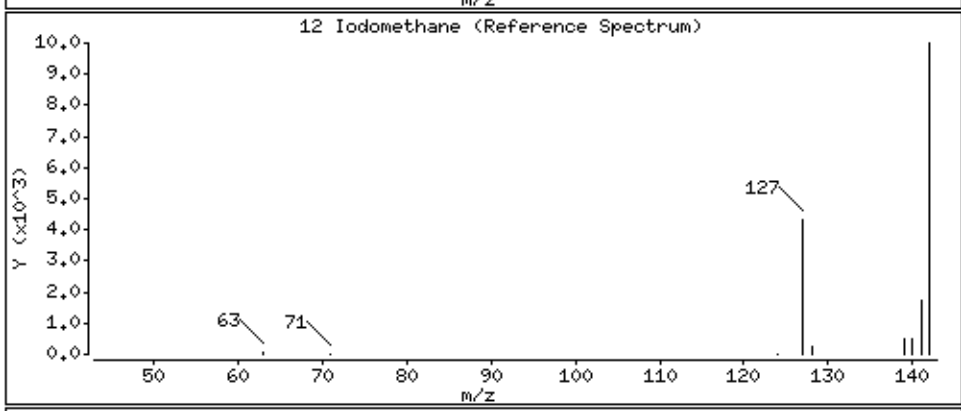
12 Iodomethane

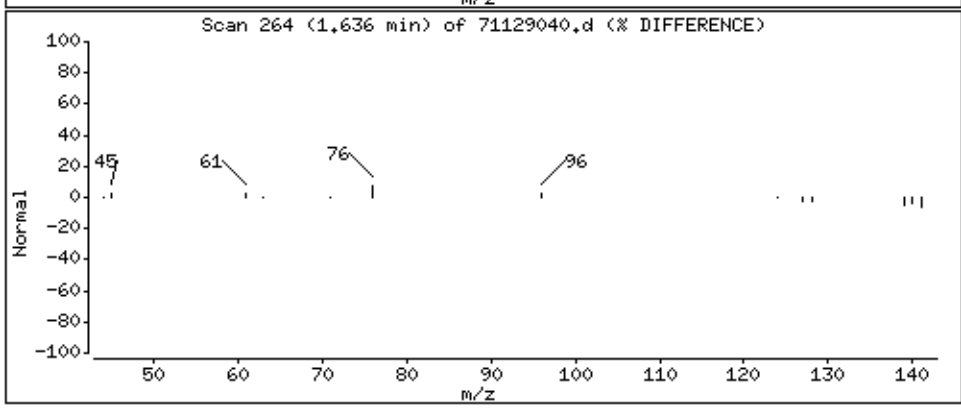
Concentration: 3.87 ug/L

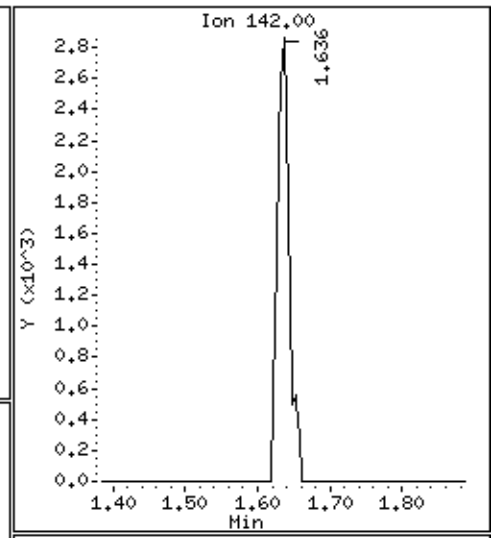
Review Code:

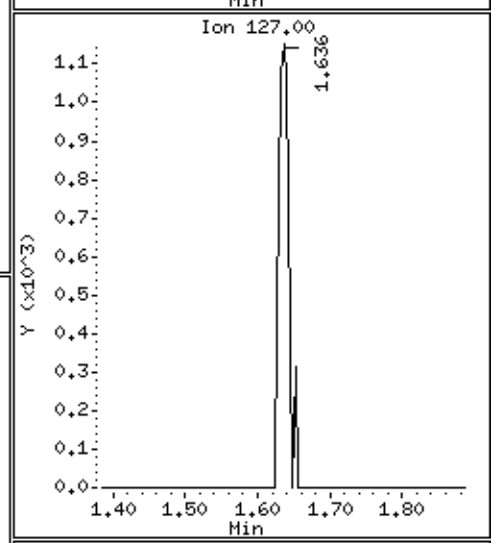


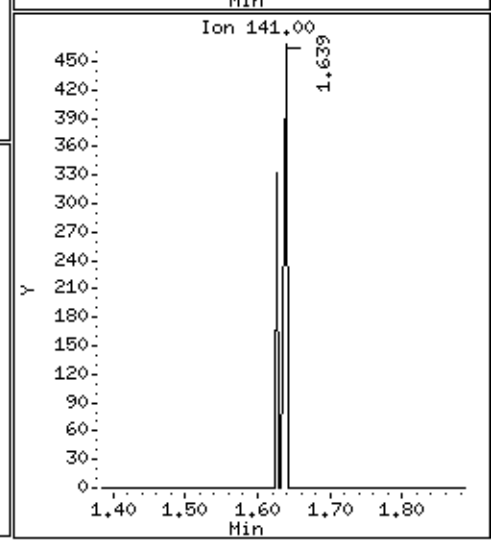












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

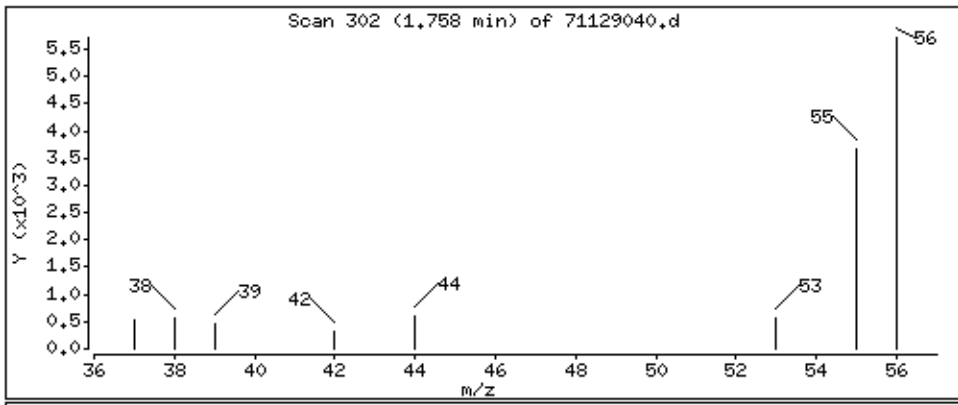
Column phase: RTX-VMS

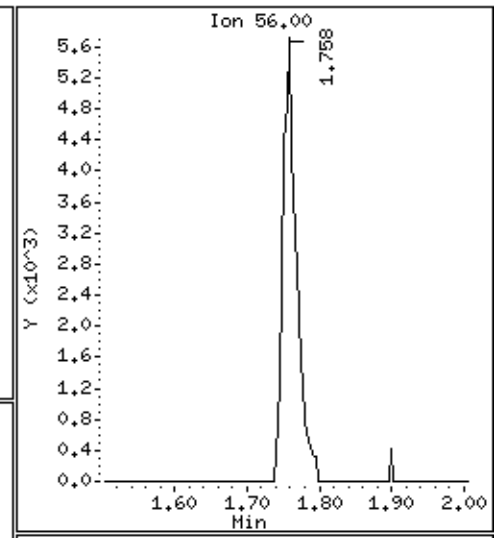
Column diameter: 0.18

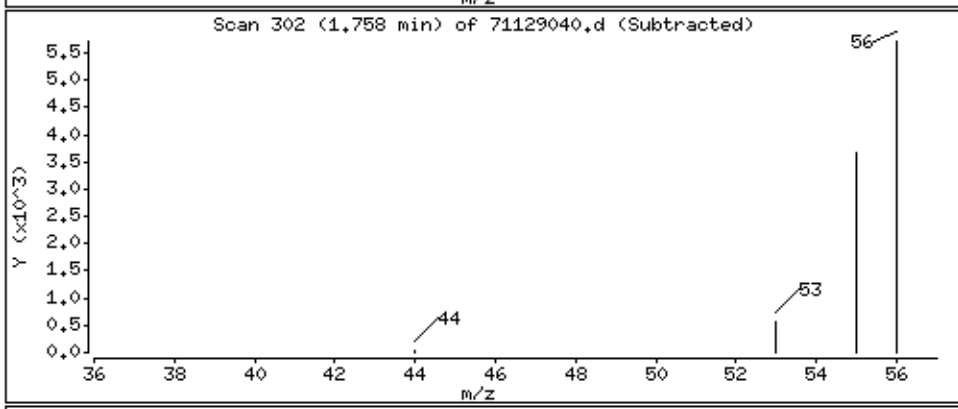
13 Acrolein

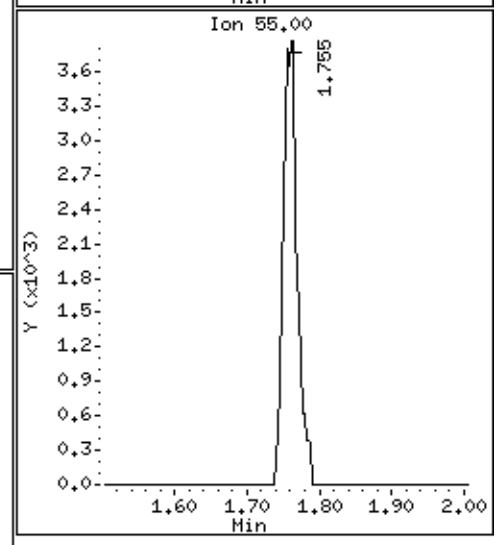
Concentration: 15.6 ug/L

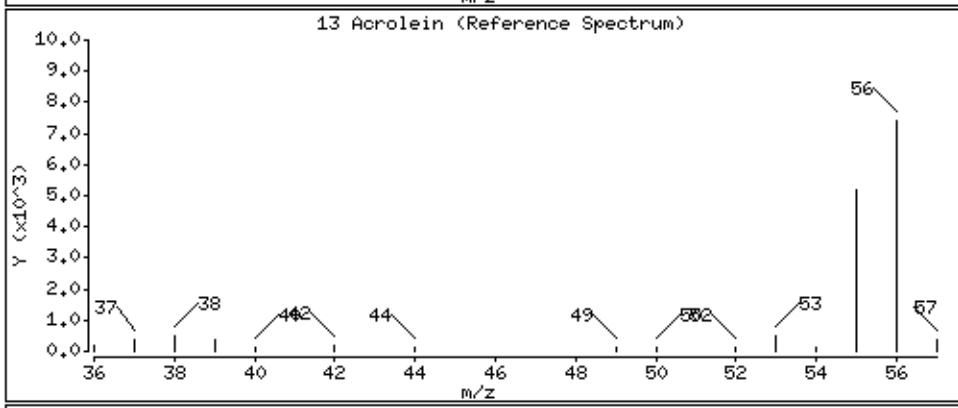
Review Code:

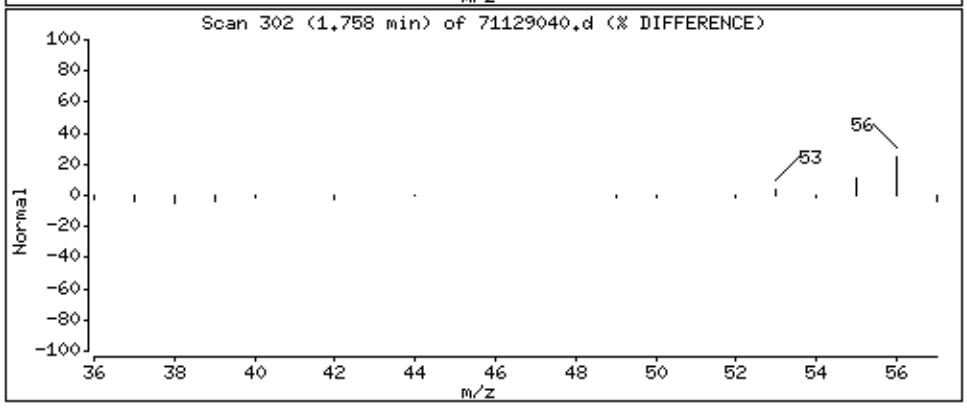












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

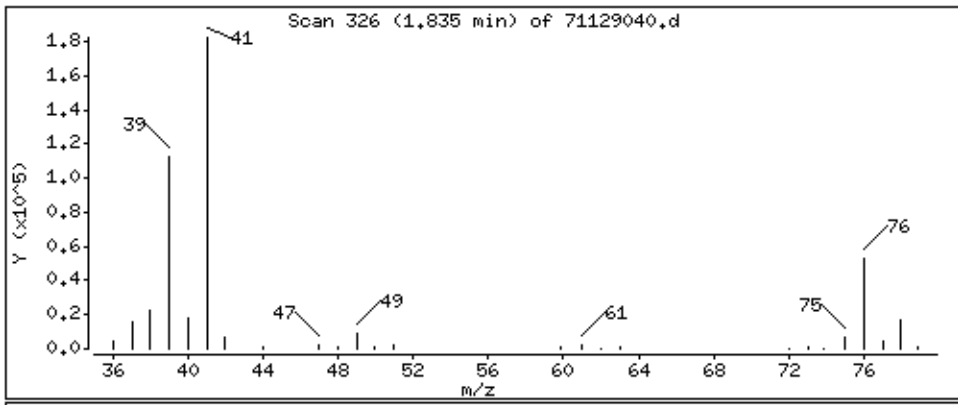
Column phase: RTX-VMS

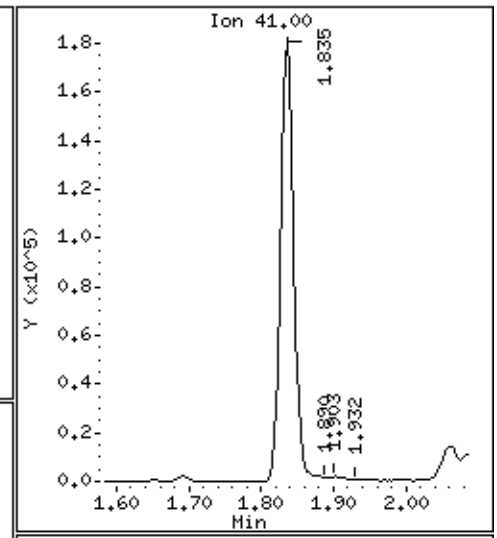
Column diameter: 0.18

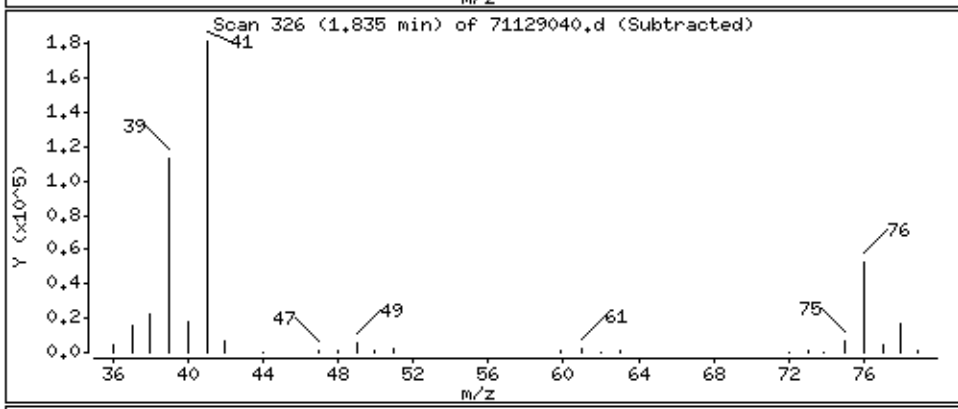
14 Allyl chloride

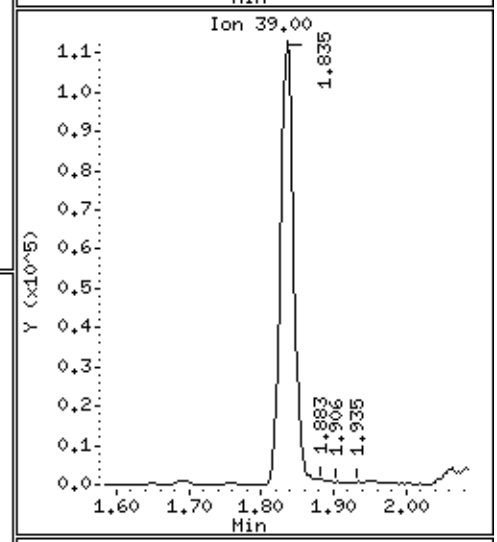
Concentration: 97.4 ug/L

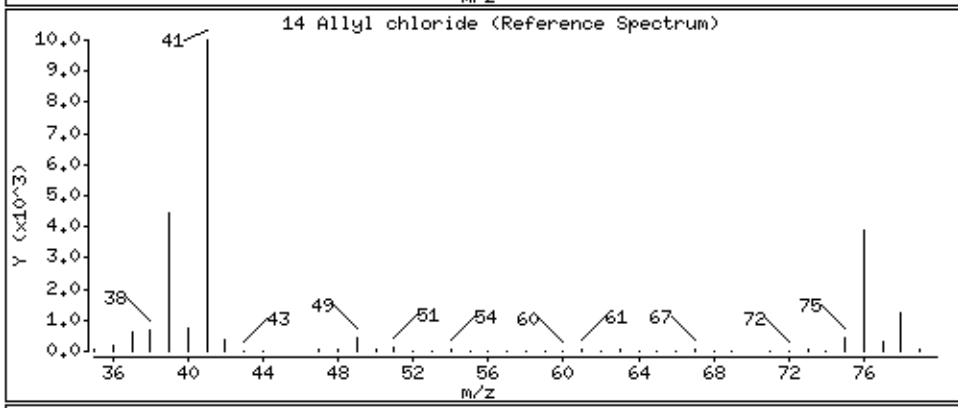
Review Code:

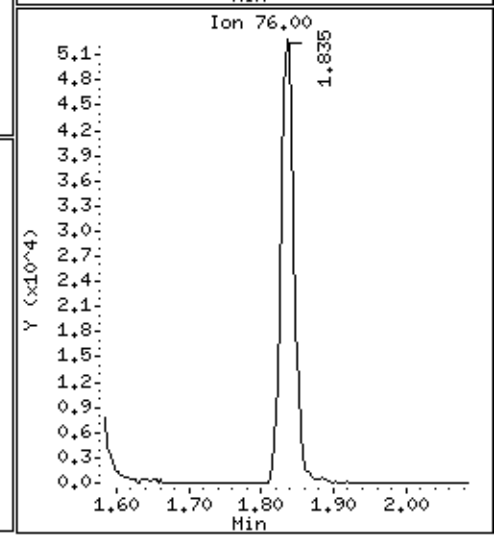


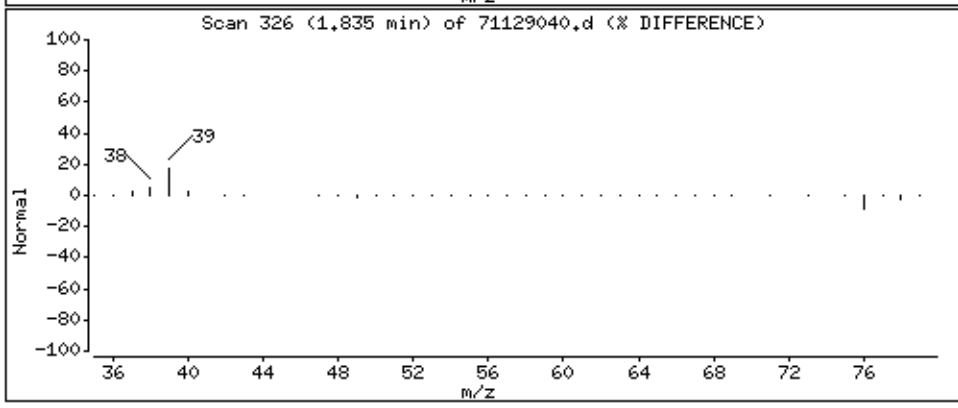












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

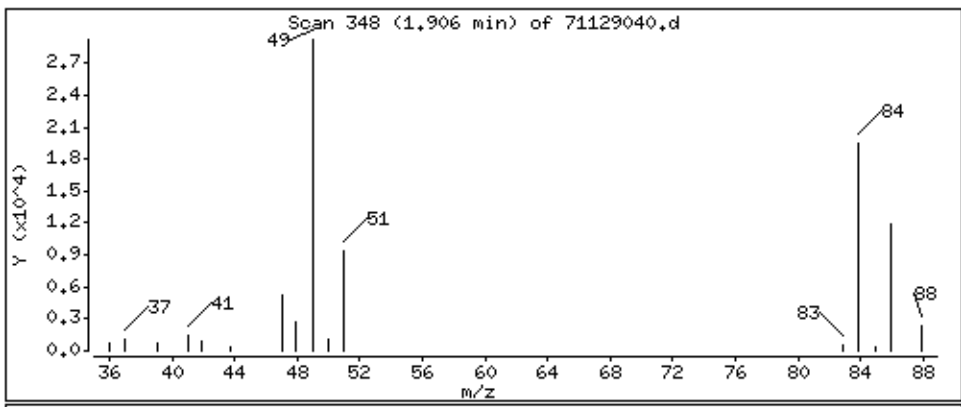
Column phase: RTX-VMS

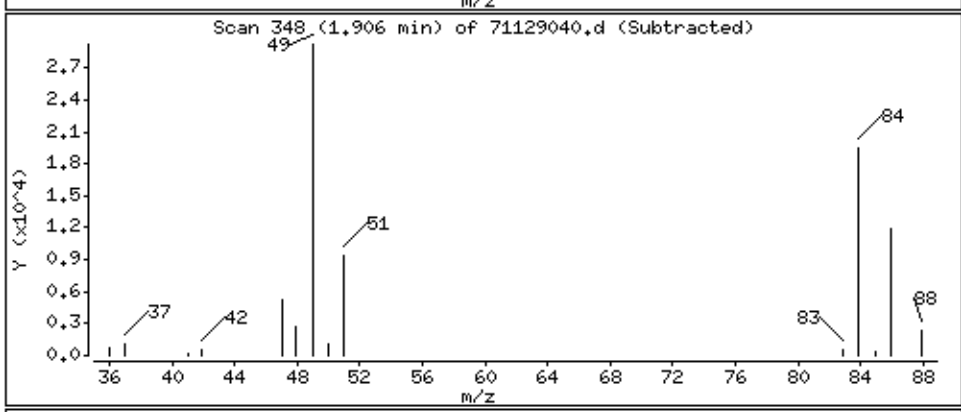
Column diameter: 0.18

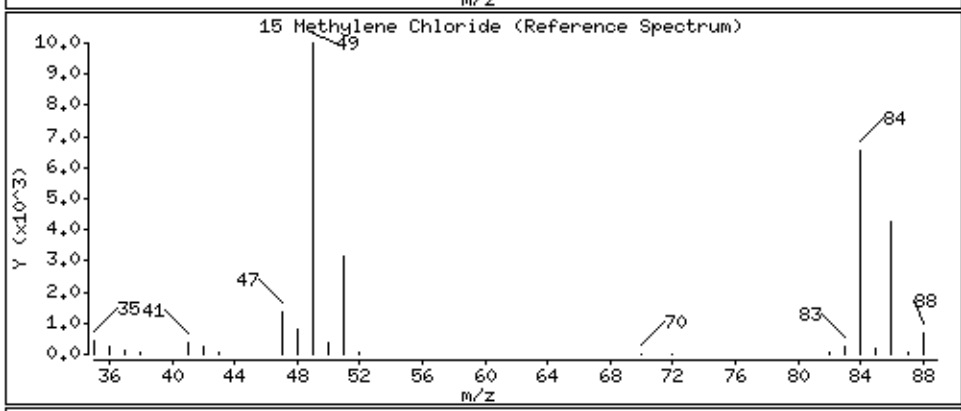
15 Methylene Chloride

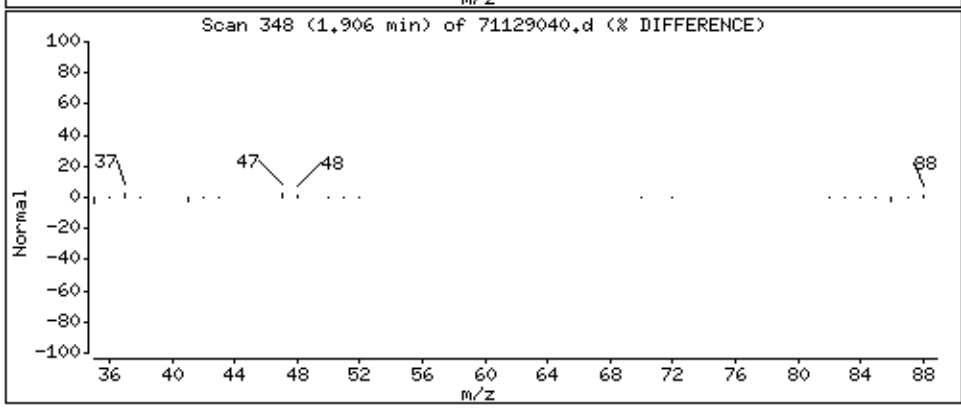
Concentration: 20.8 ug/L

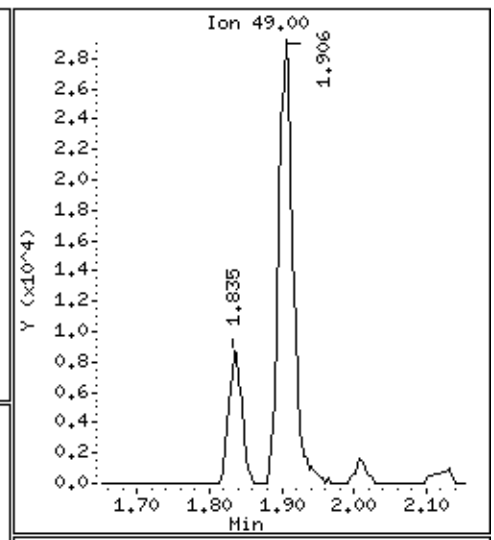
Review Code:

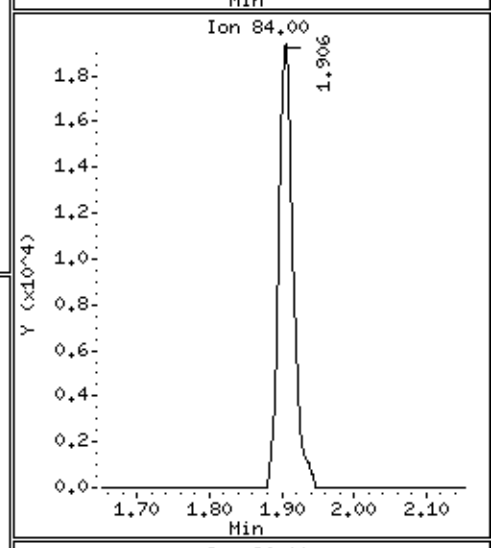


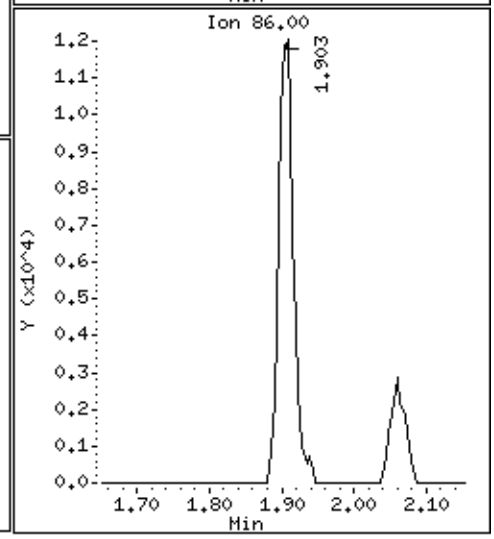












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

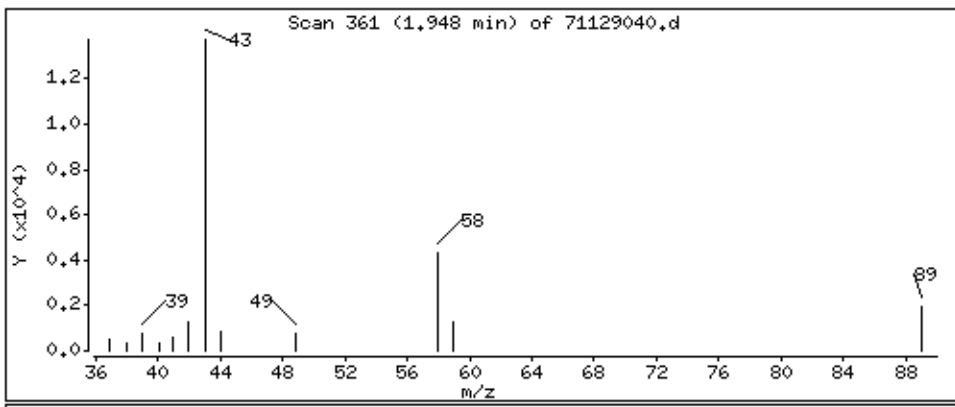
Column phase: RTX-VMS

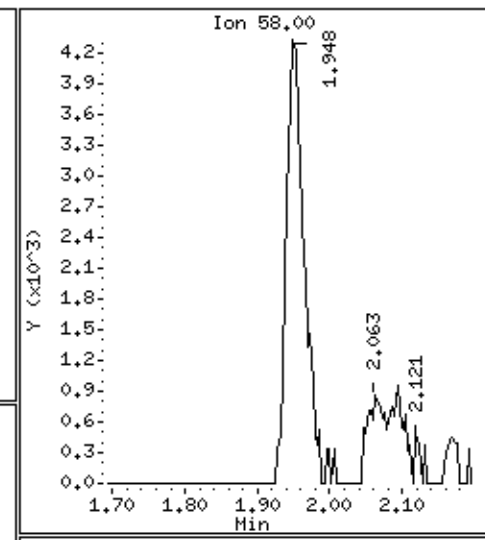
Column diameter: 0.18

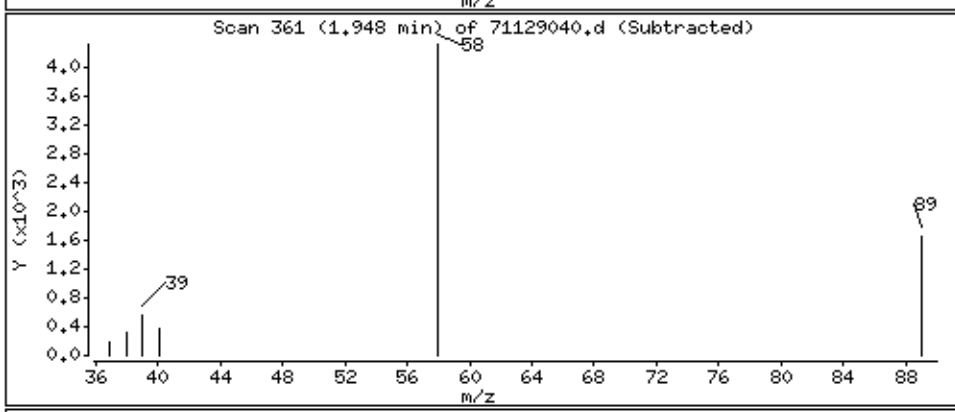
16 Acetone

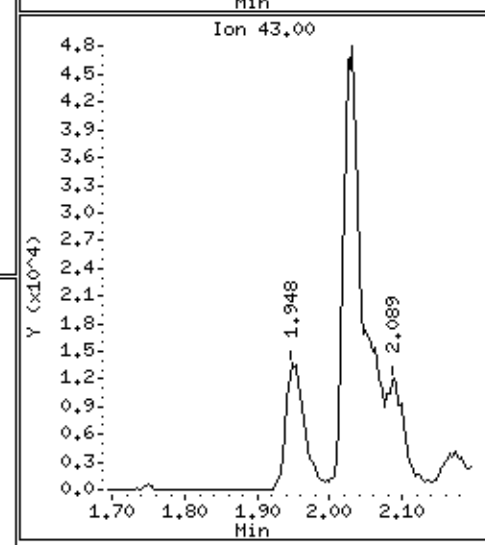
Concentration: 20.4 ug/L

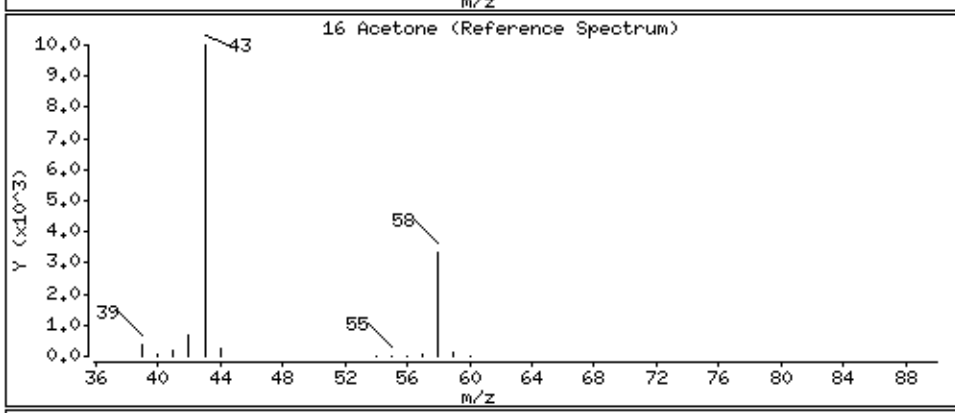
Review Code:

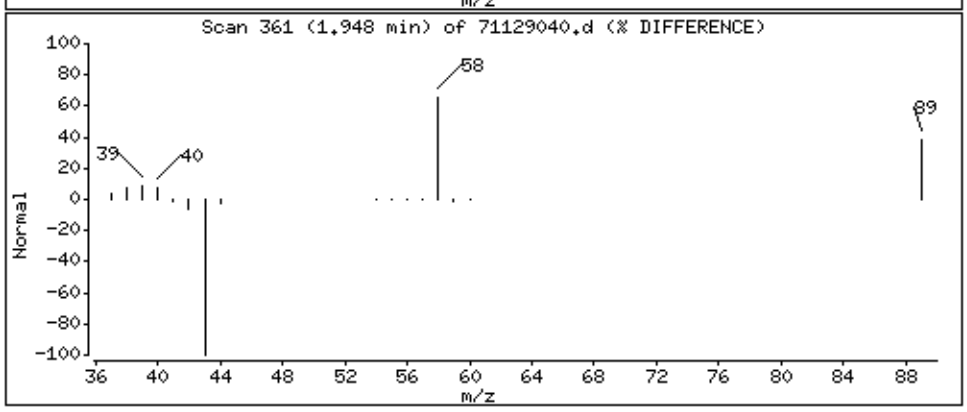












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

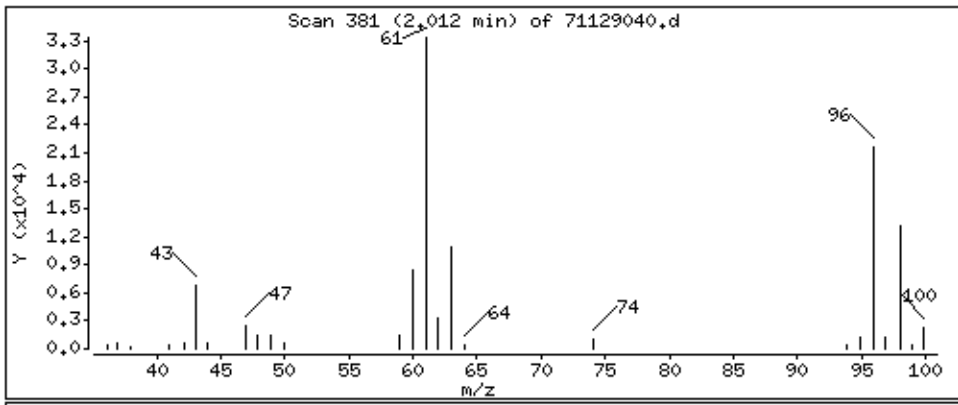
Column phase: RTX-VMS

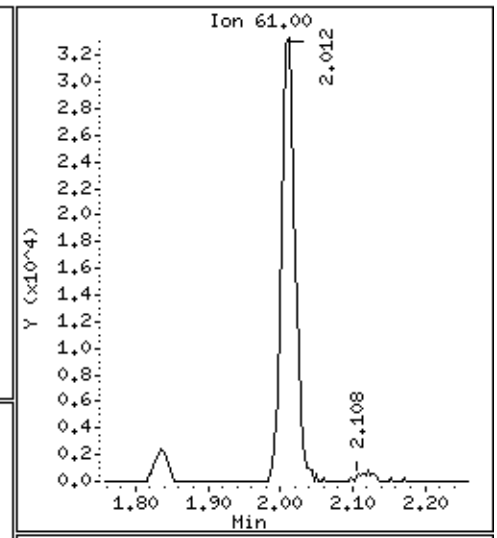
Column diameter: 0.18

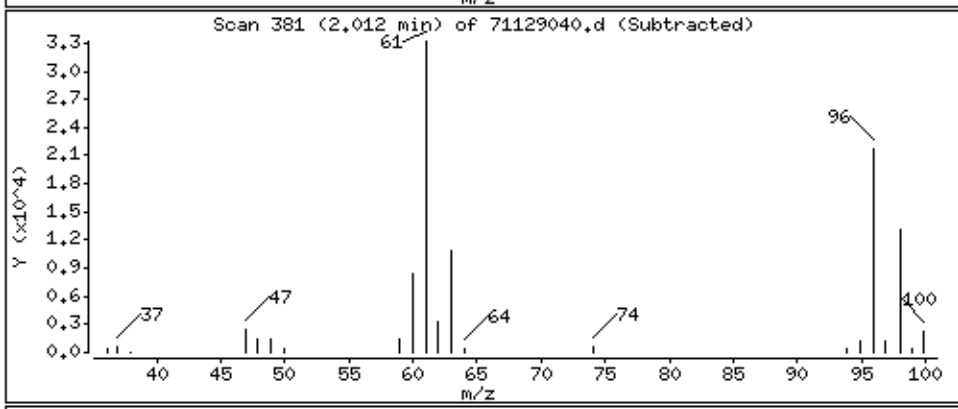
17 trans-1,2-Dichloroethene

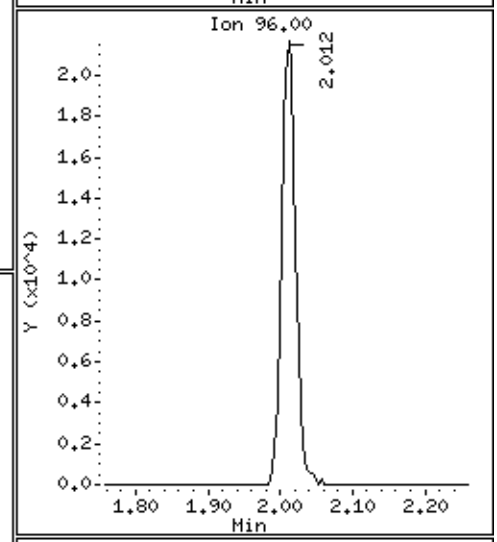
Concentration: 18.5 ug/L

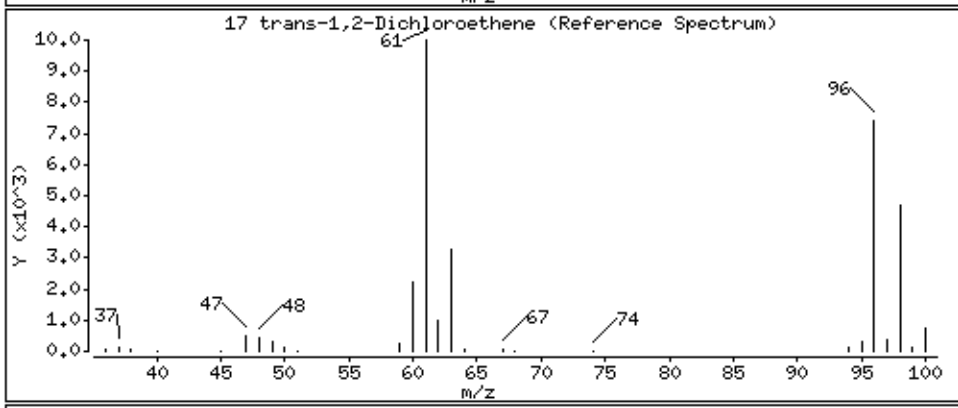
Review Code:

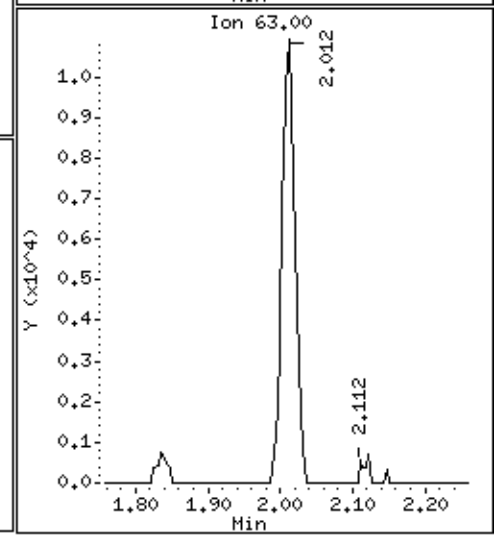


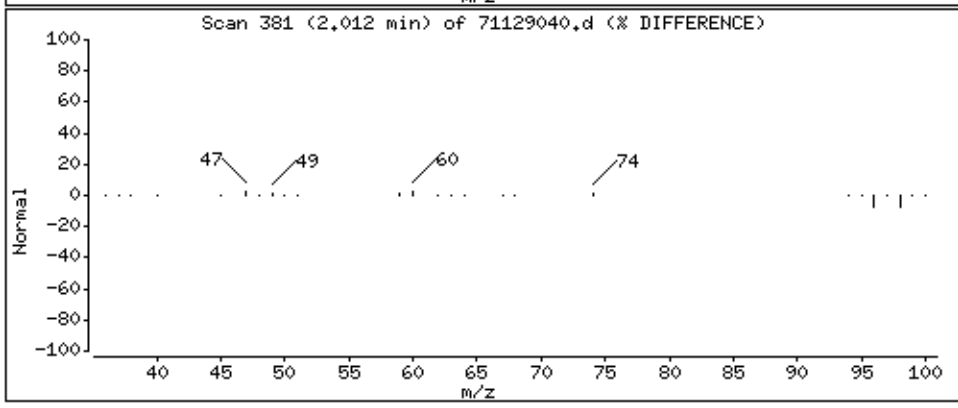












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

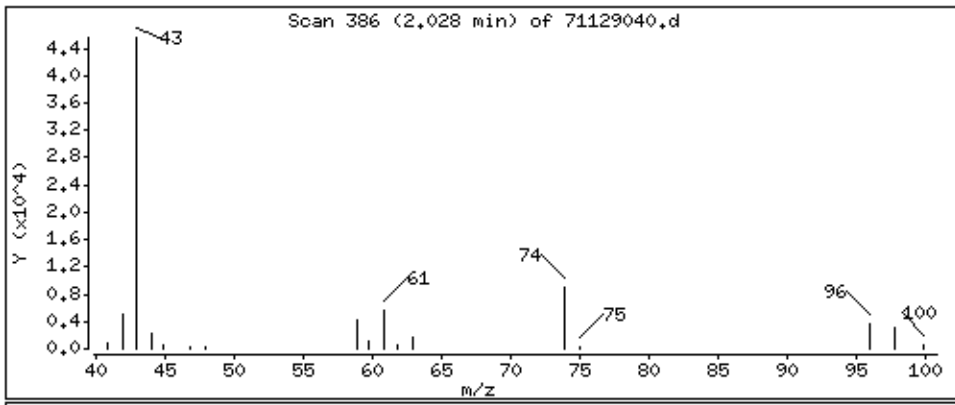
Column phase: RTX-VMS

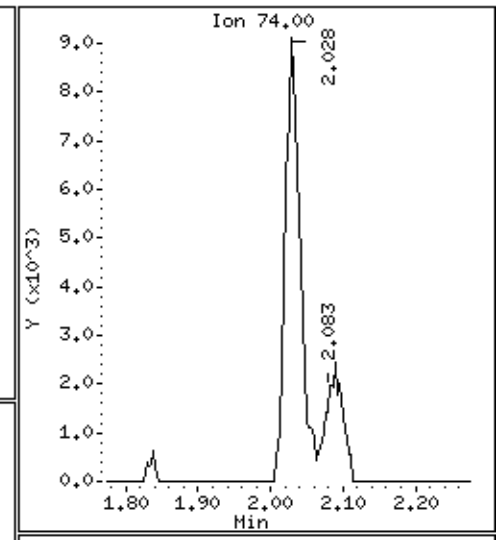
Column diameter: 0.18

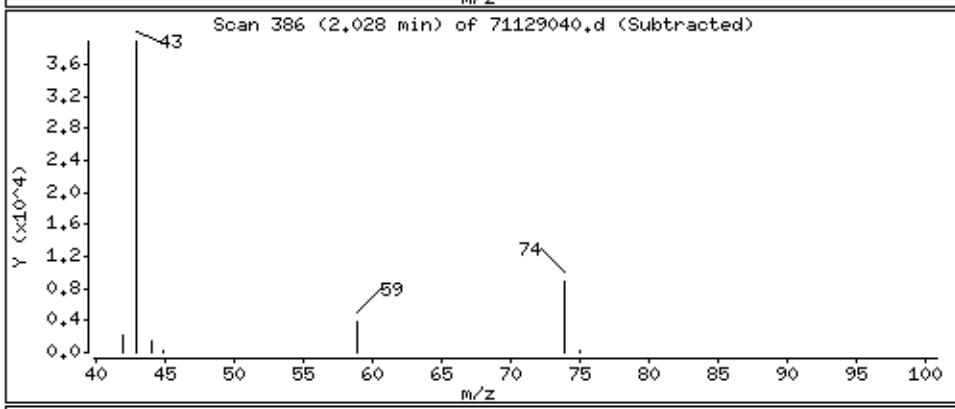
18 Methyl acetate

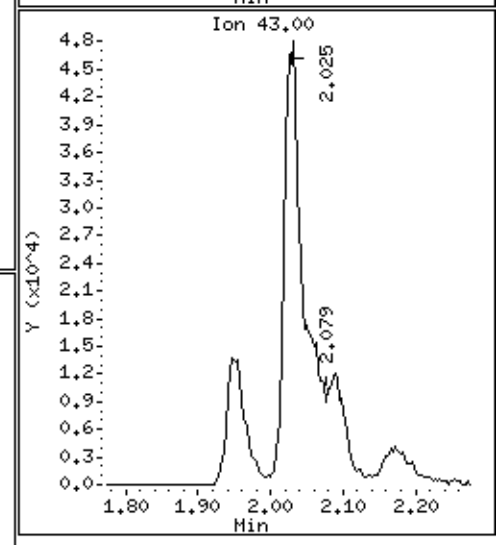
Concentration: 17.5 ug/L

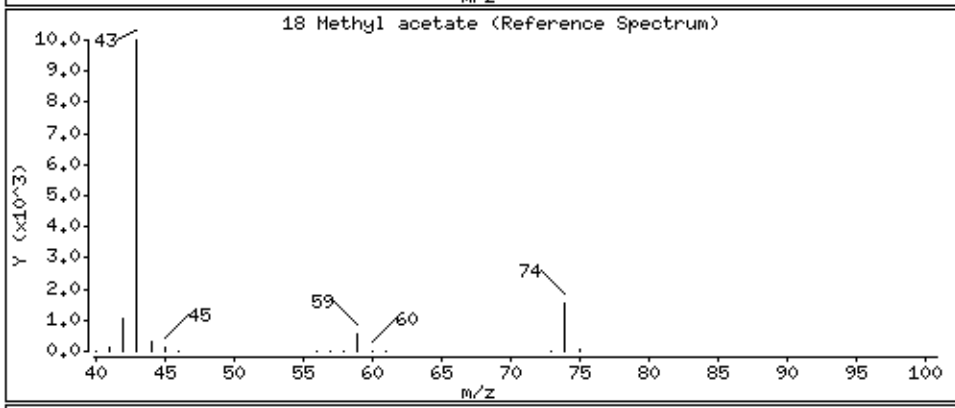
Review Code:

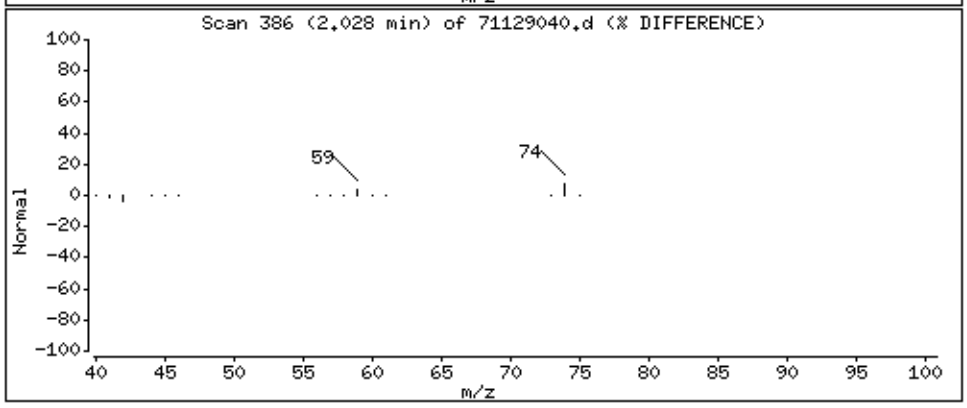












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

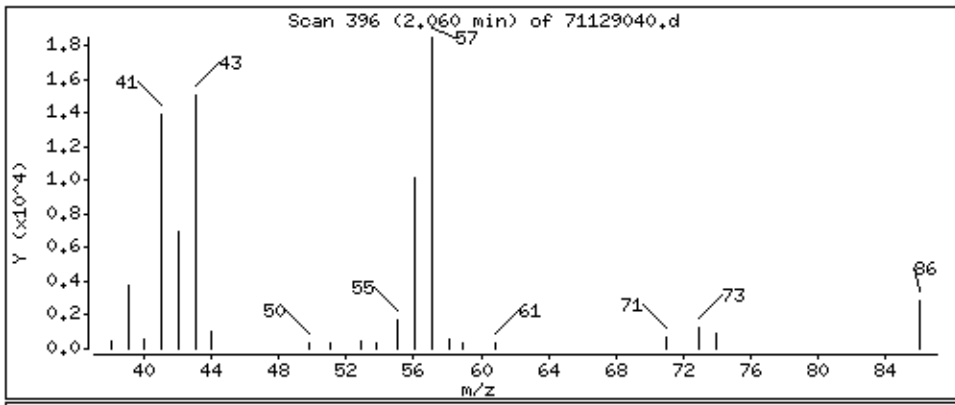
Column phase: RTX-VMS

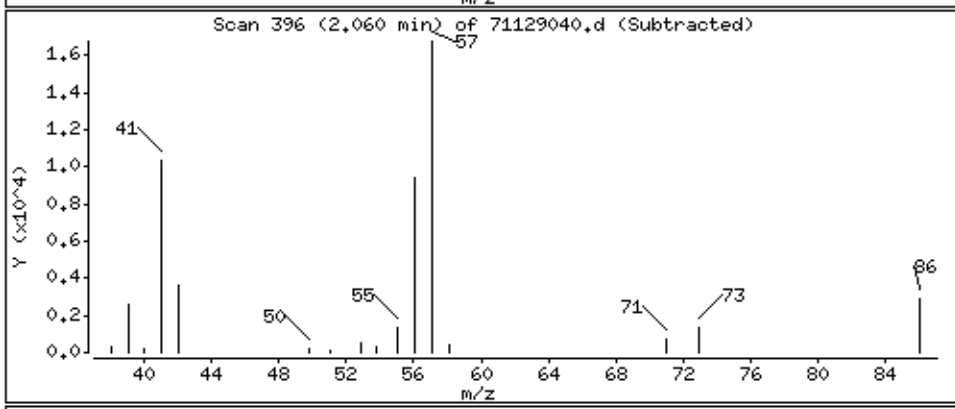
Column diameter: 0.18

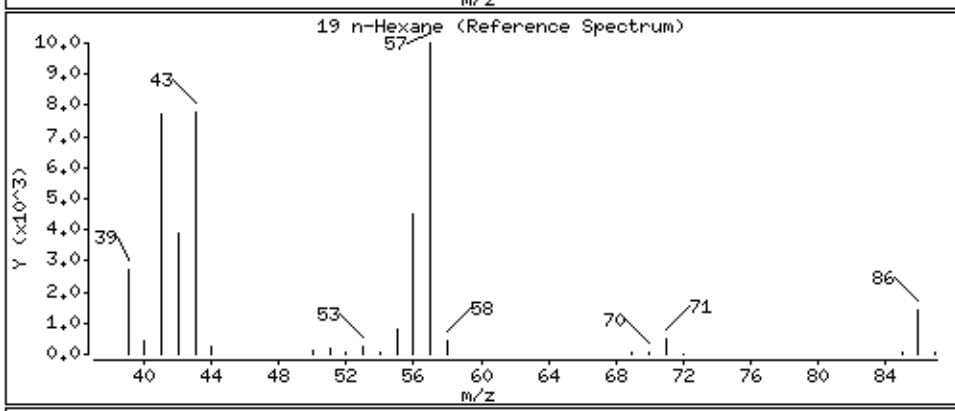
19 n-Hexane

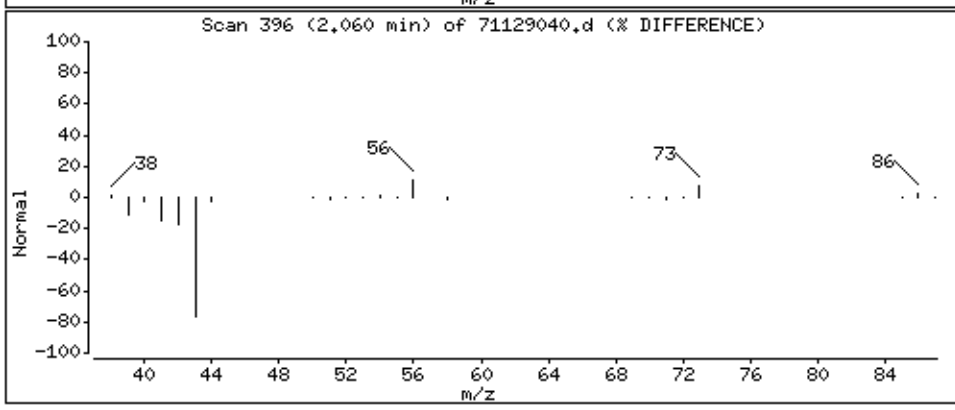
Concentration: 14.4 ug/L

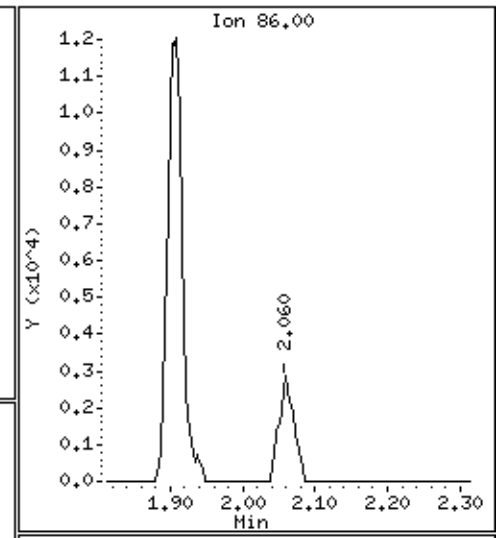
Review Code:

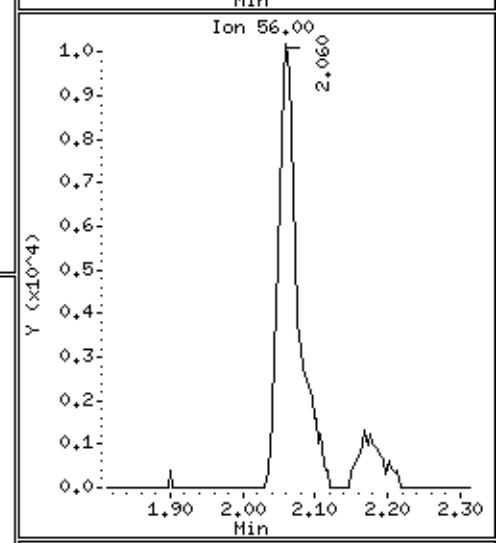


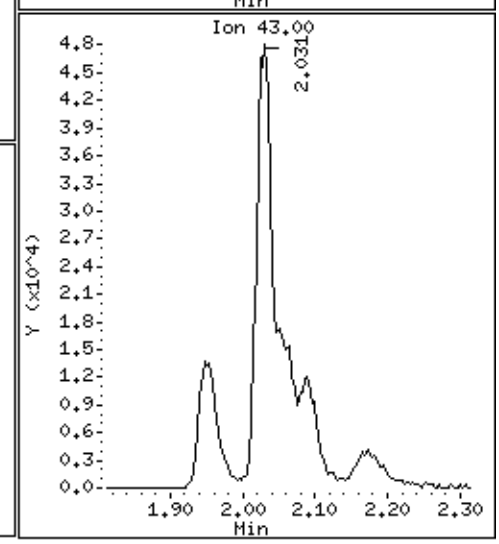












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

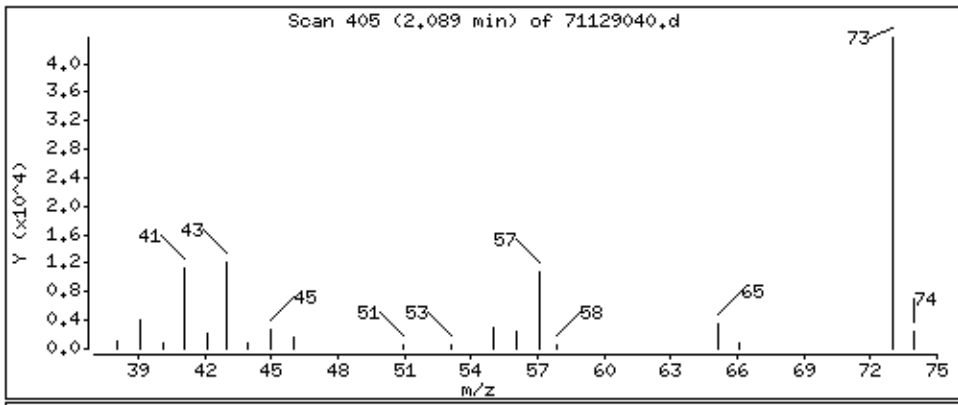
Column phase: RTX-VMS

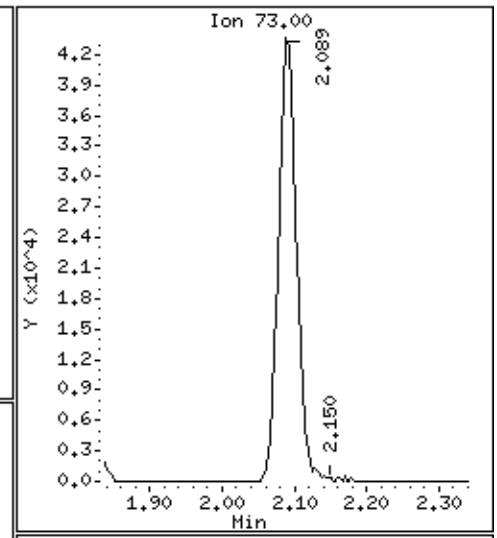
Column diameter: 0.18

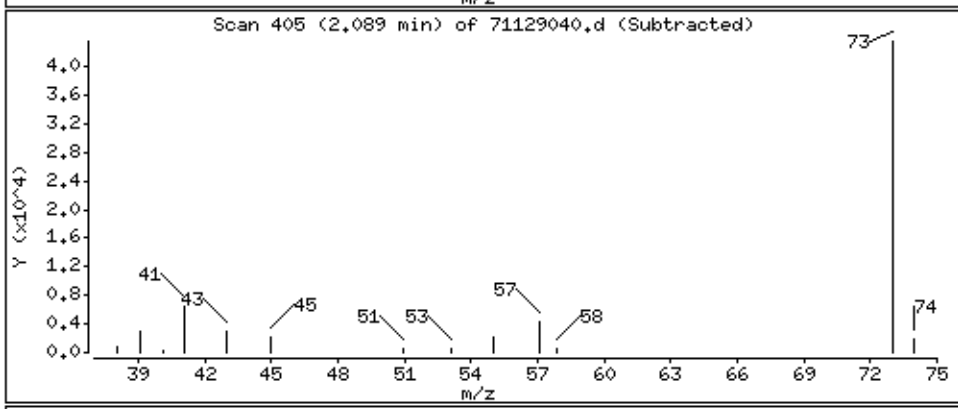
20 Methyl-tert-butyl ether

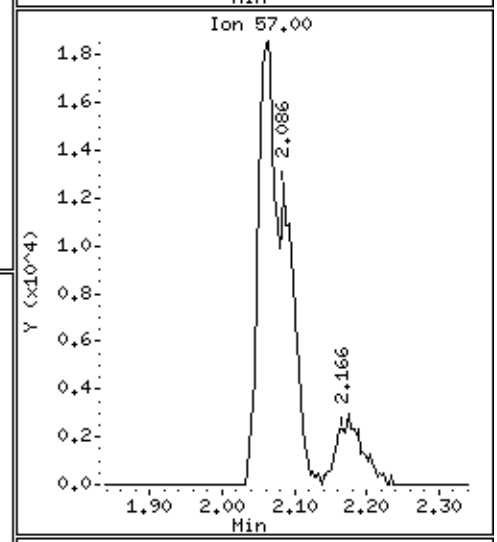
Concentration: 15.8 ug/L

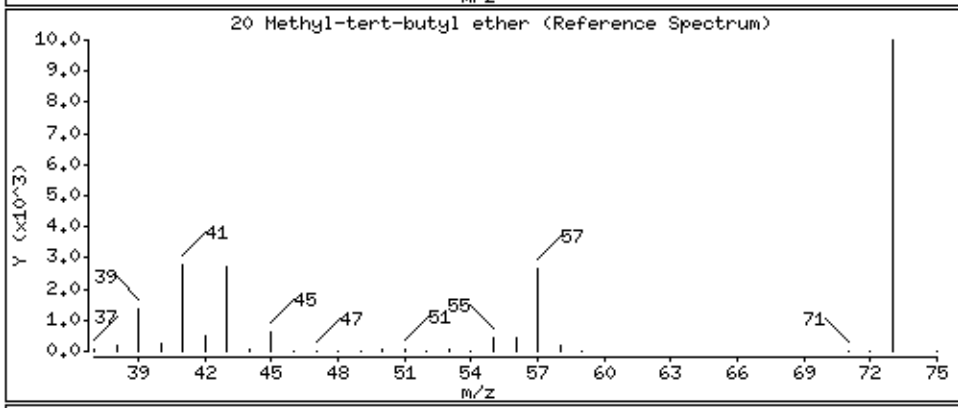
Review Code:

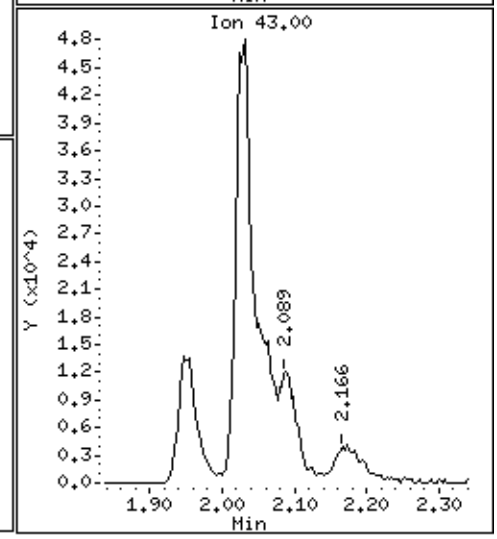


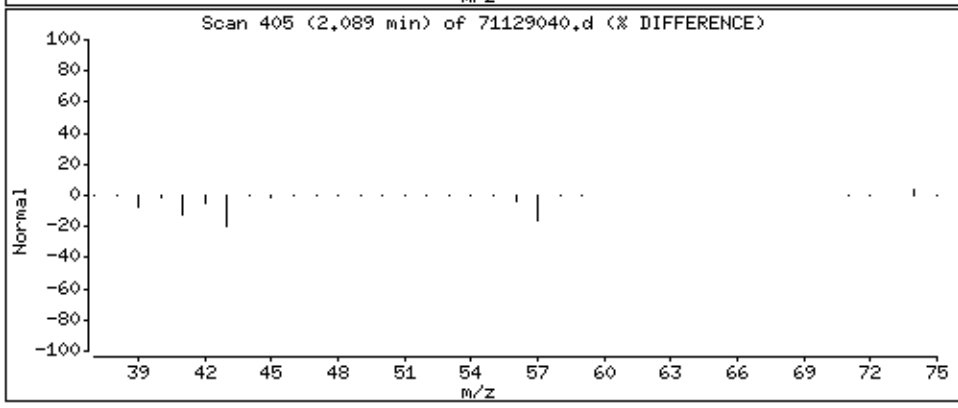












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

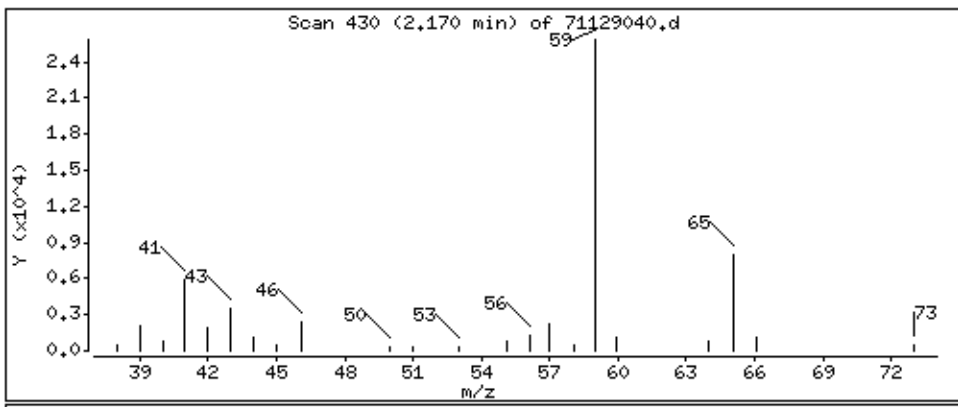
Column phase: RTX-VMS

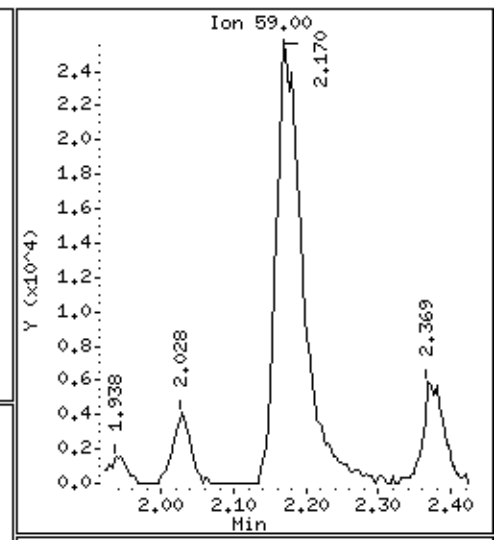
Column diameter: 0.18

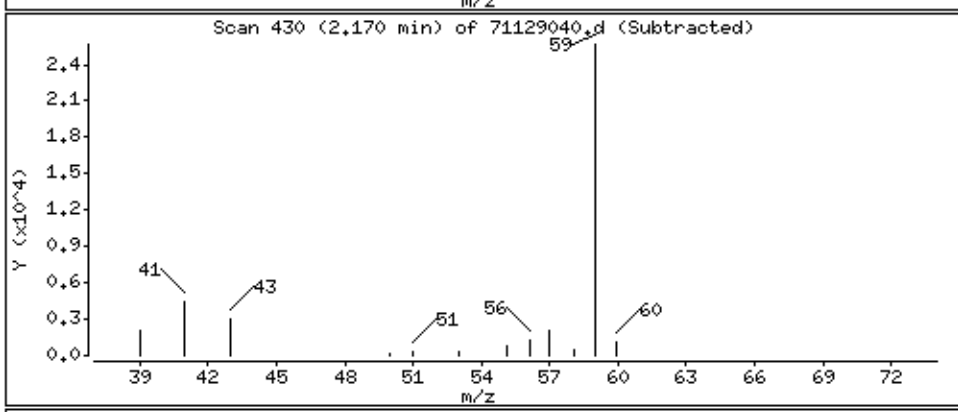
21 tert-Butyl Alcohol

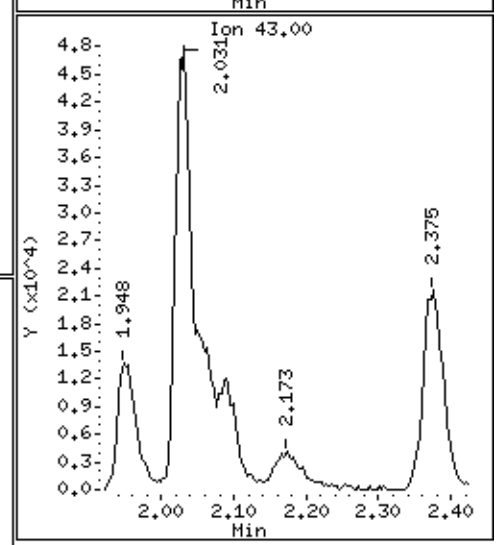
Concentration: 94.7 ug/L

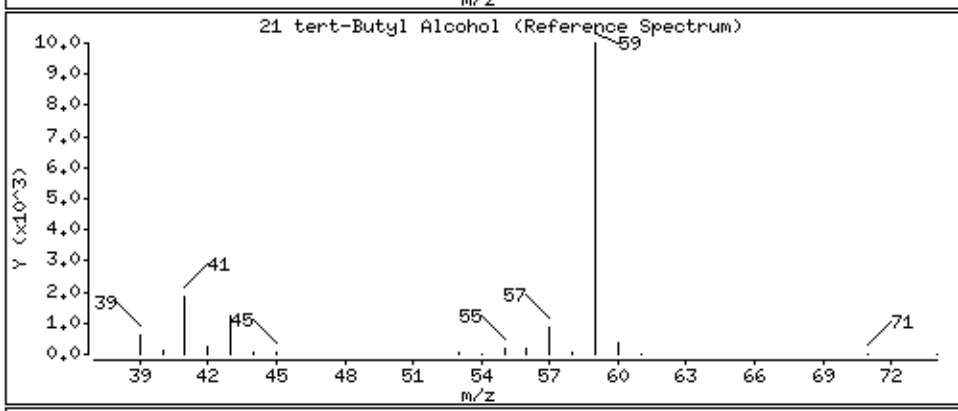
Review Code:

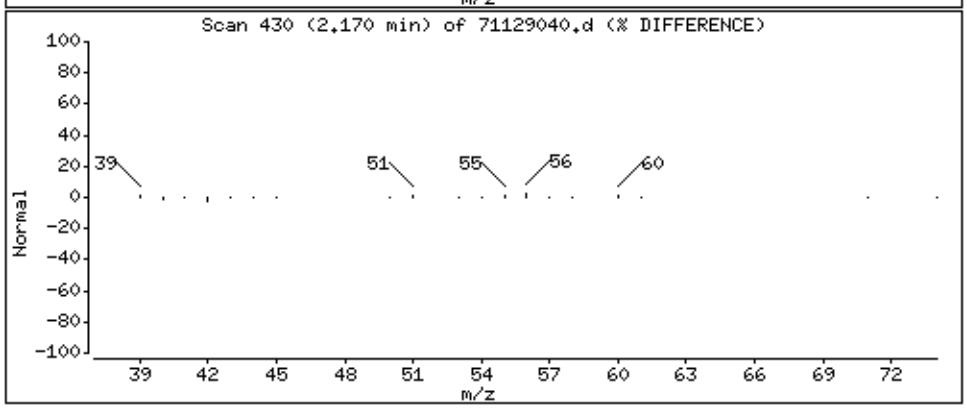












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

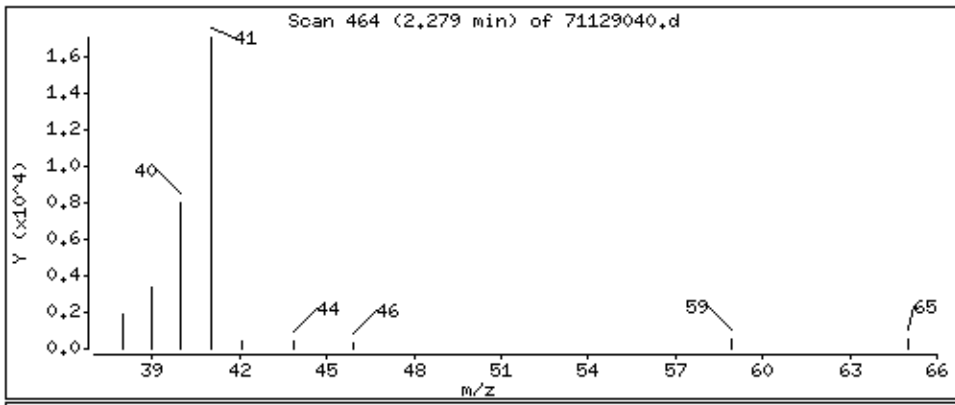
Column phase: RTX-VMS

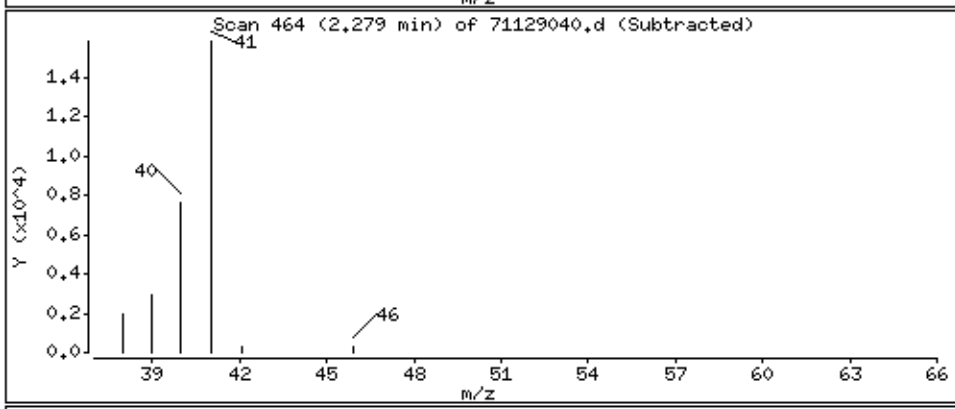
Column diameter: 0.18

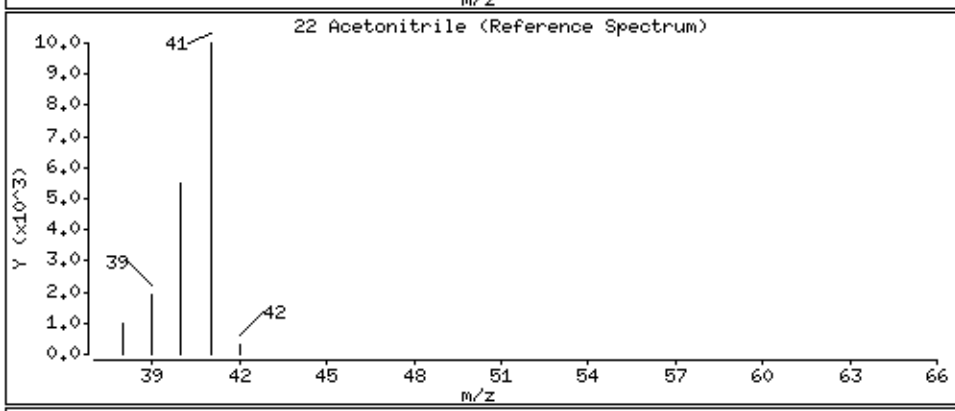
22 Acetonitrile

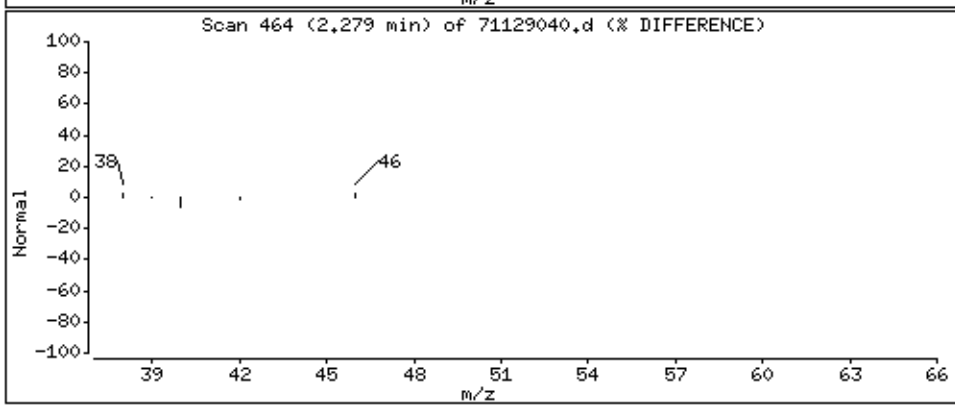
Concentration: 98.8 ug/L

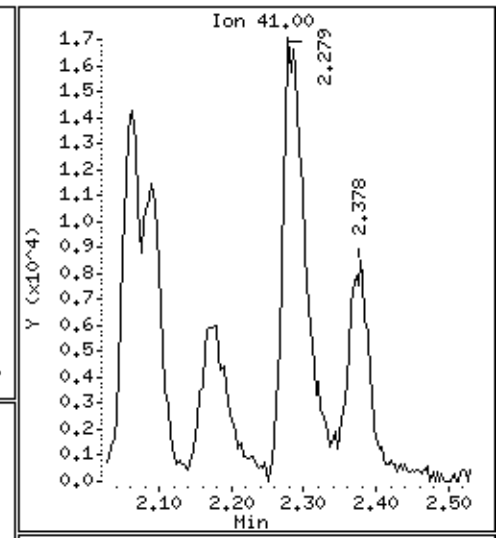
Review Code:

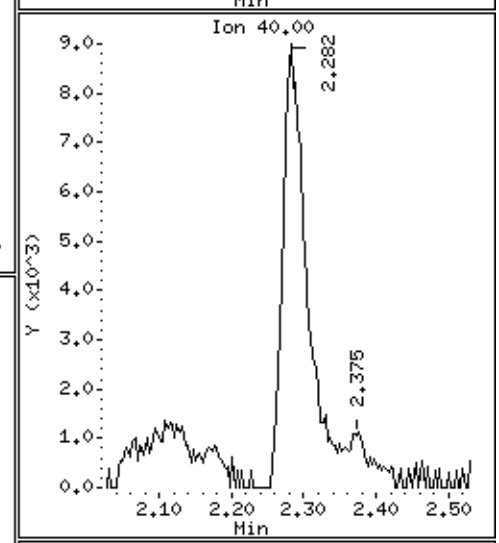


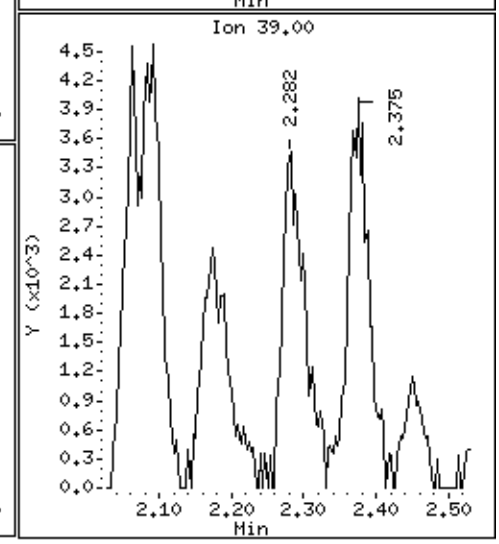












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

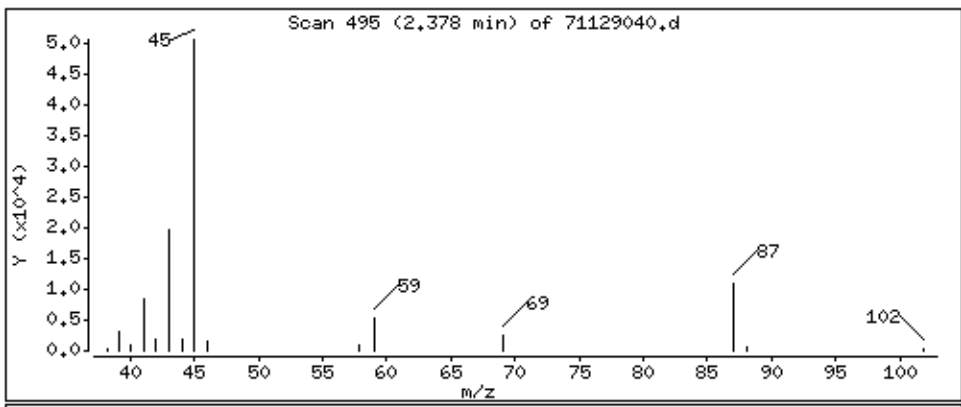
Column phase: RTX-VMS

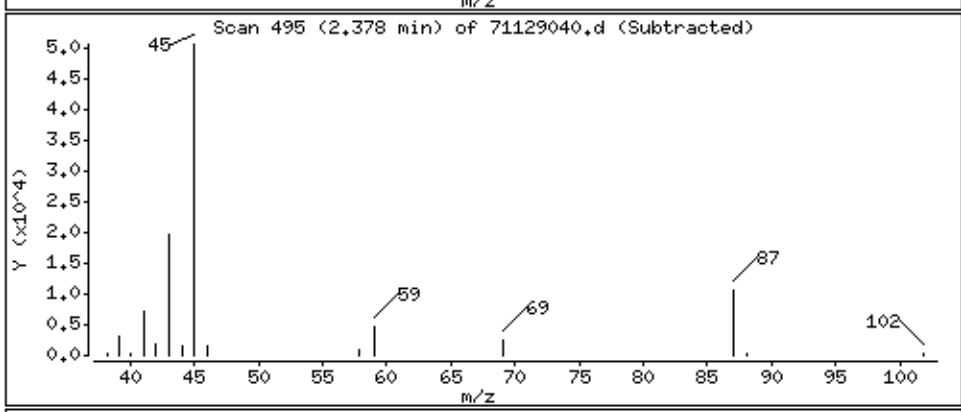
Column diameter: 0.18

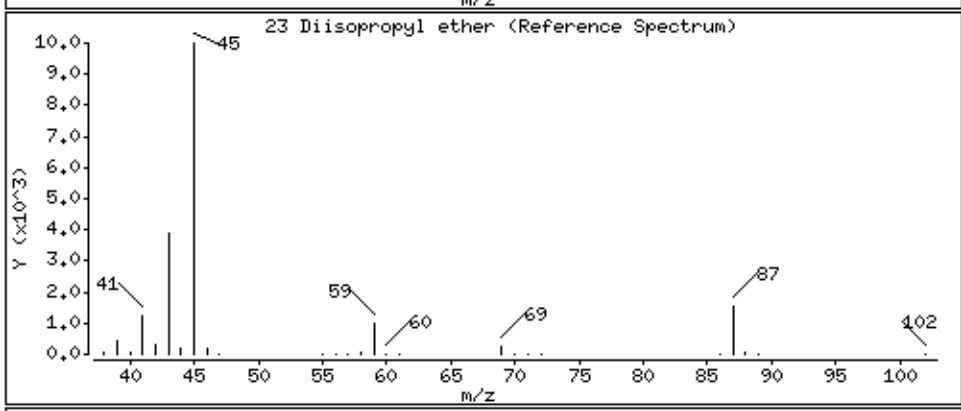
23 Diisopropyl ether

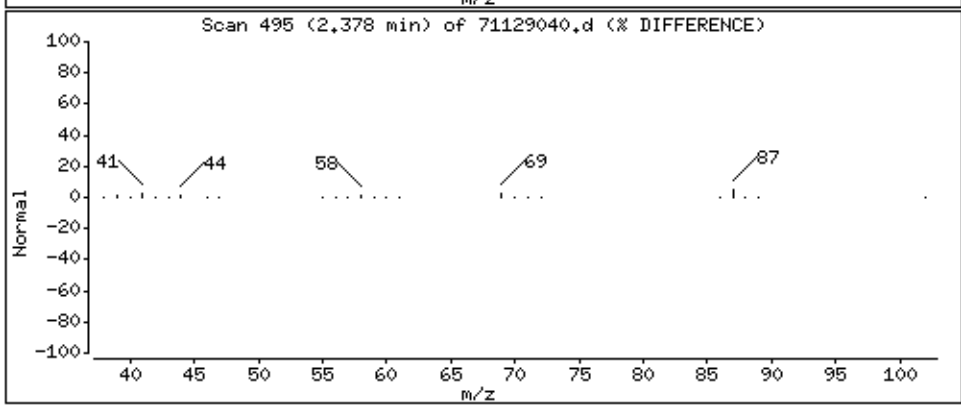
Concentration: 19.3 ug/L

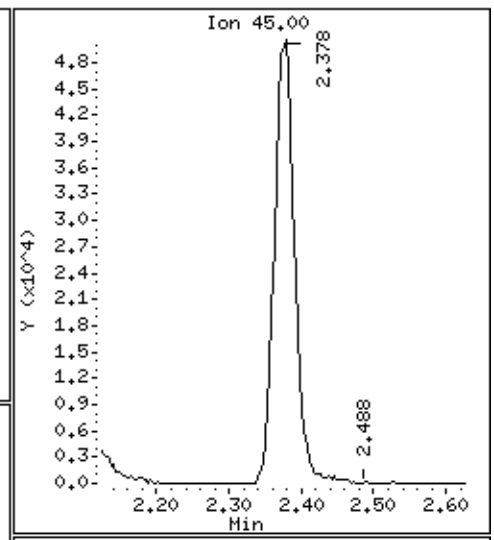
Review Code:

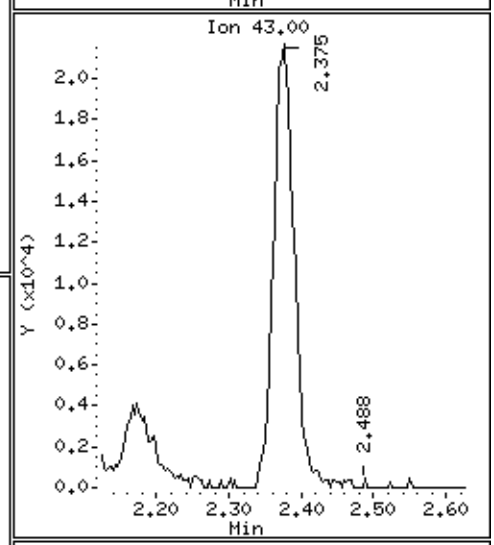


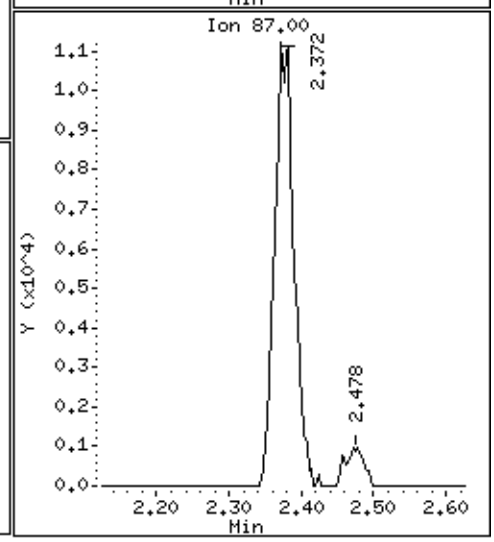












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

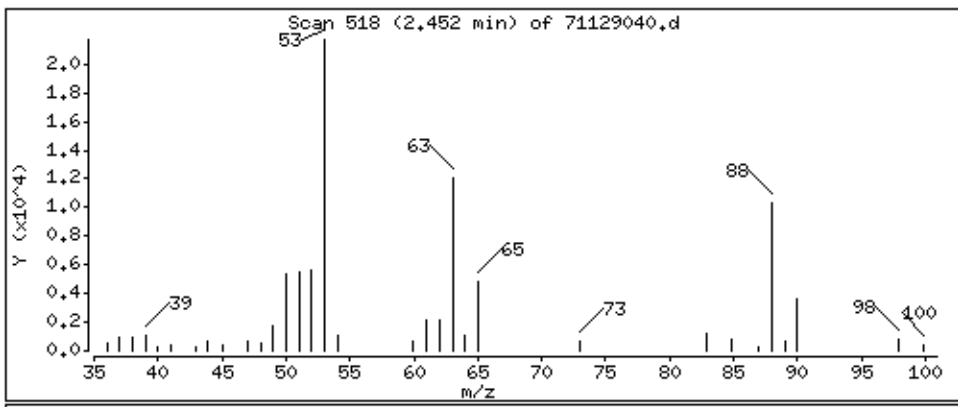
Column phase: RTX-VMS

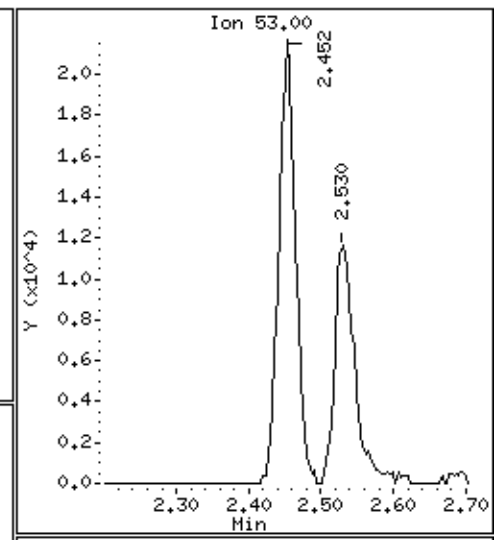
Column diameter: 0.18

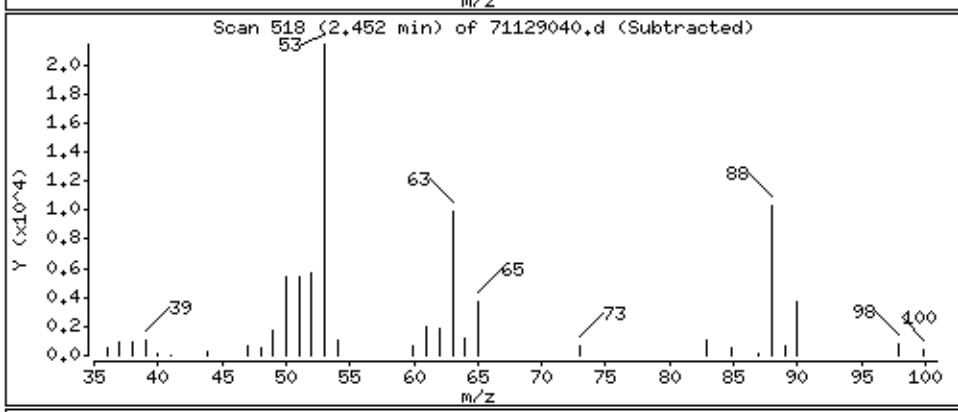
24 Chloroprene

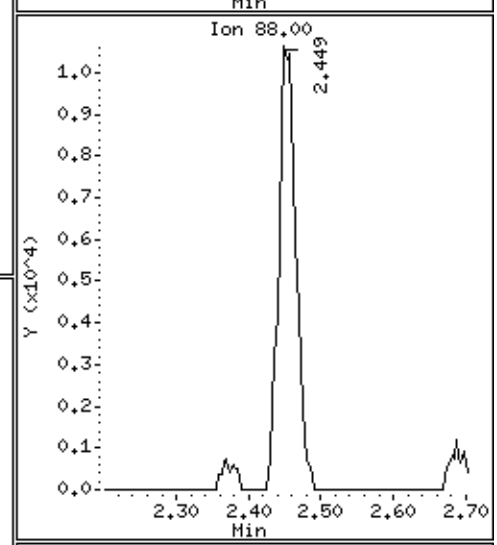
Concentration: 19.6 ug/L

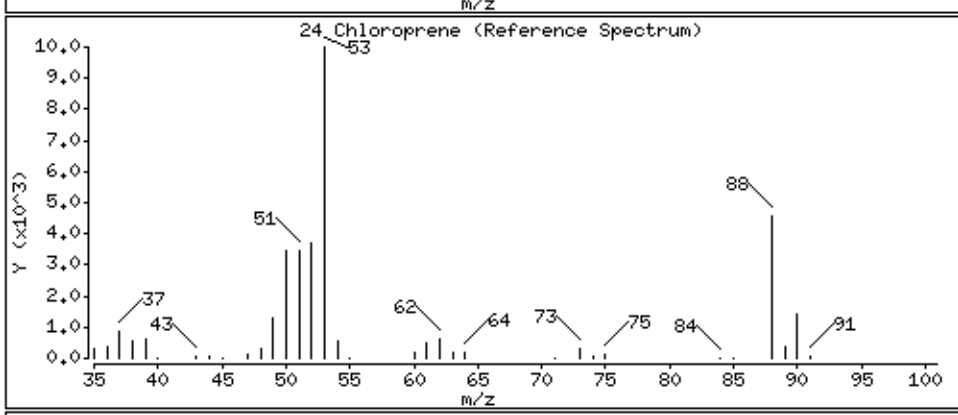
Review Code:

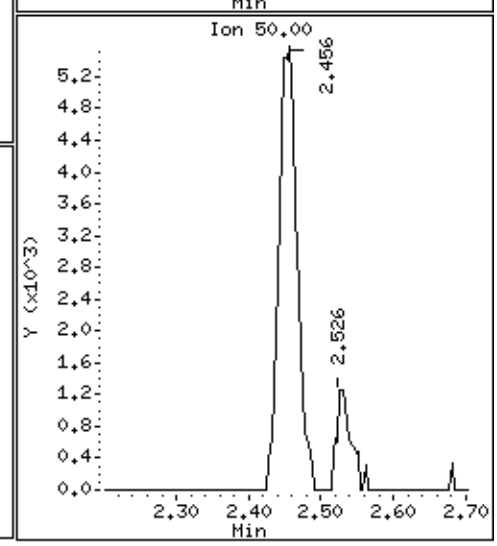


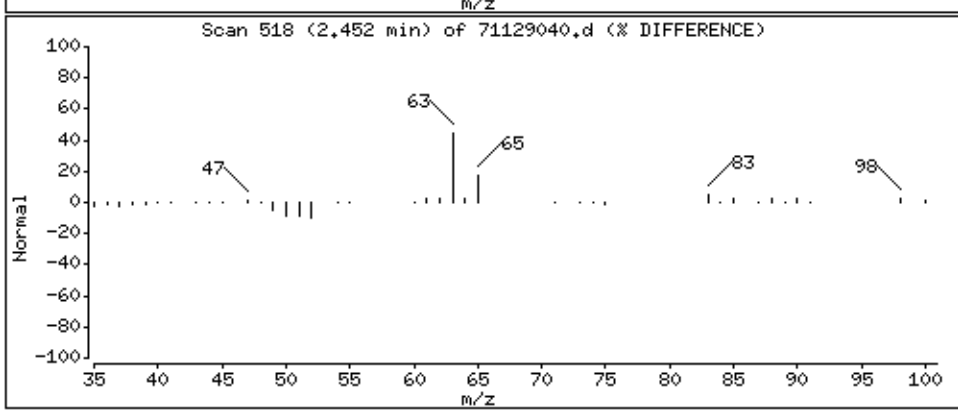












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

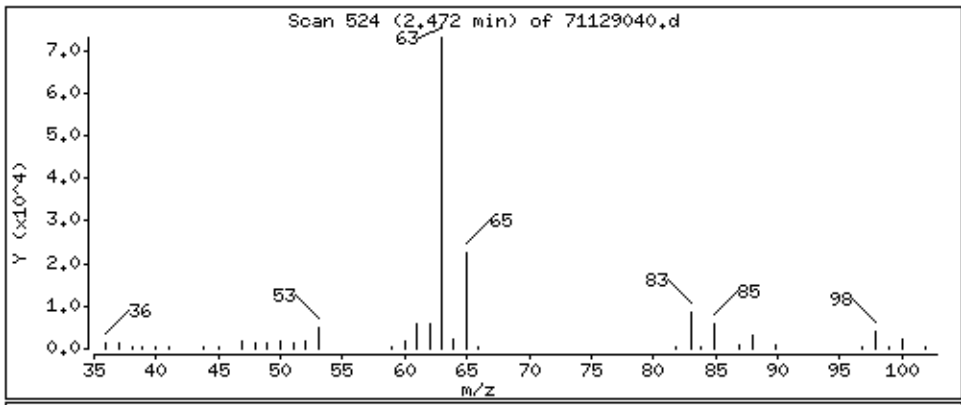
Column phase: RTX-VMS

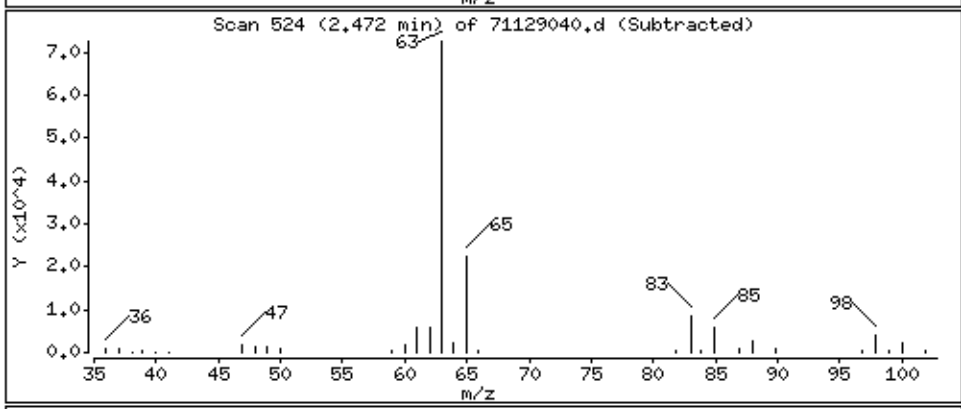
Column diameter: 0.18

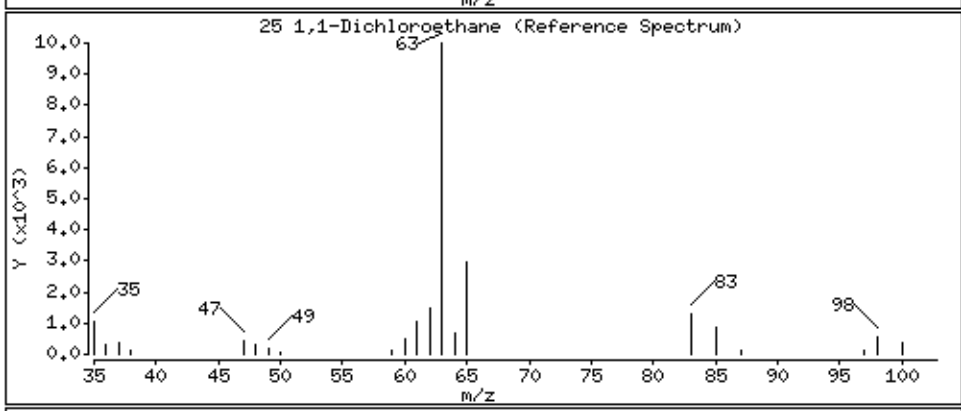
25 1,1-Dichloroethane

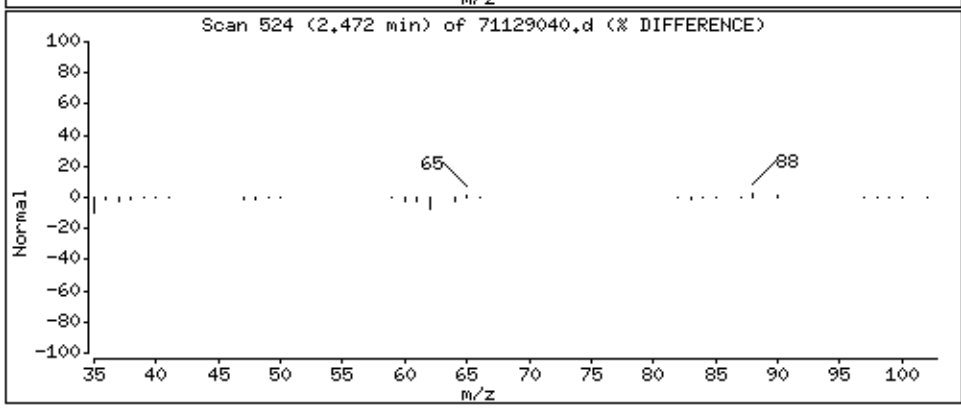
Concentration: 44.5 ug/L

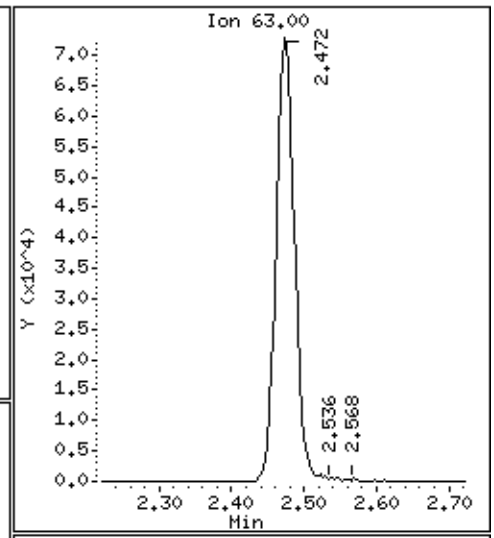
Review Code:

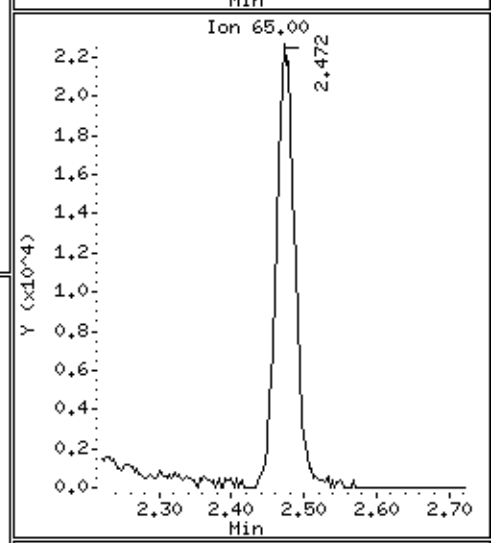


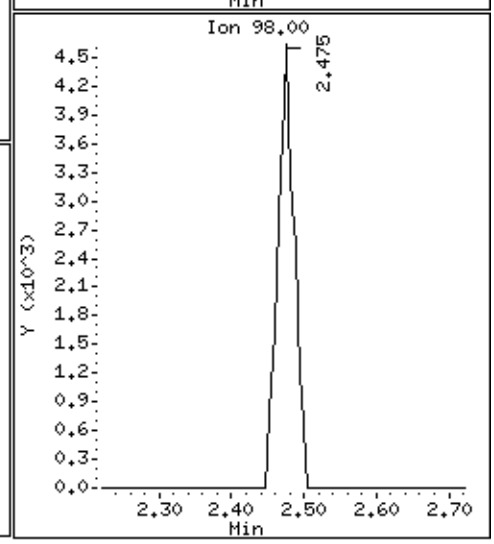












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

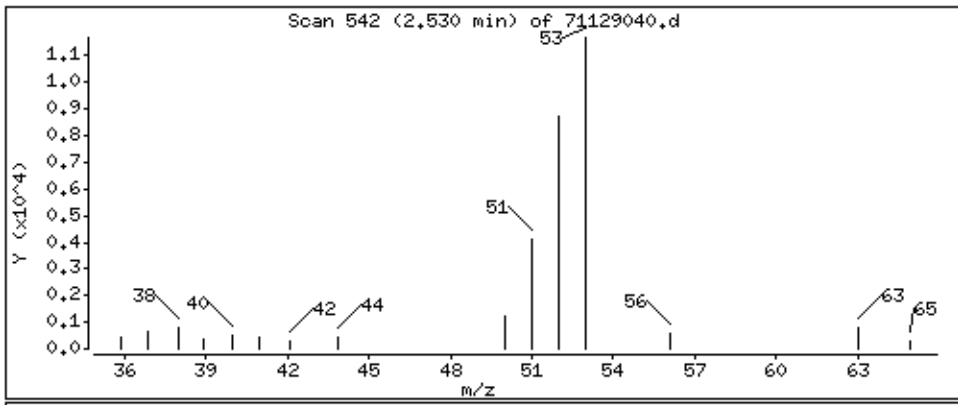
Column phase: RTX-VMS

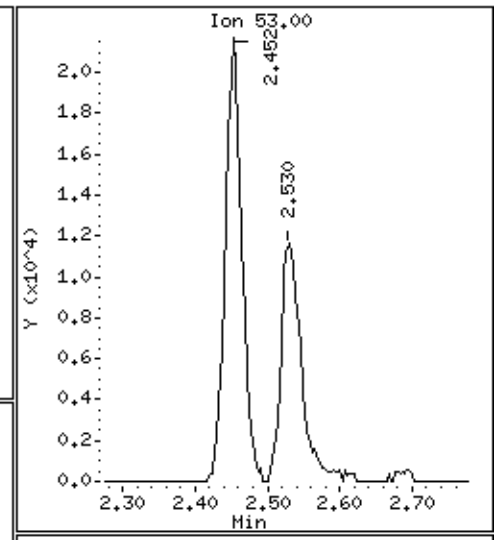
Column diameter: 0.18

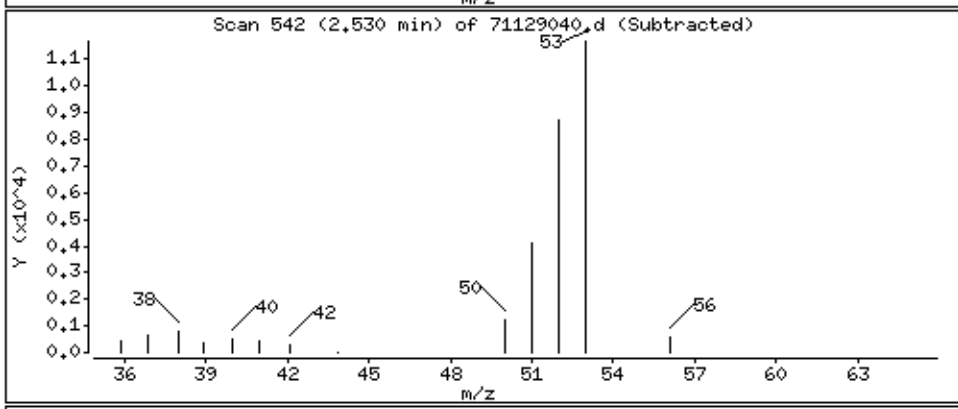
26 Acrylonitrile

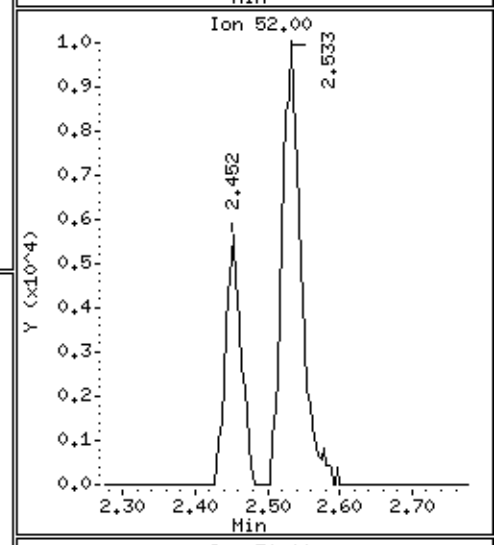
Concentration: 19.0 ug/L

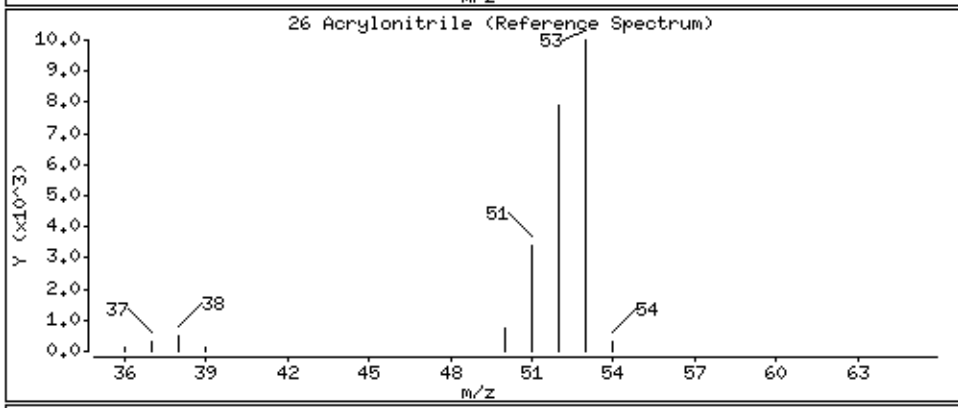
Review Code:

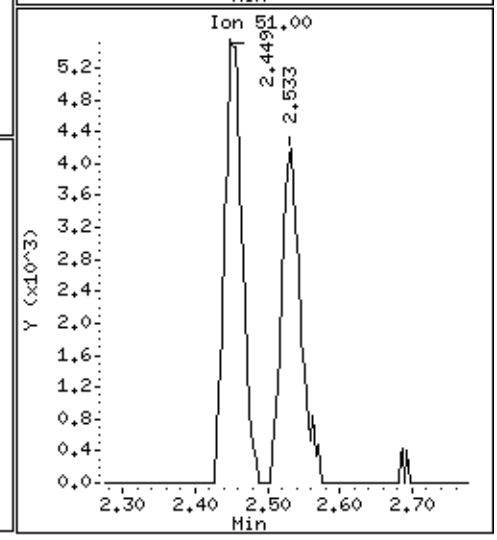


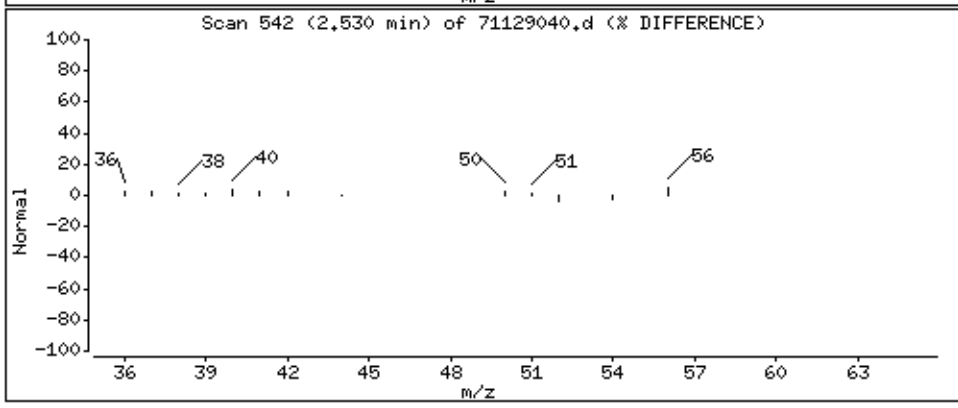












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

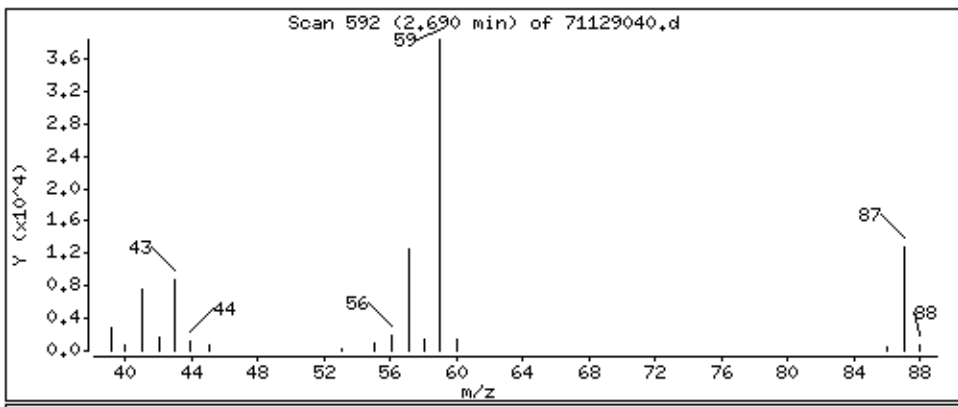
Column phase: RTX-VMS

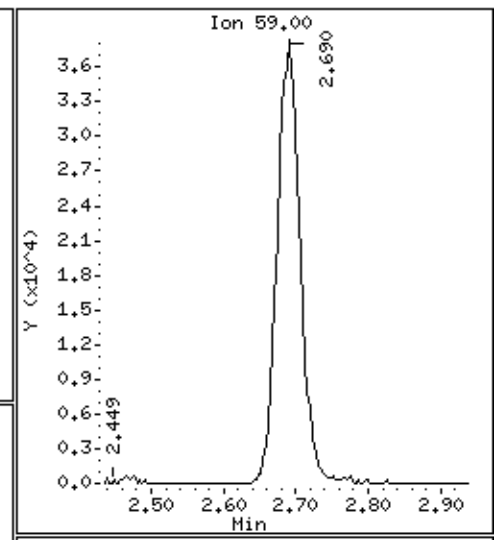
Column diameter: 0.18

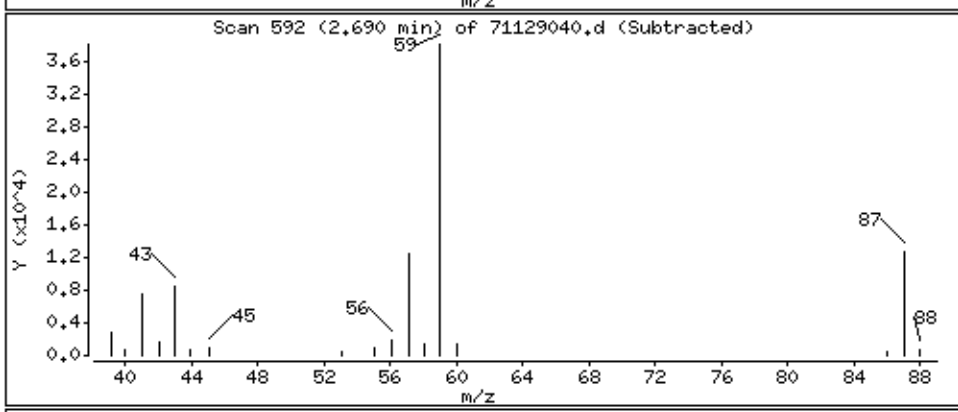
27 Ethyl-tert-butyl ether

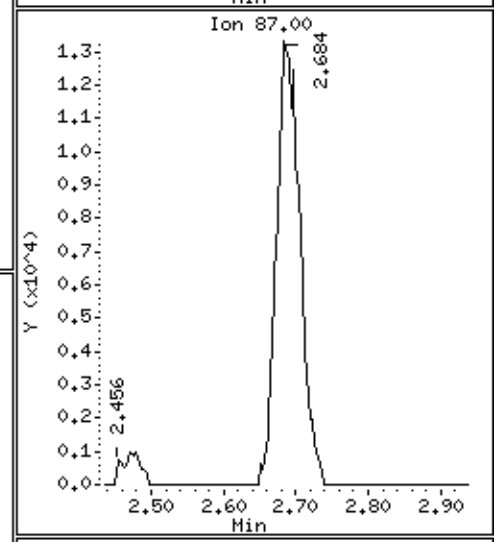
Concentration: 17.4 ug/L

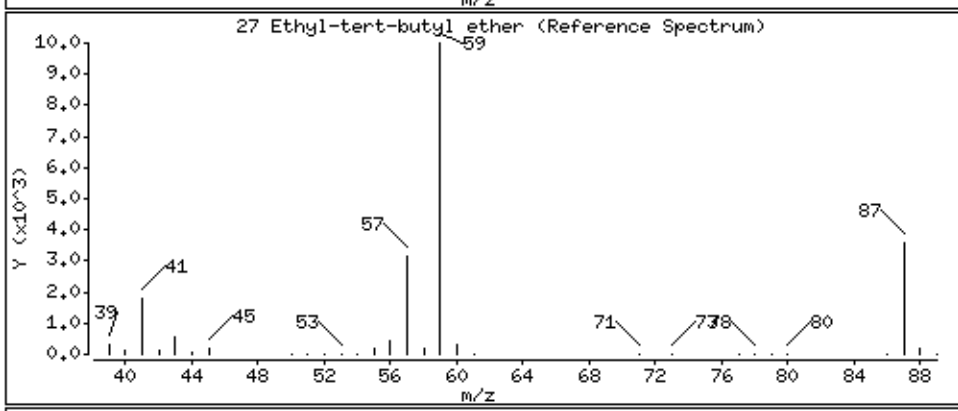
Review Code:

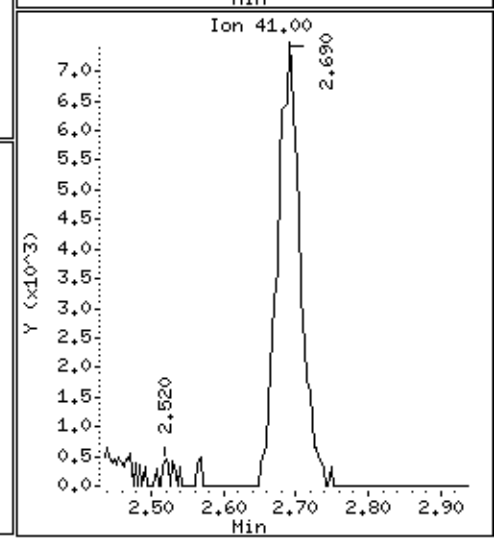


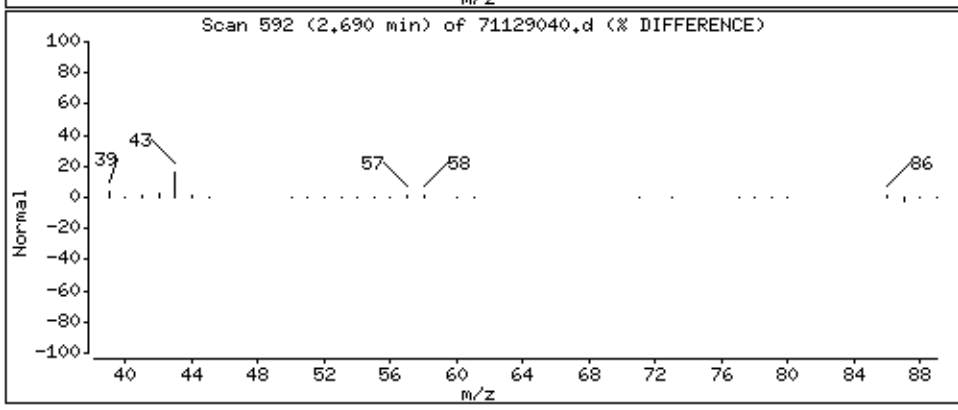












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

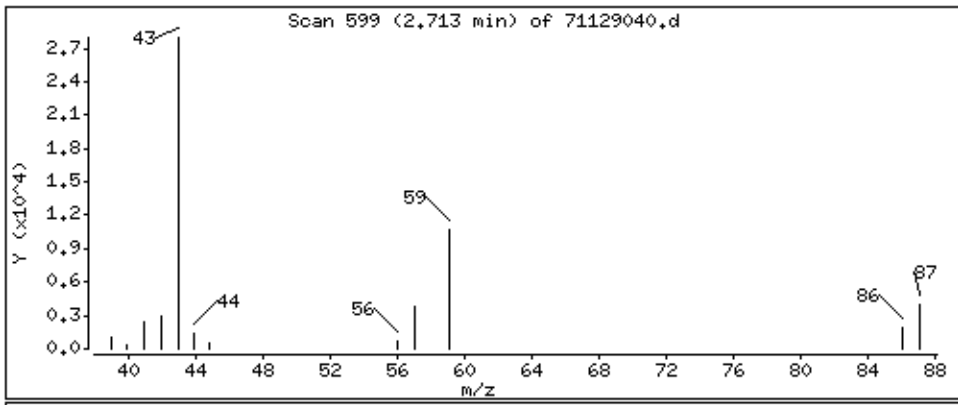
Column phase: RTX-VMS

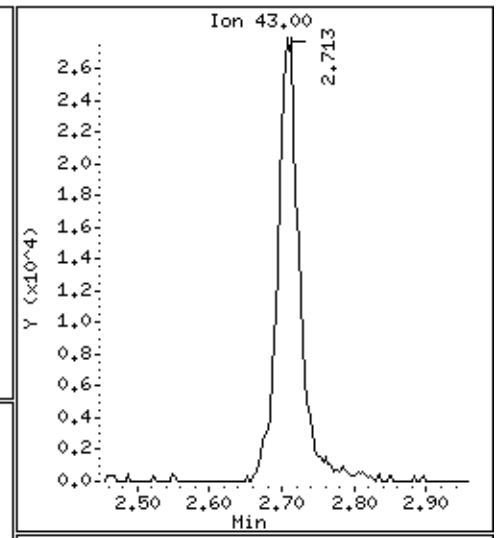
Column diameter: 0.18

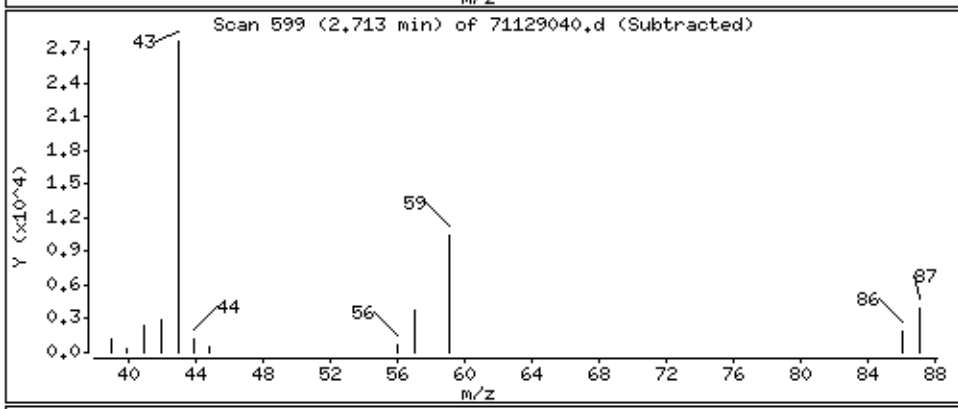
28 Vinyl acetate

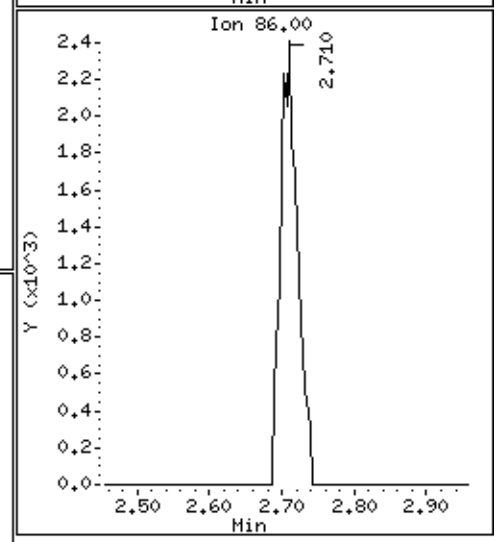
Concentration: 13.4 ug/L

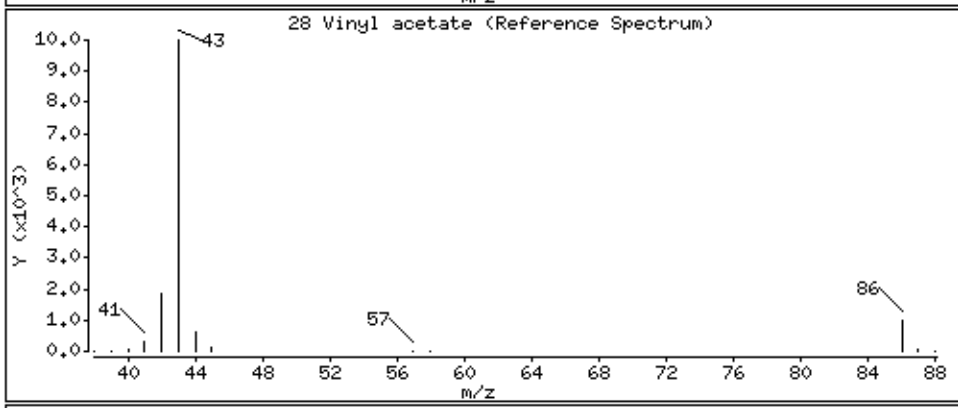
Review Code:

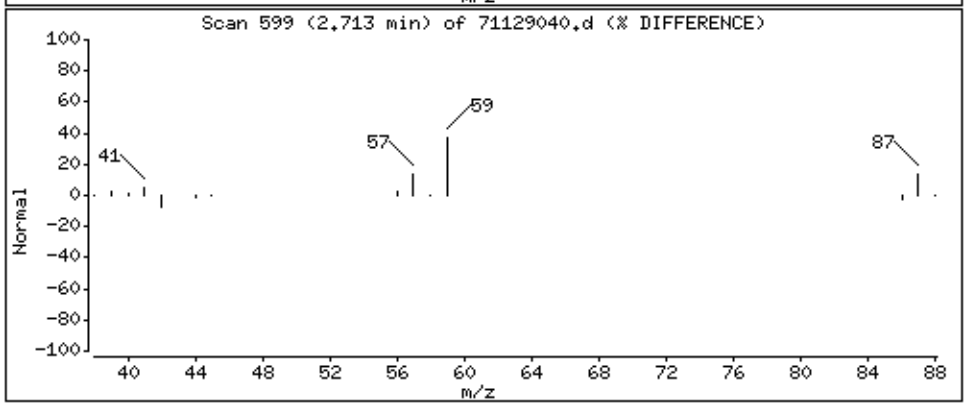












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

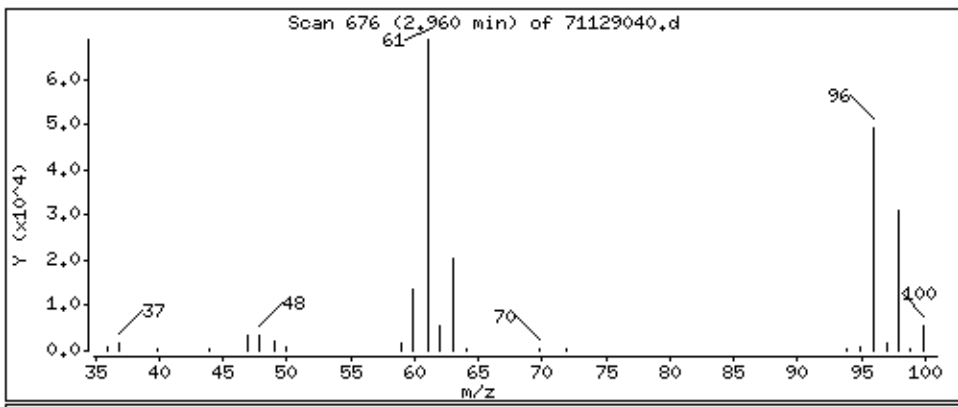
Column phase: RTX-VMS

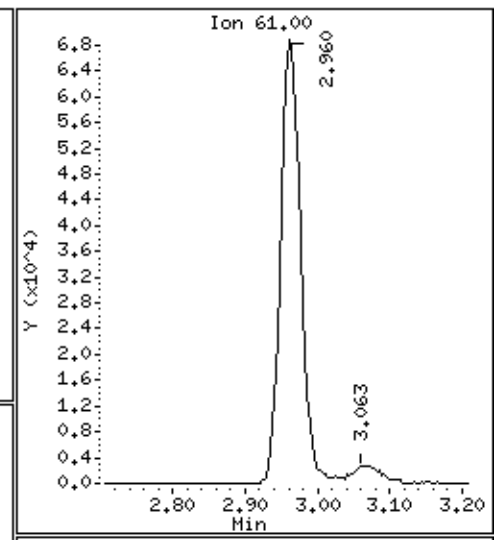
Column diameter: 0.18

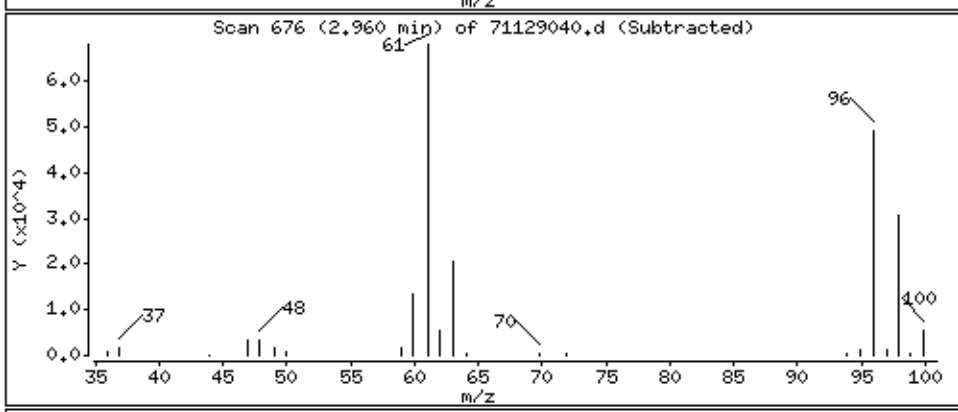
29 cis-1,2-Dichloroethene

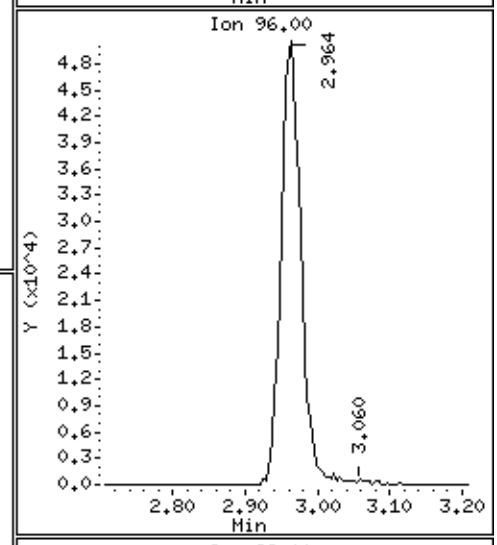
Concentration: 59.9 ug/L

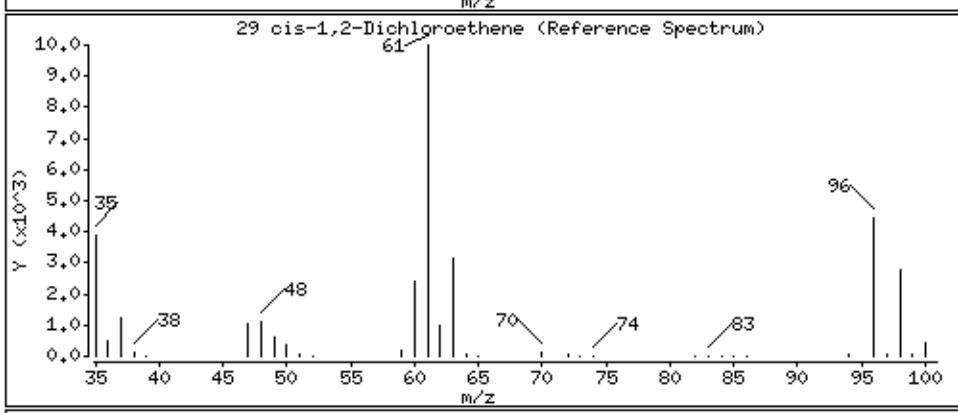
Review Code:

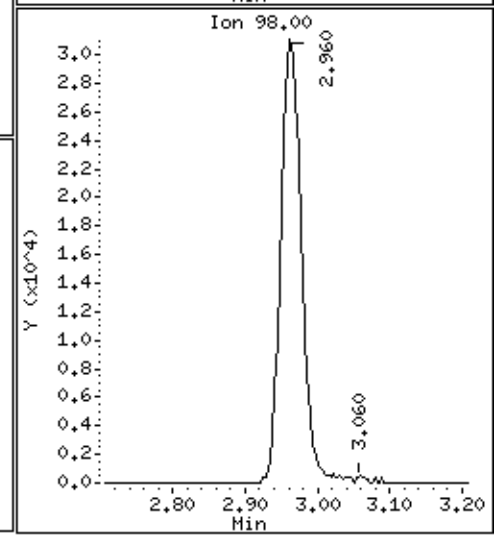


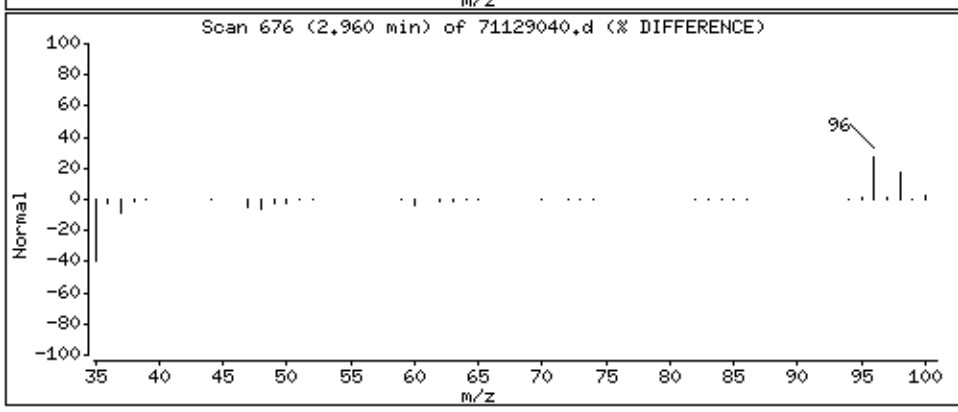












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

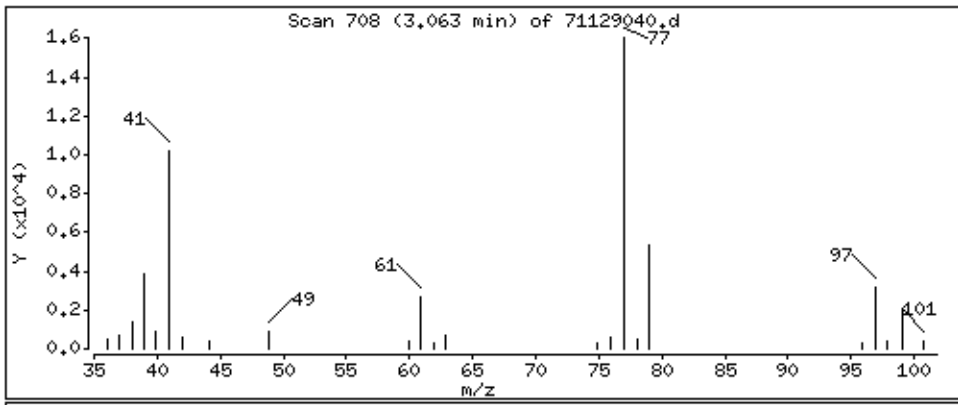
Column phase: RTX-VMS

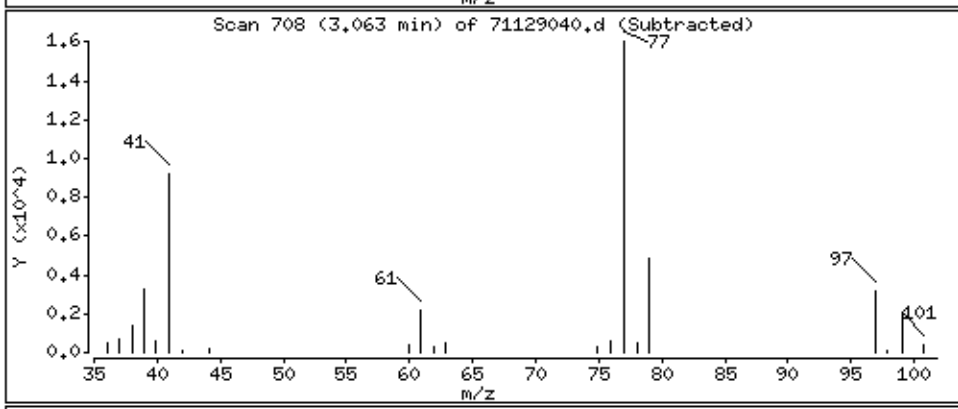
Column diameter: 0.18

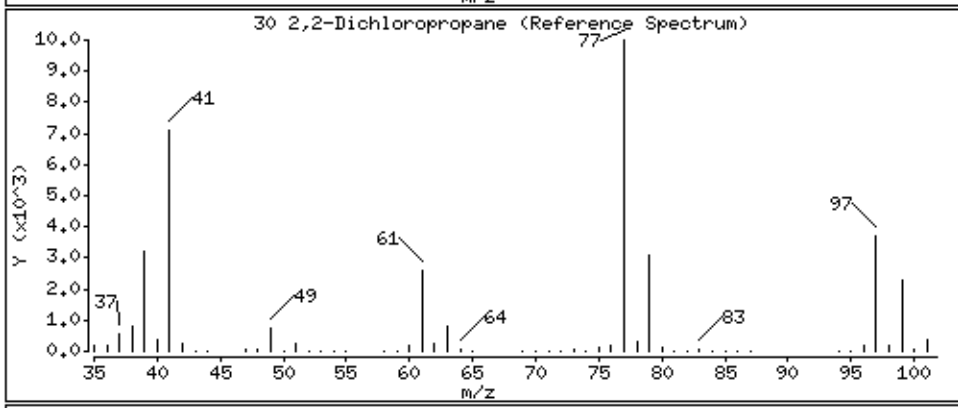
30 2,2-Dichloropropane

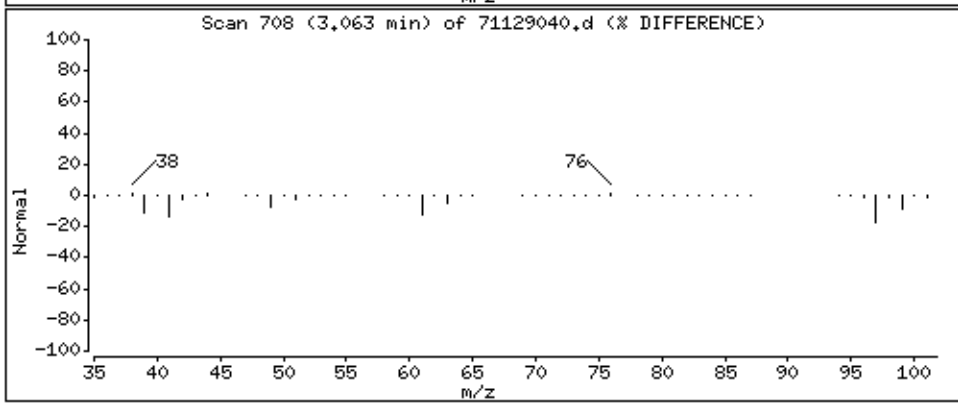
Concentration: 17.2 ug/L

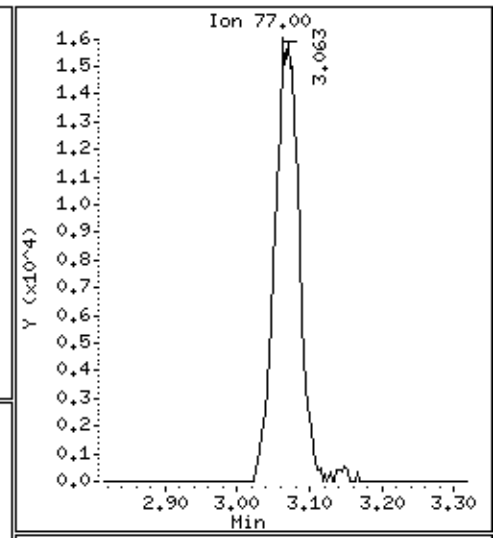
Review Code:

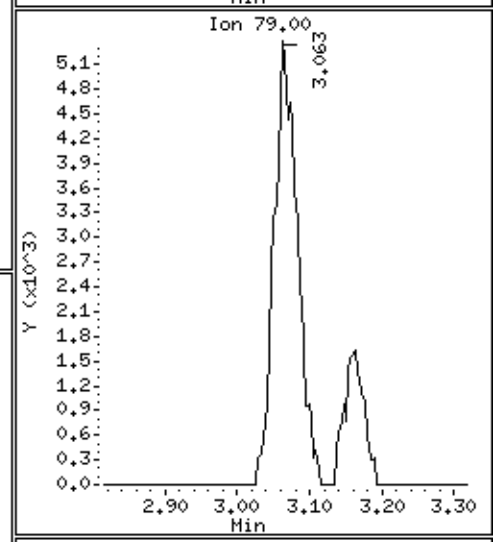


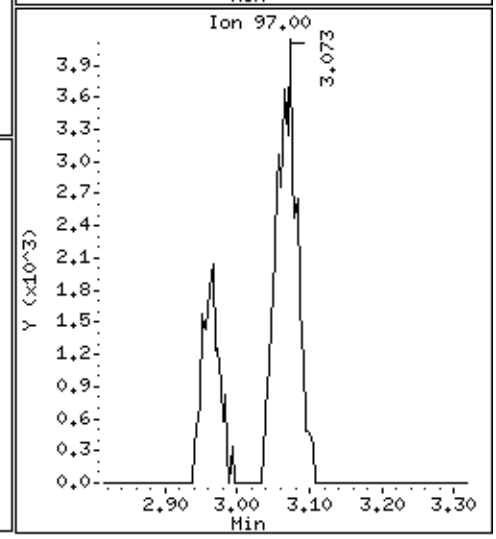












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

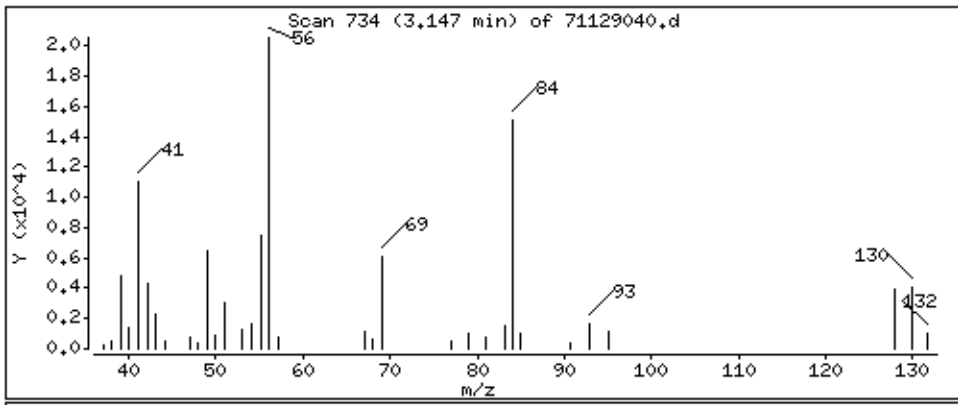
Column phase: RTX-VMS

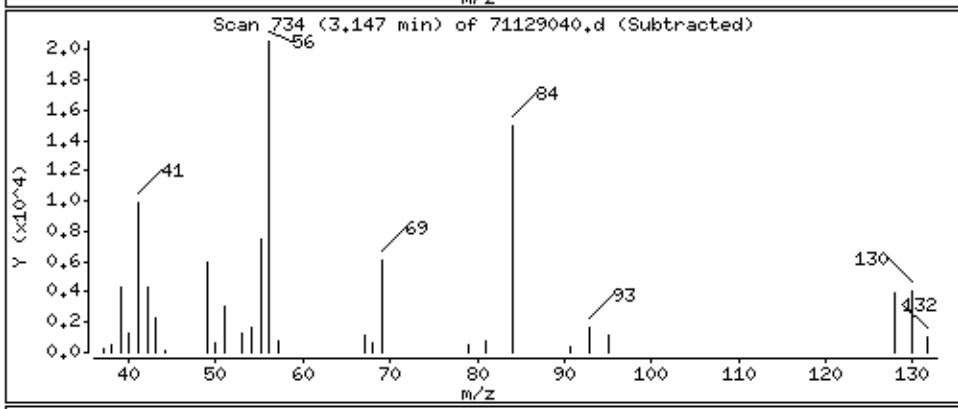
Column diameter: 0.18

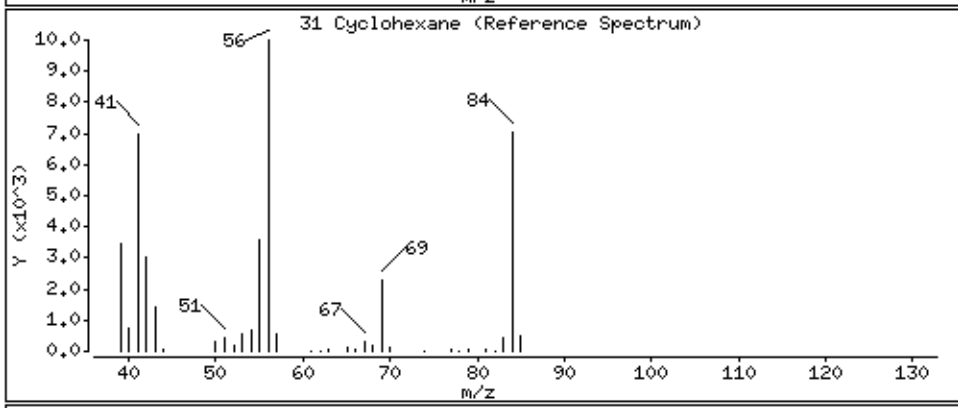
31 Cyclohexane

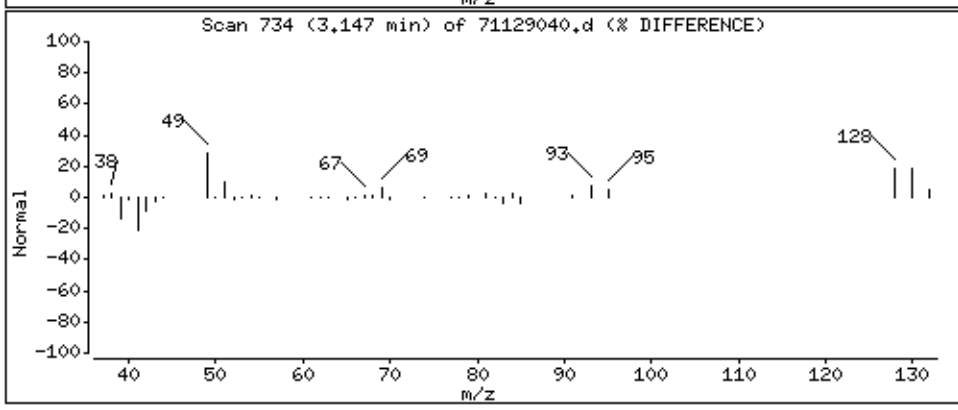
Concentration: 18.5 ug/L

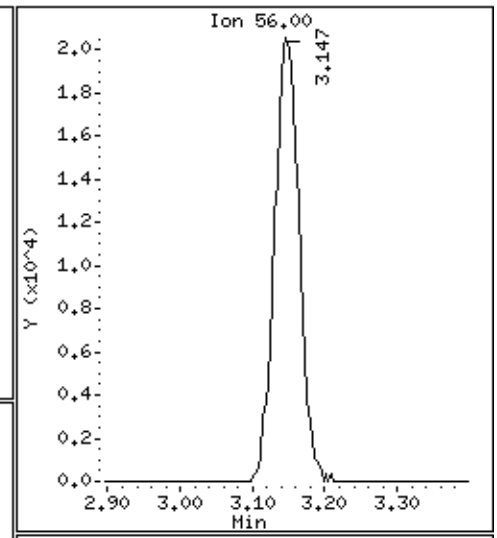
Review Code:

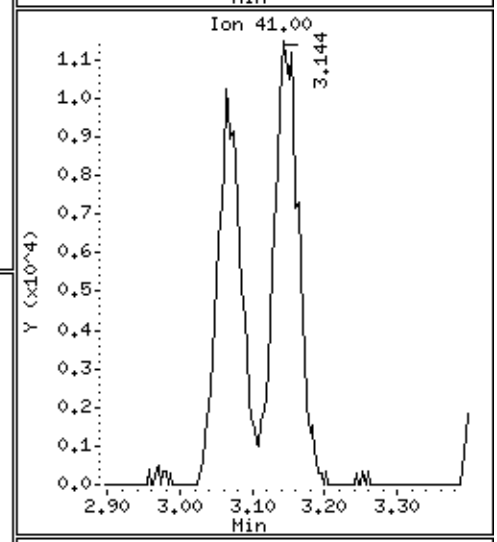


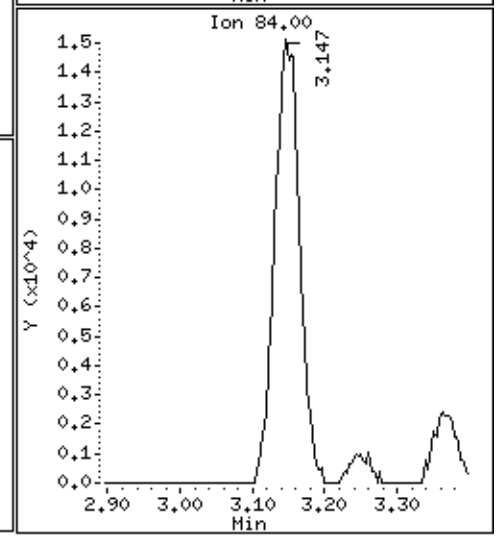












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

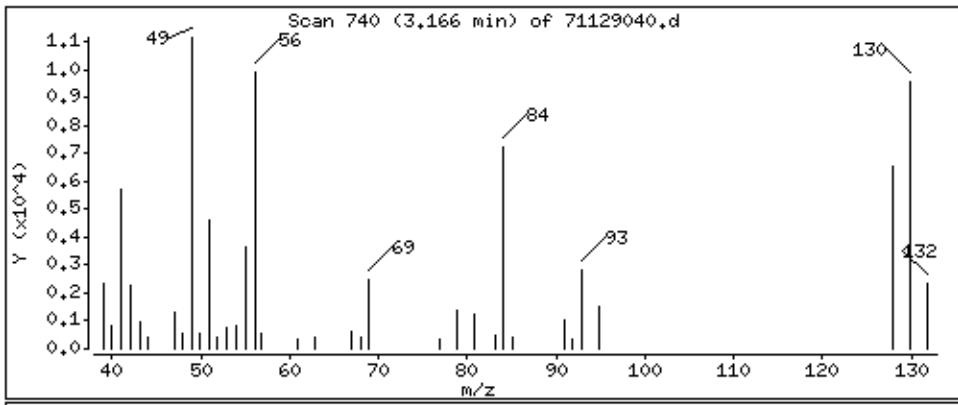
Column phase: RTX-VMS

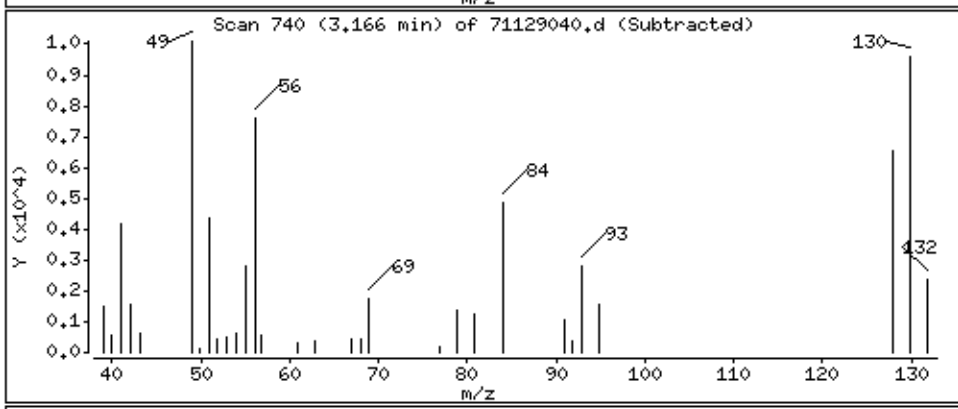
Column diameter: 0.18

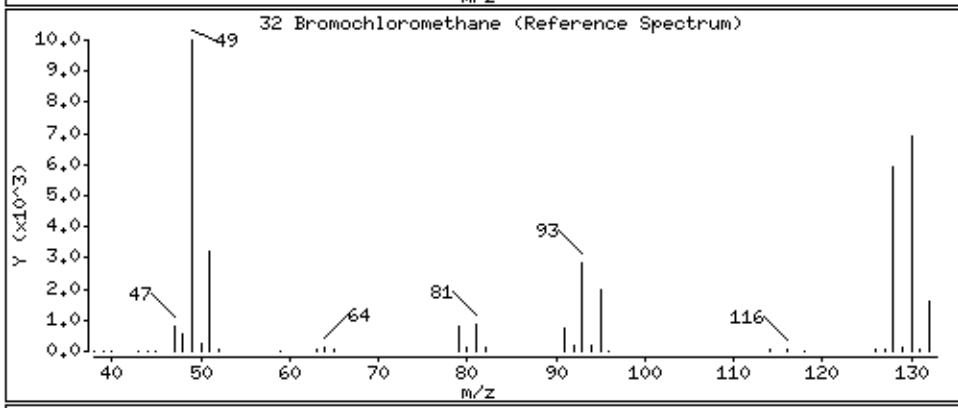
32 Bromochloromethane

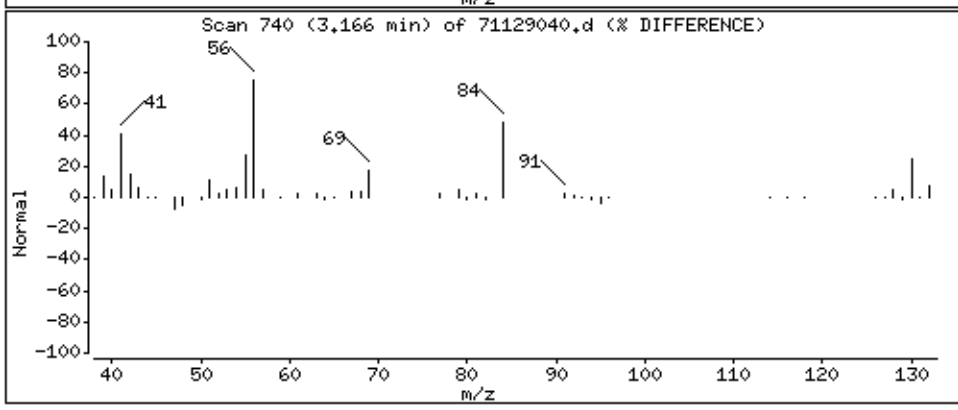
Concentration: 16.9 ug/L

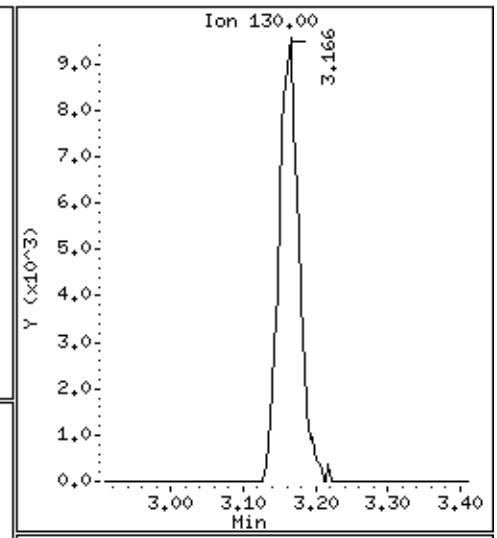
Review Code:

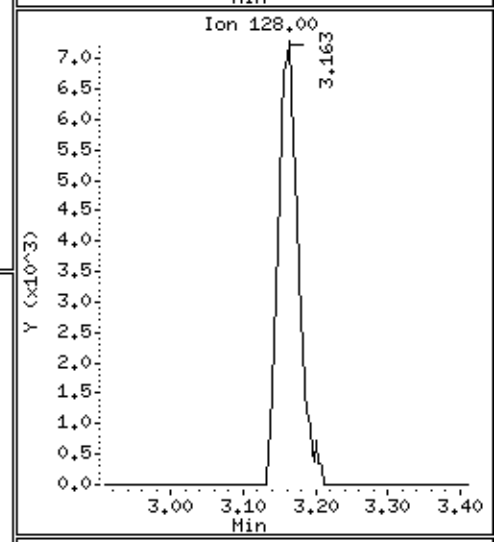


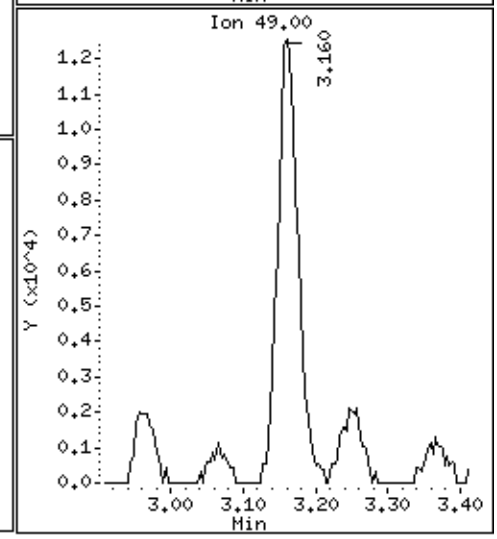












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

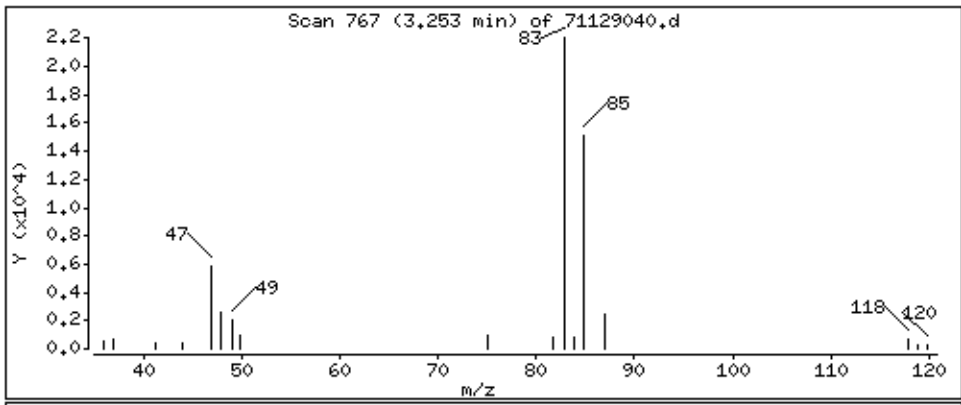
Column phase: RTX-VMS

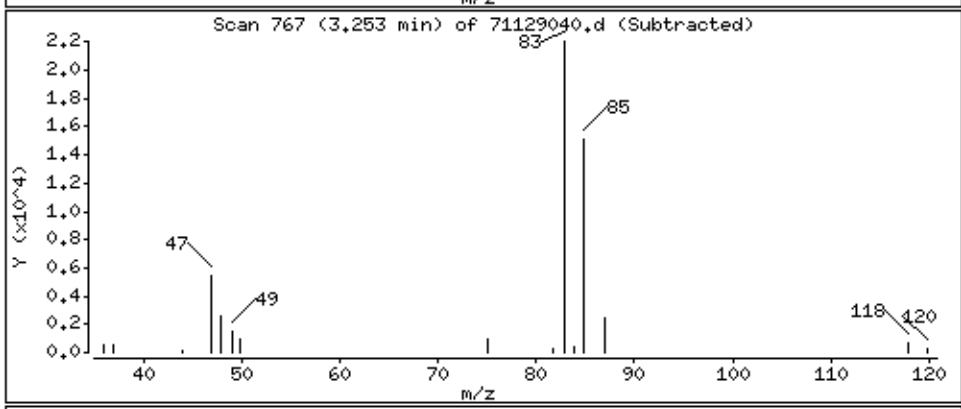
Column diameter: 0.18

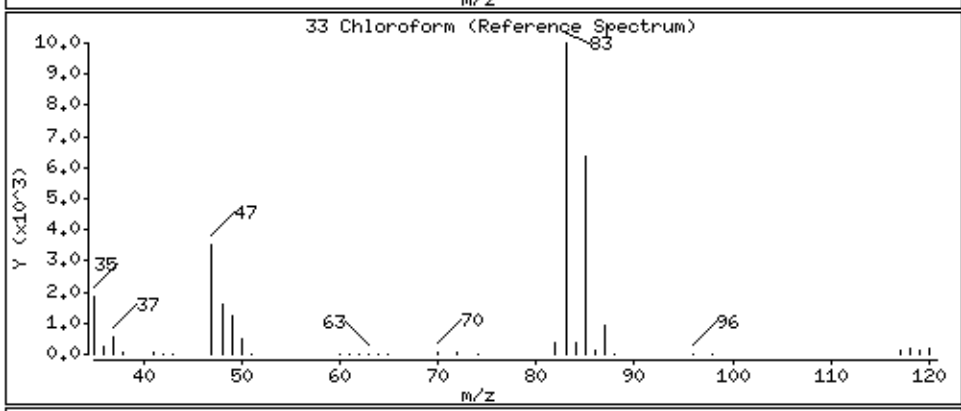
33 Chloroform

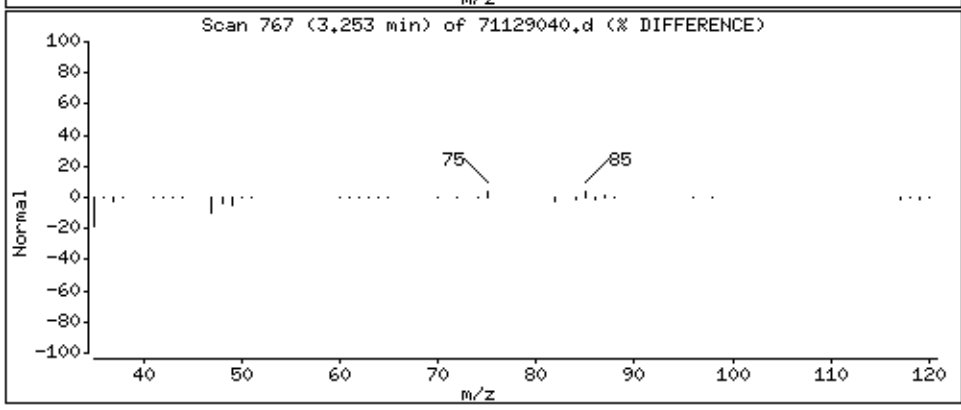
Concentration: 16.5 ug/L

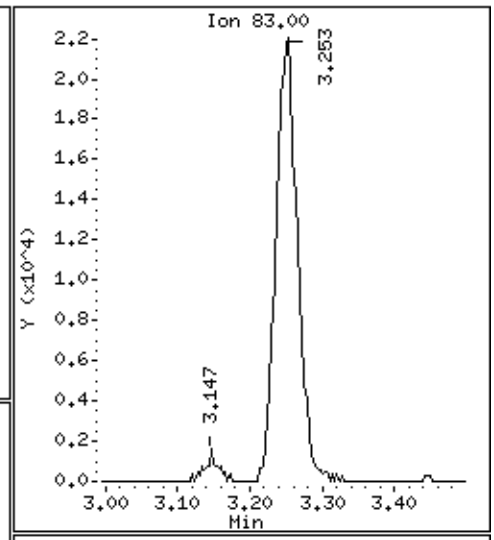
Review Code:

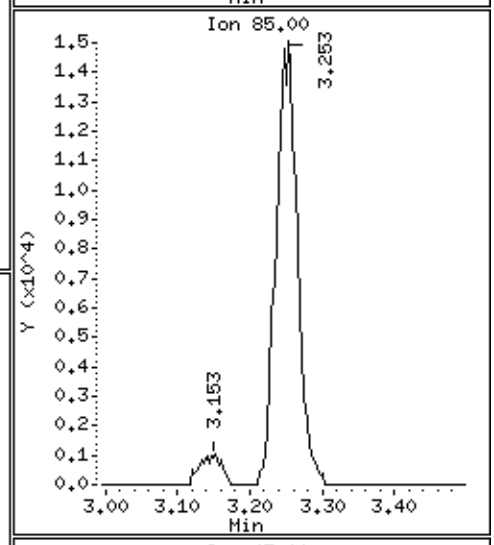


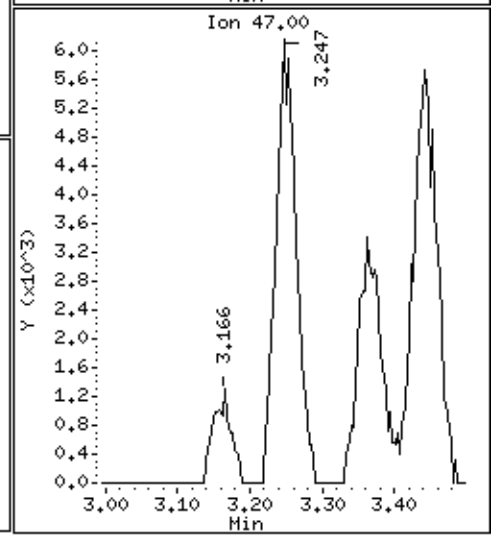












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

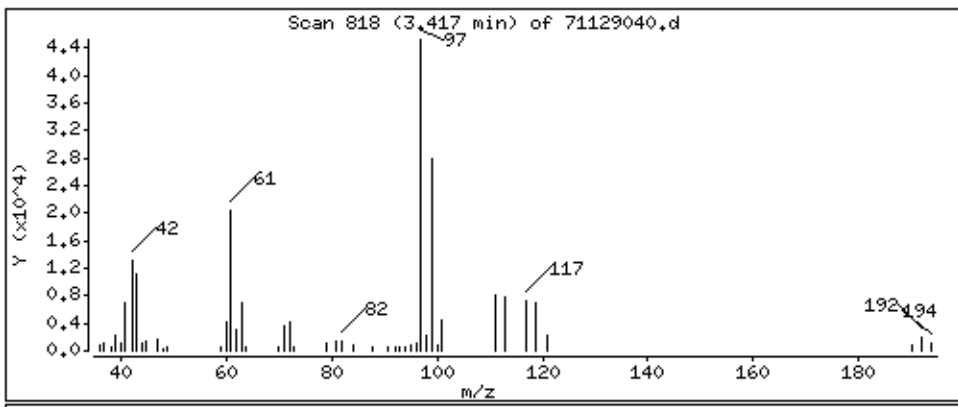
Column phase: RTX-VMS

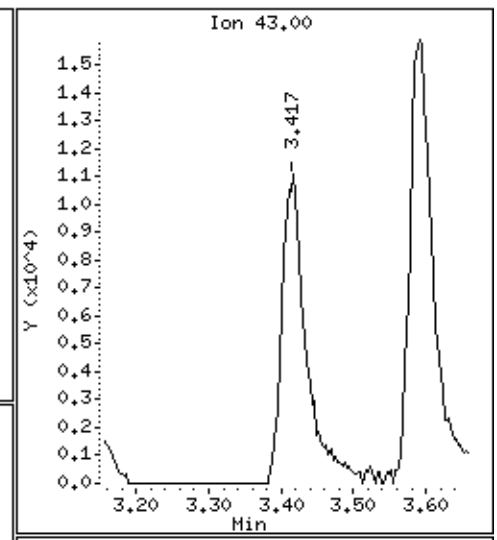
Column diameter: 0.18

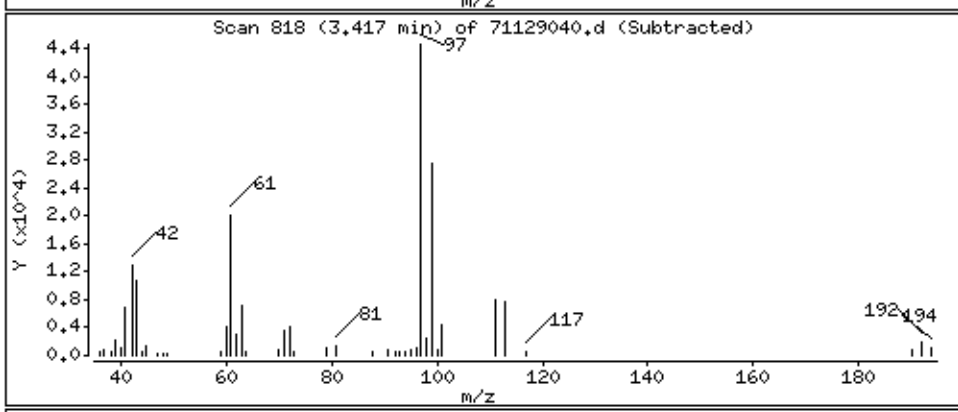
34 Ethyl acetate

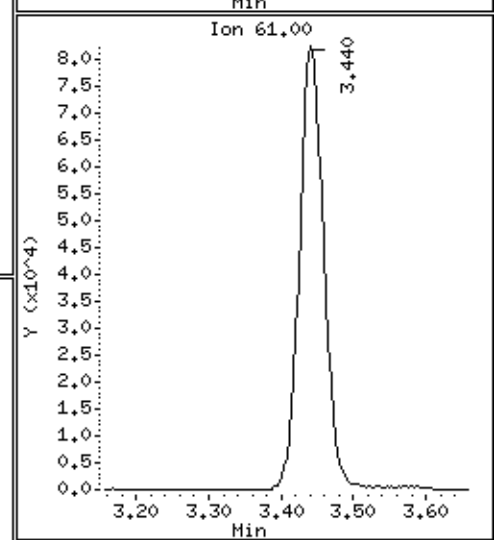
Concentration: 17.2 ug/L

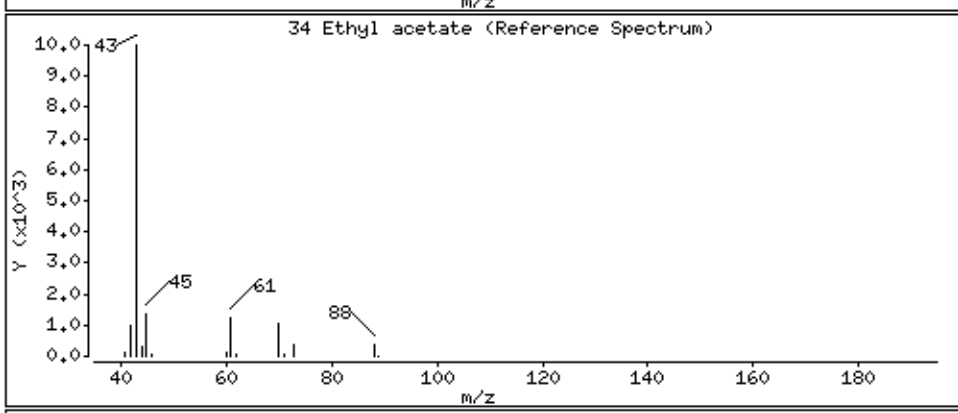
Review Code:

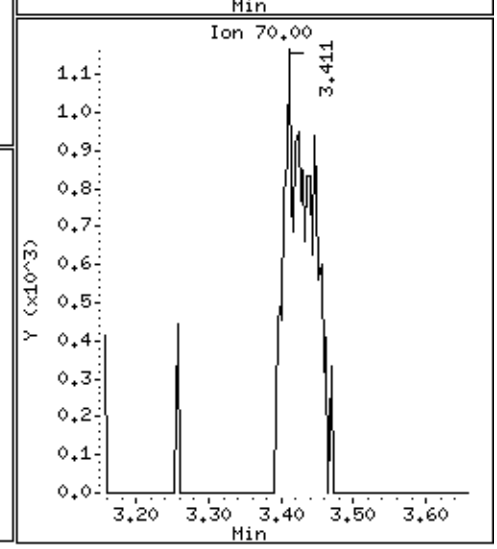


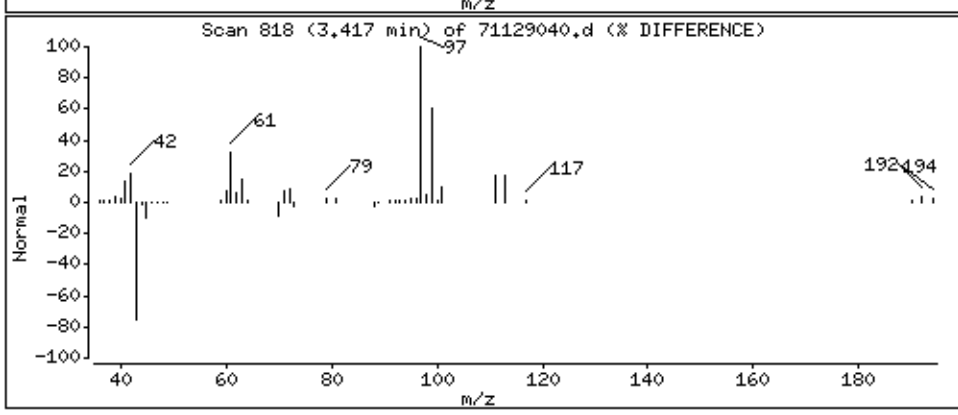












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

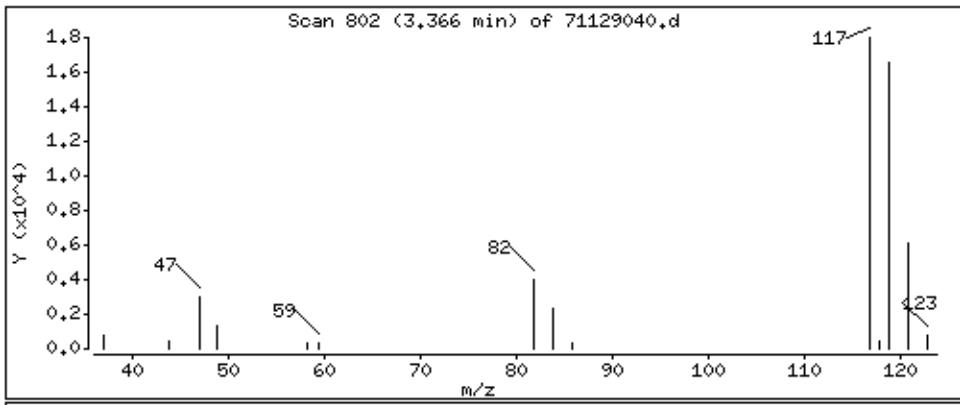
Column phase: RTX-VMS

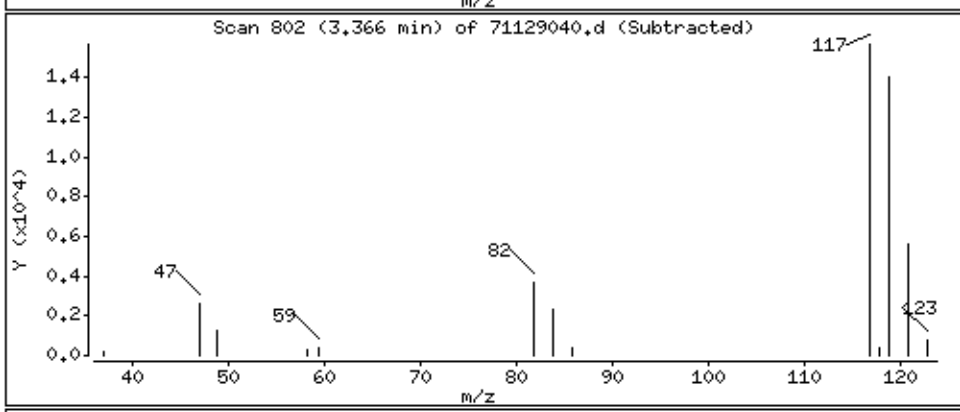
Column diameter: 0.18

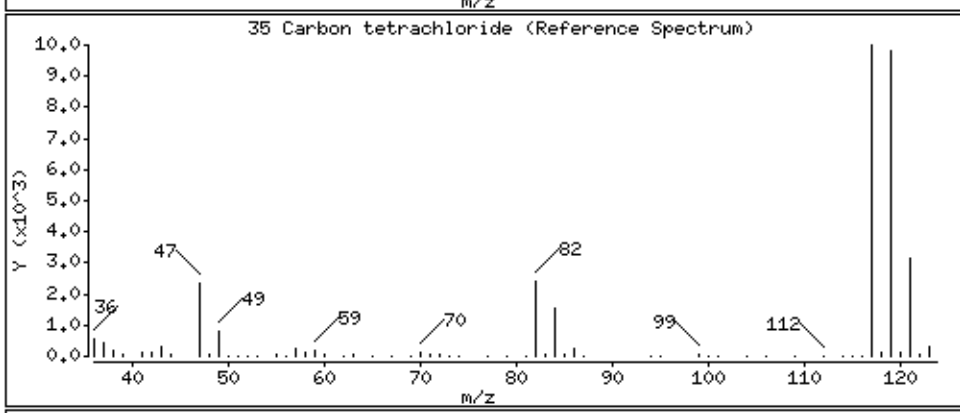
35 Carbon tetrachloride

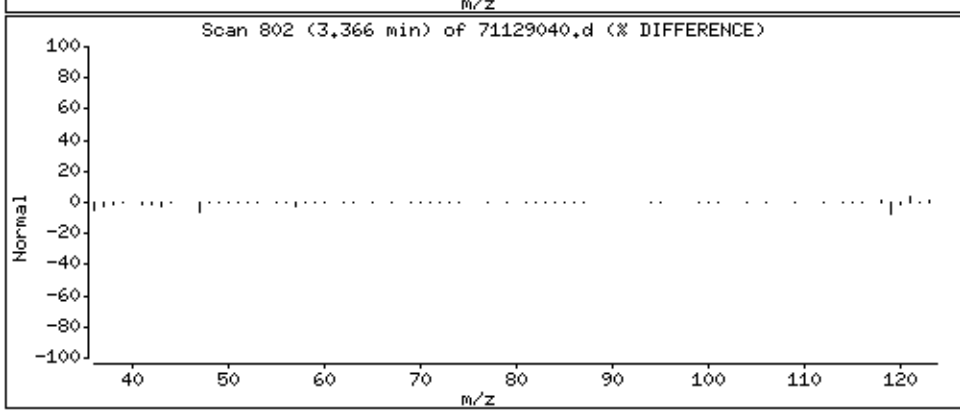
Concentration: 17.7 ug/L

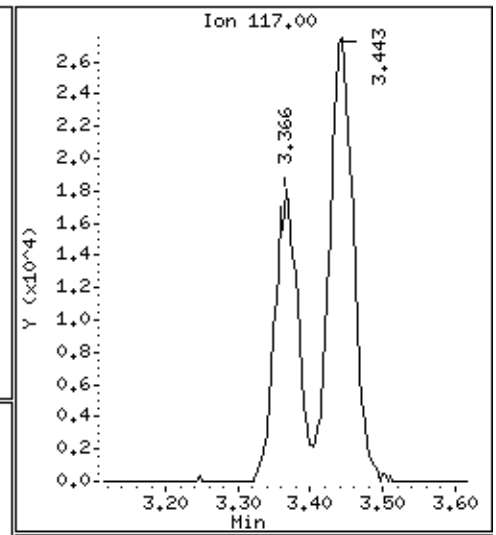
Review Code:

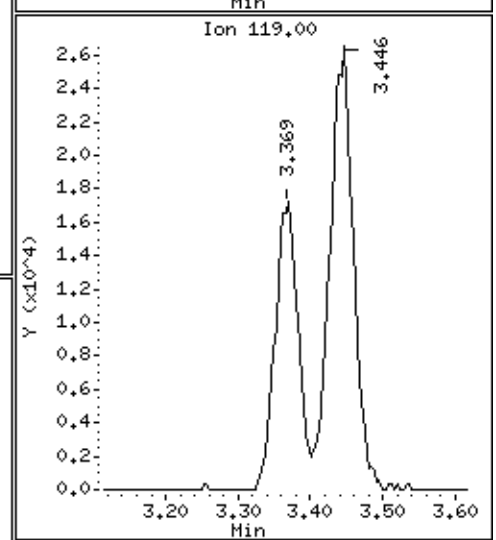


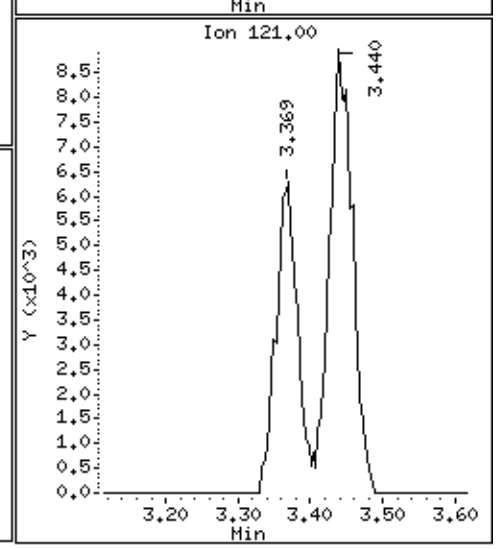












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

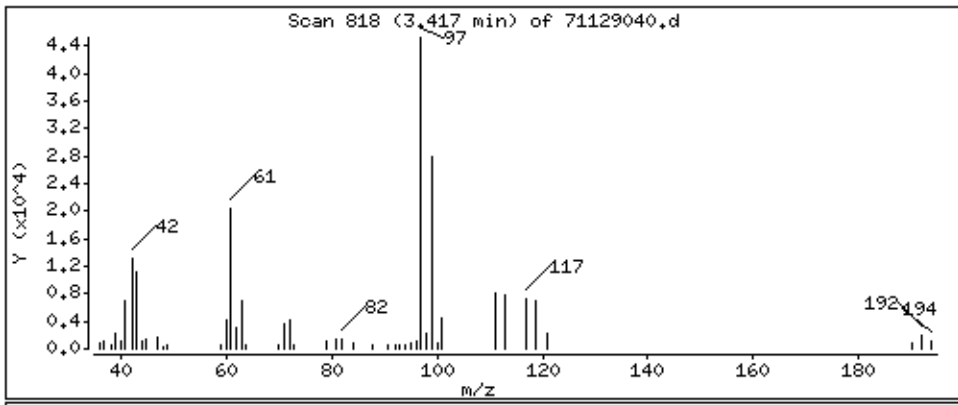
Column phase: RTX-VMS

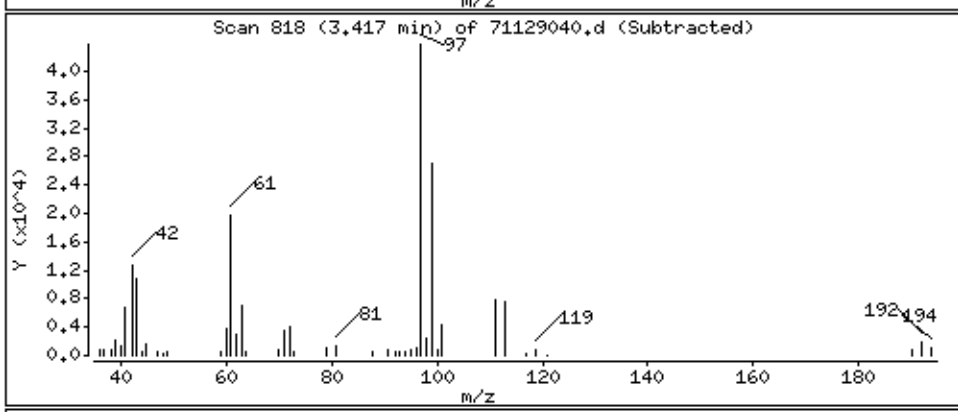
Column diameter: 0.18

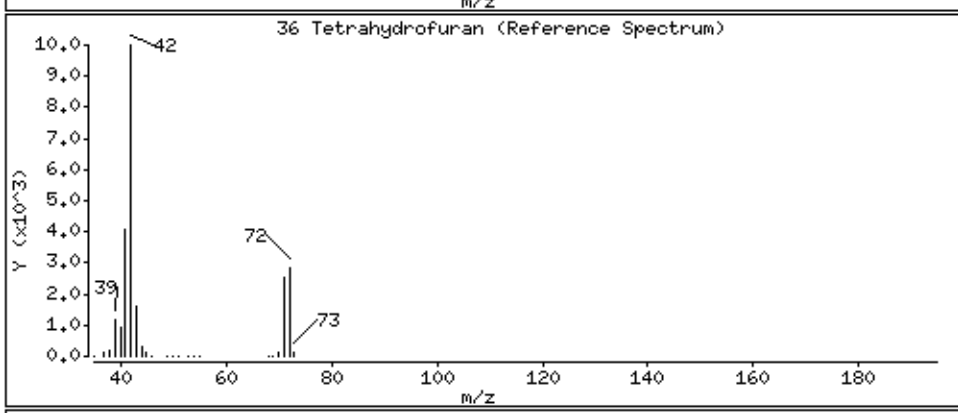
36 Tetrahydrofuran

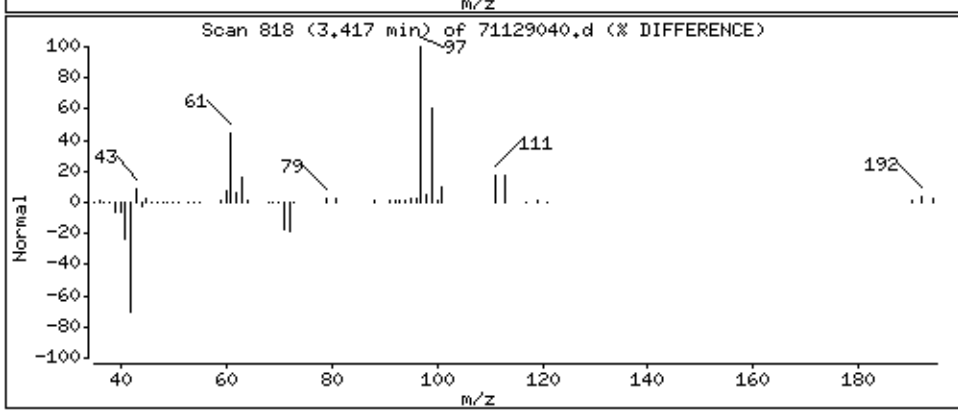
Concentration: 22.8 ug/L

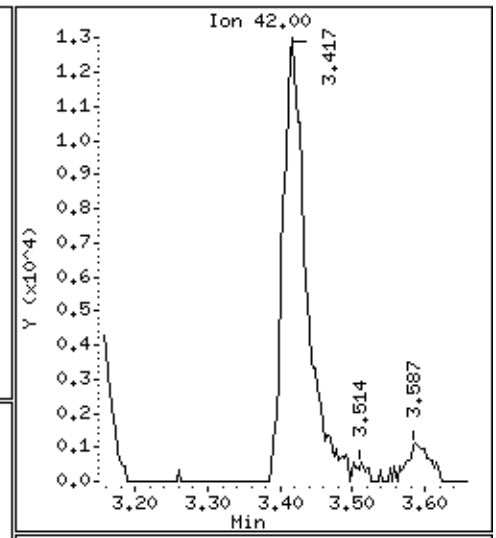
Review Code:

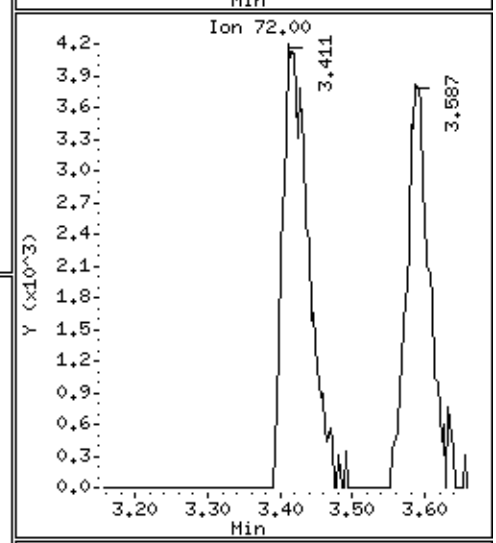


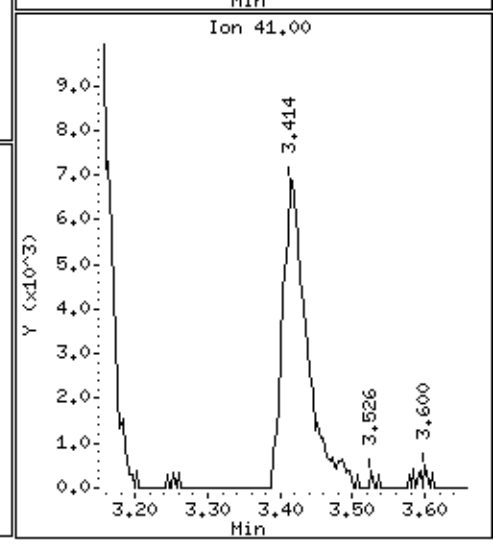












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

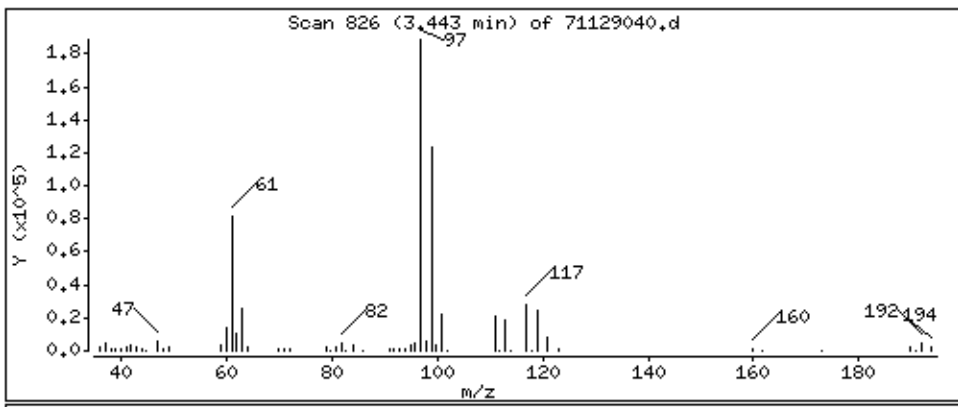
Column phase: RTX-VMS

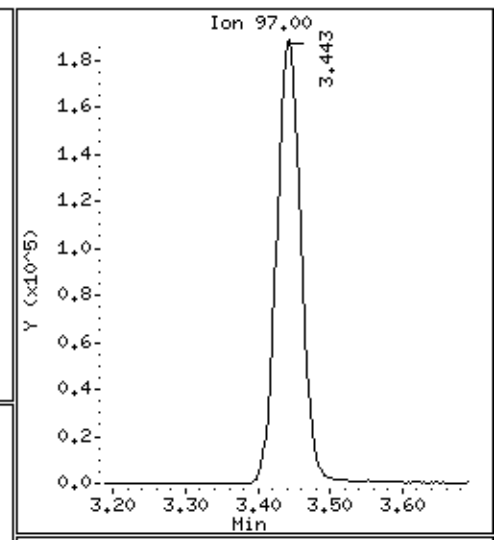
Column diameter: 0.18

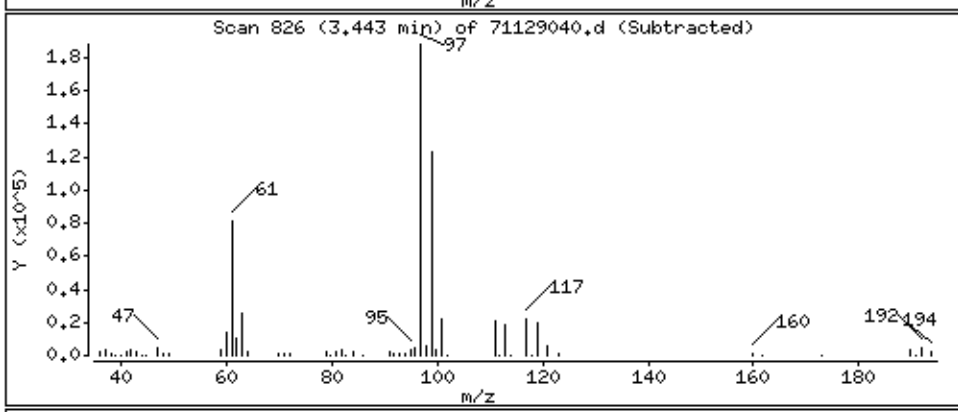
38 1,1,1-Trichloroethane

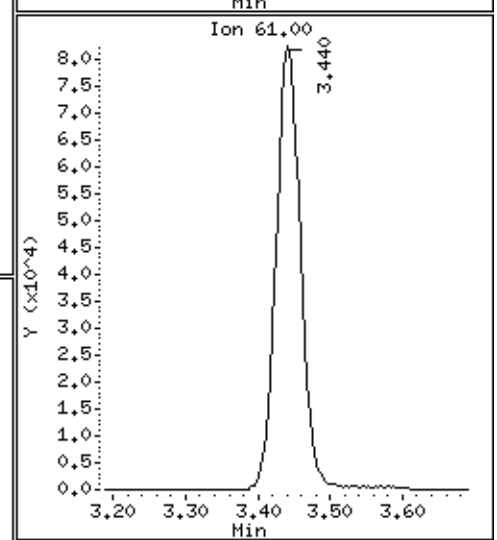
Concentration: 183 ug/L

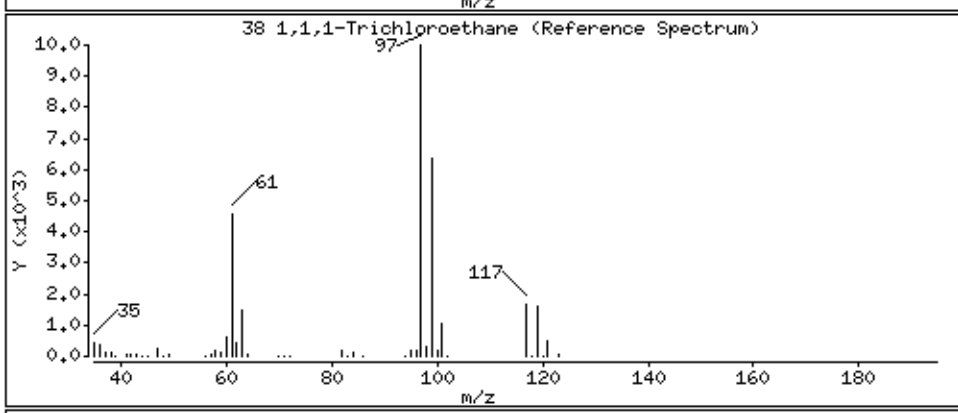
Review Code:

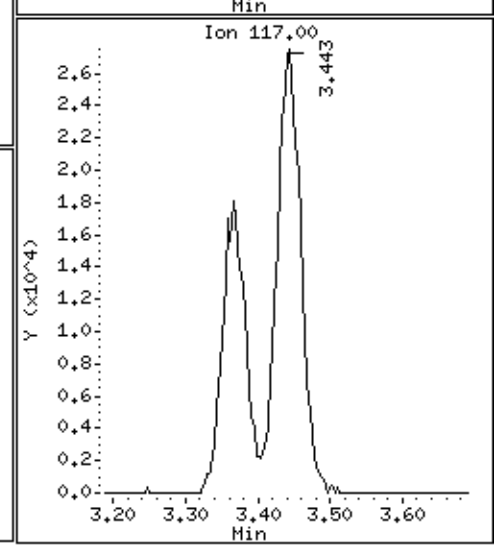


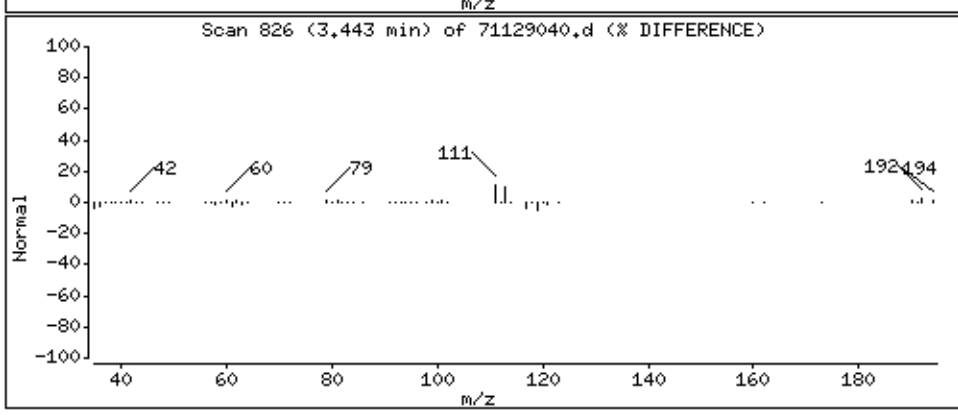












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

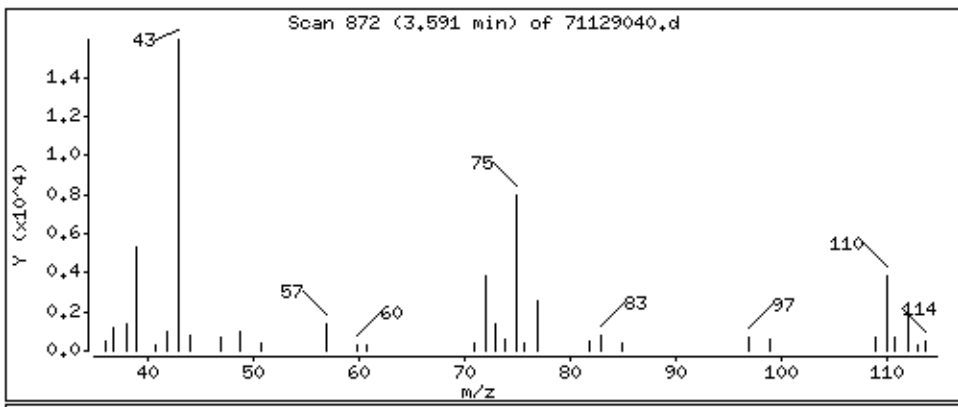
Column phase: RTX-VMS

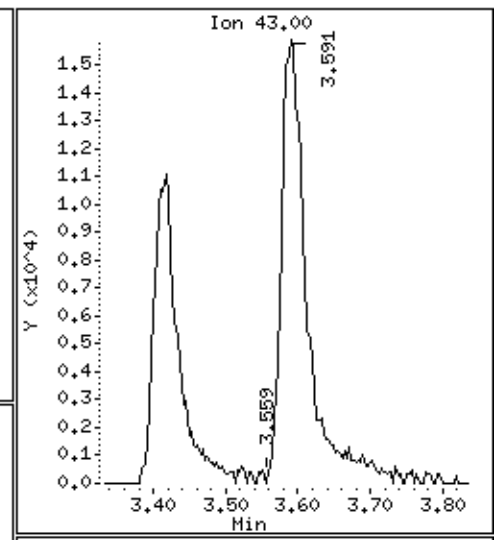
Column diameter: 0.18

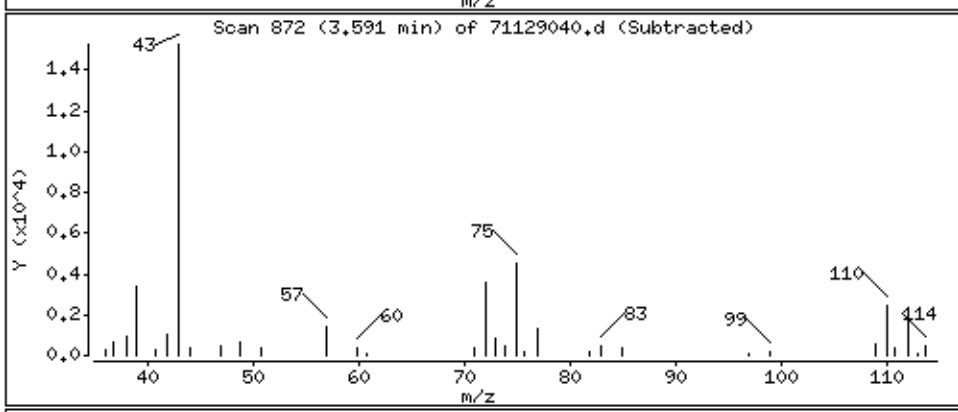
39 2-Butanone (MEK)

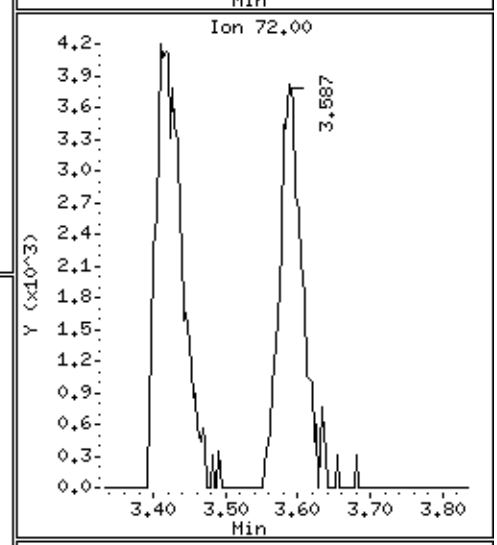
Concentration: 17.2 ug/L

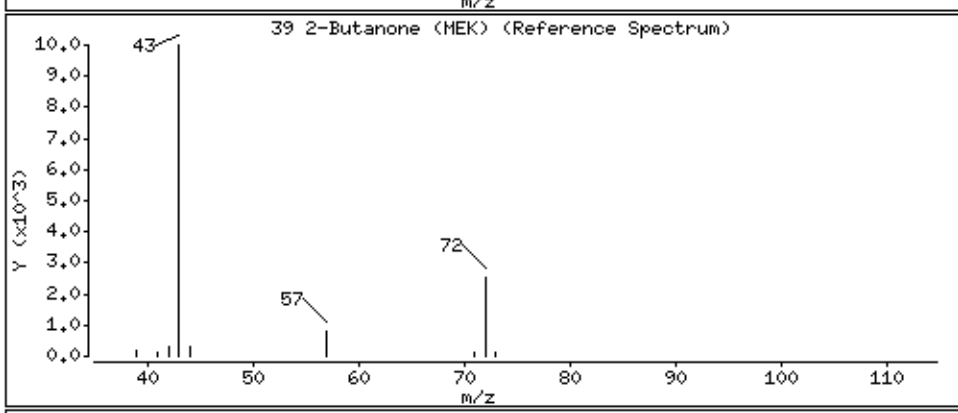
Review Code:

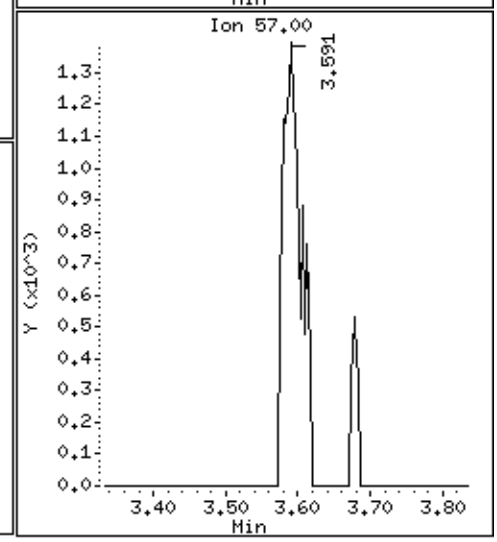


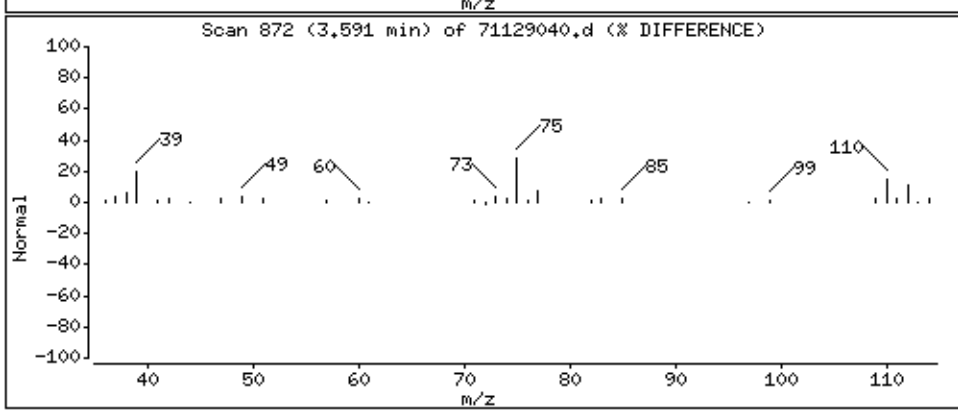












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

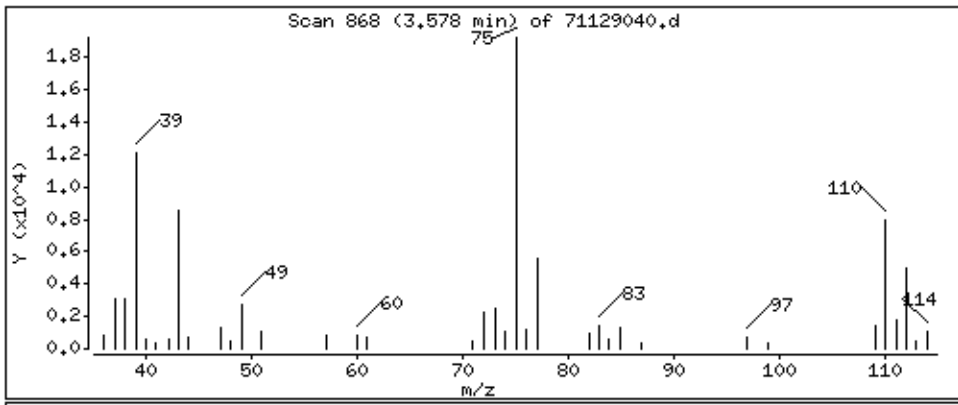
Column phase: RTX-VMS

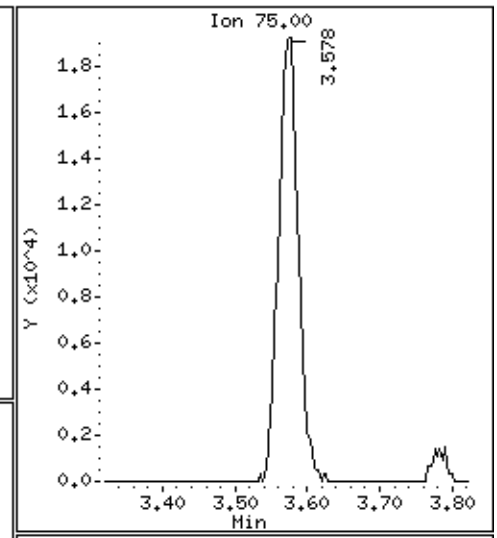
Column diameter: 0.18

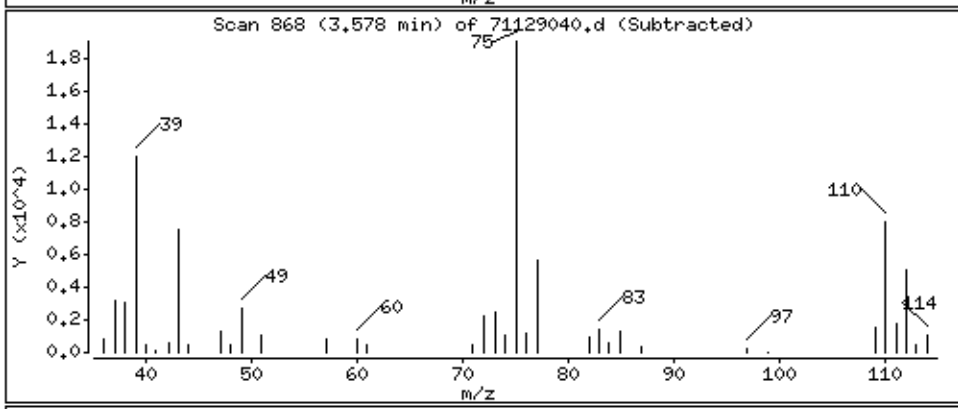
40 1,1-Dichloropropene

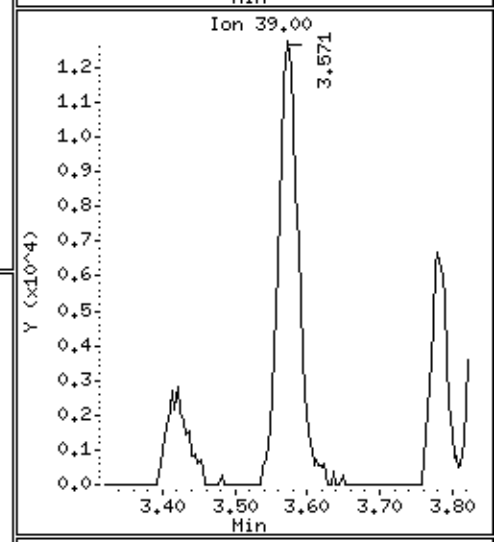
Concentration: 16.8 ug/L

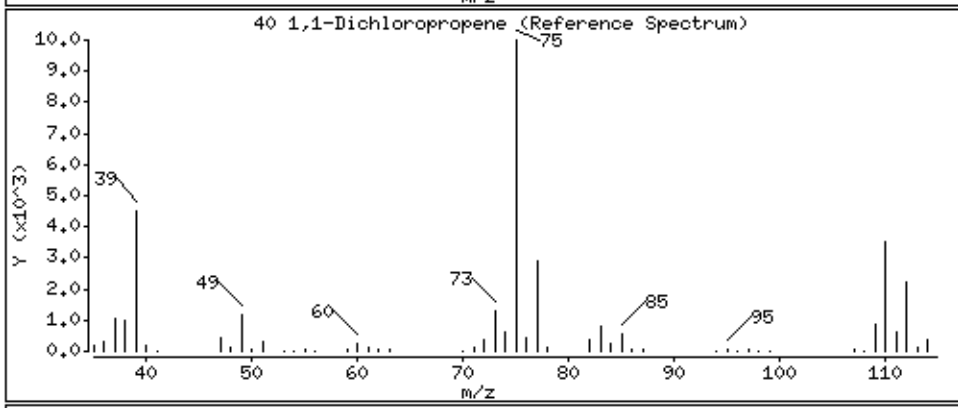
Review Code:

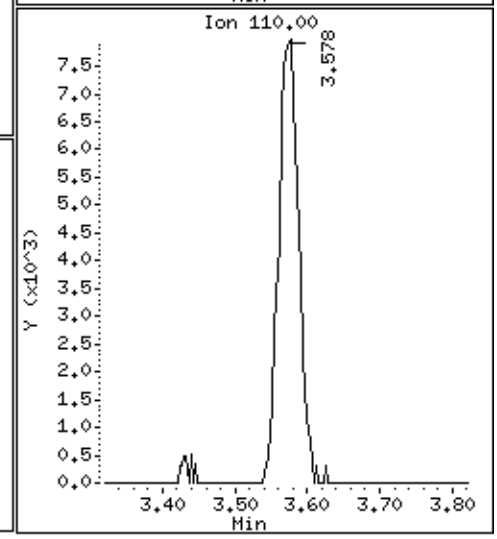


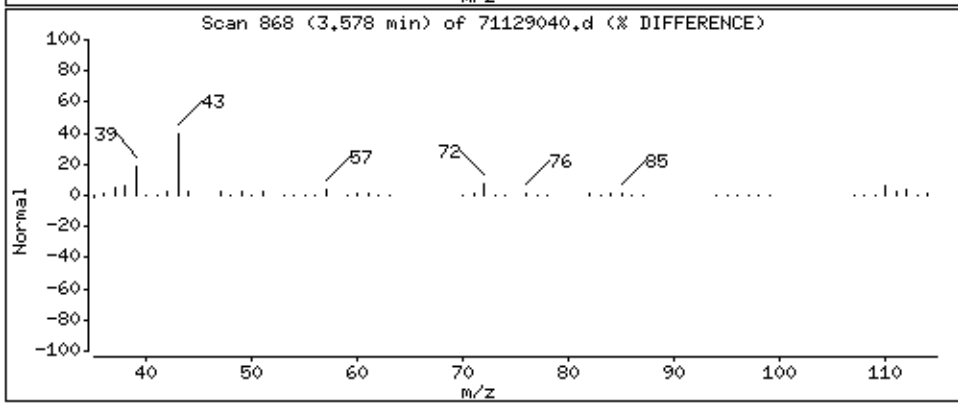












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

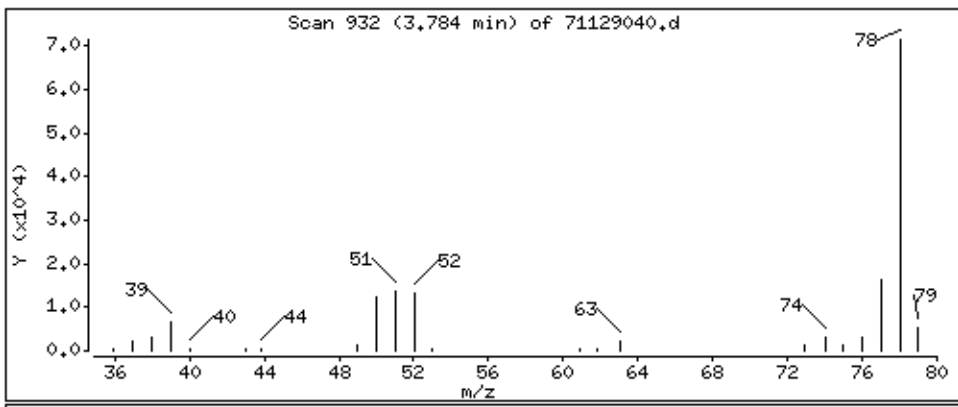
Column phase: RTX-VMS

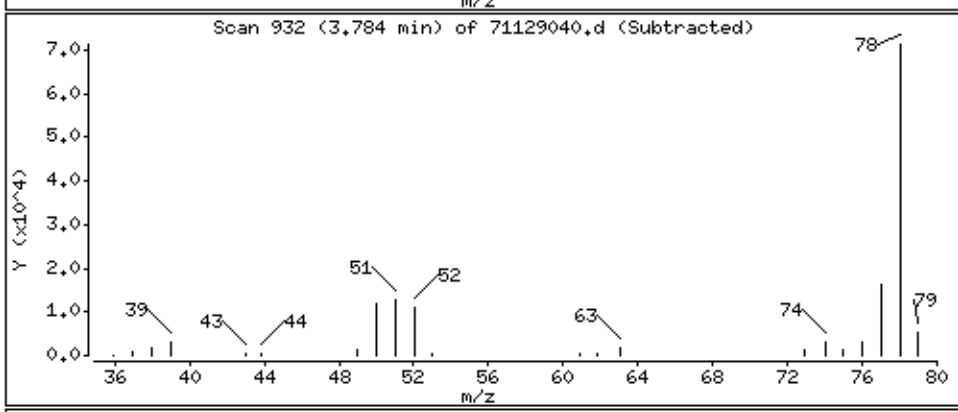
Column diameter: 0.18

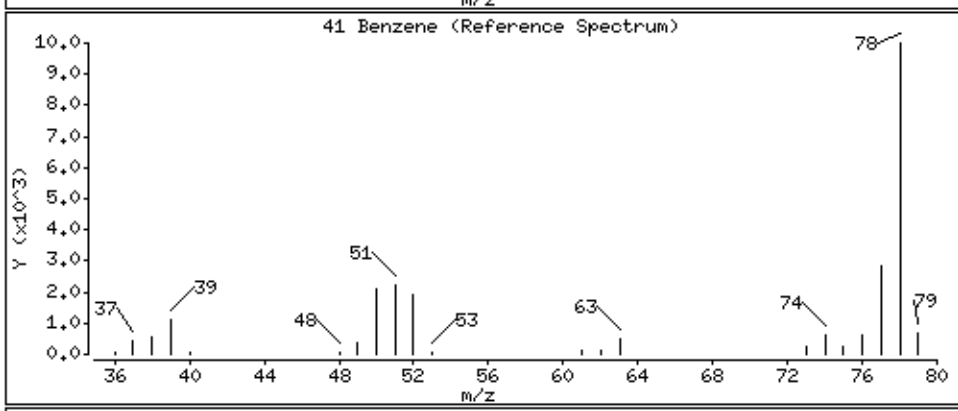
41 Benzene

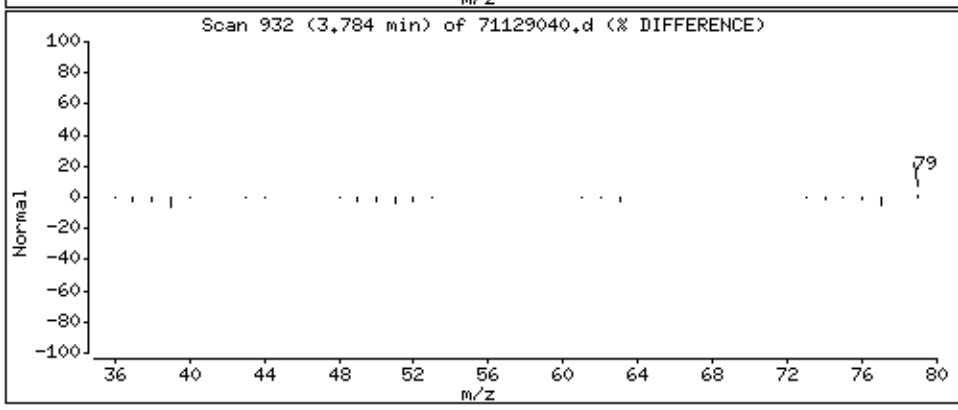
Concentration: 16.2 ug/L

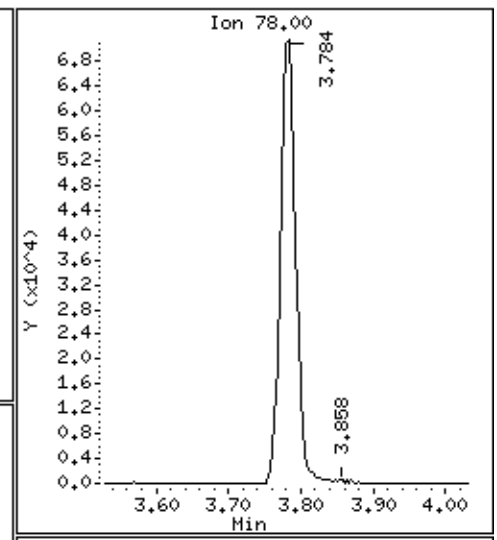
Review Code:

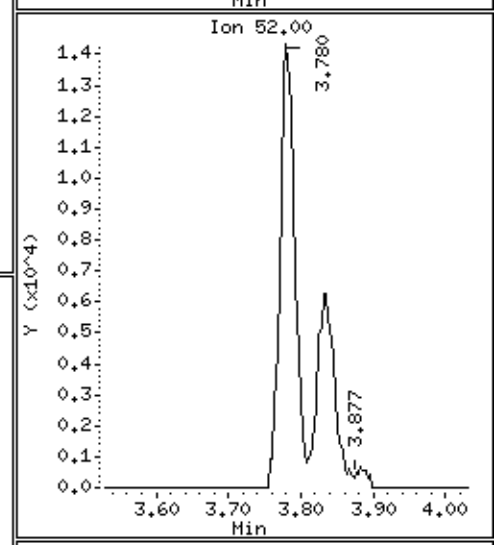


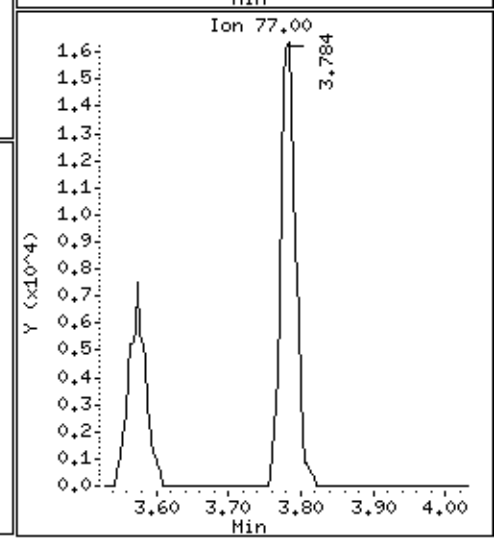












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

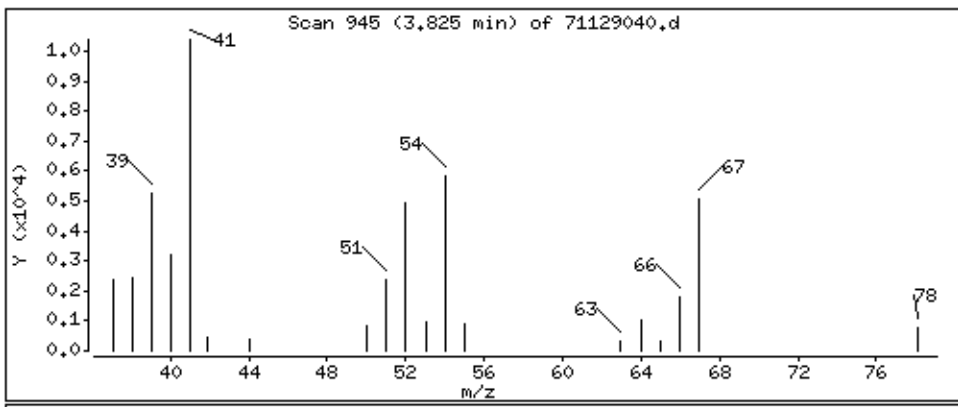
Column phase: RTX-VMS

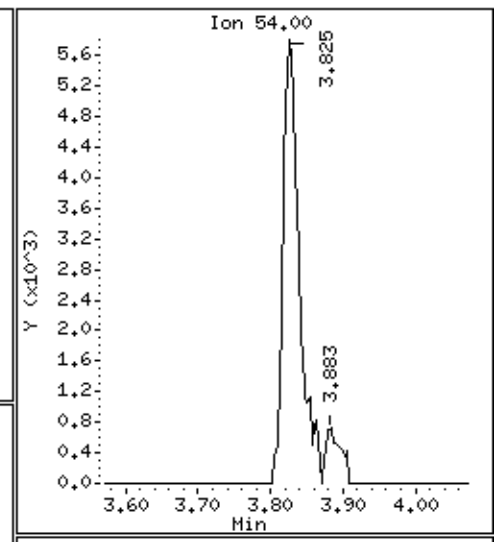
Column diameter: 0.18

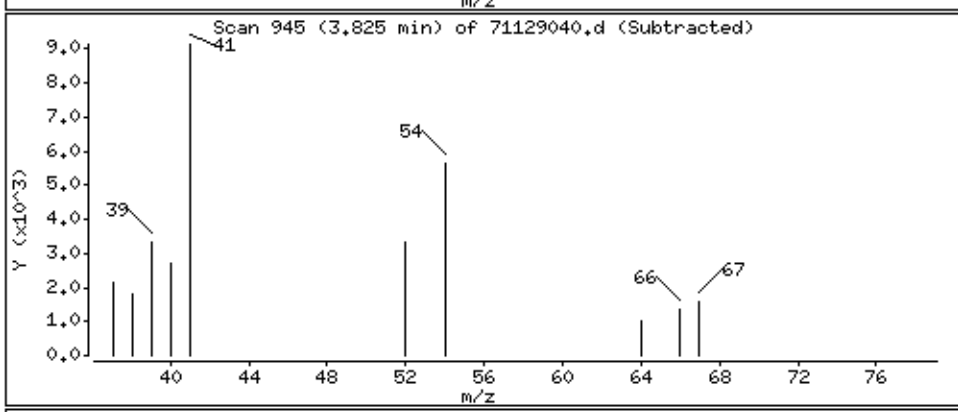
42 Propionitrile

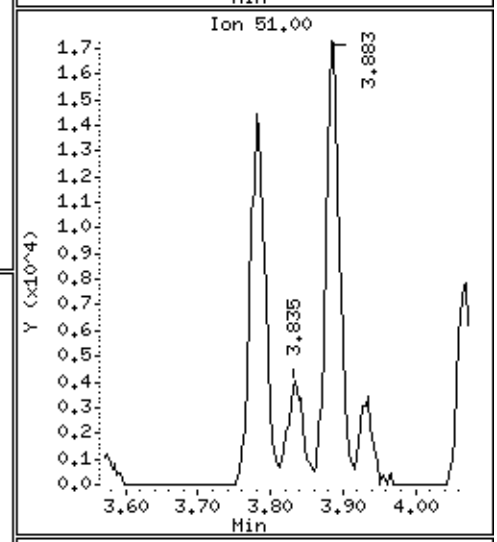
Concentration: 19.2 ug/L

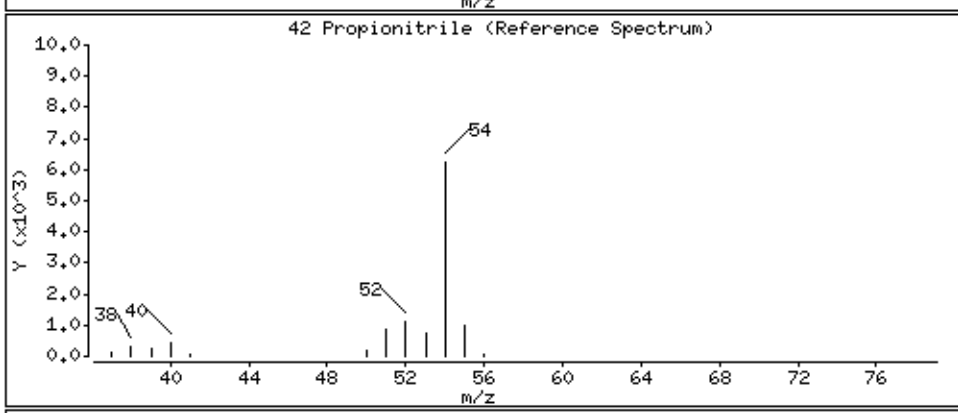
Review Code:

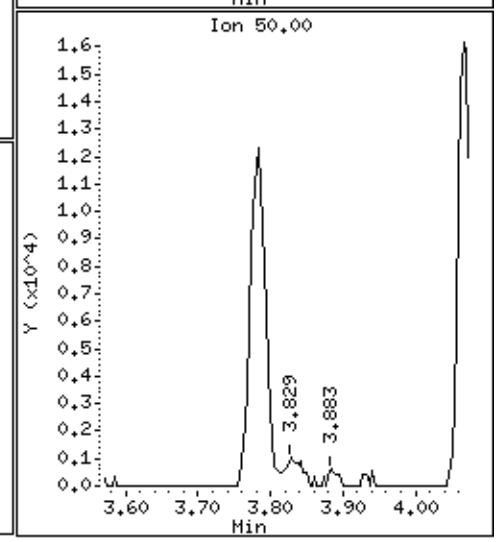


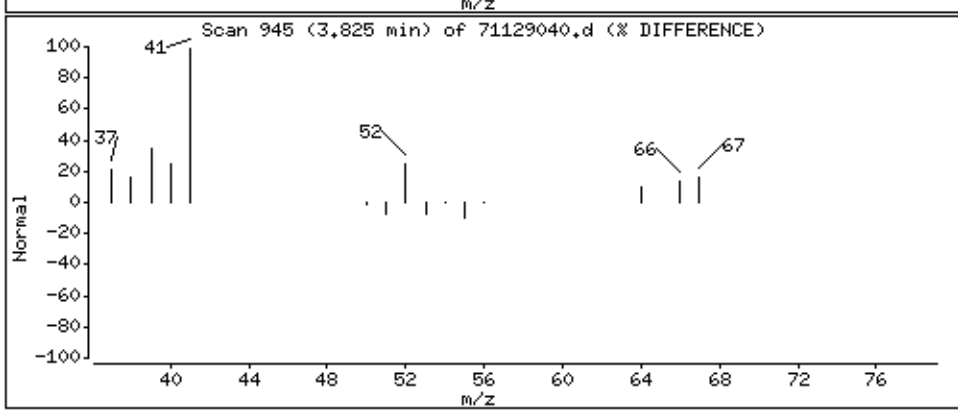












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

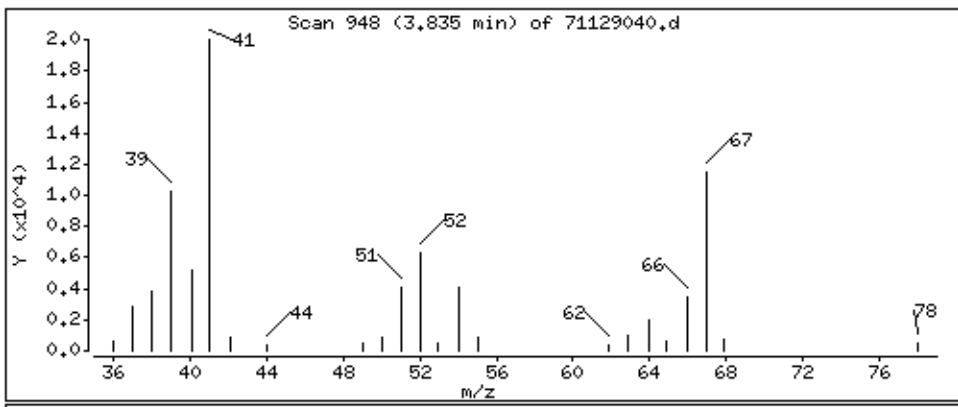
Column phase: RTX-VMS

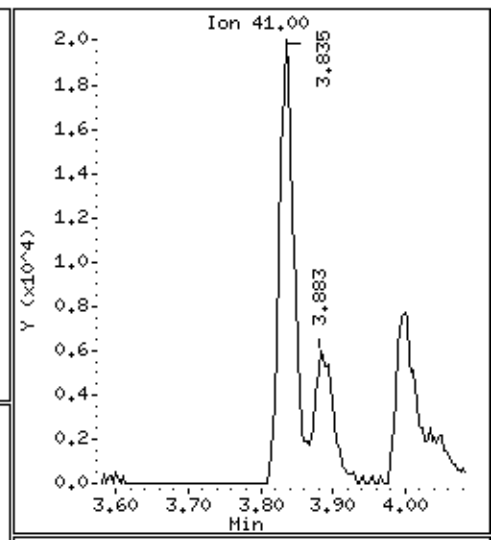
Column diameter: 0.18

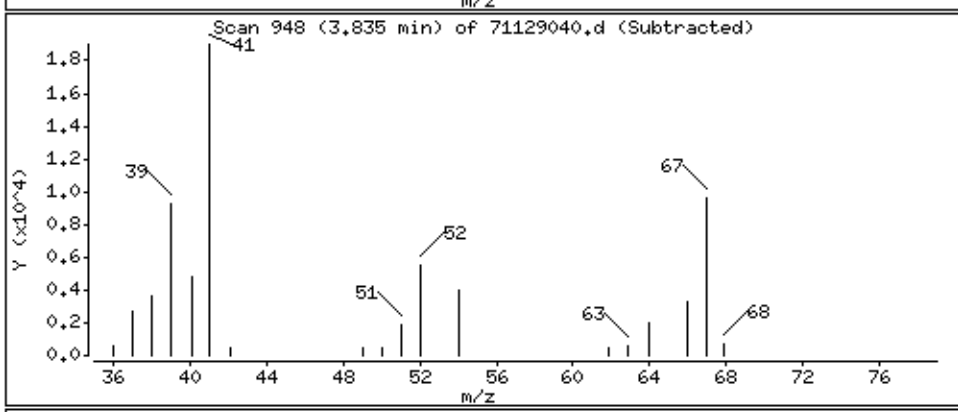
43 Methacrylonitrile

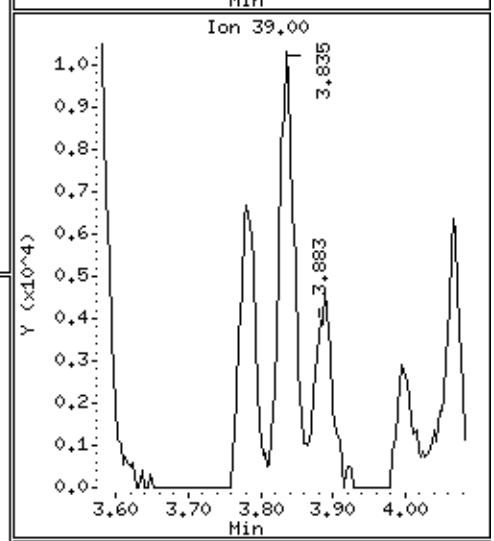
Concentration: 17.6 ug/L

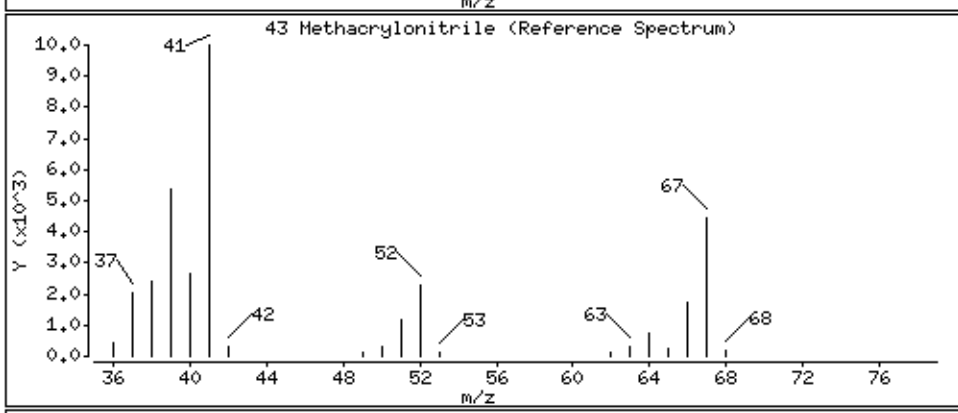
Review Code:

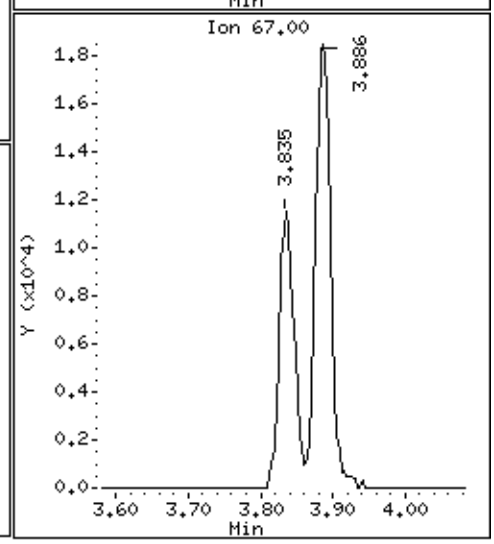


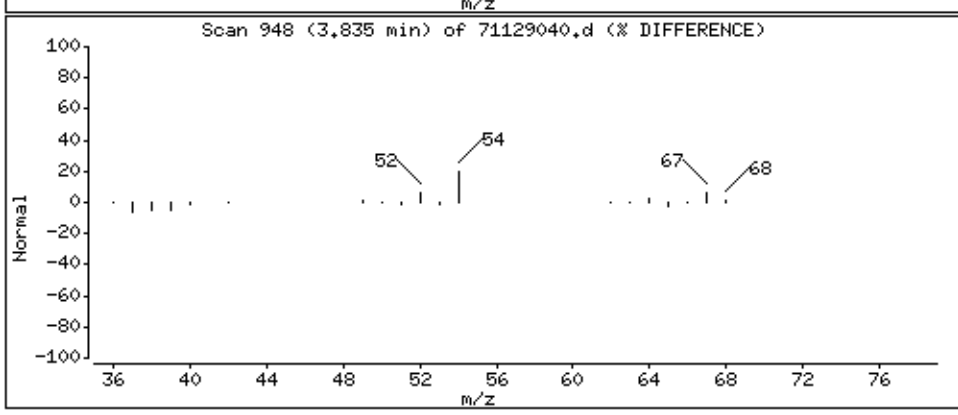












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

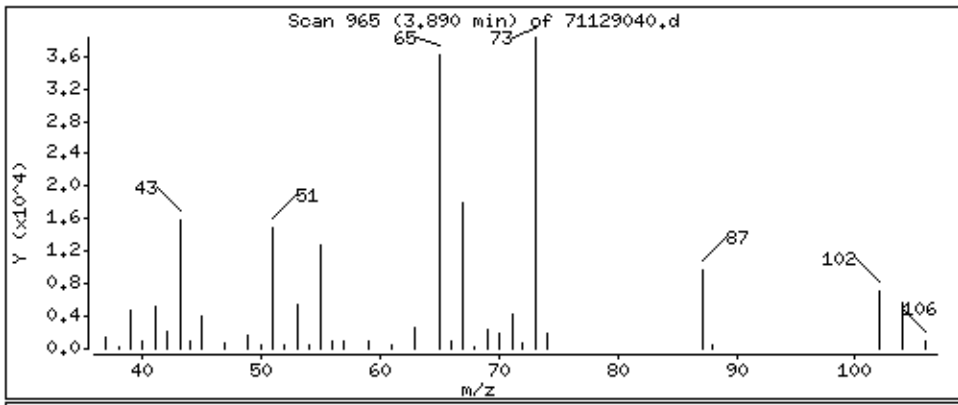
Column phase: RTX-VMS

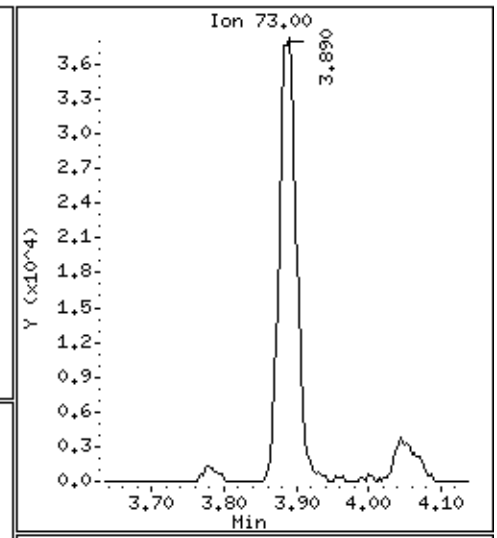
Column diameter: 0.18

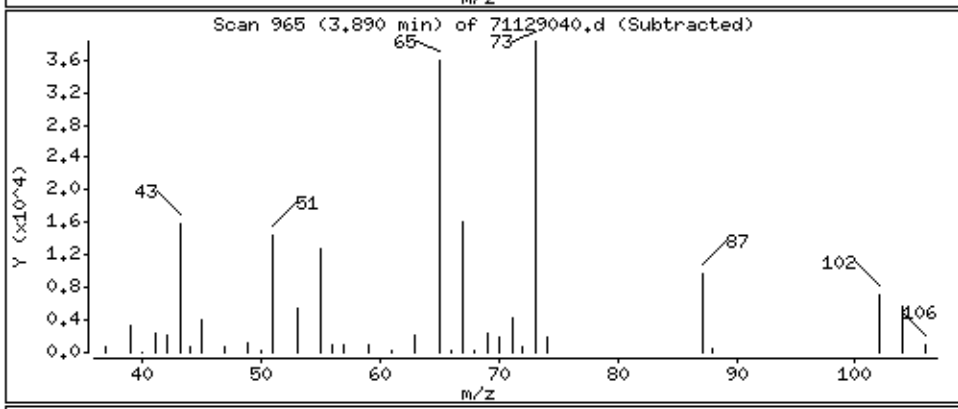
44 tert-Amylmethyl ether

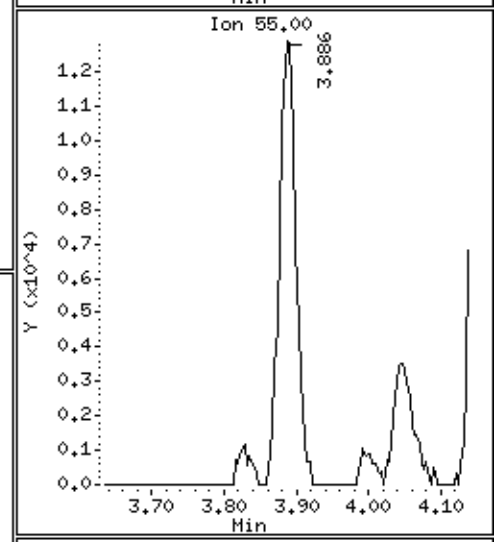
Concentration: 15.5 ug/L

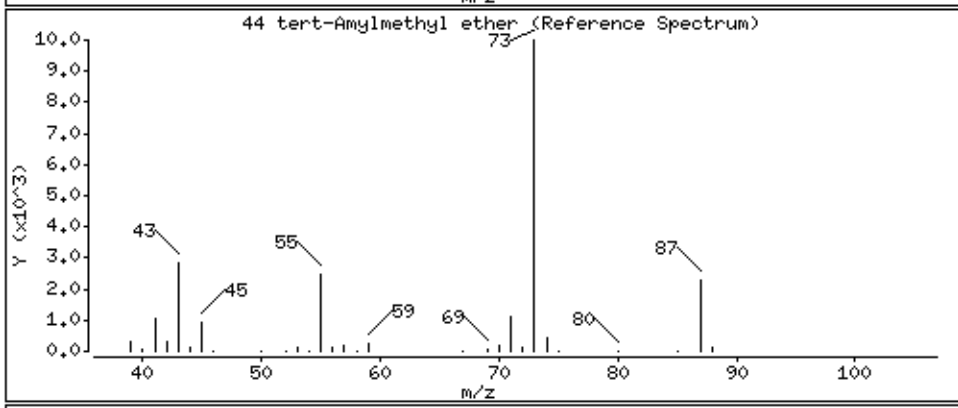
Review Code:

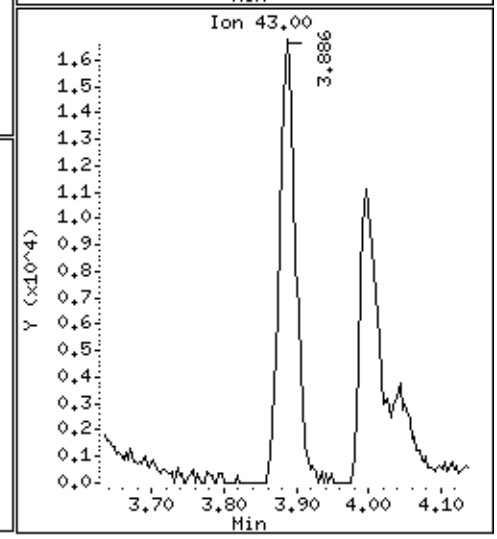


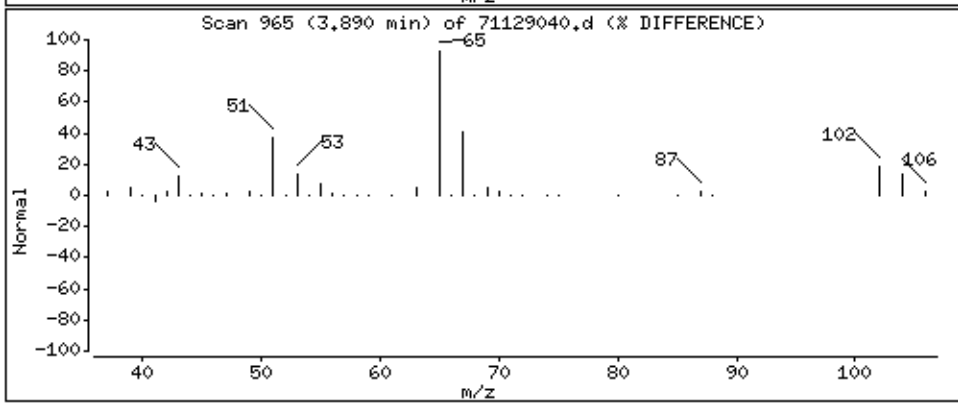












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

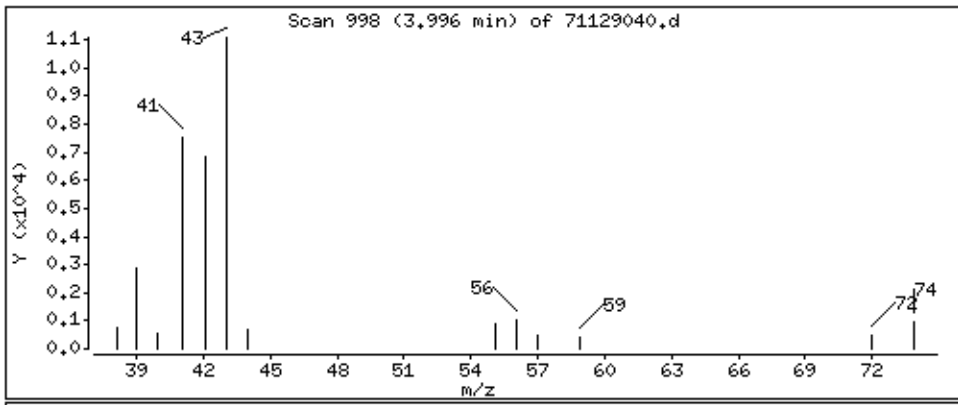
Column phase: RTX-VMS

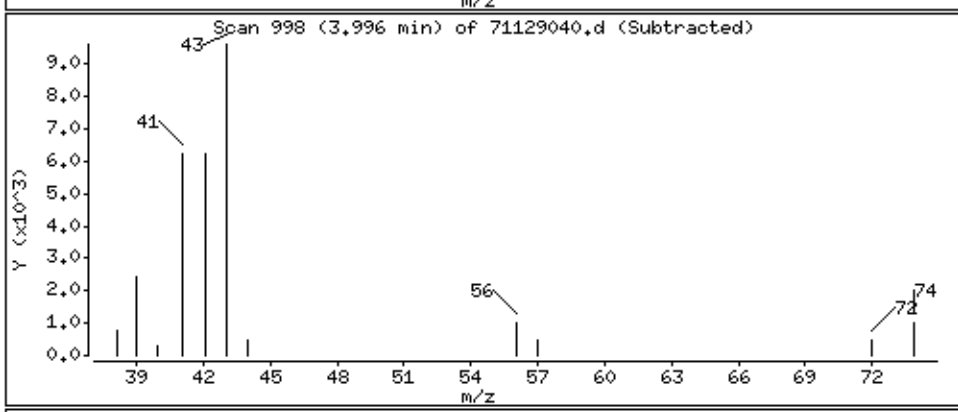
Column diameter: 0.18

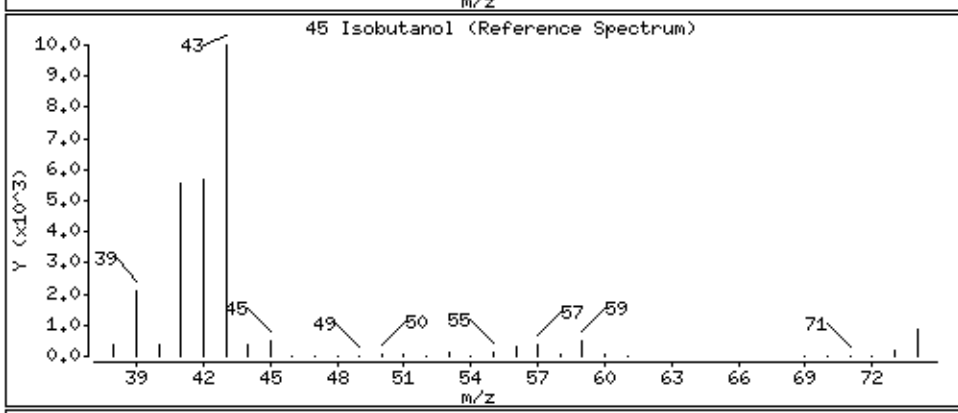
45 Isobutanol

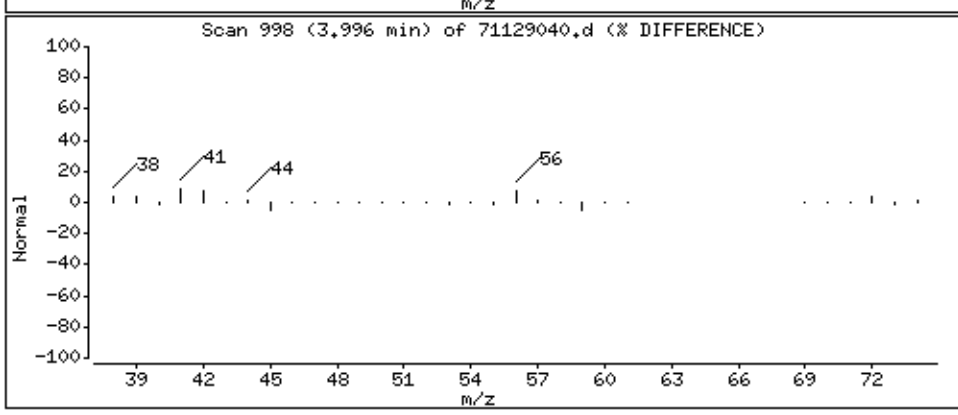
Concentration: 94.3 ug/L

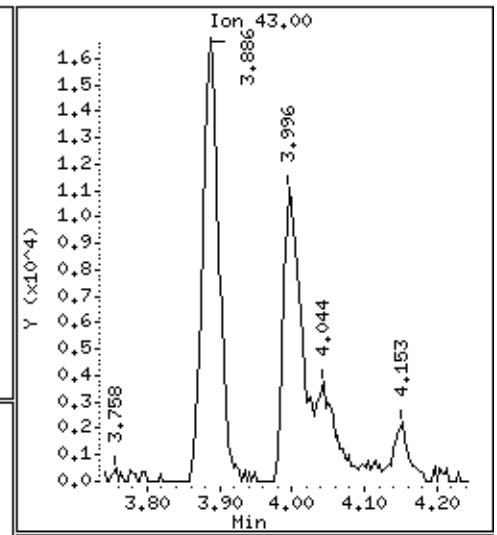
Review Code:

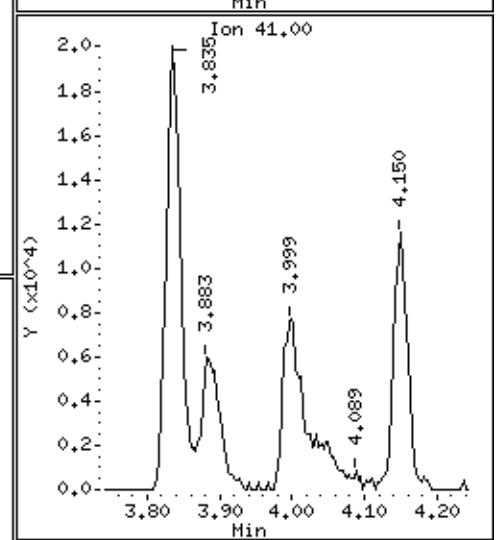


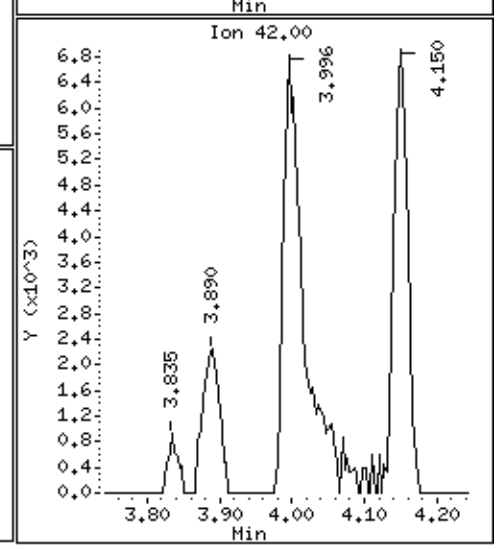












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

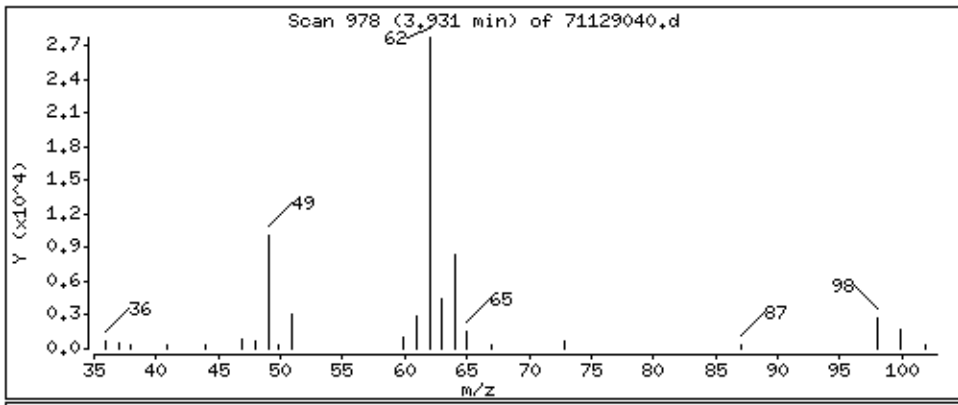
Column phase: RTX-VMS

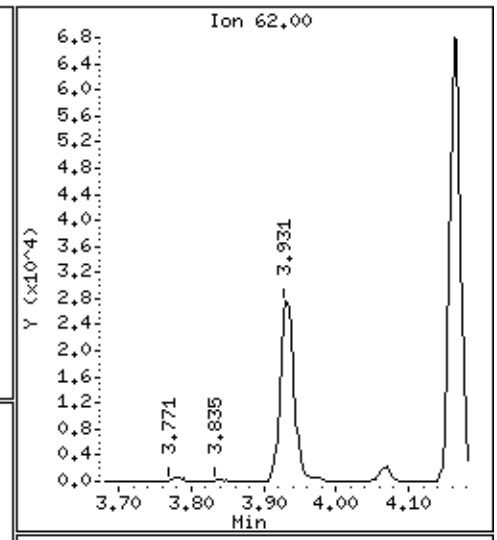
Column diameter: 0.18

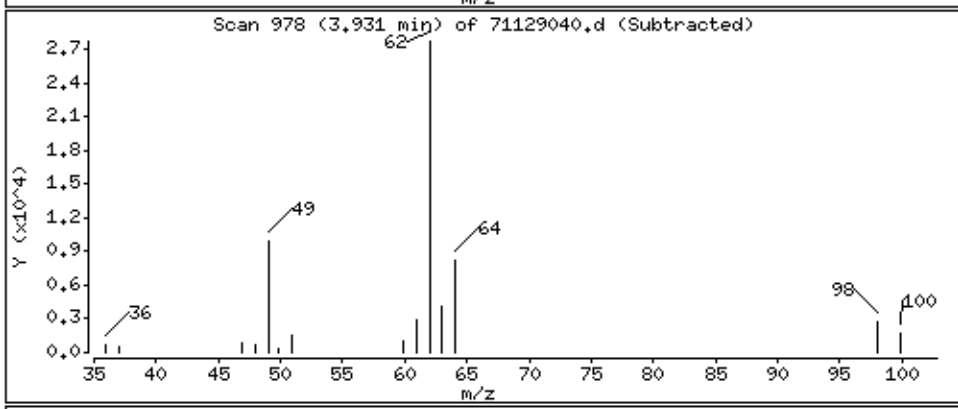
47 1,2-Dichloroethane

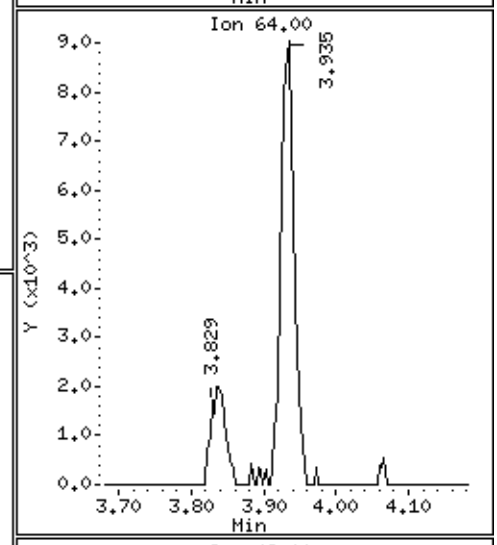
Concentration: 18.1 ug/L

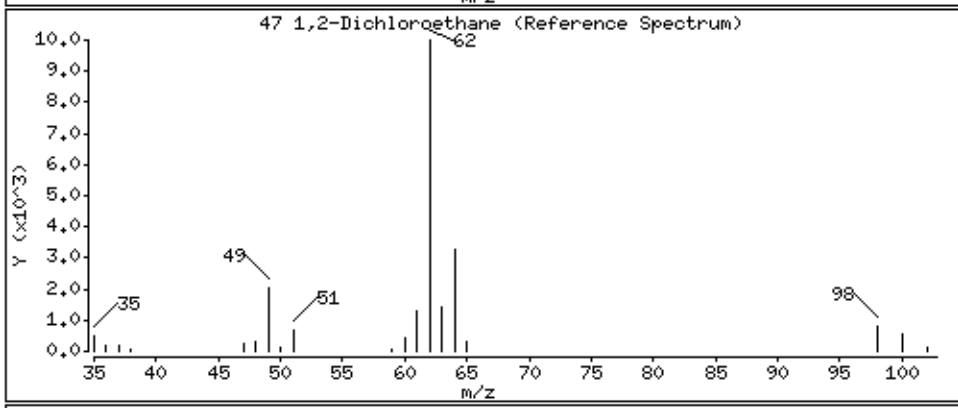
Review Code:

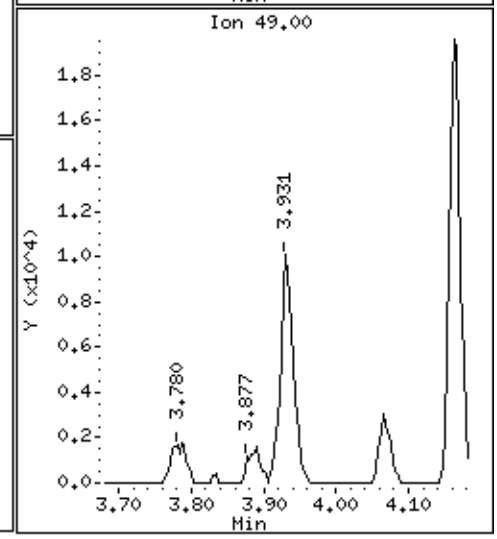


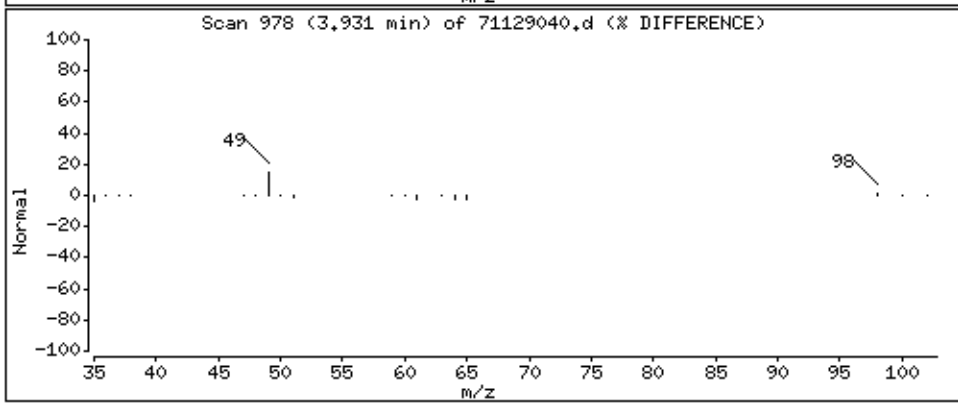












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

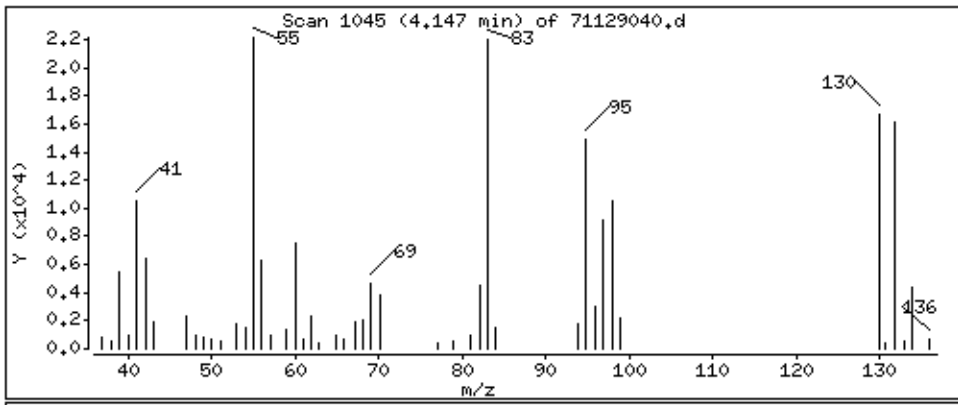
Column phase: RTX-VMS

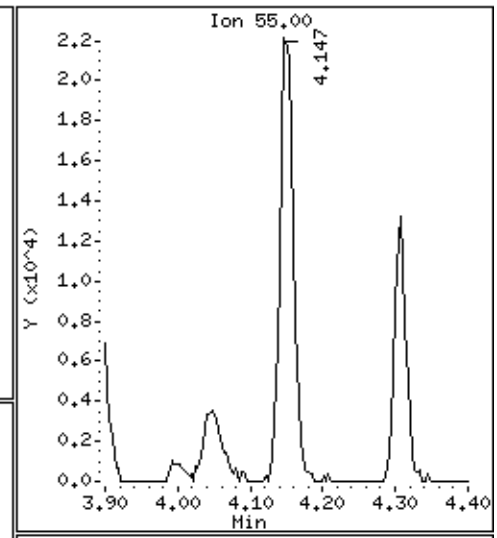
Column diameter: 0.18

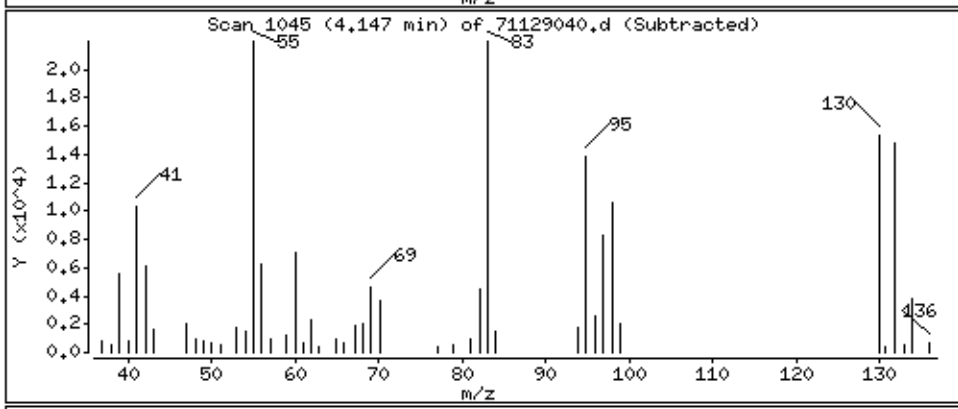
49 Methylcyclohexane

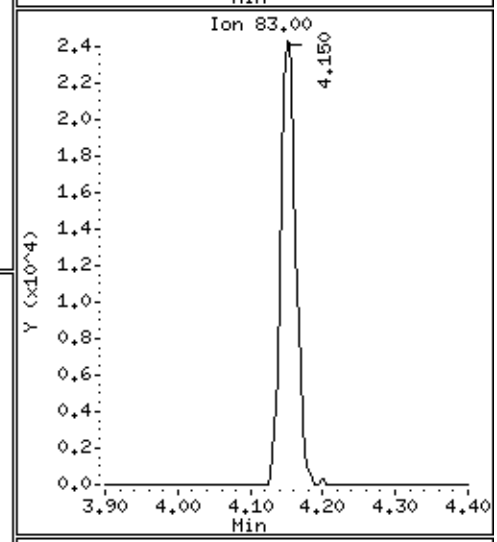
Concentration: 18.8 ug/L

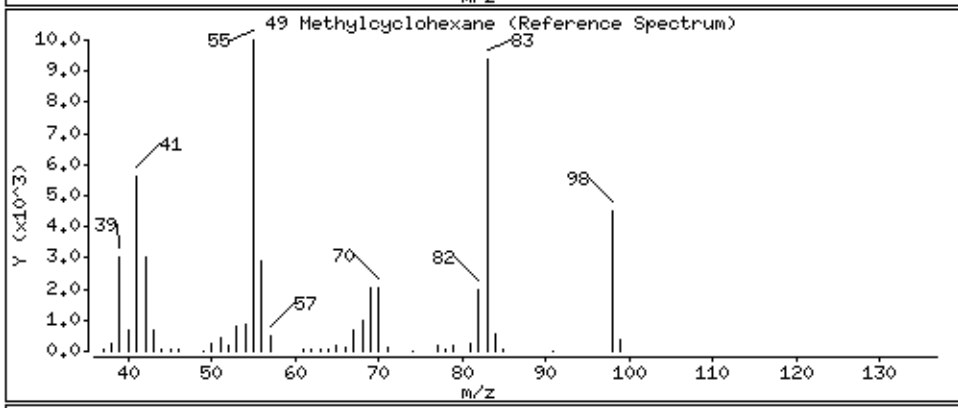
Review Code:

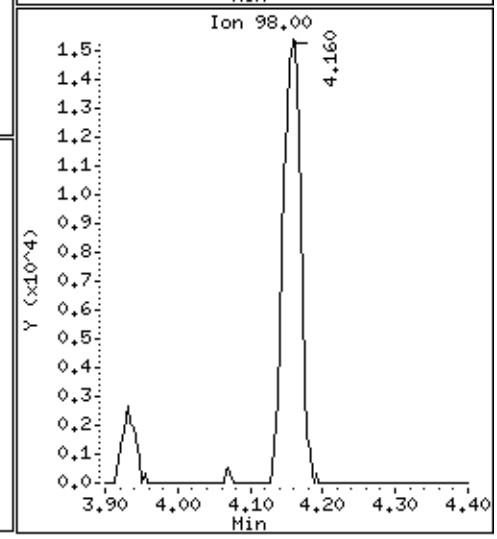


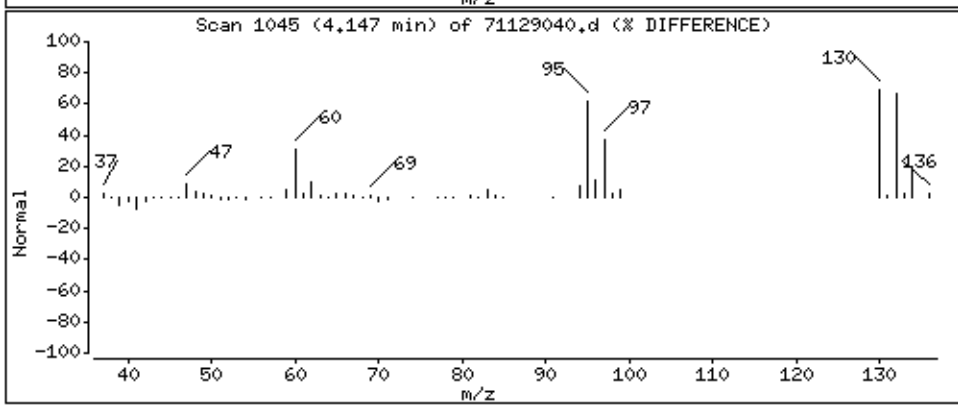












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

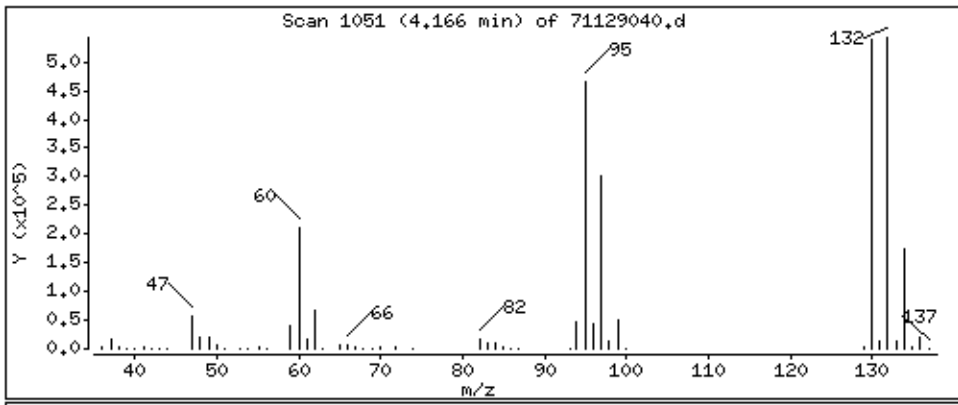
Column phase: RTX-VMS

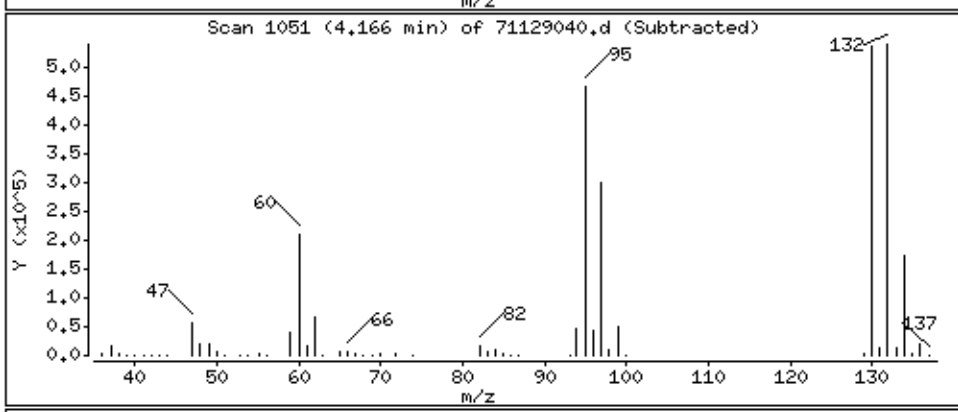
Column diameter: 0.18

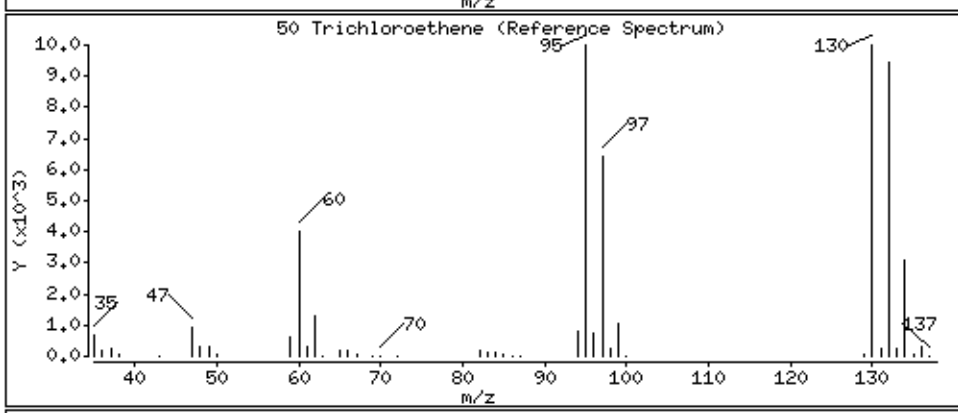
50 Trichloroethene

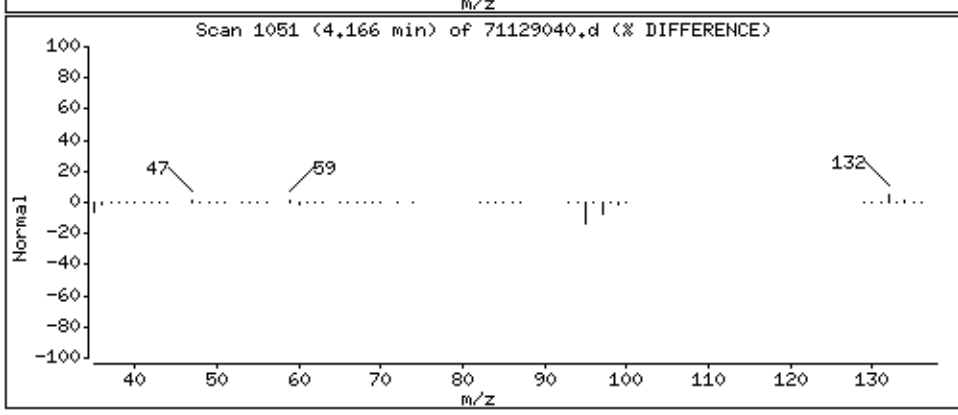
Concentration: 317 ug/L

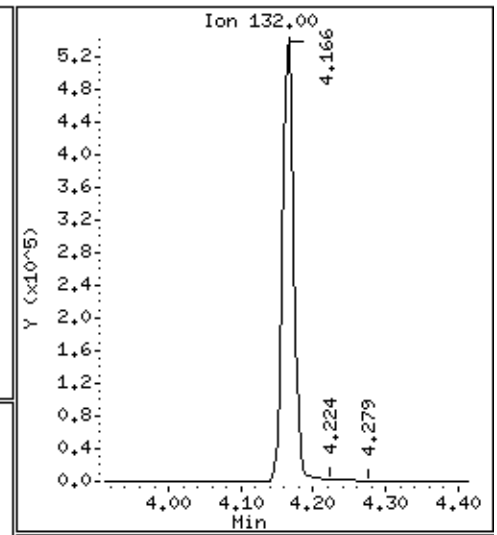
Review Code:

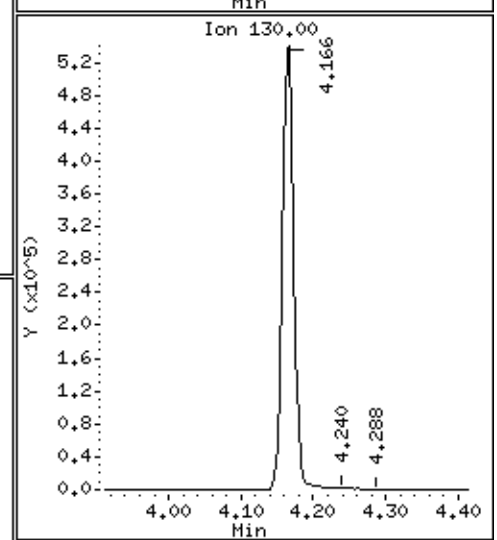


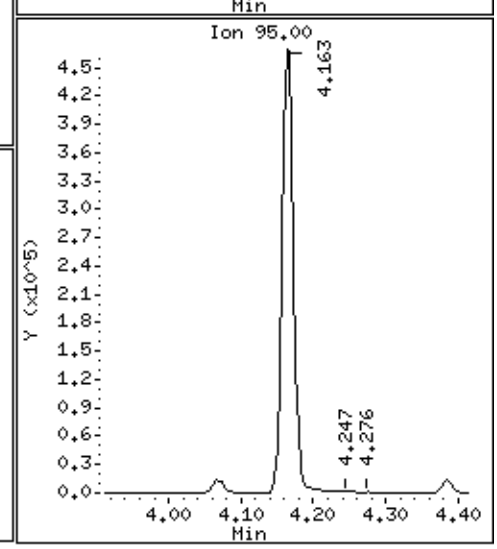












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

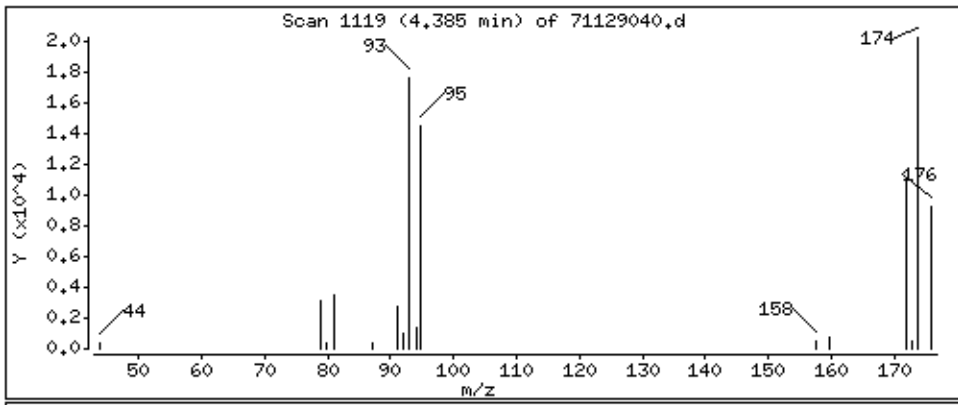
Column phase: RTX-VMS

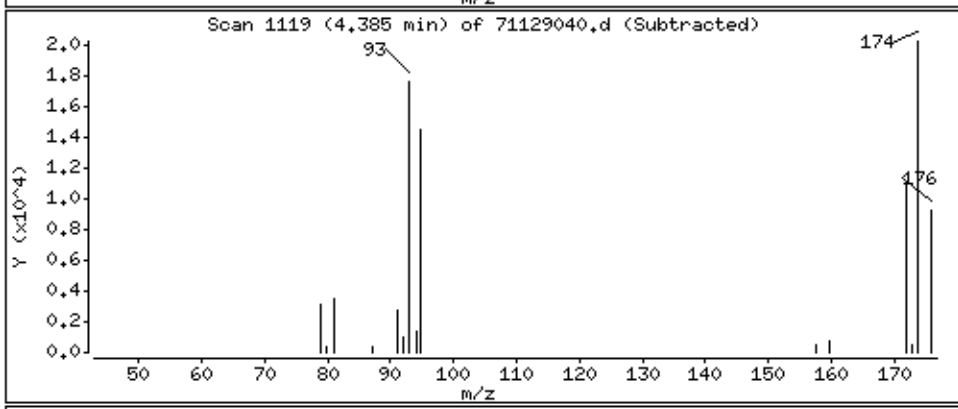
Column diameter: 0.18

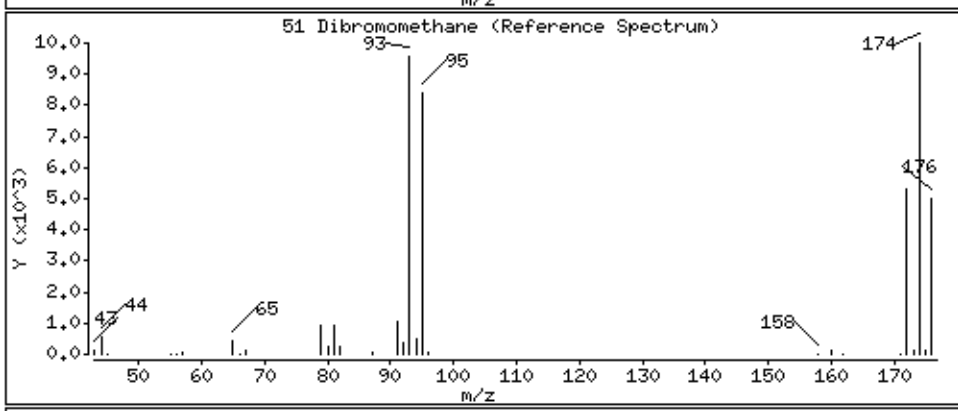
51 Dibromomethane

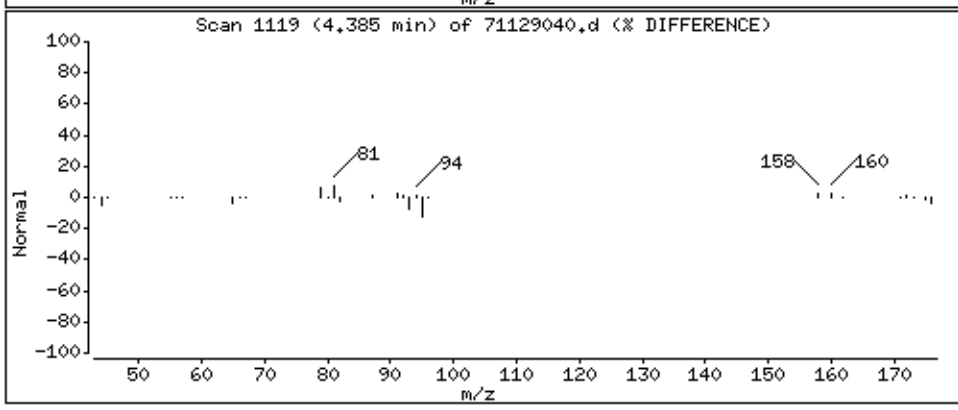
Concentration: 15.5 ug/L

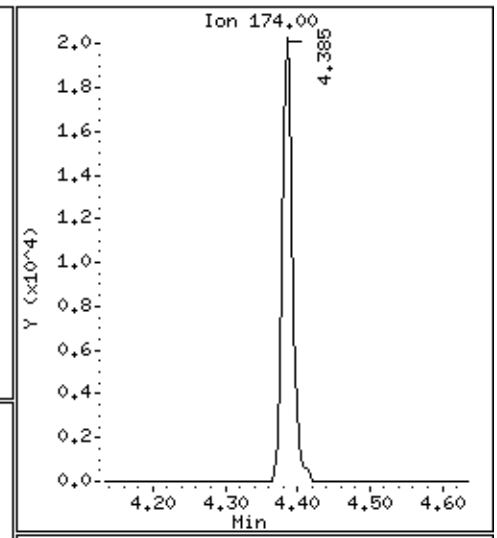
Review Code:

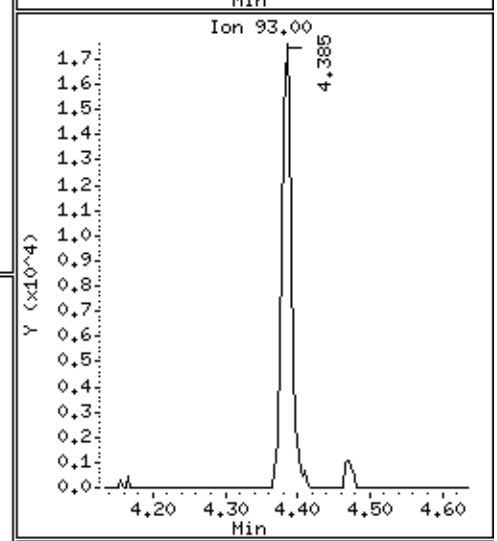


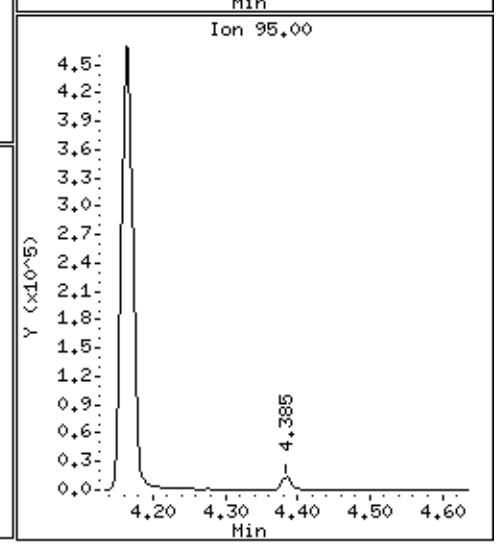












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

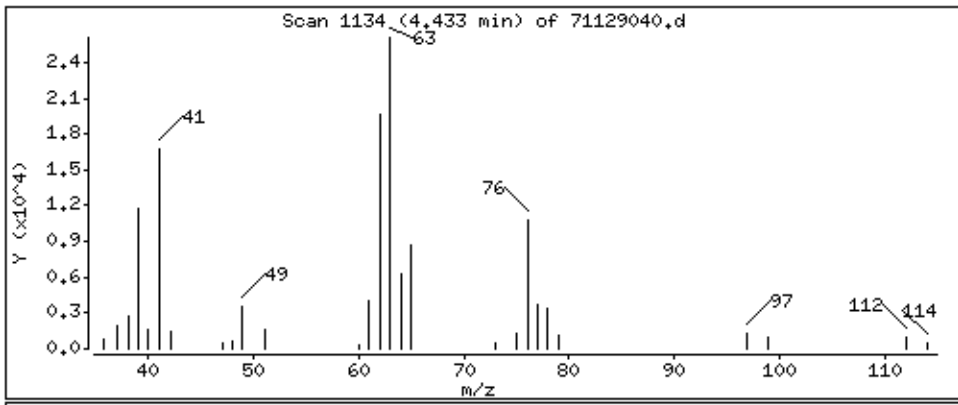
Column phase: RTX-VMS

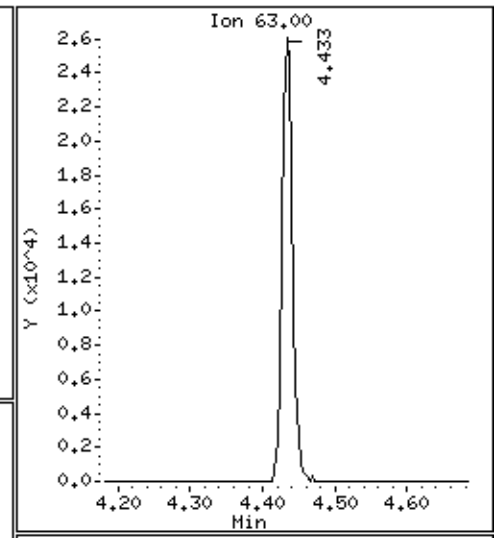
Column diameter: 0.18

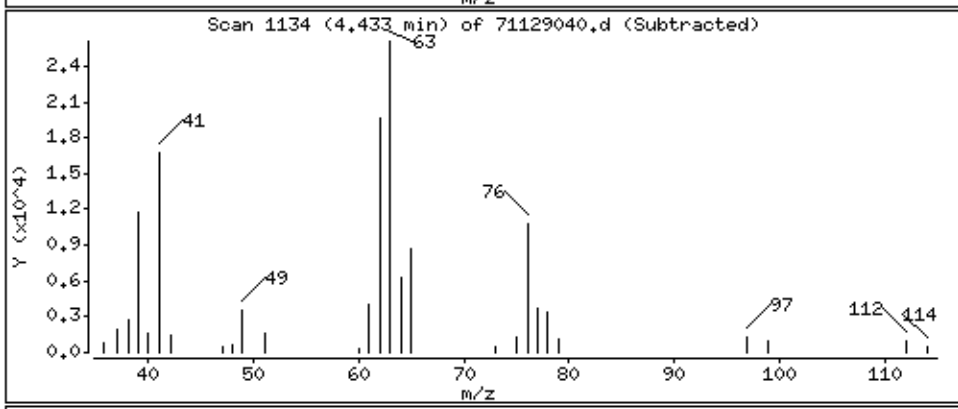
52 1,2-Dichloropropane

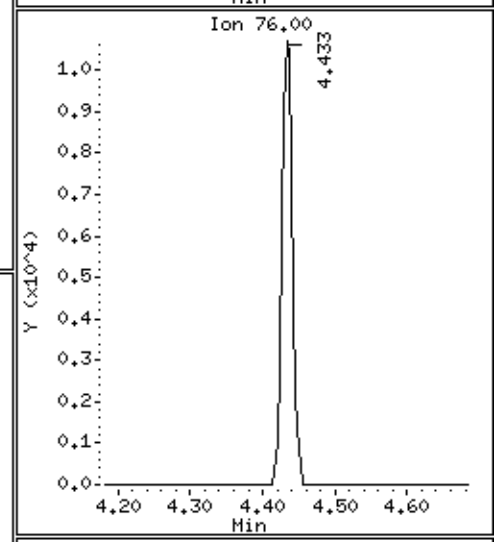
Concentration: 17.1 ug/L

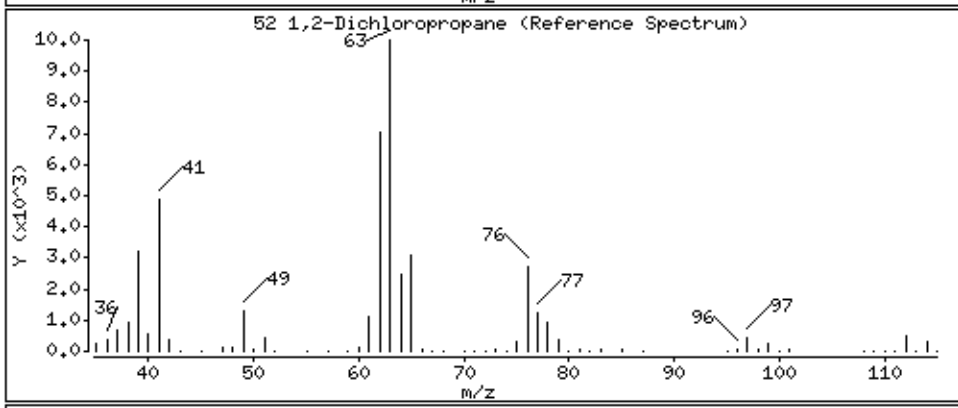
Review Code:

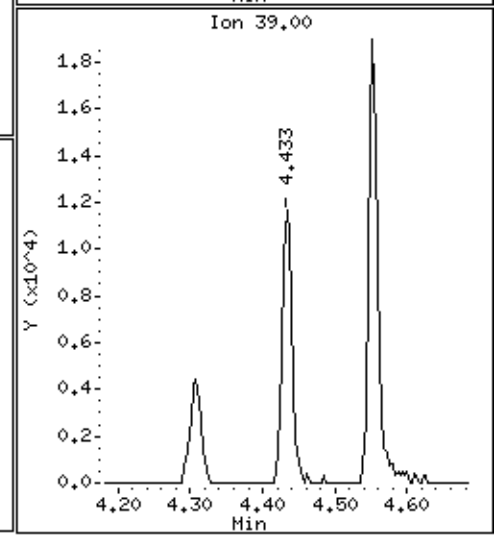


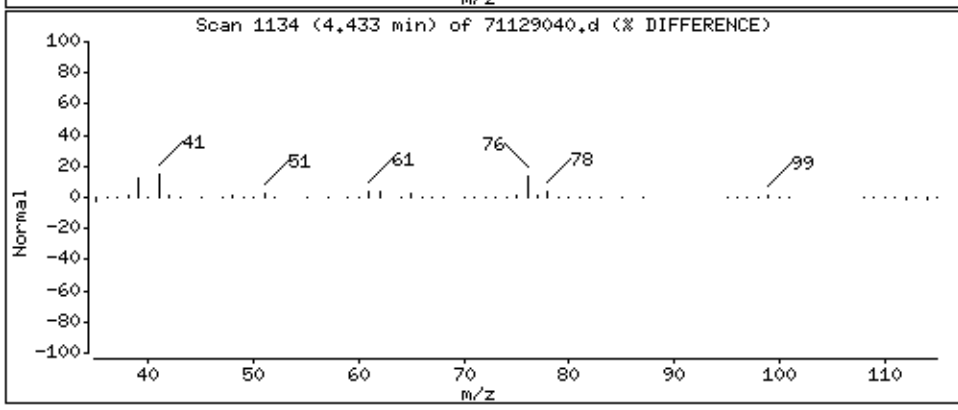












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

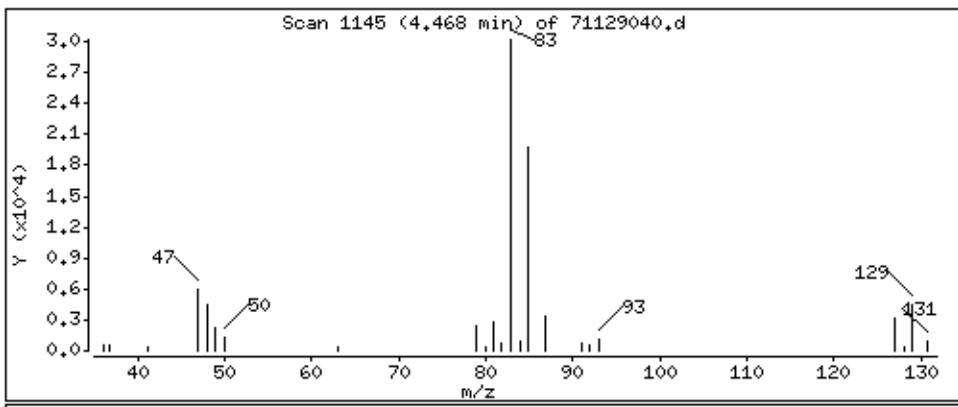
Column phase: RTX-VMS

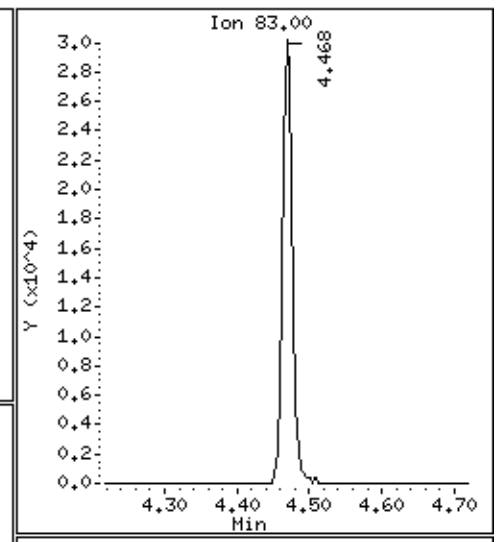
Column diameter: 0.18

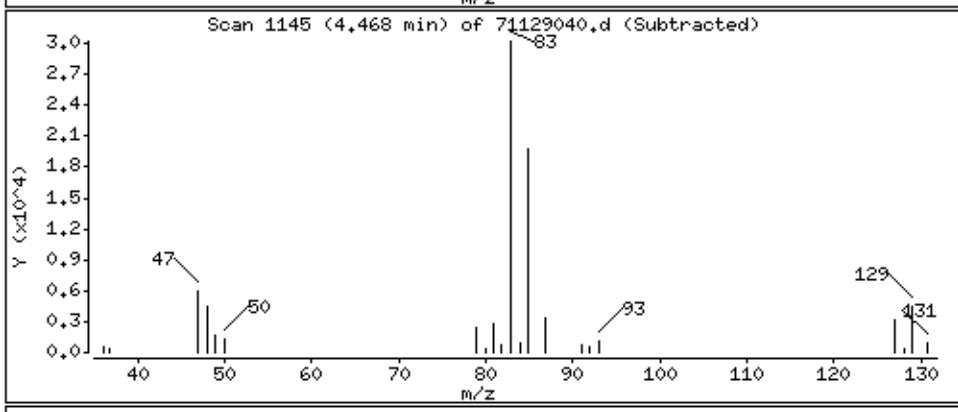
53 Bromodichloromethane

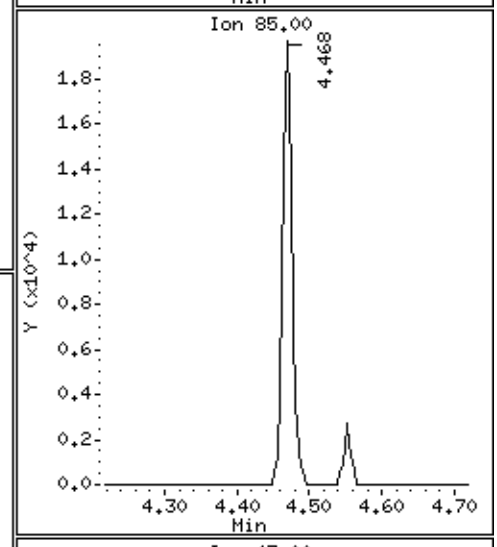
Concentration: 16.3 ug/L

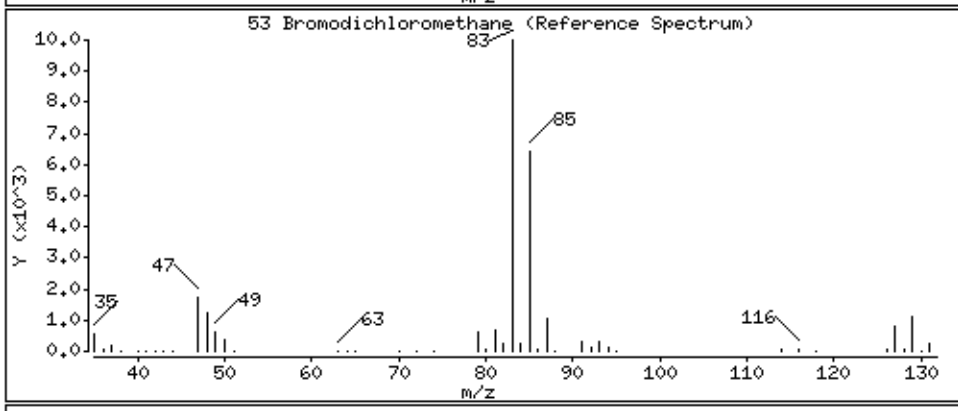
Review Code:

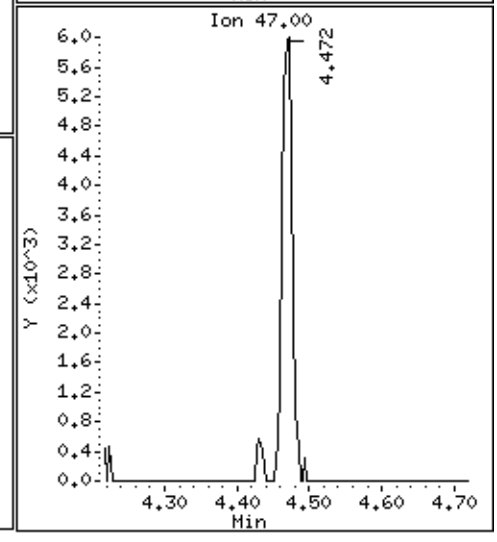


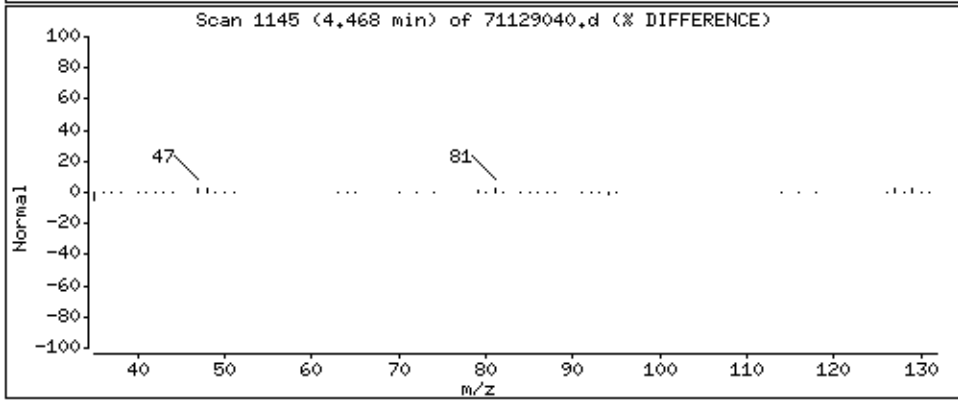












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

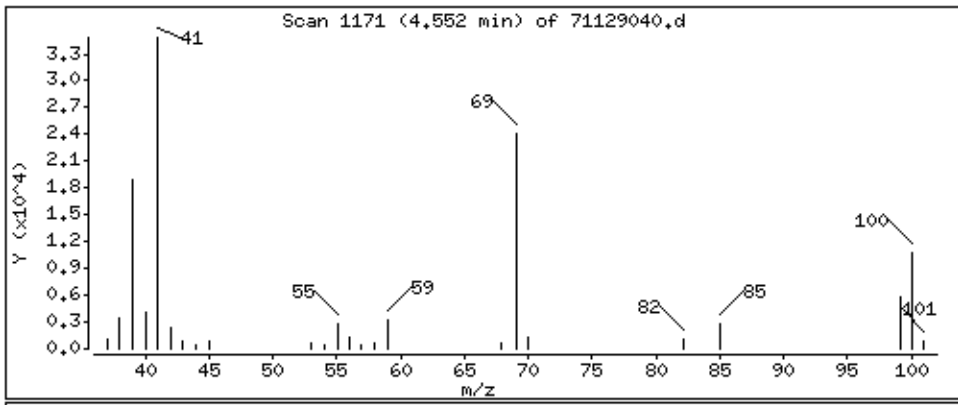
Column phase: RTX-VMS

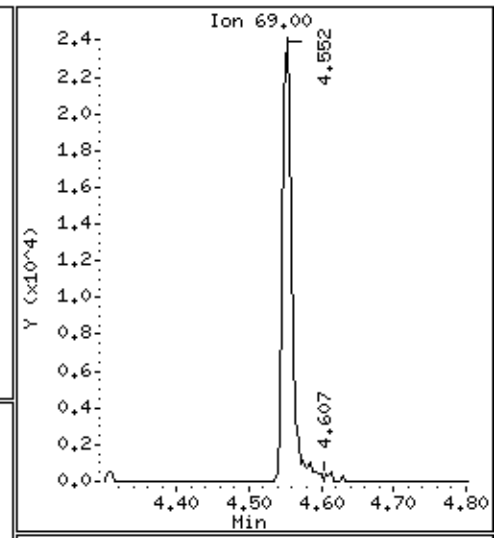
Column diameter: 0.18

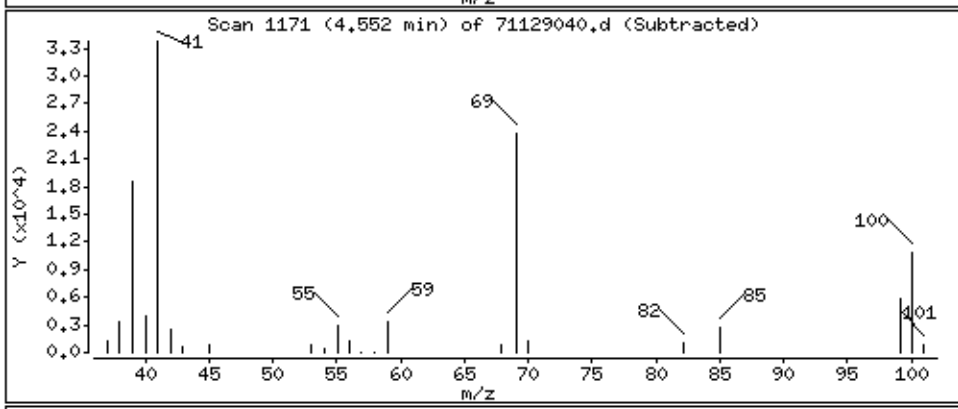
54 Methyl methacrylate

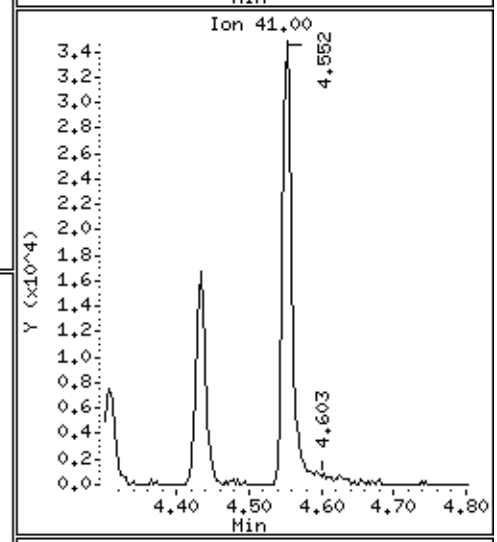
Concentration: 15.5 ug/L

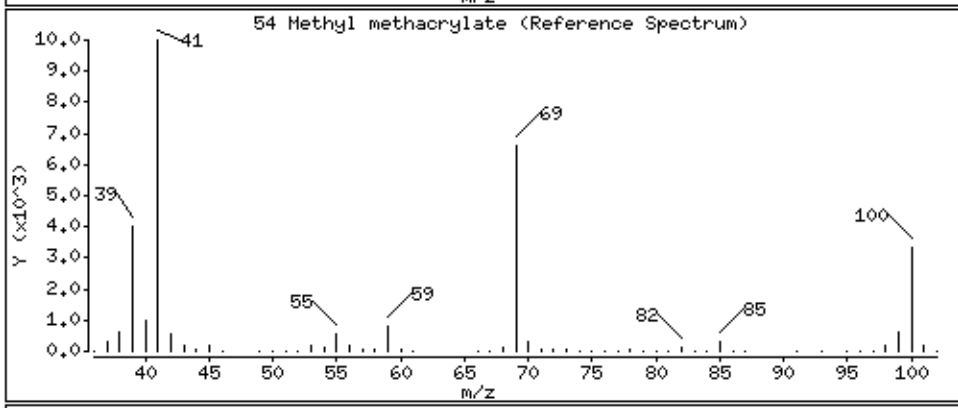
Review Code:

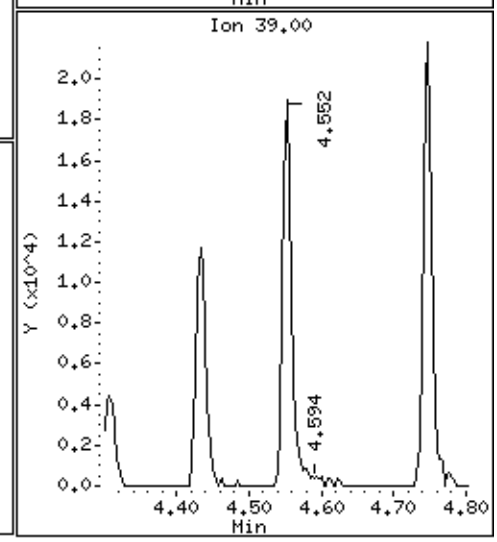


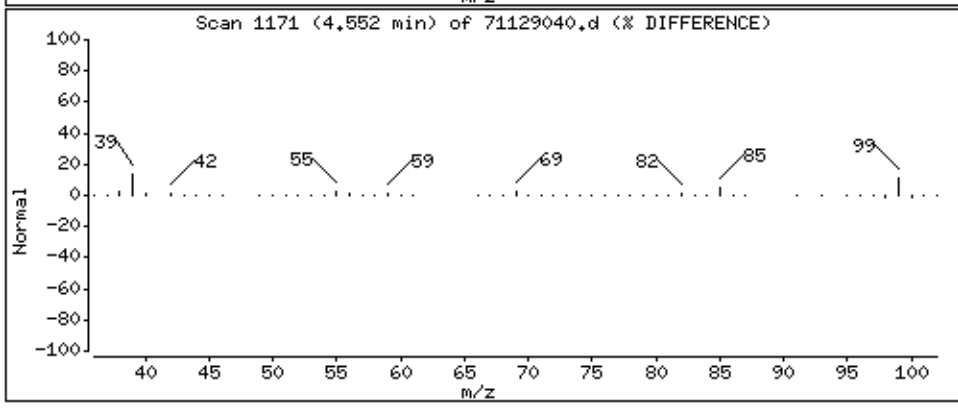












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

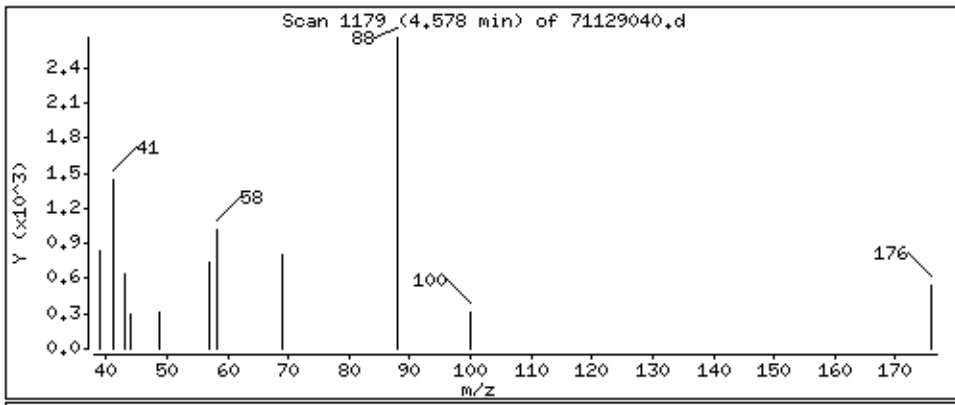
Column phase: RTX-VMS

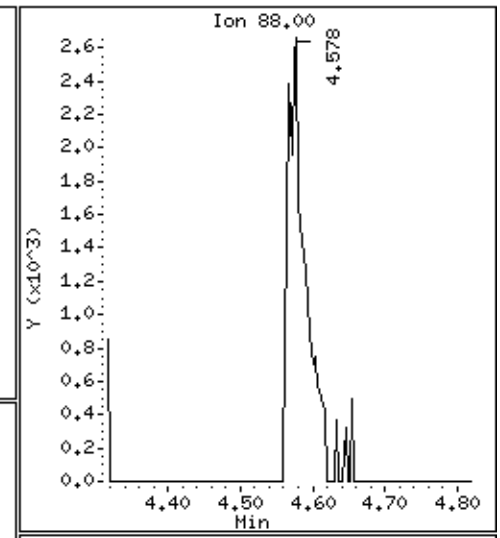
Column diameter: 0.18

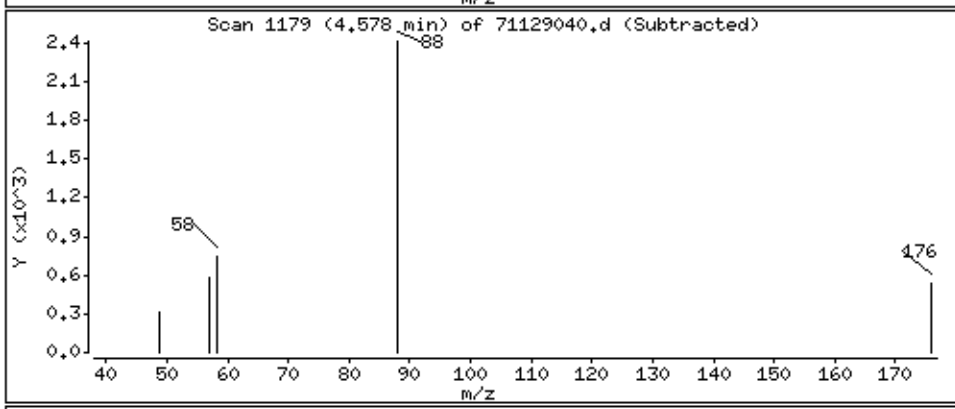
55 1,4-Dioxane (p-Dioxane)

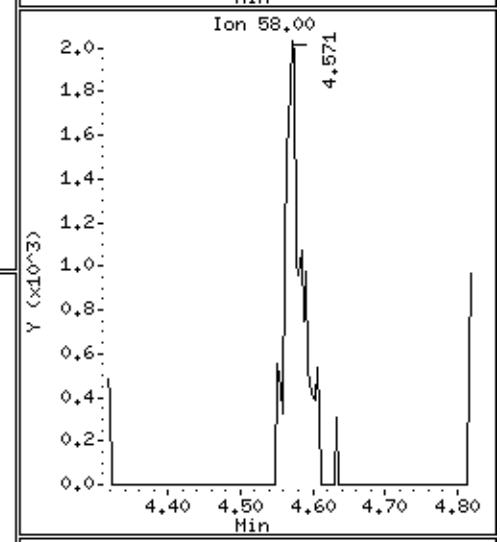
Concentration: 159 ug/L

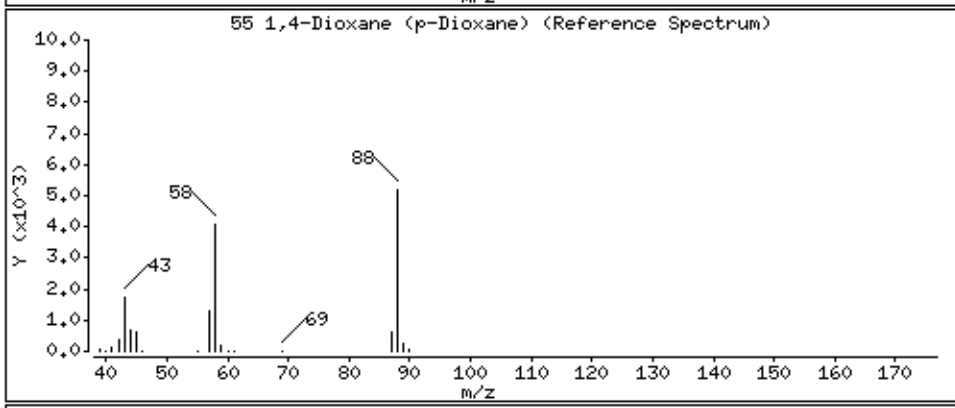
Review Code:

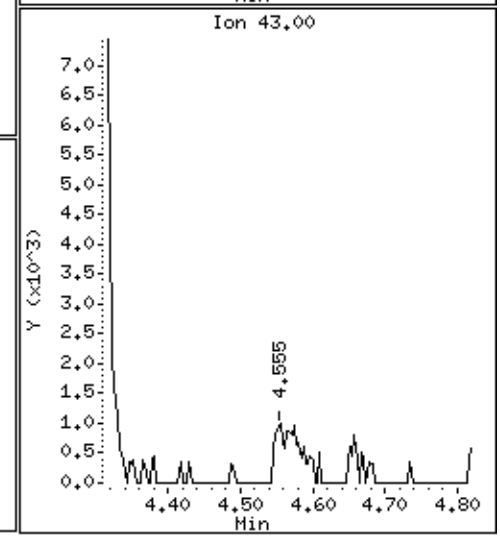


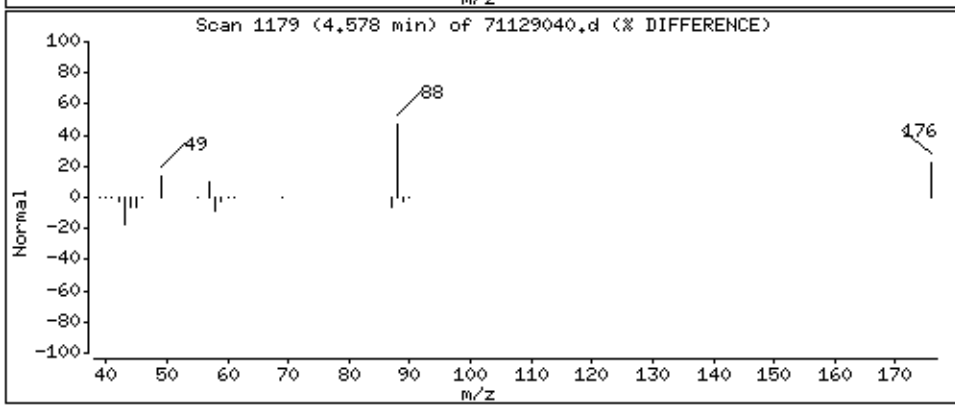












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

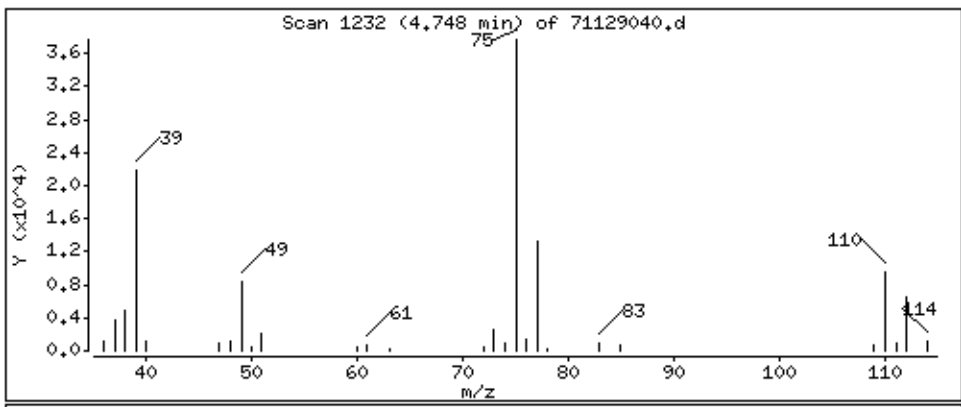
Column phase: RTX-VMS

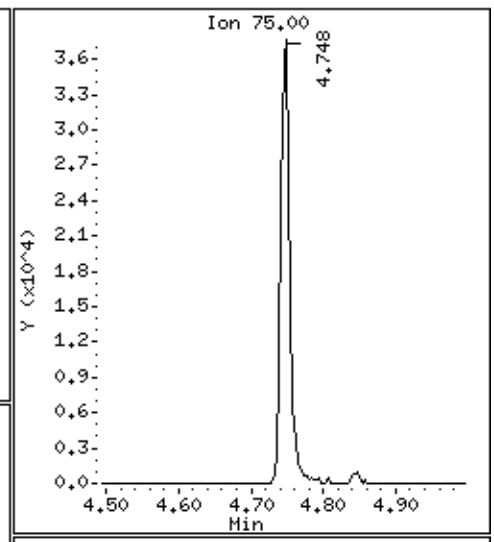
Column diameter: 0.18

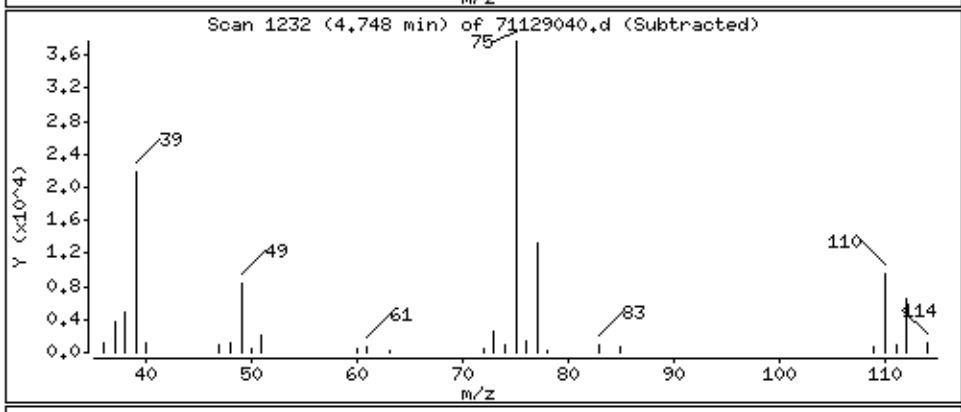
57 cis-1,3-Dichloropropene

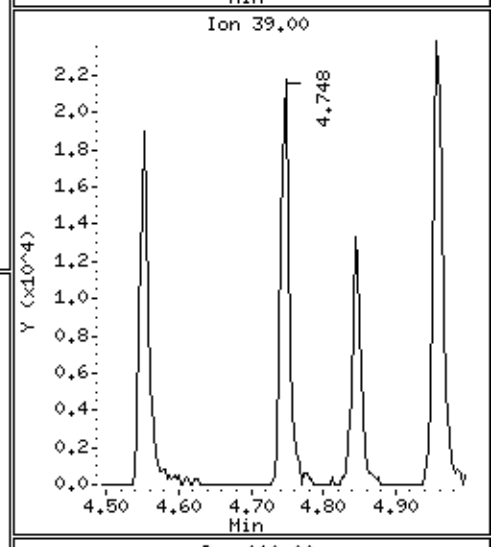
Concentration: 15.2 ug/L

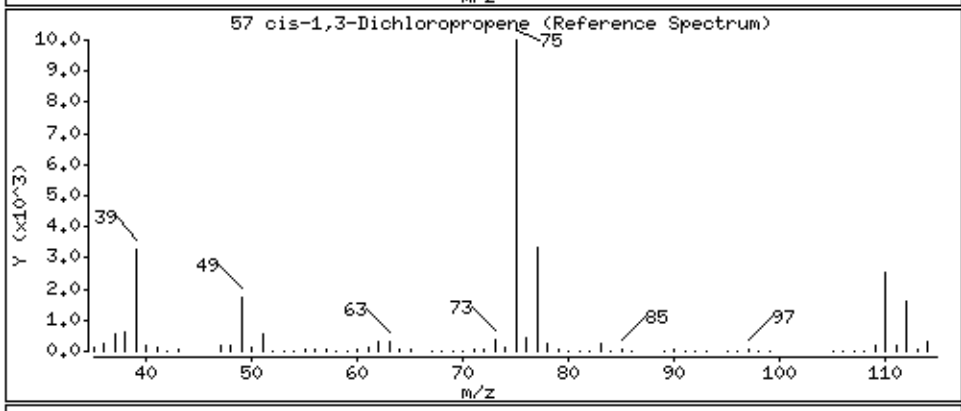
Review Code:

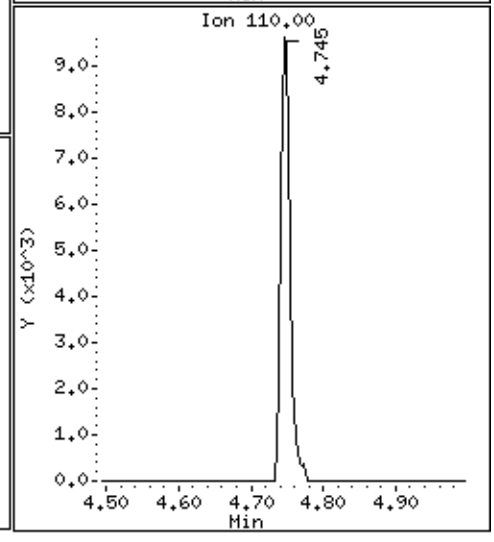


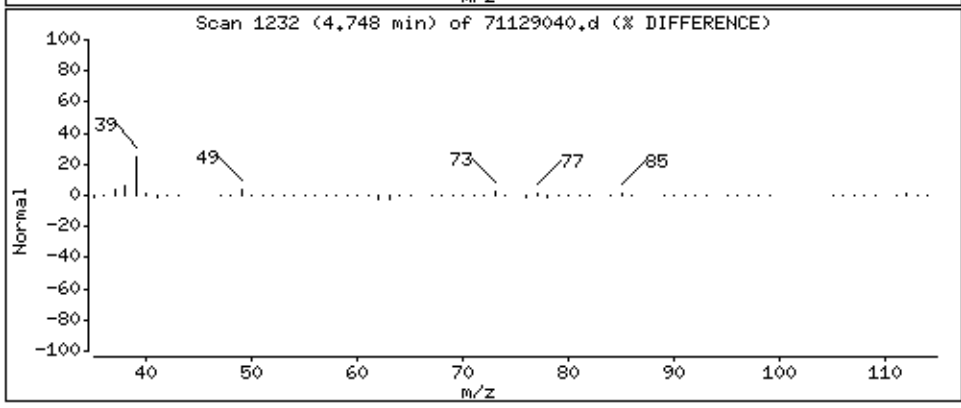












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

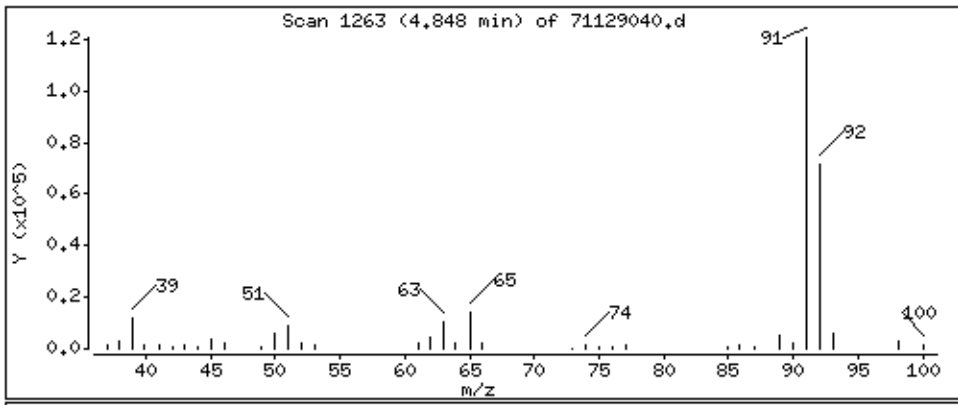
Column phase: RTX-VMS

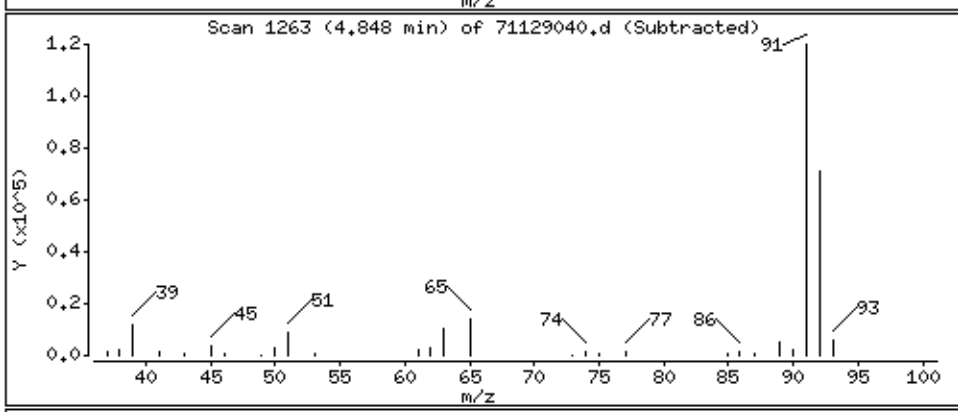
Column diameter: 0.18

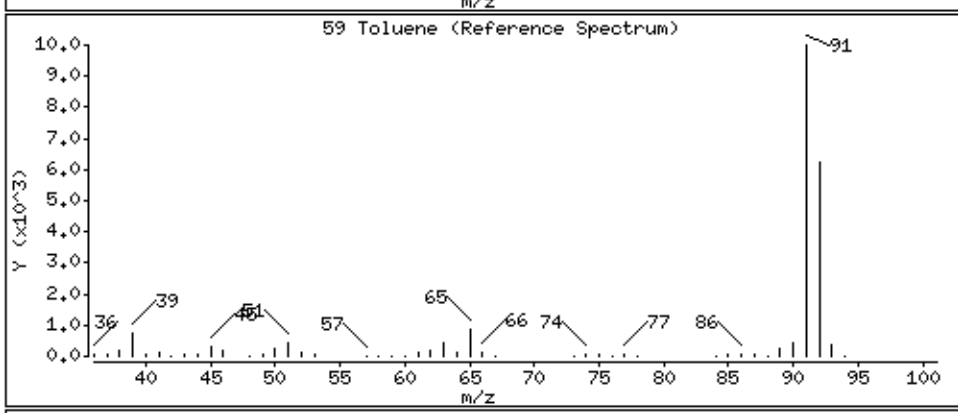
59 Toluene

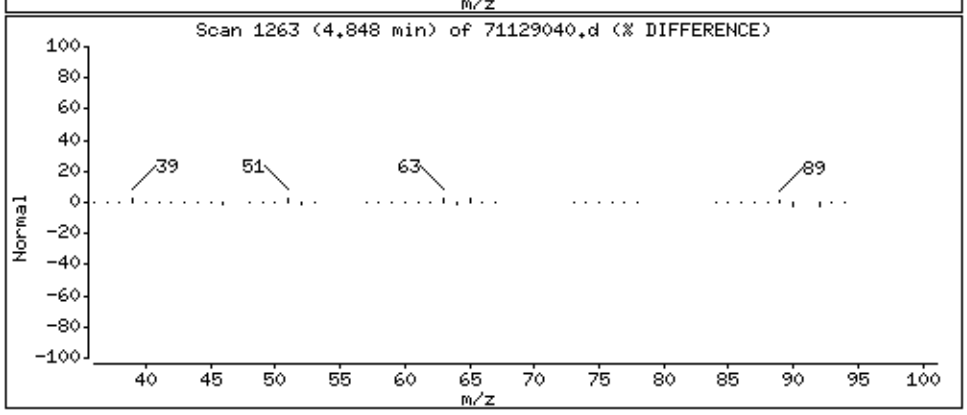
Concentration: 16.0 ug/L

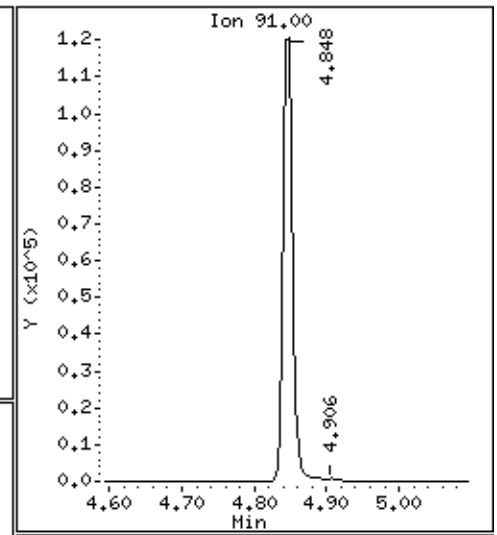
Review Code:

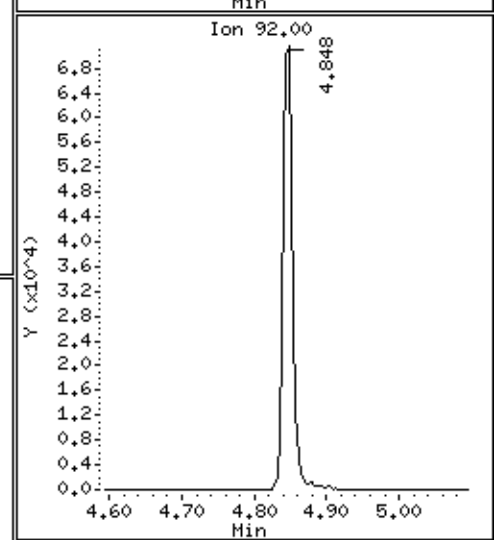












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

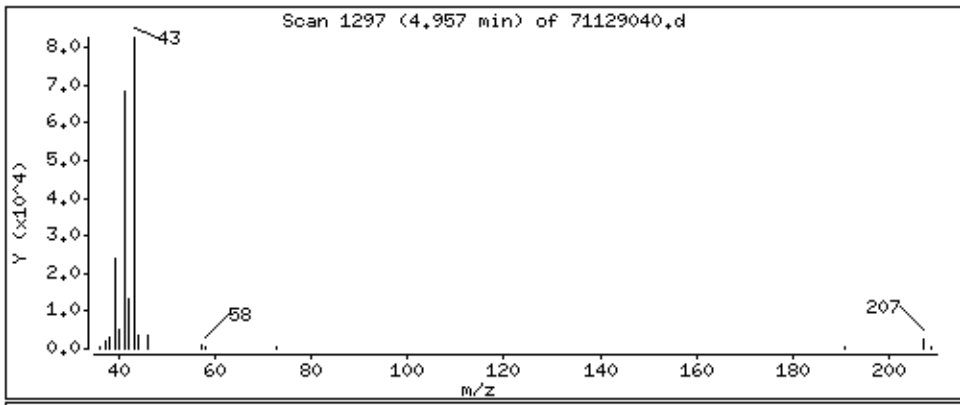
Column phase: RTX-VMS

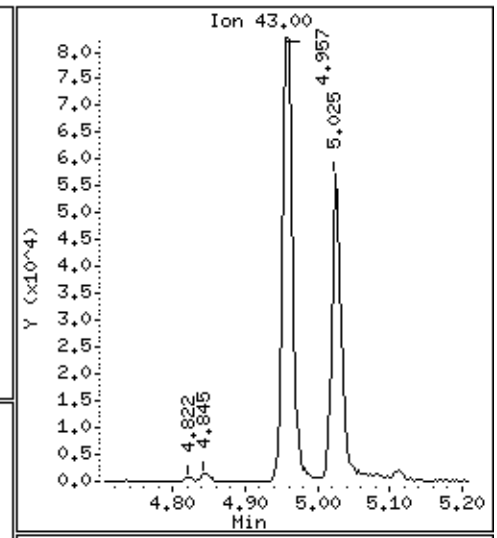
Column diameter: 0.18

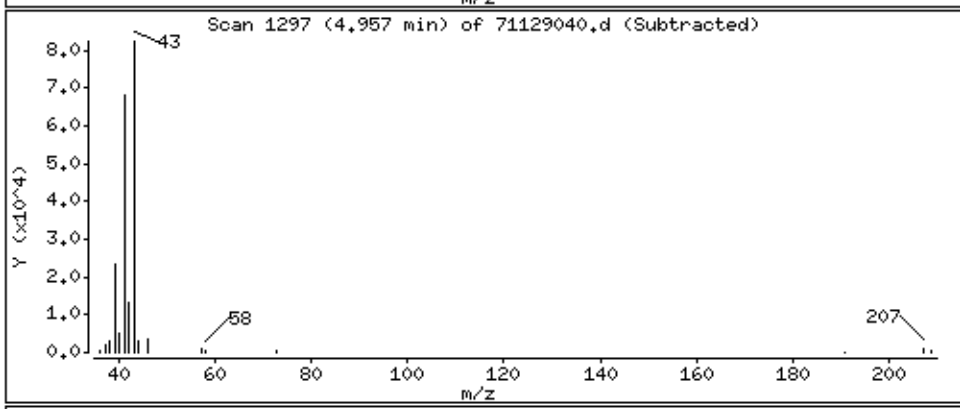
60 2-Nitropropane

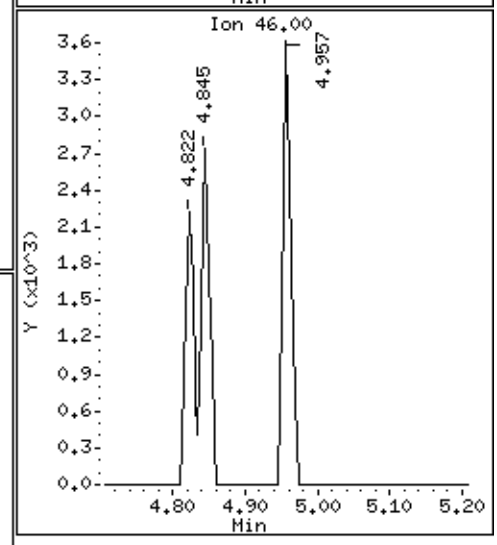
Concentration: 94.4 ug/L

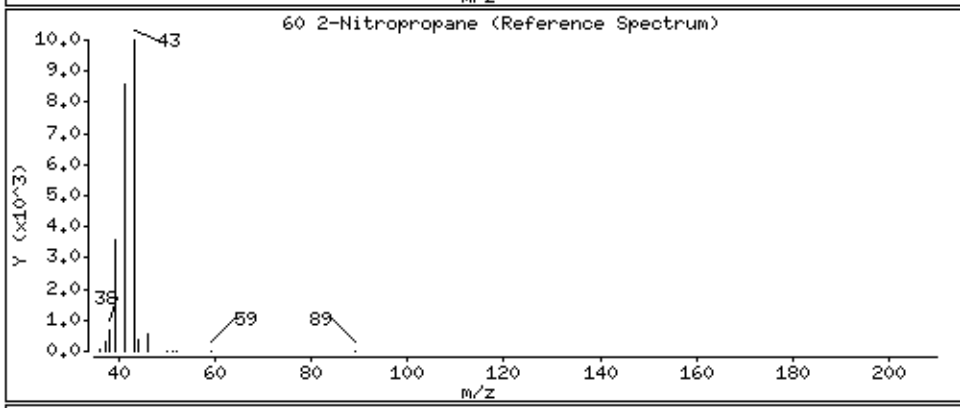
Review Code:

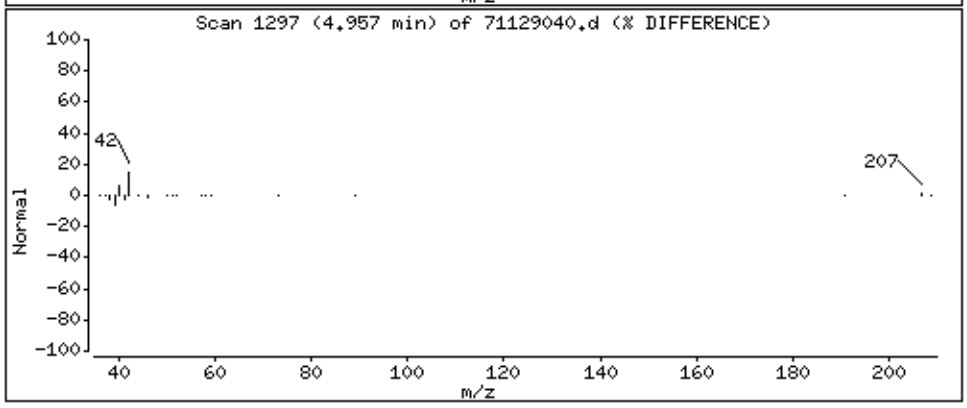












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

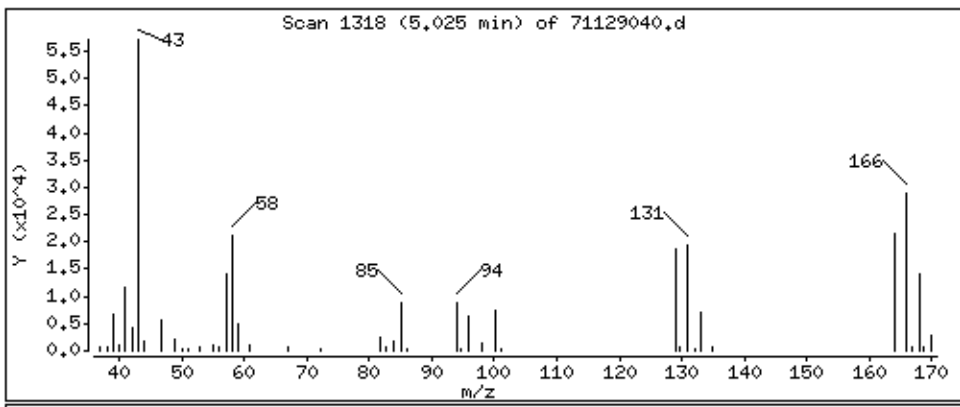
Column phase: RTX-VMS

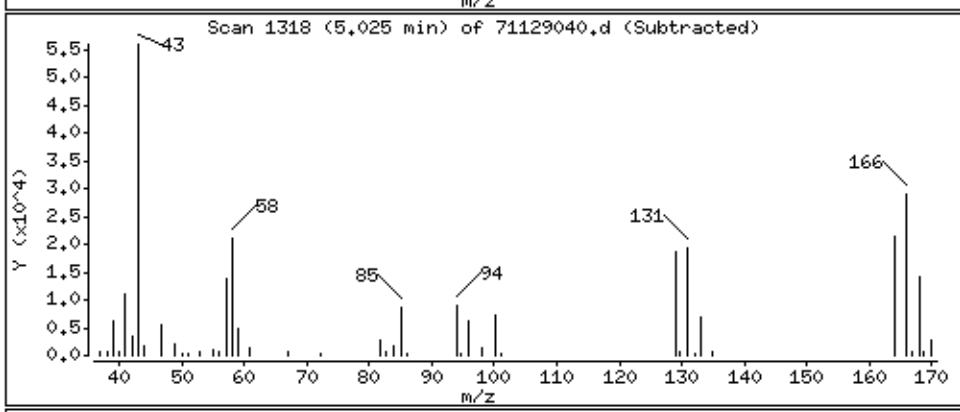
Column diameter: 0.18

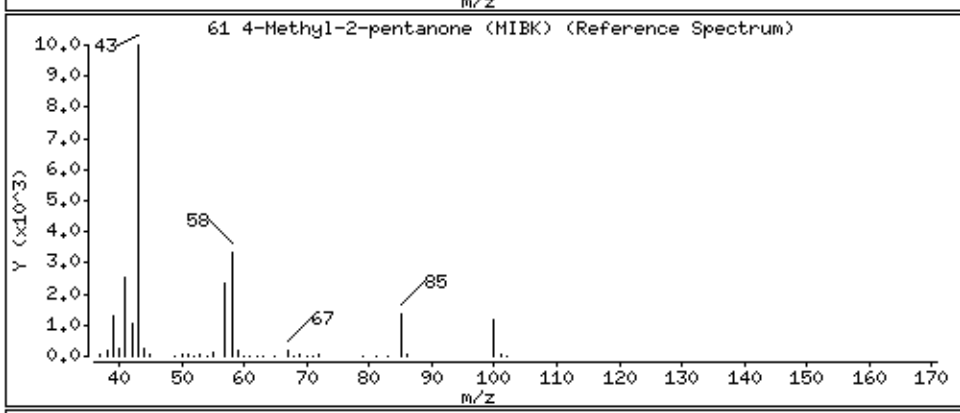
61 4-Methyl-2-pentanone (MIBK)

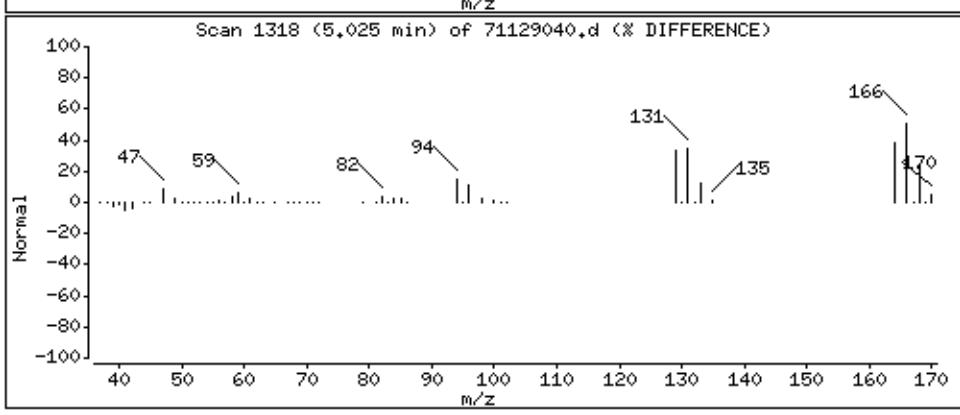
Concentration: 19.2 ug/L

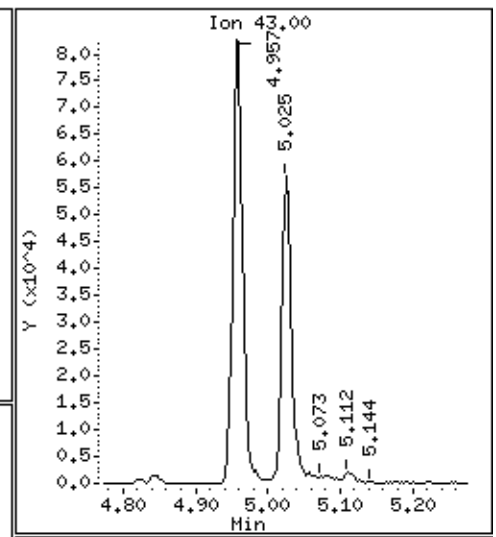
Review Code:

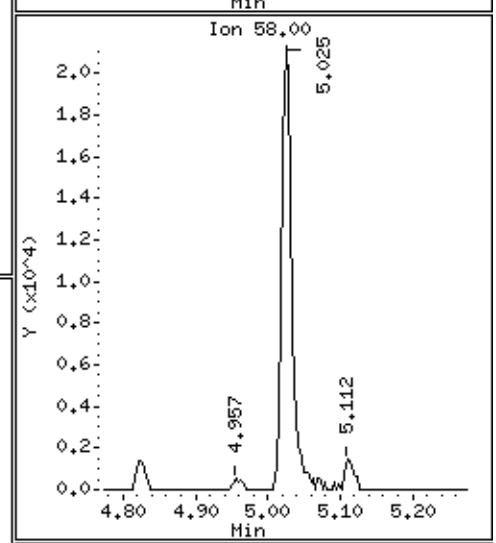


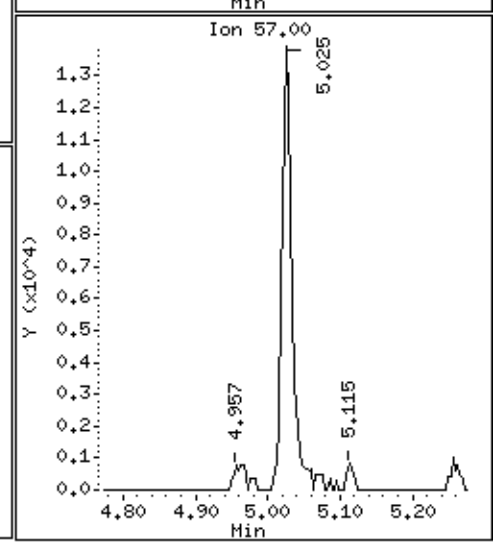












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

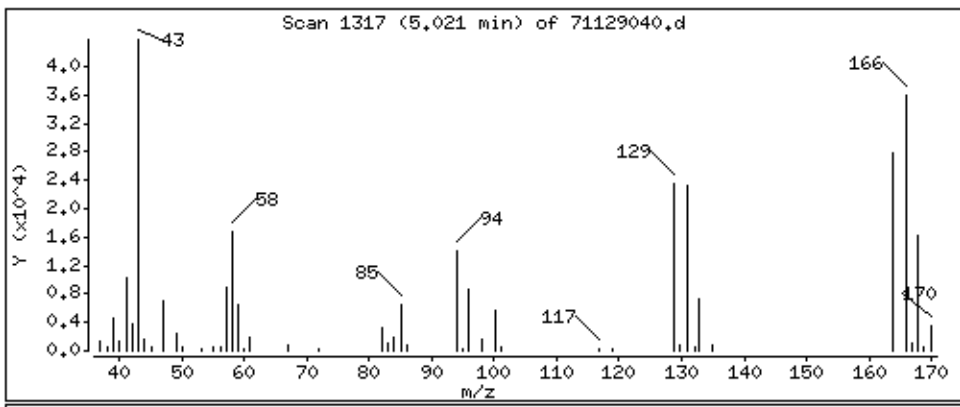
Column phase: RTX-VMS

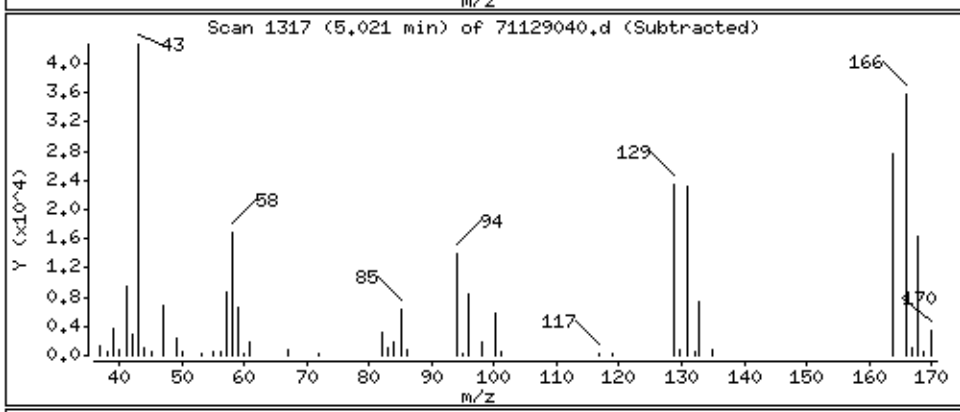
Column diameter: 0.18

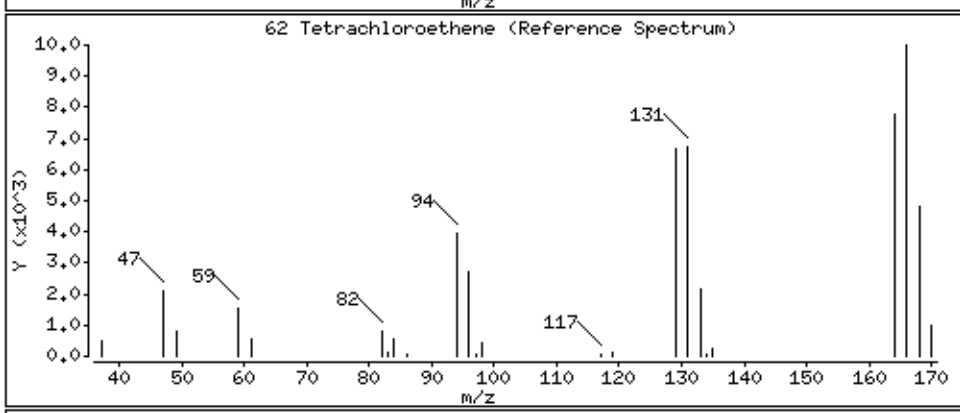
62 Tetrachloroethene

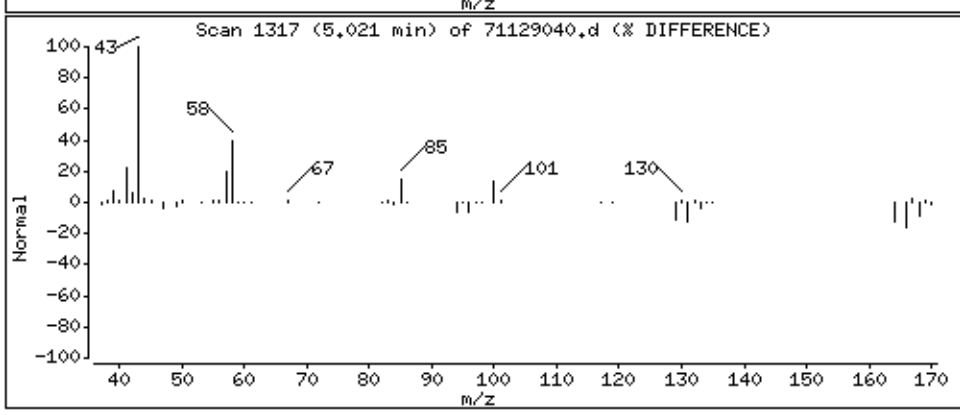
Concentration: 17.2 ug/L

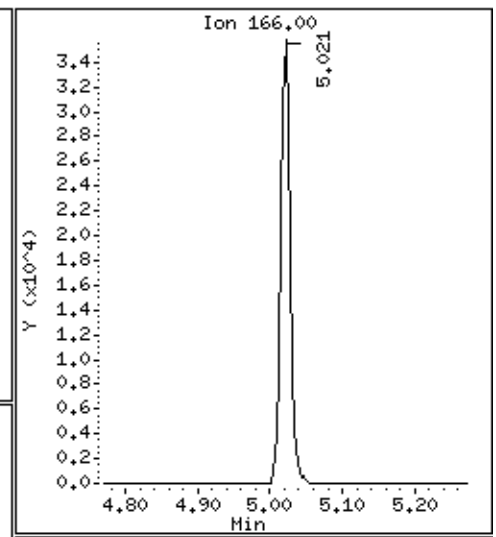
Review Code:

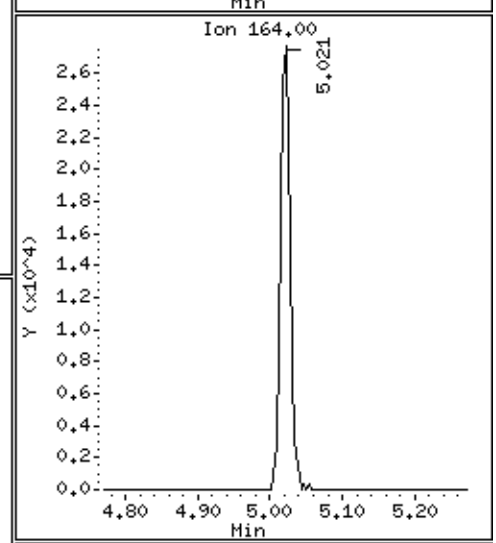


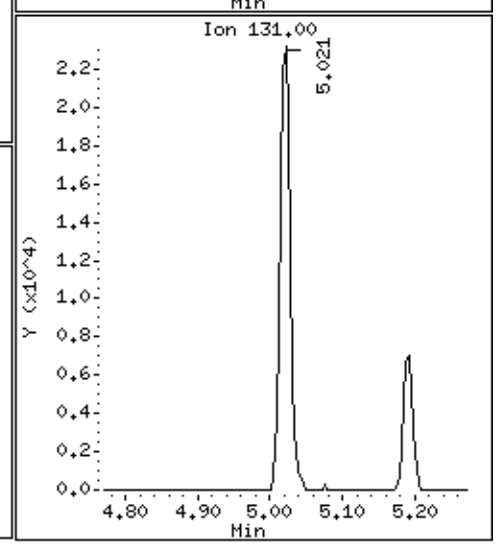












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

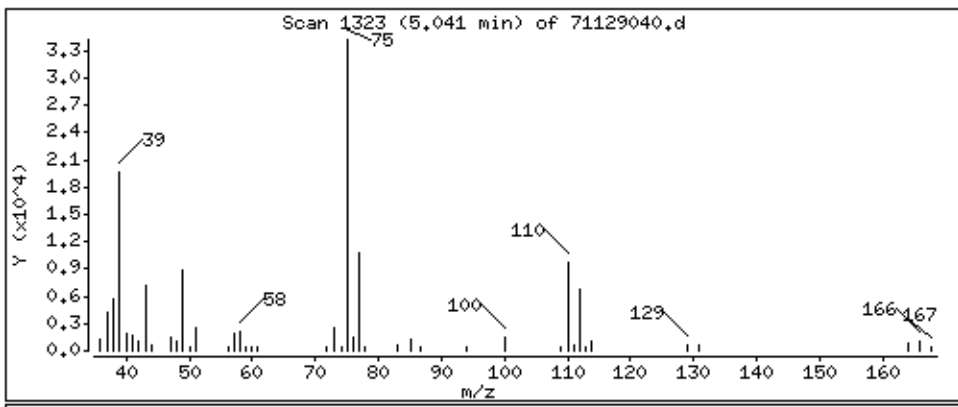
Column phase: RTX-VMS

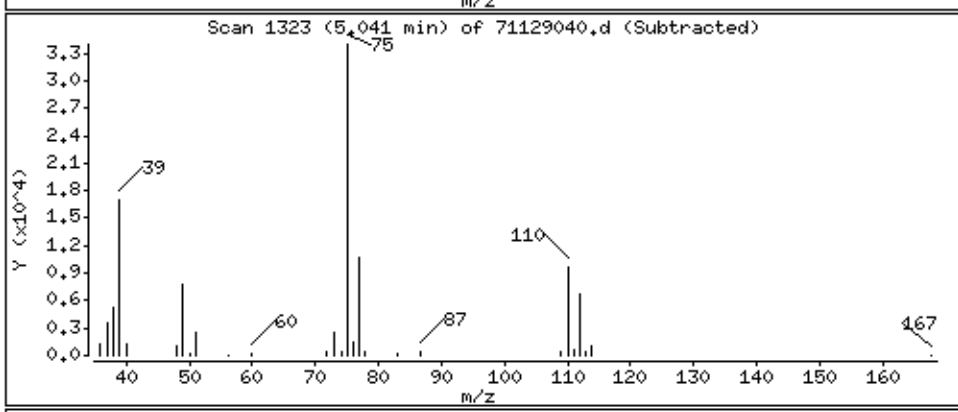
Column diameter: 0.18

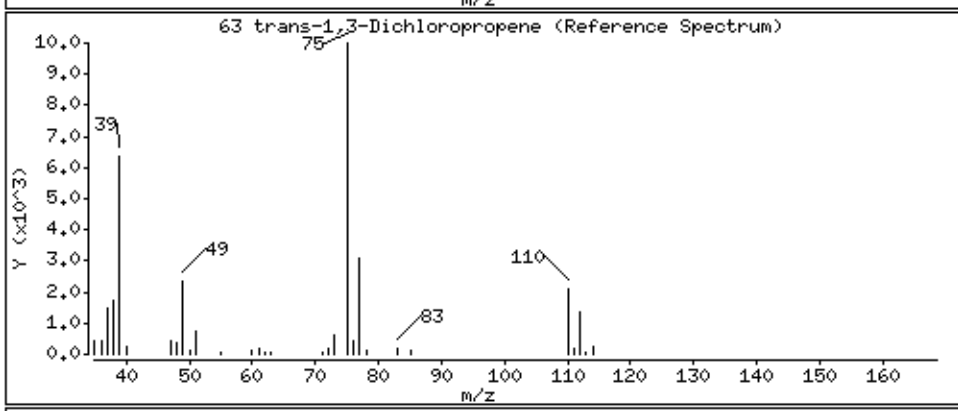
63 trans-1,3-Dichloropropene

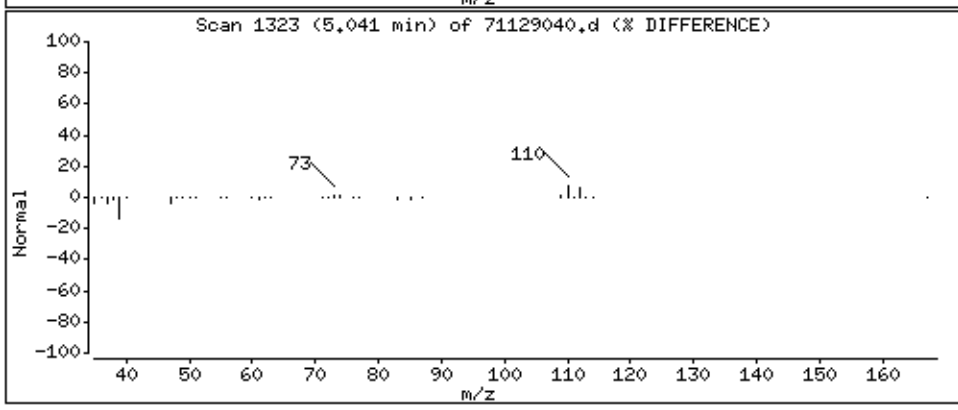
Concentration: 15.5 ug/L

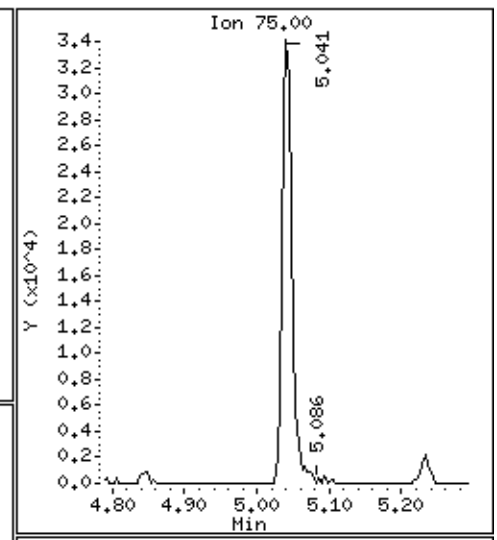
Review Code:

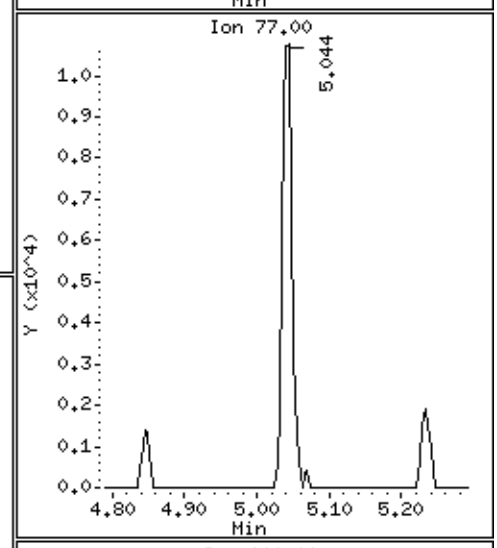


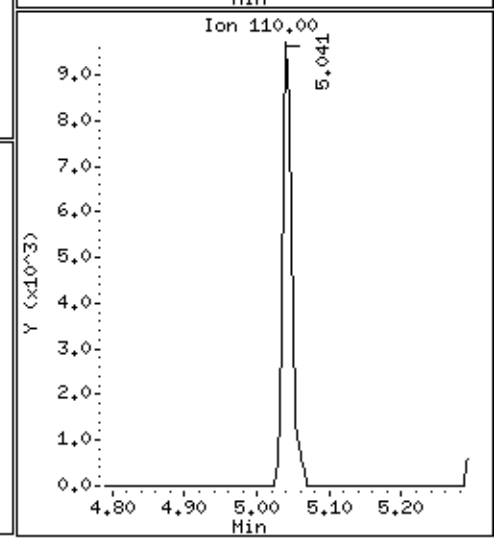












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

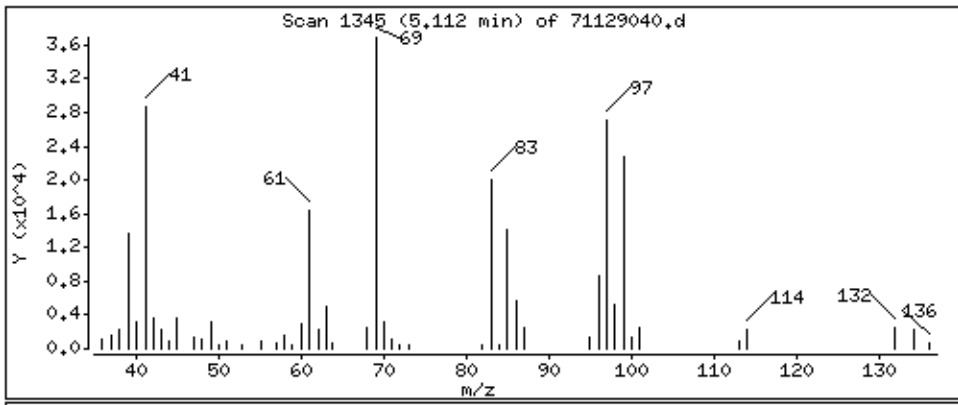
Column phase: RTX-VMS

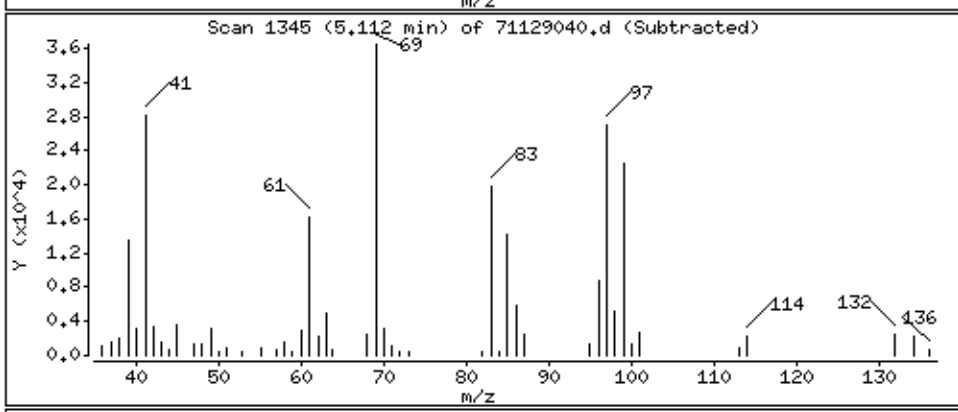
Column diameter: 0.18

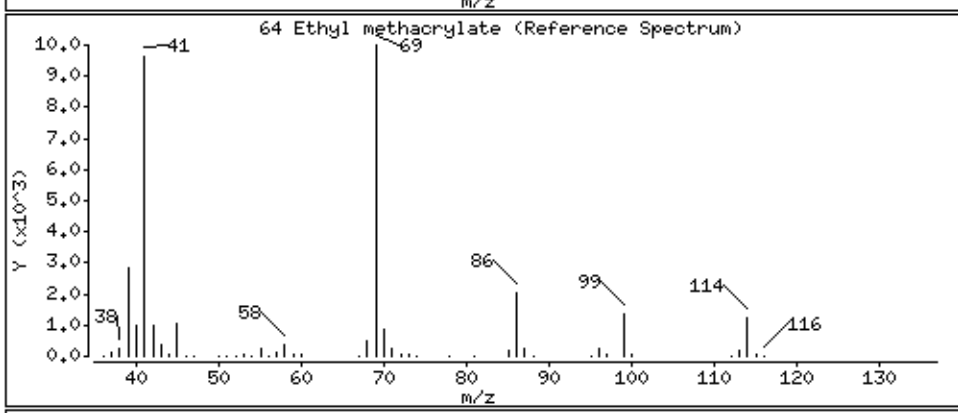
64 Ethyl methacrylate

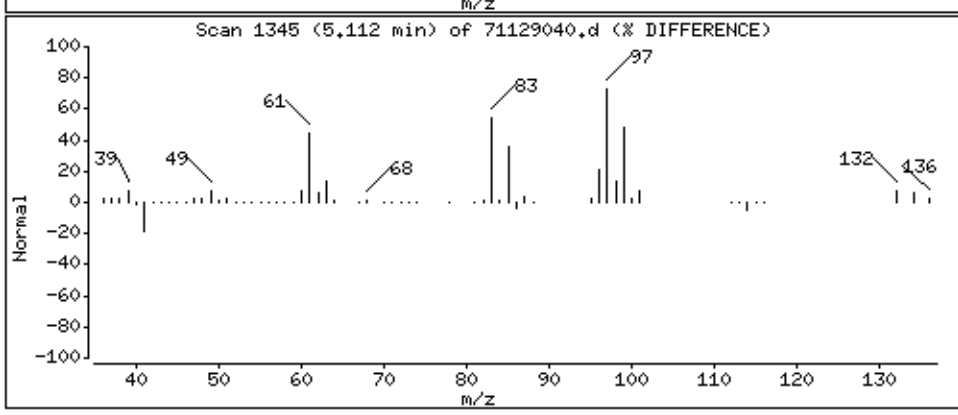
Concentration: 17.6 ug/L

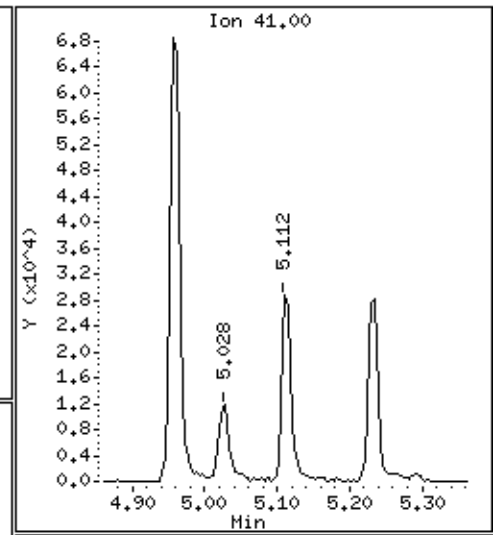
Review Code:

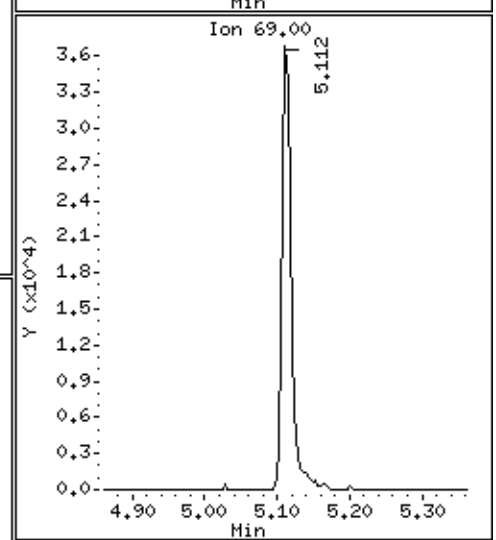


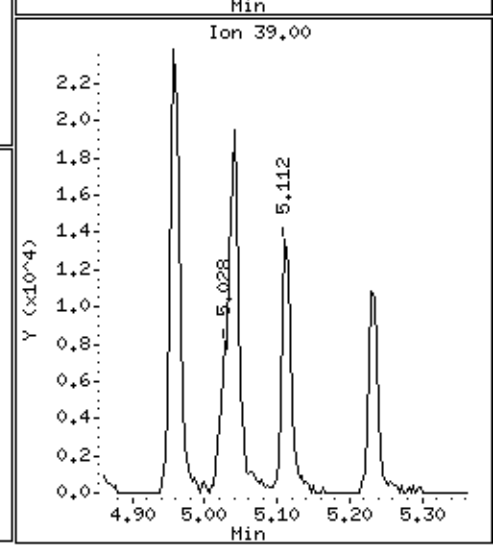












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

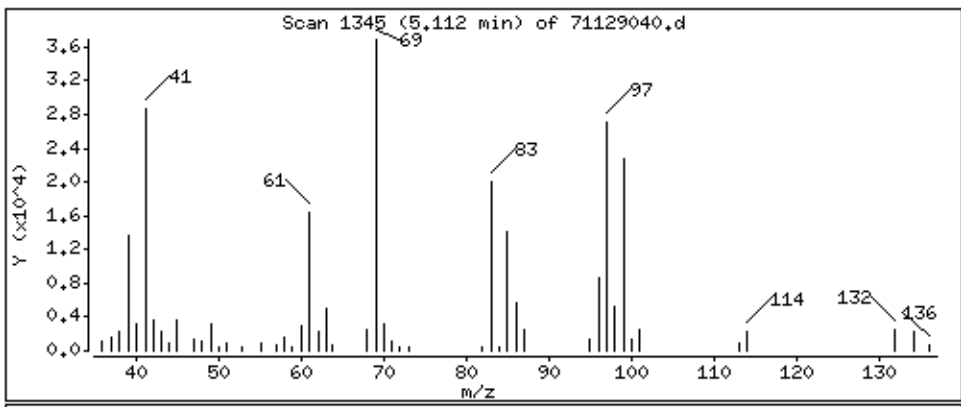
Column phase: RTX-VMS

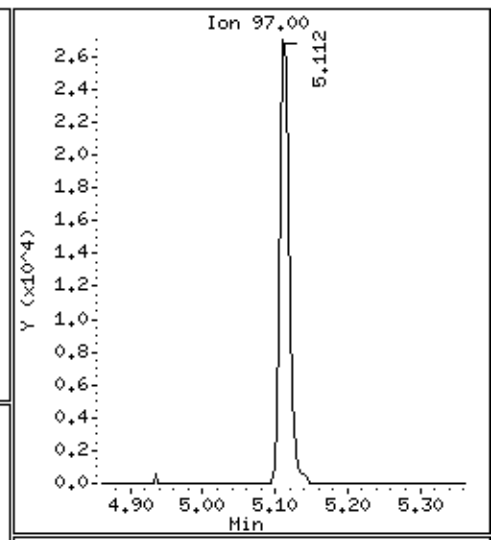
Column diameter: 0.18

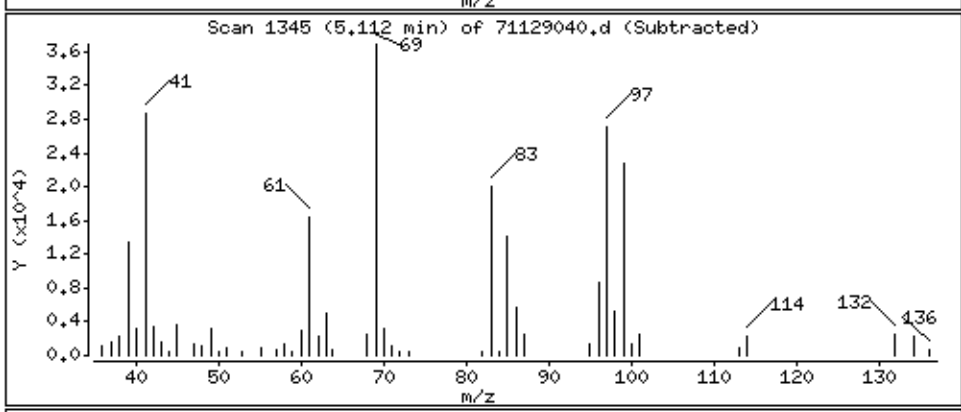
65 1,1,2-Trichloroethane

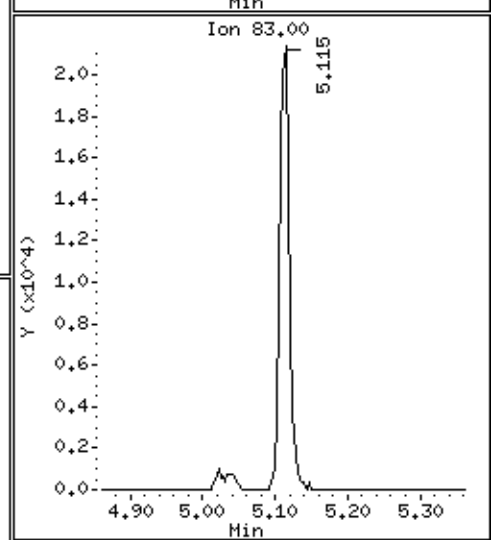
Concentration: 16.0 ug/L

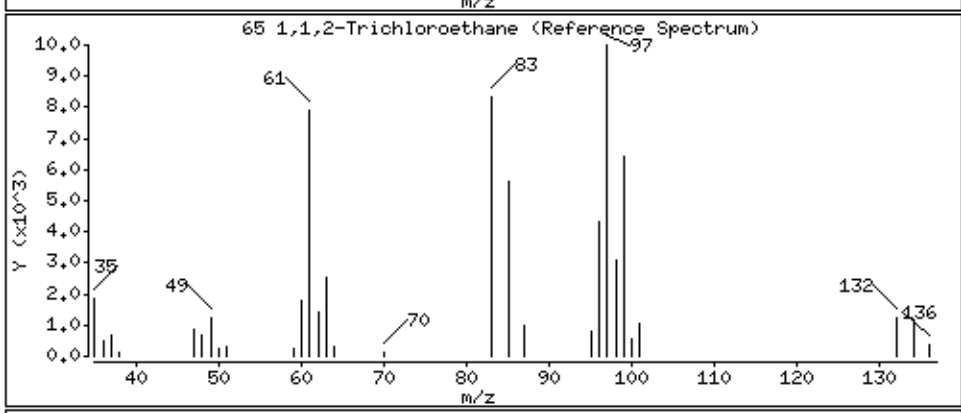
Review Code:

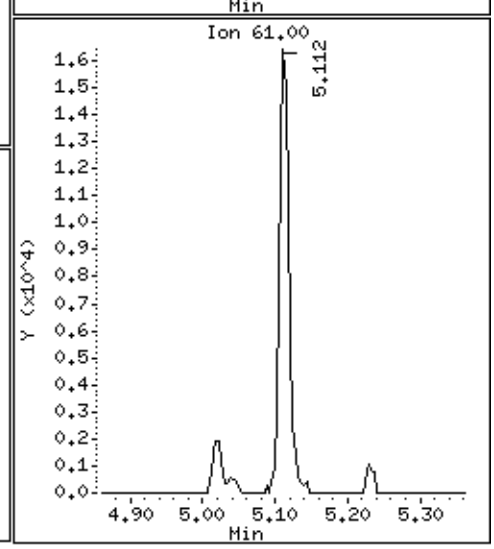


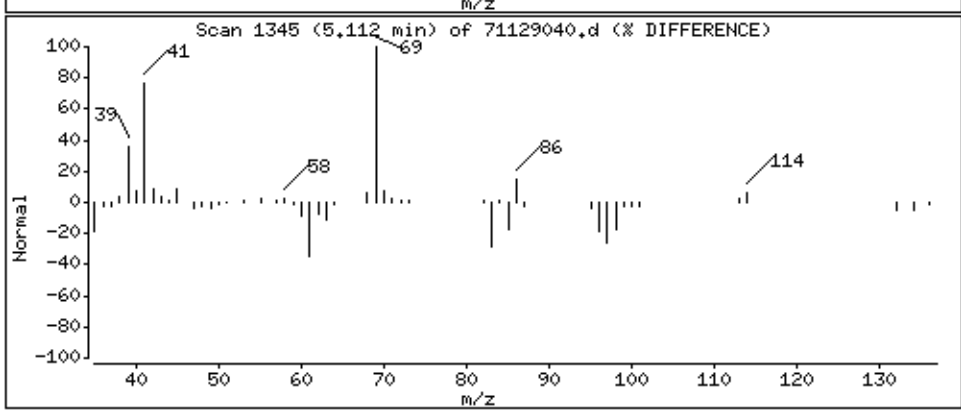












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

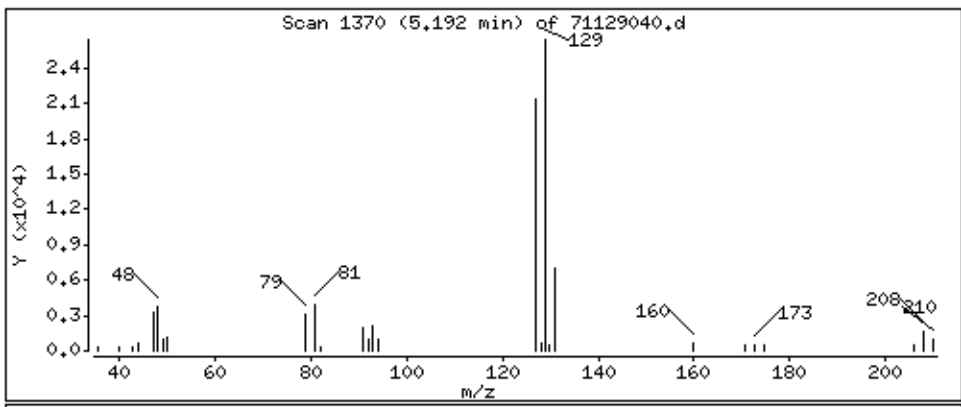
Column phase: RTX-VMS

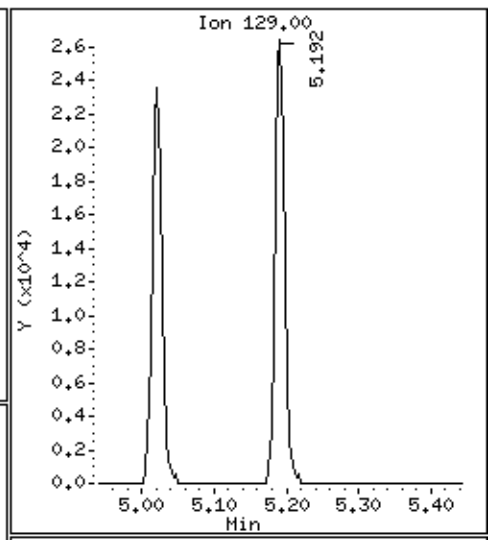
Column diameter: 0.18

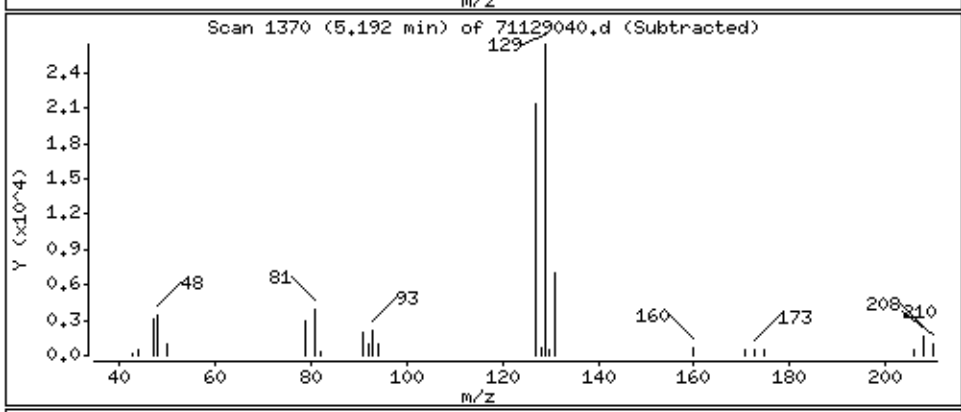
66 Dibromochloromethane

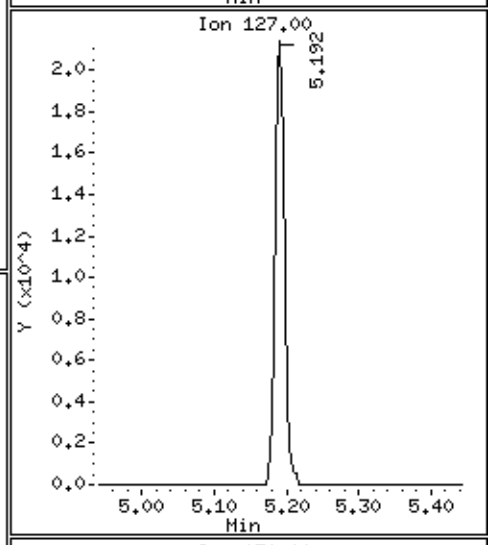
Concentration: 14.6 ug/L

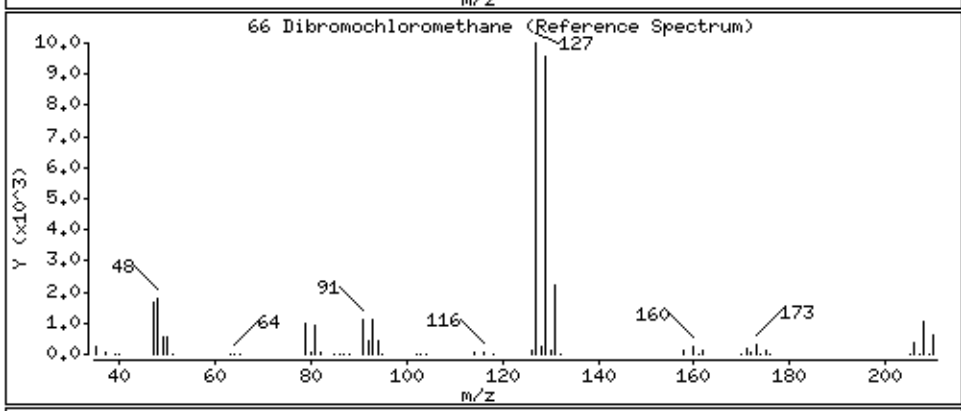
Review Code:

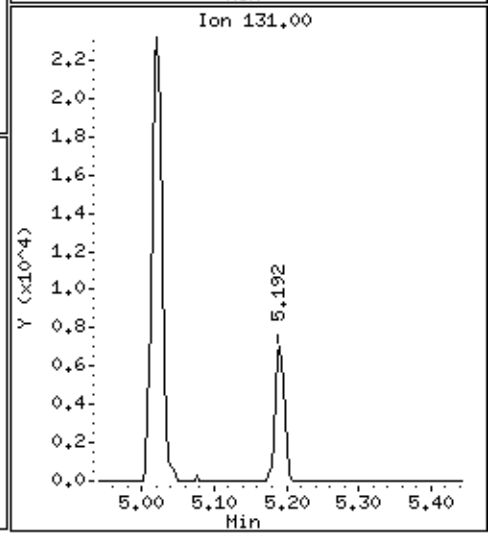


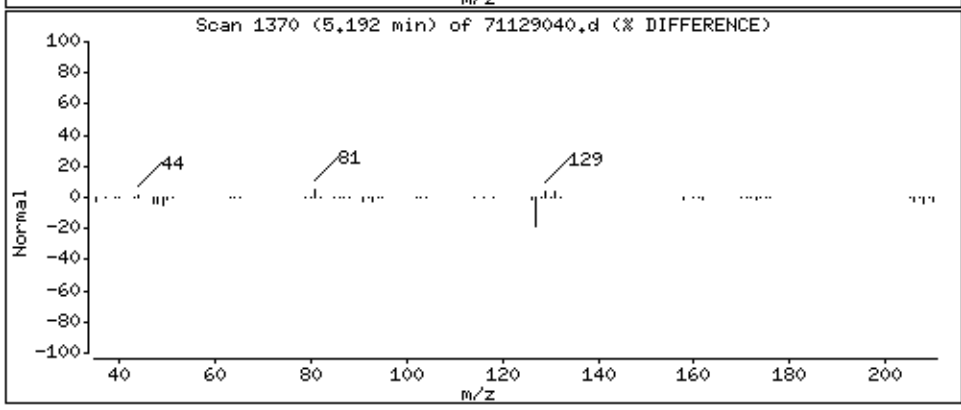












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

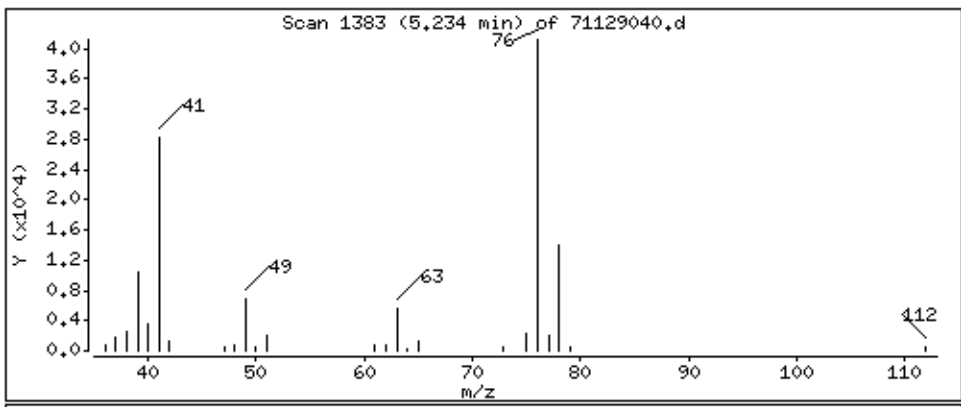
Column phase: RTX-VMS

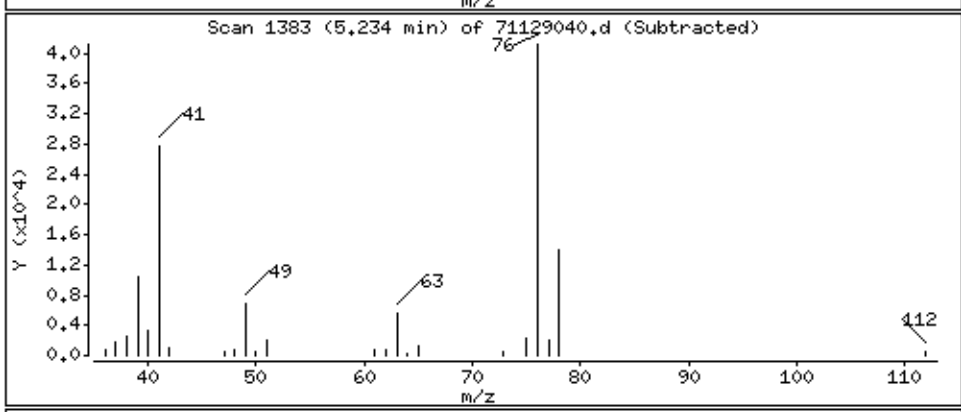
Column diameter: 0.18

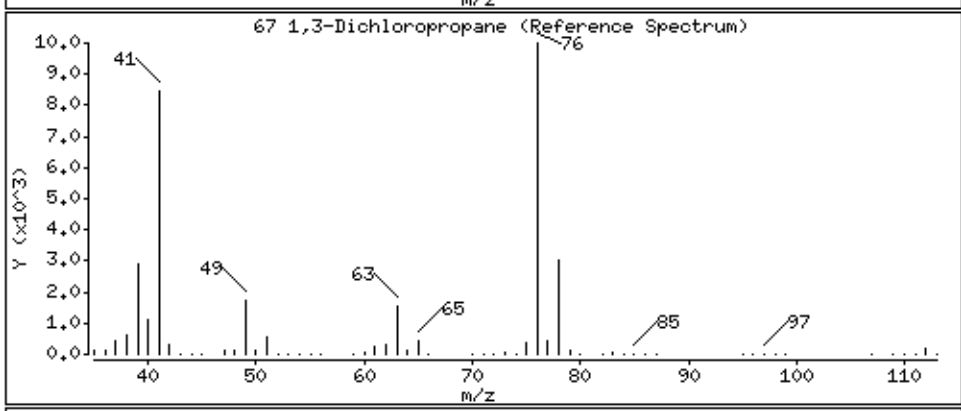
67 1,3-Dichloropropane

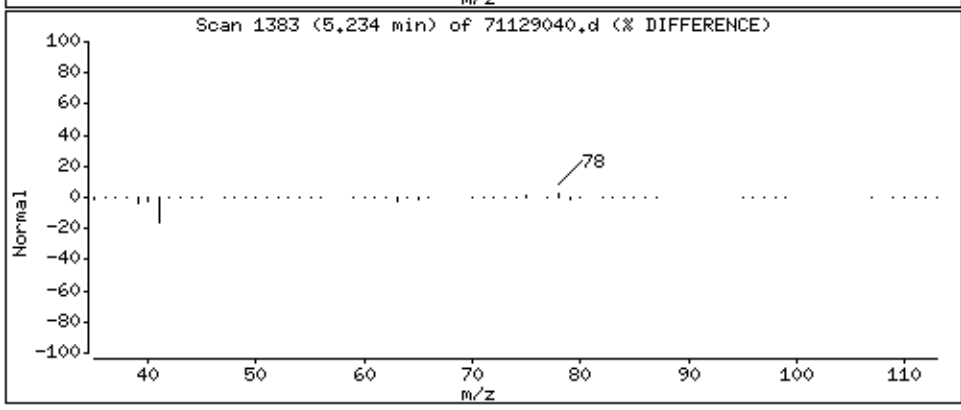
Concentration: 14.5 ug/L

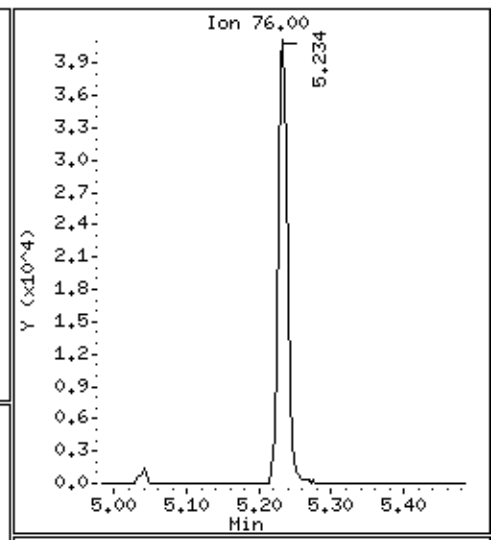
Review Code:

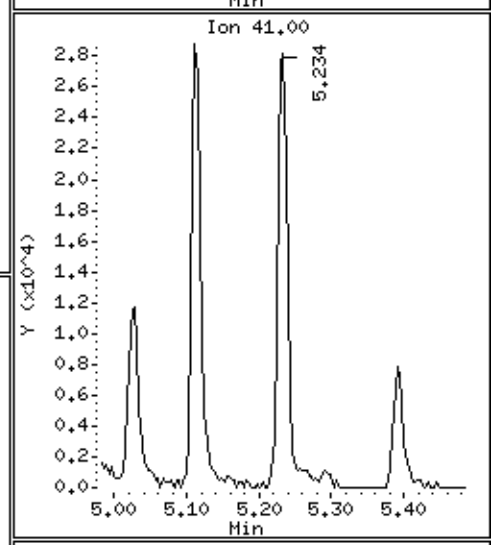


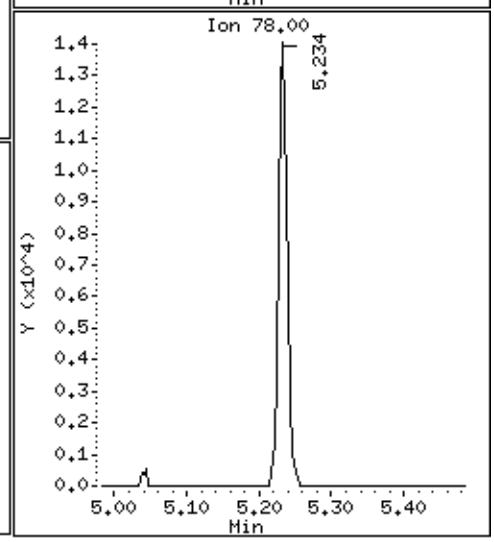












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

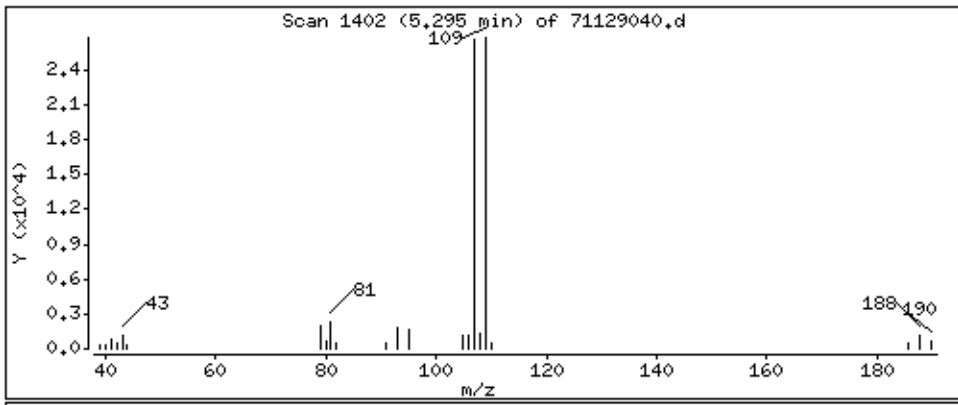
Column phase: RTX-VMS

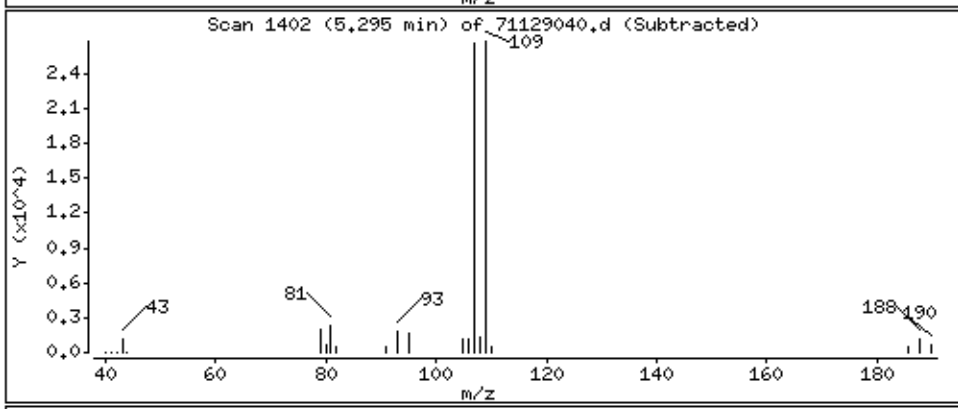
Column diameter: 0.18

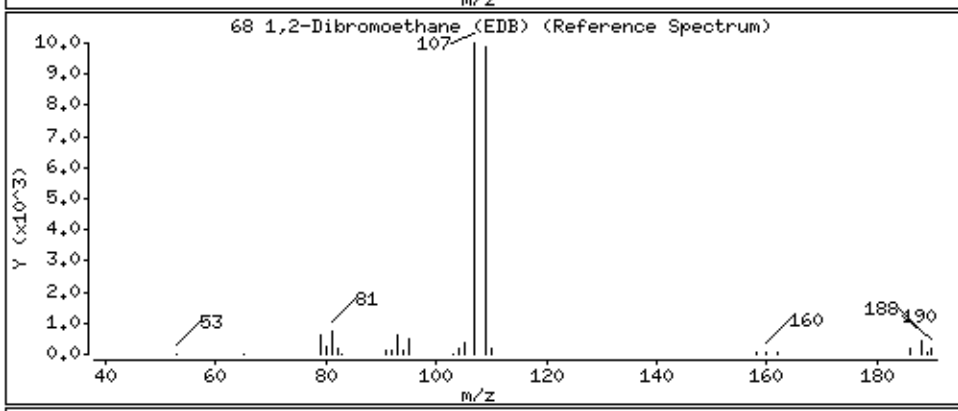
68 1,2-Dibromoethane (EDB)

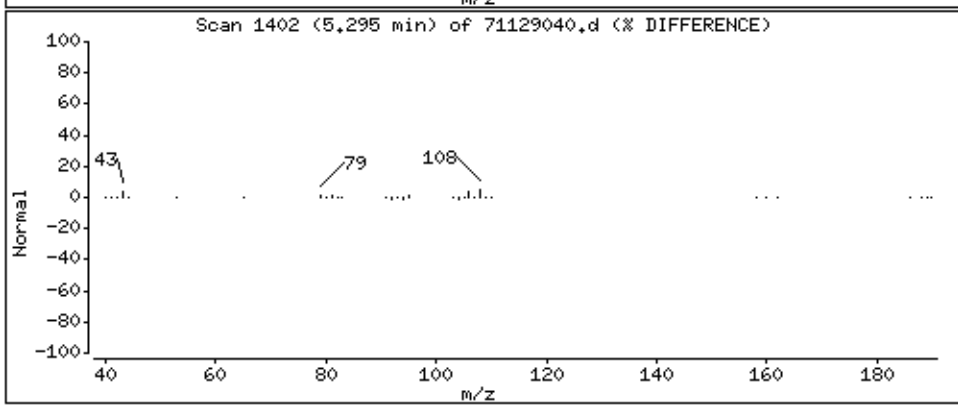
Concentration: 15.0 ug/L

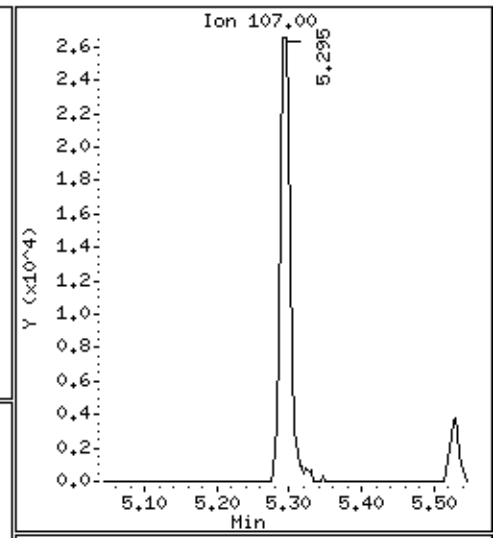
Review Code:

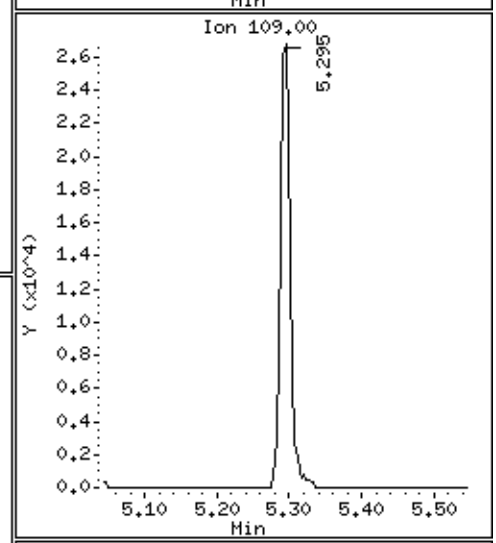


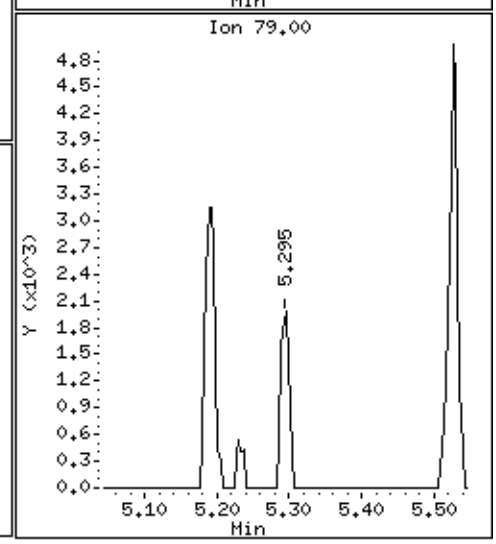












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

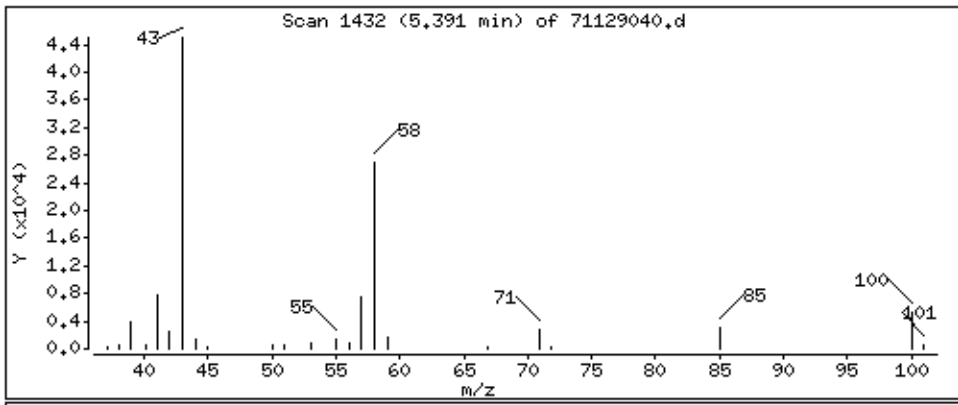
Column phase: RTX-VMS

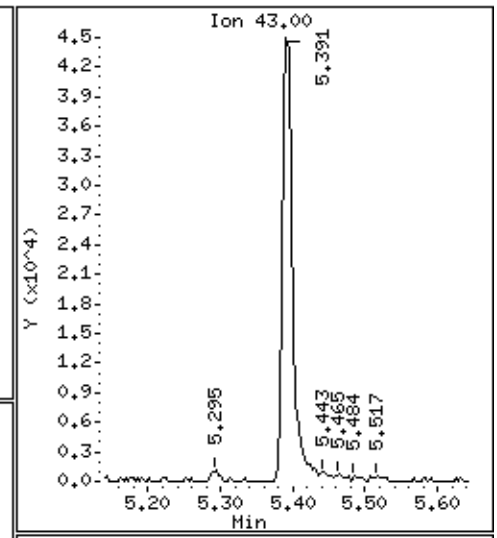
Column diameter: 0.18

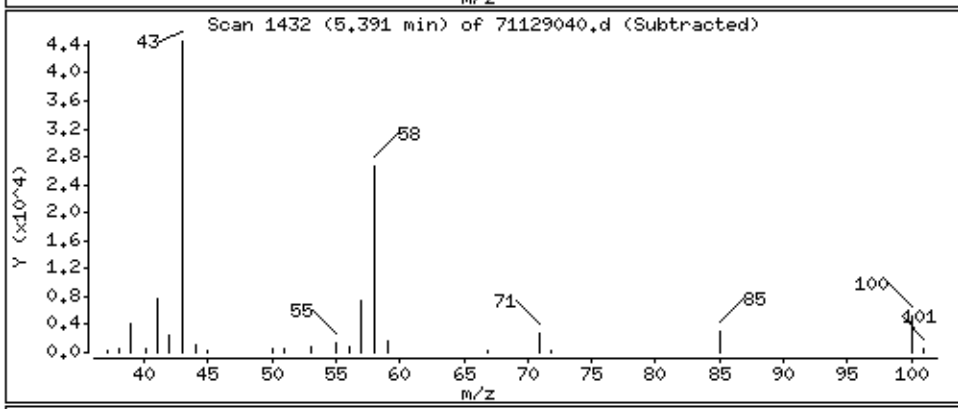
69 2-Hexanone

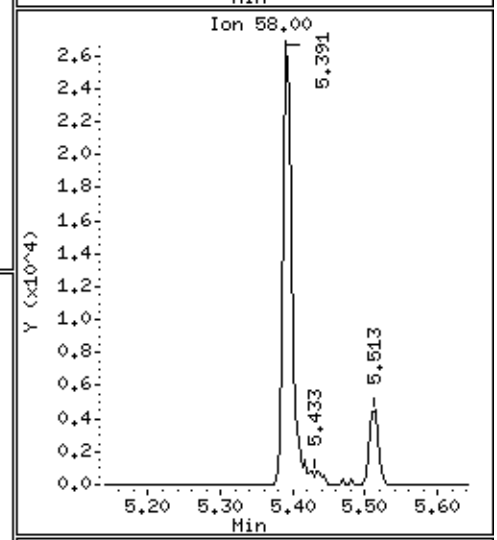
Concentration: 18.0 ug/L

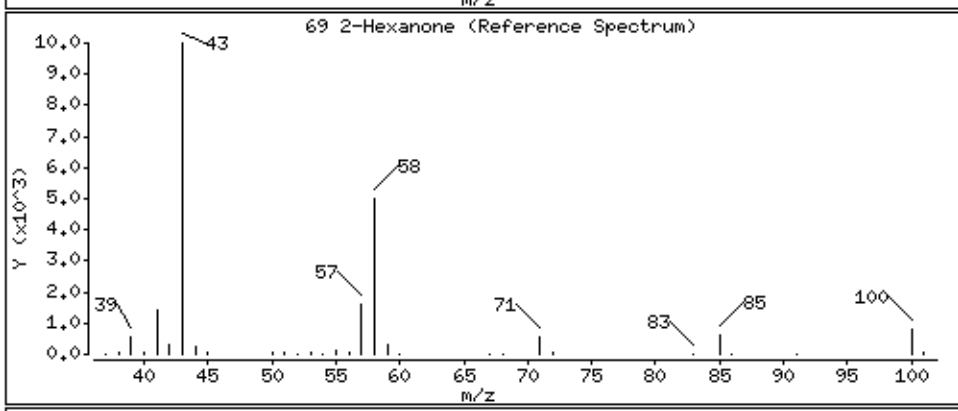
Review Code:

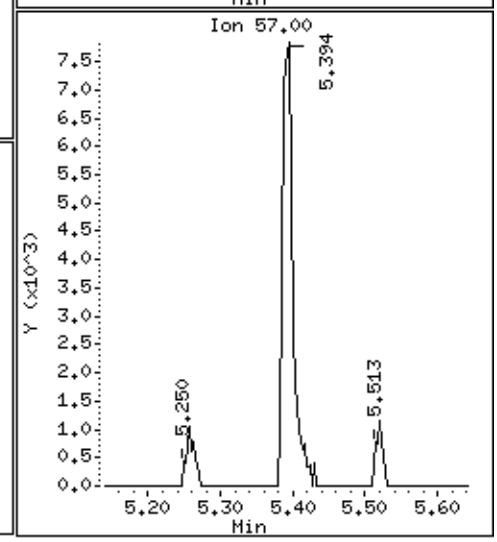


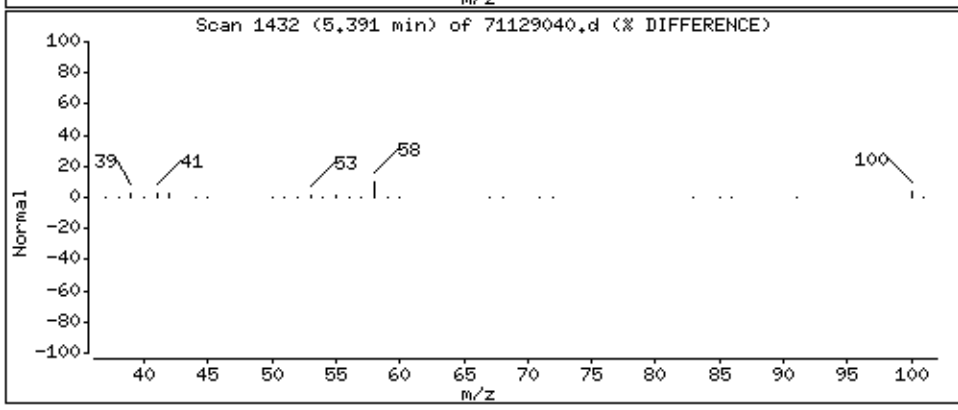












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

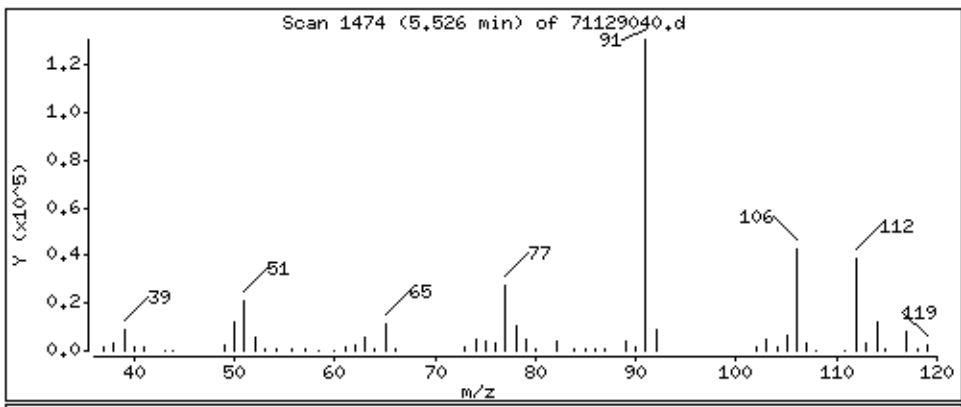
Column phase: RTX-VMS

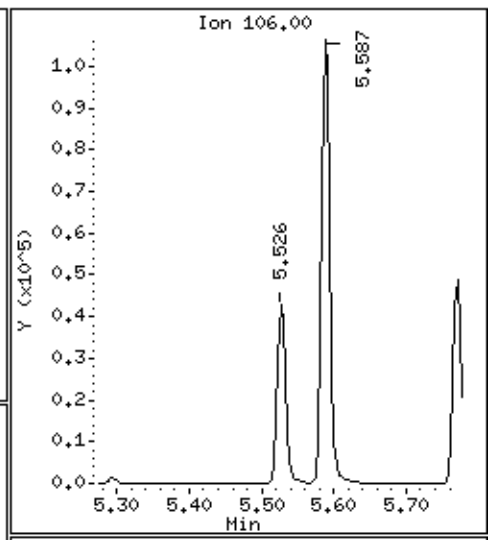
Column diameter: 0.18

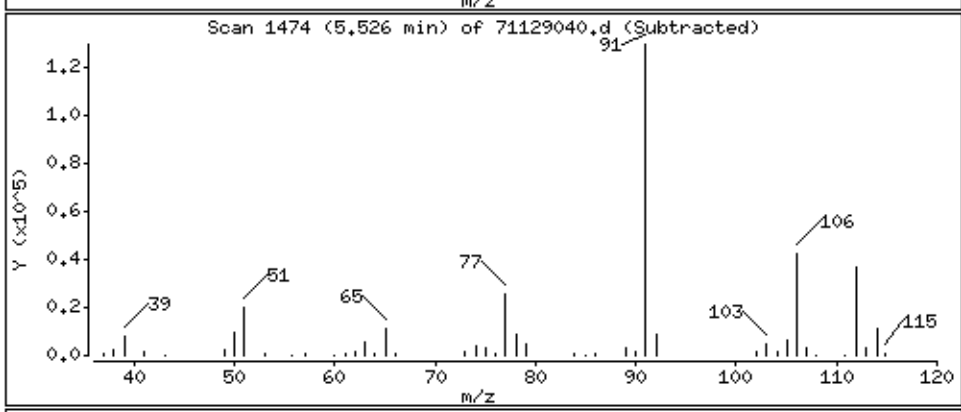
71 Ethylbenzene

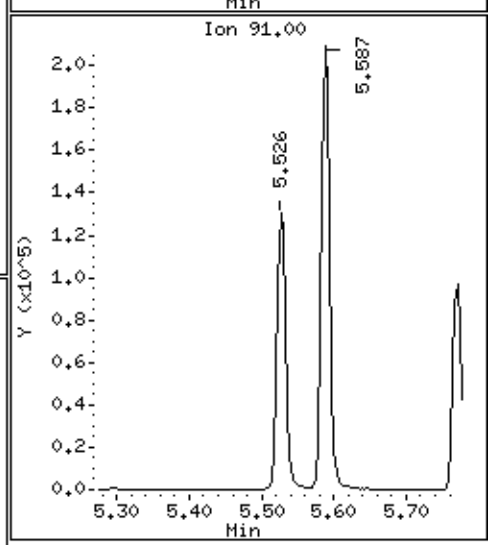
Concentration: 16.5 ug/L

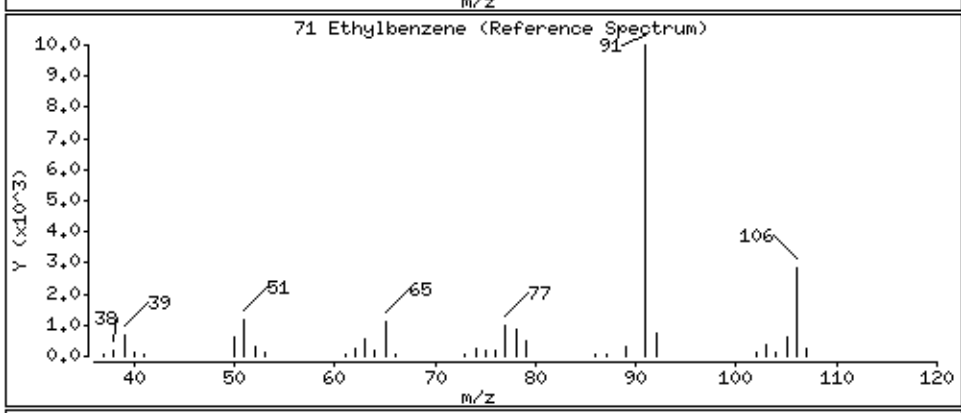
Review Code:

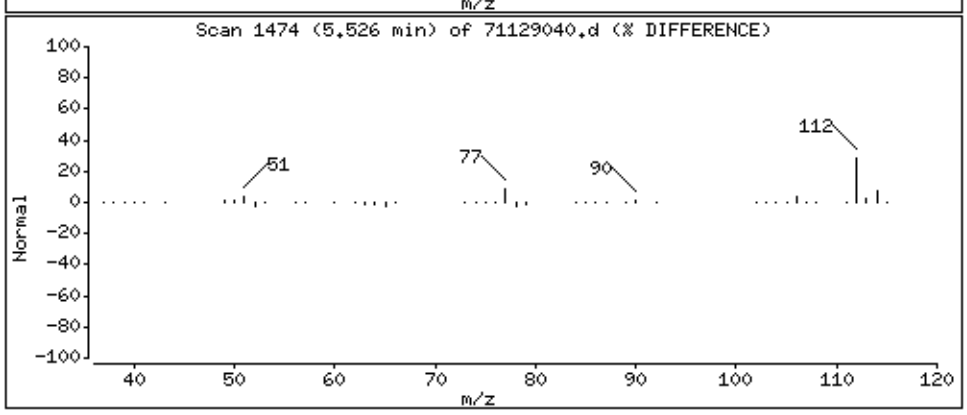












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

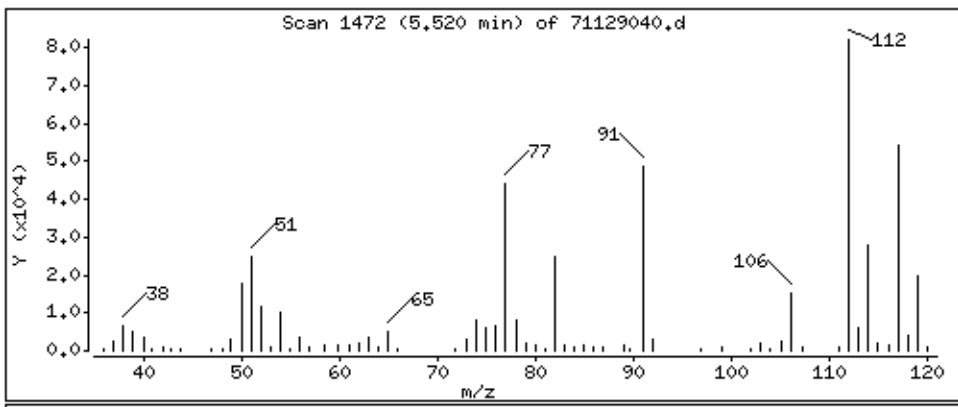
Column phase: RTX-VMS

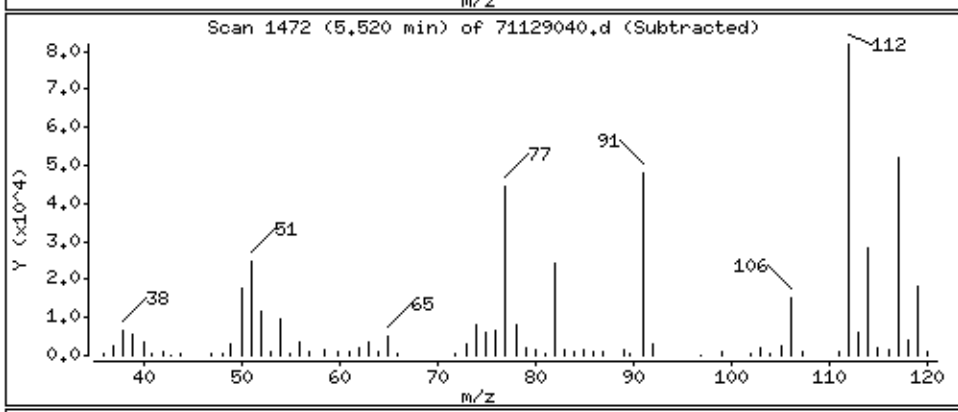
Column diameter: 0.18

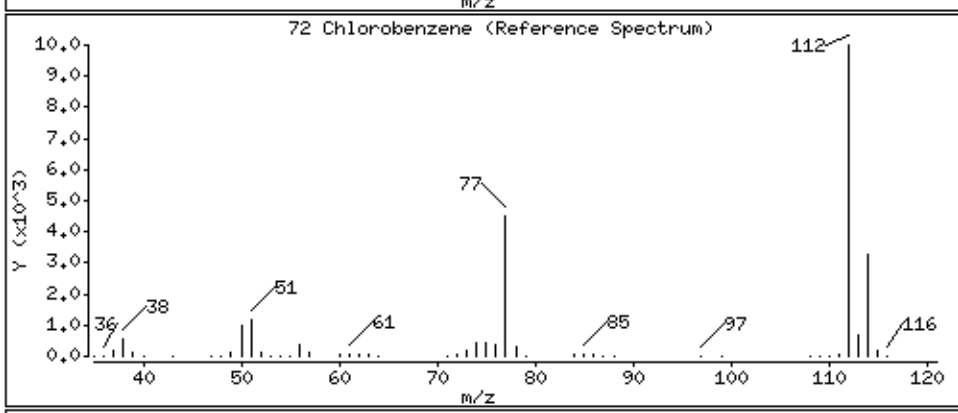
72 Chlorobenzene

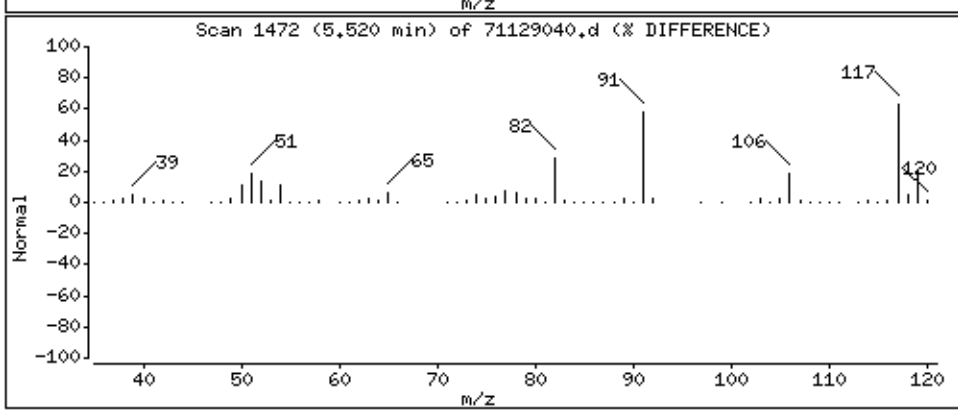
Concentration: 16.8 ug/L

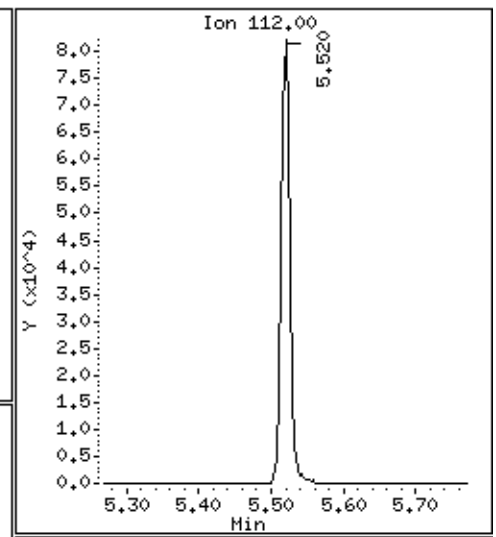
Review Code:

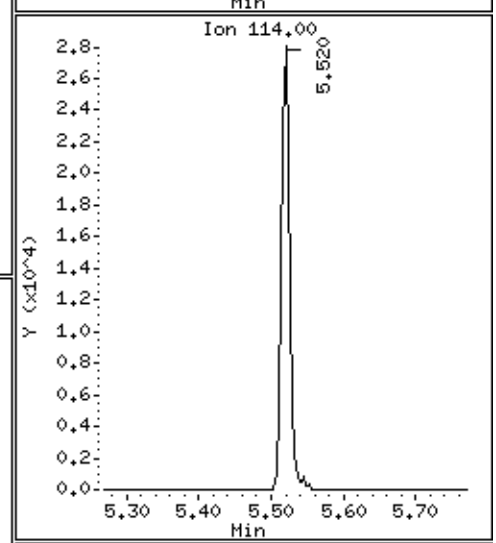


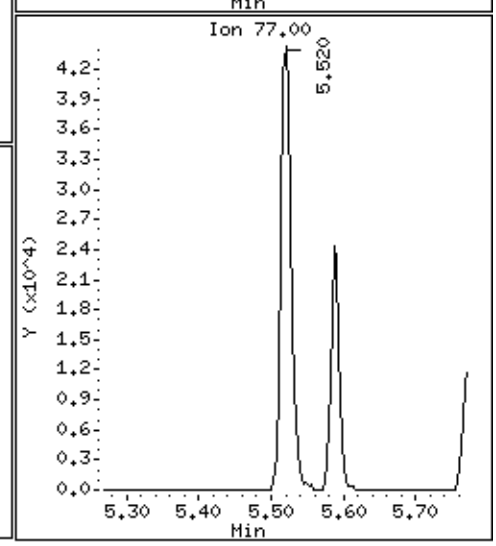












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

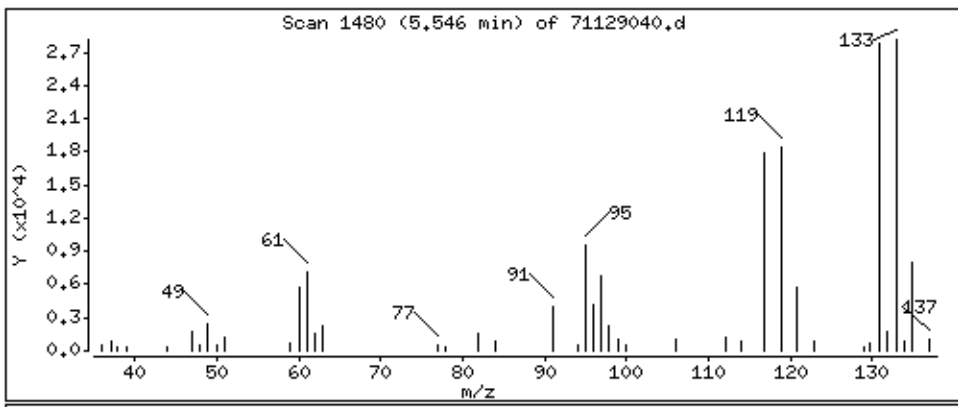
Column phase: RTX-VMS

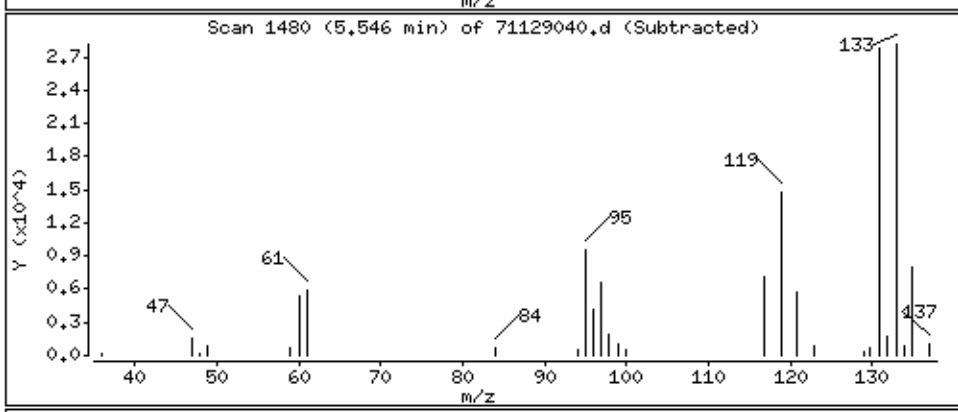
Column diameter: 0.18

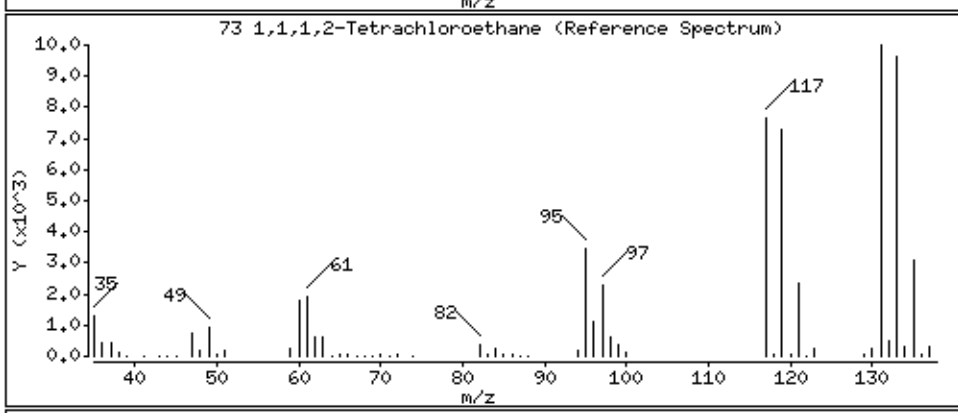
73 1,1,1,2-Tetrachloroethane

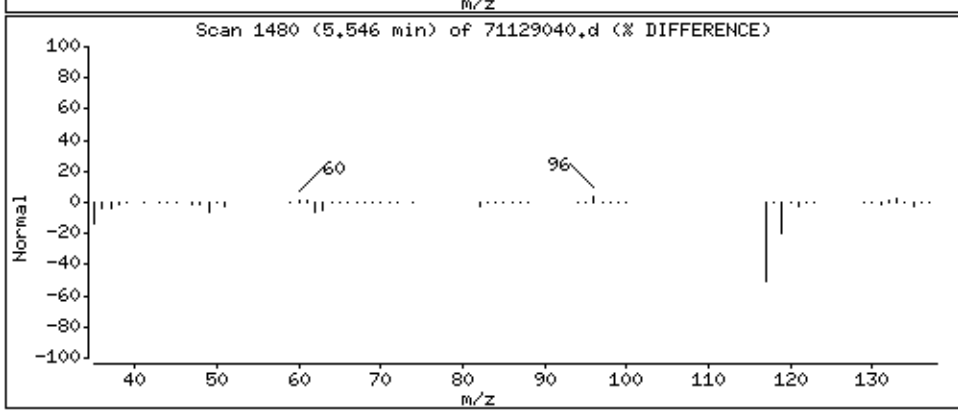
Concentration: 16.9 ug/L

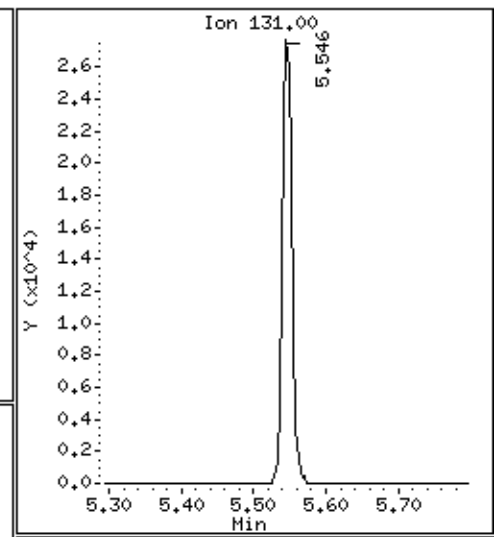
Review Code:

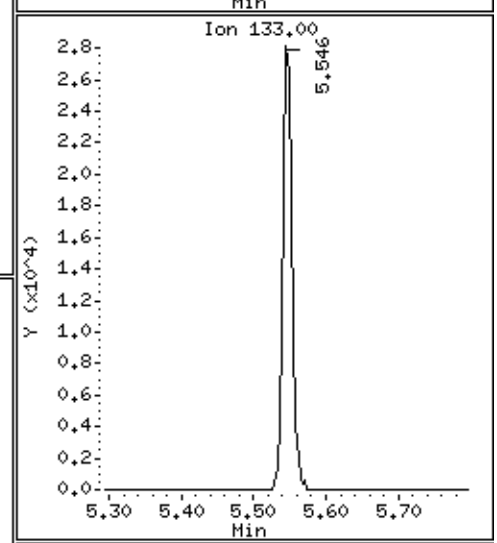


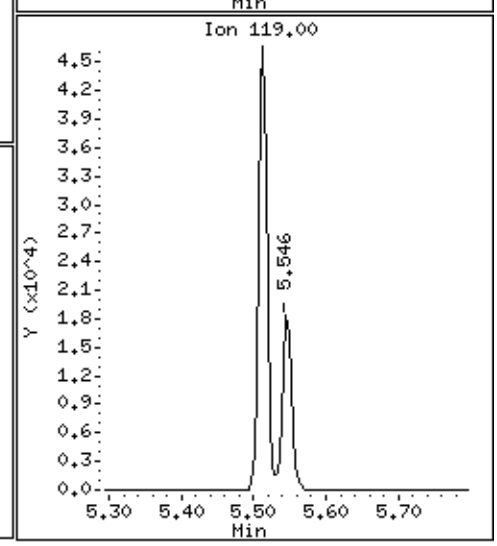












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

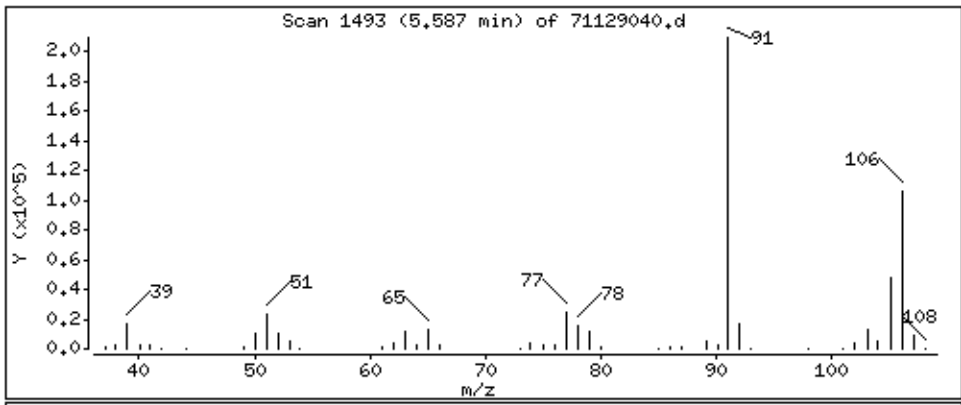
Column phase: RTX-VMS

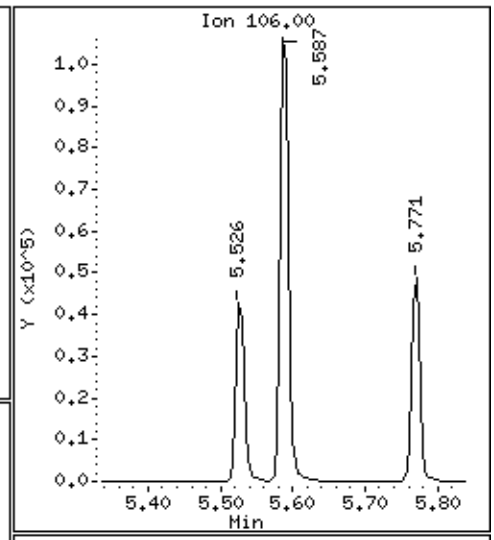
Column diameter: 0.18

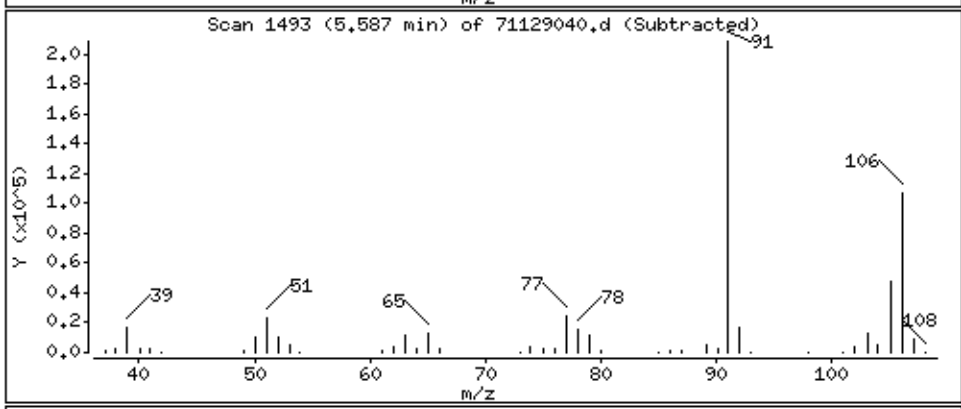
74 m&p-Xylene

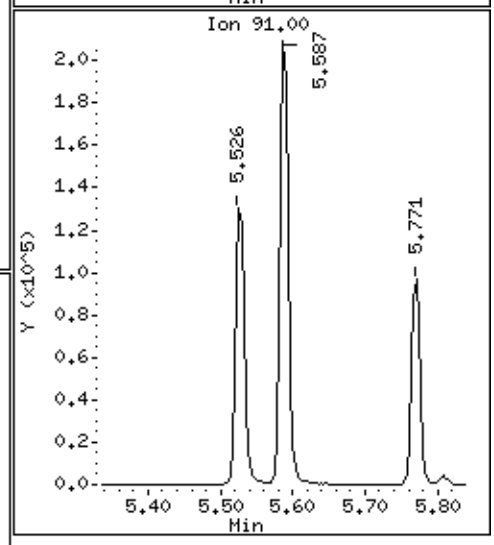
Concentration: 32.5 ug/L

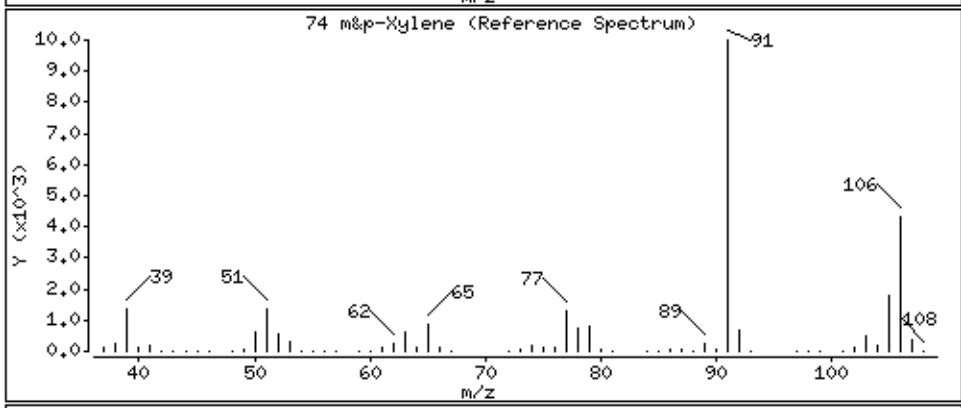
Review Code:

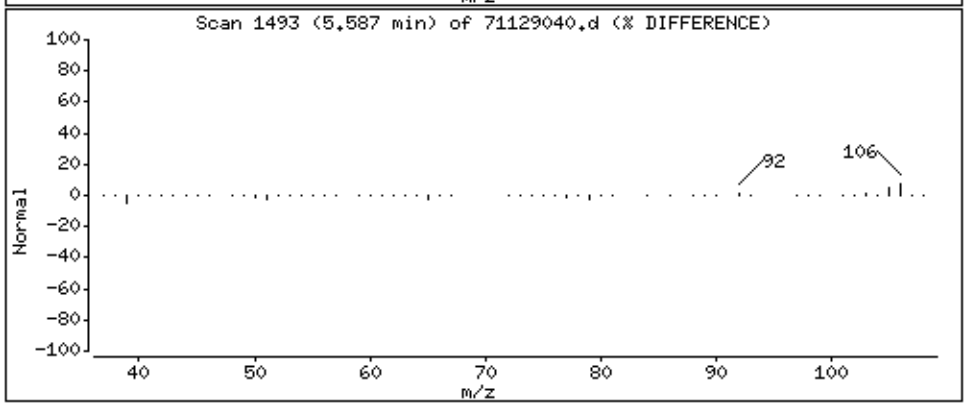












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

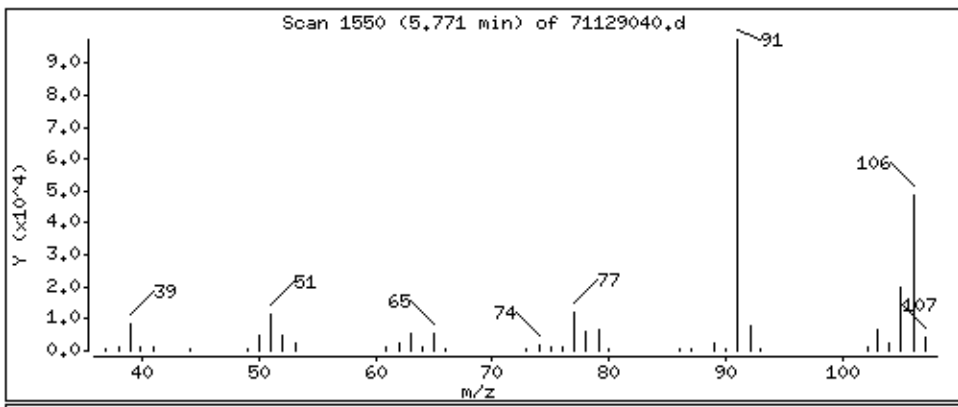
Column phase: RTX-VMS

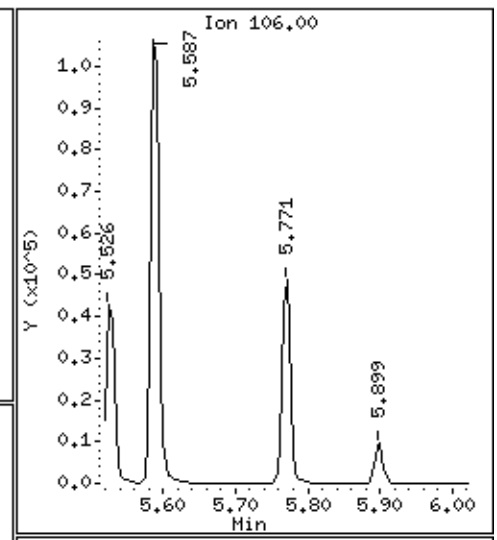
Column diameter: 0.18

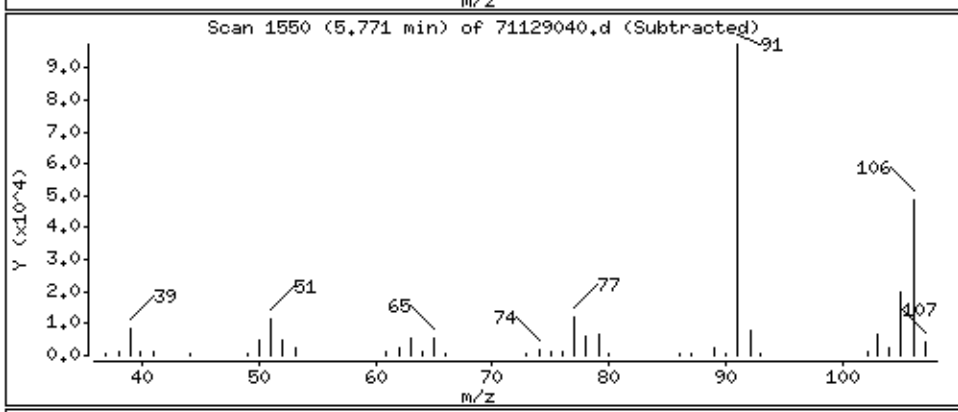
75 o-Xylene

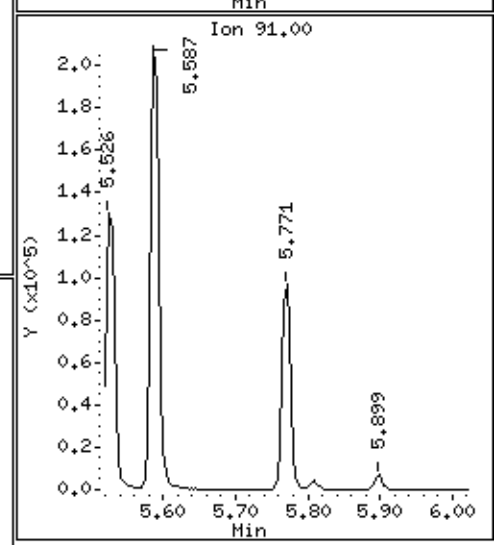
Concentration: 15.3 ug/L

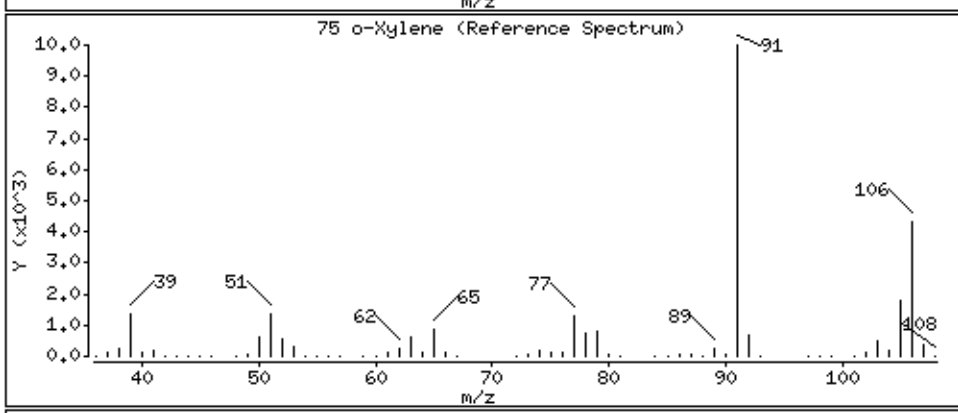
Review Code:

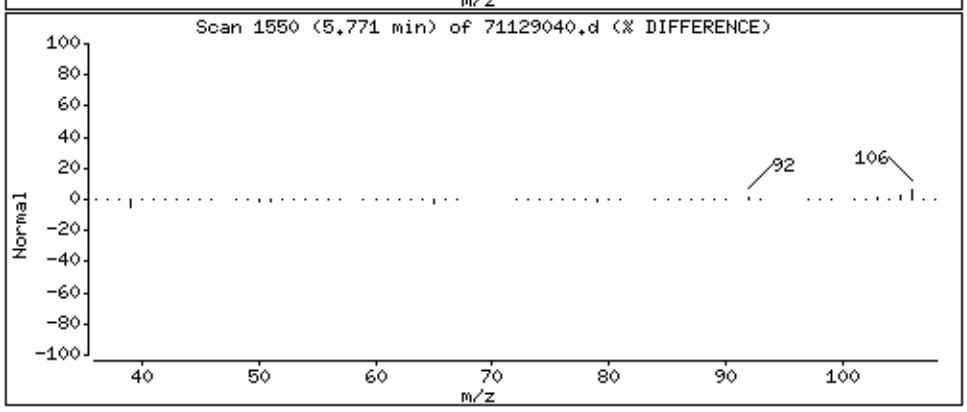












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

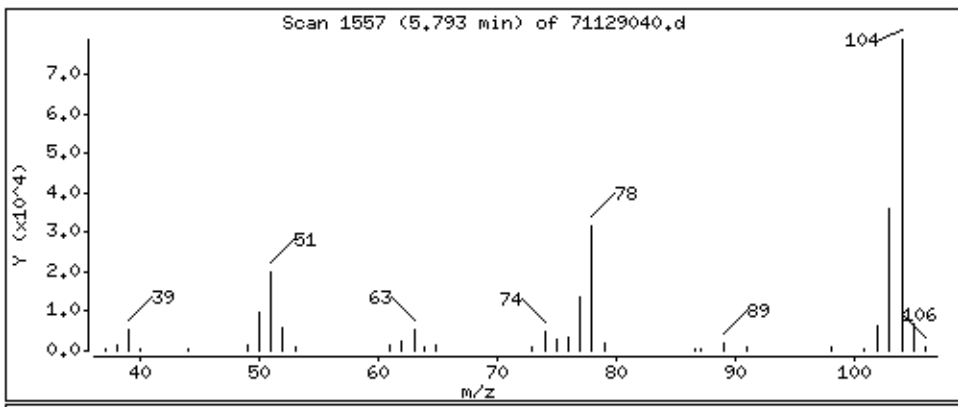
Column phase: RTX-VMS

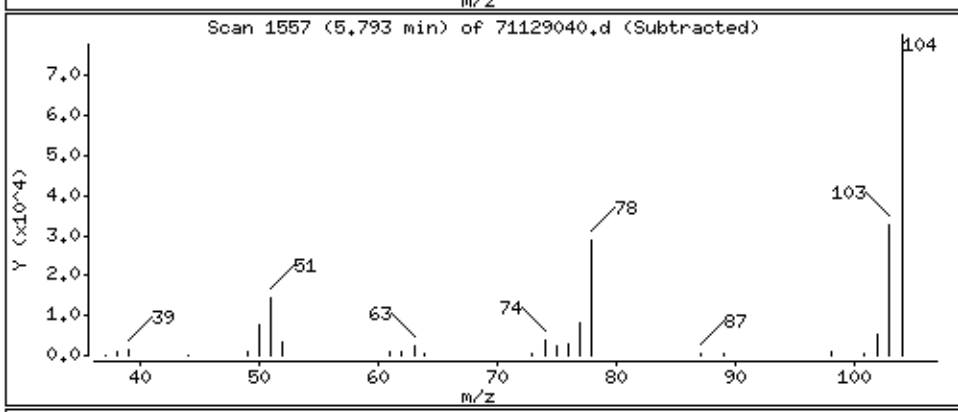
Column diameter: 0.18

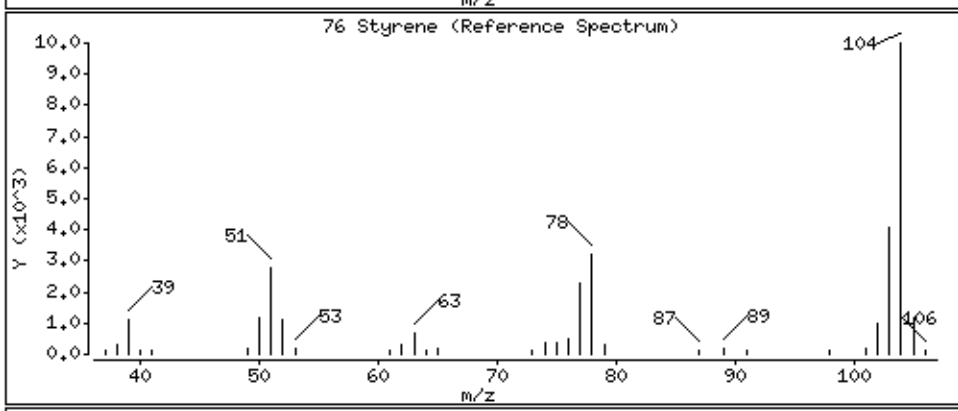
76 Styrene

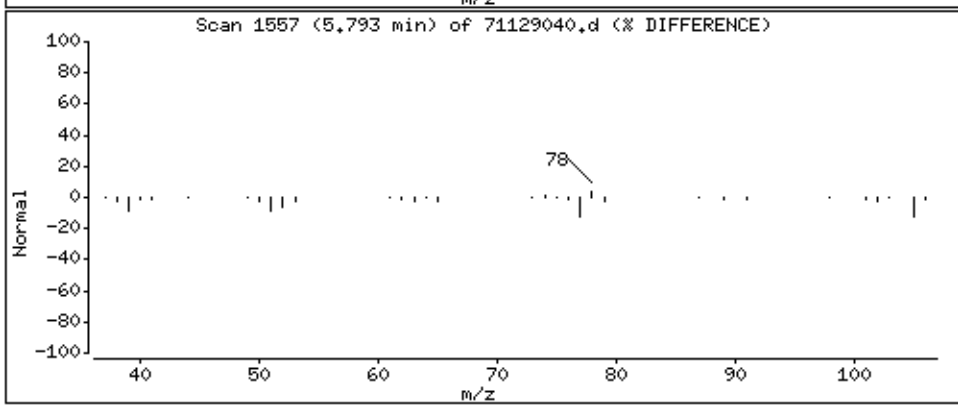
Concentration: 16.8 ug/L

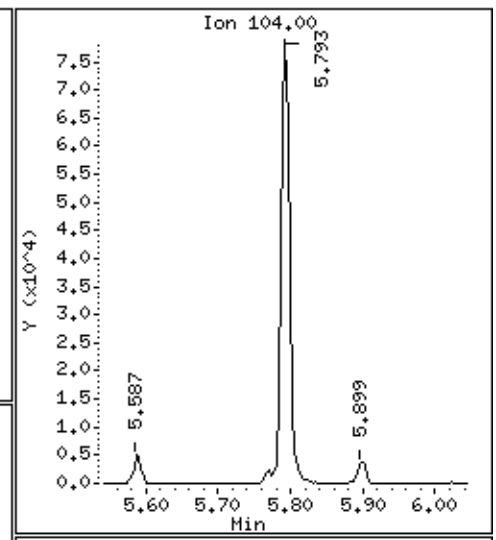
Review Code:

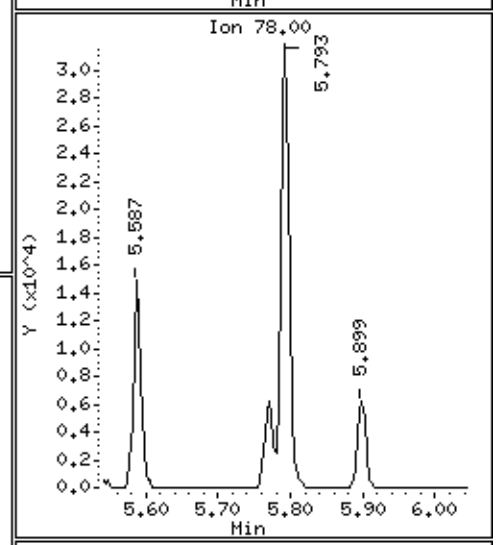


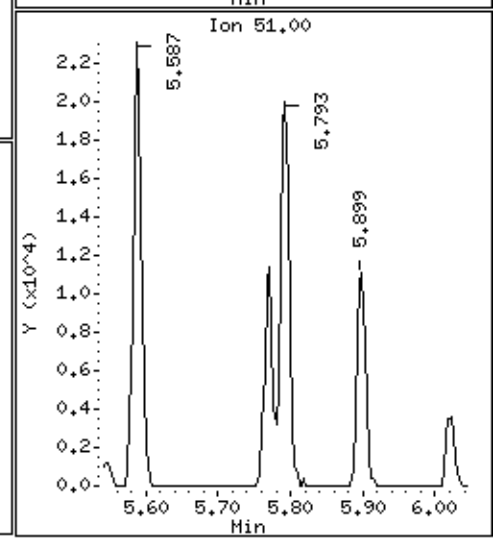












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

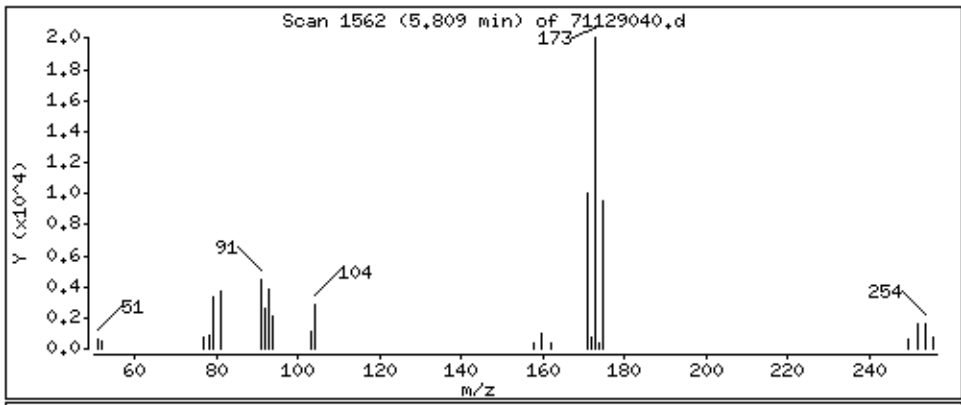
Column phase: RTX-VMS

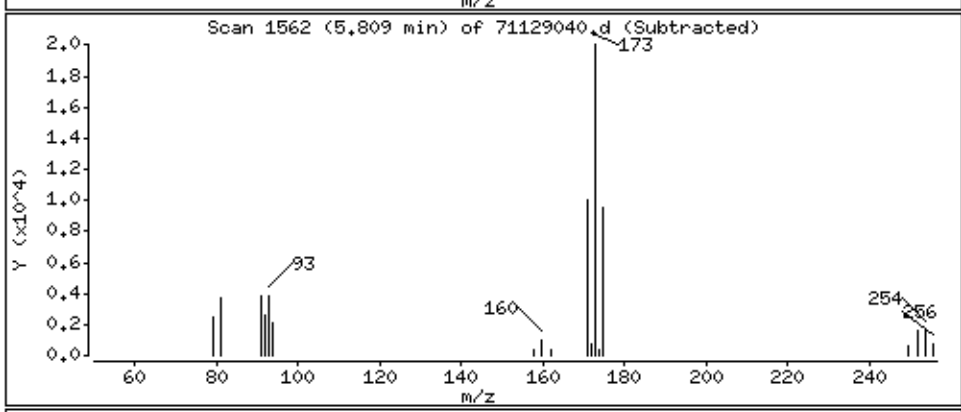
Column diameter: 0.18

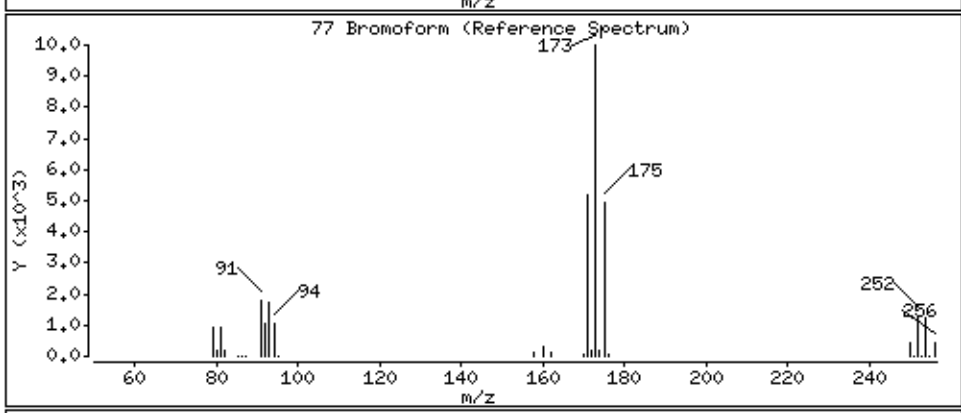
77 Bromoform

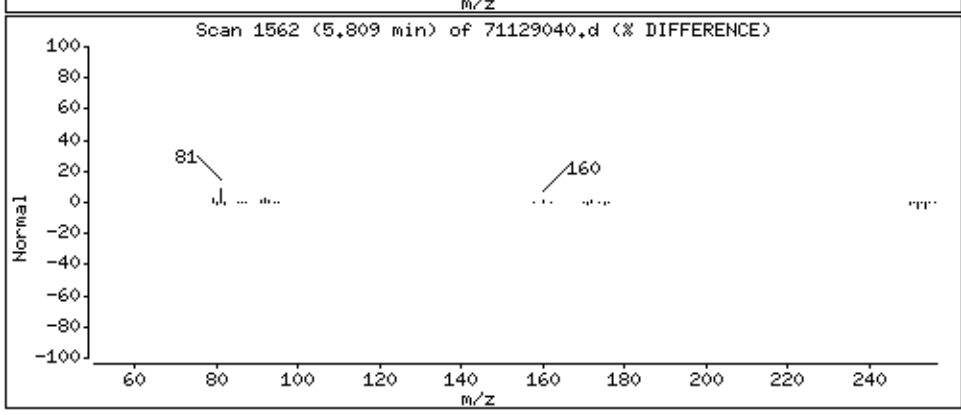
Concentration: 12.4 ug/L

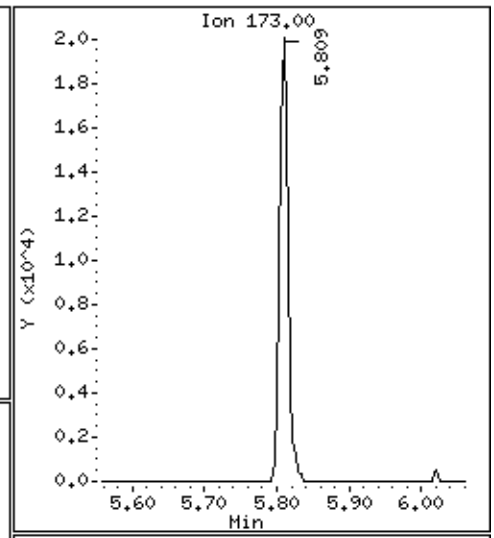
Review Code:

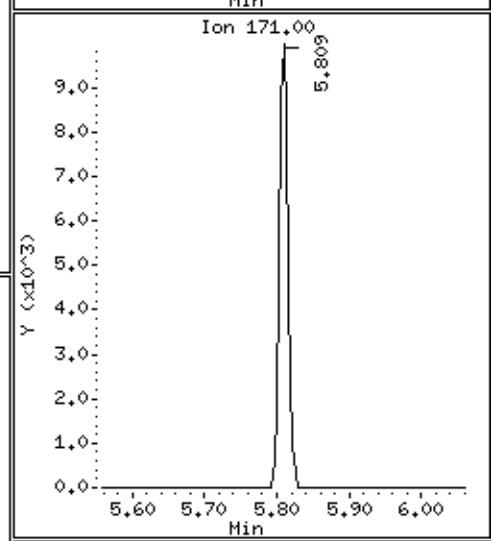


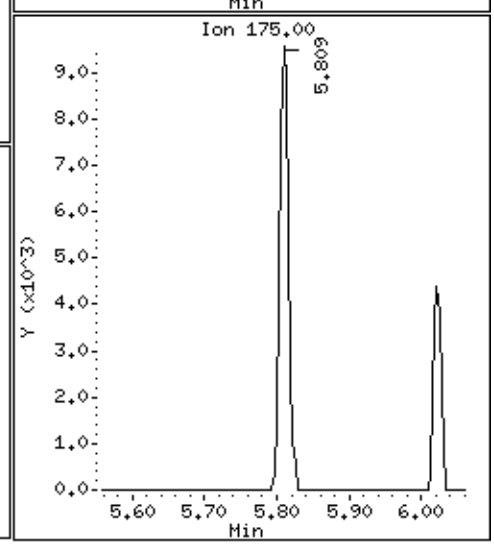












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

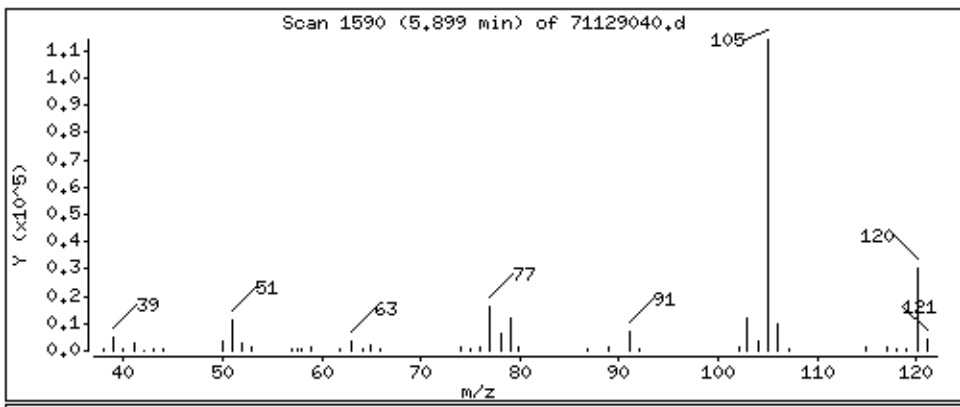
Column phase: RTX-VMS

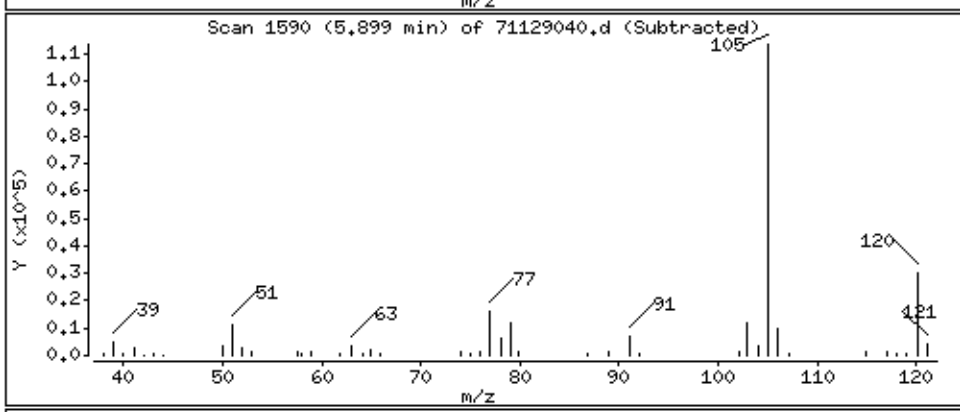
Column diameter: 0.18

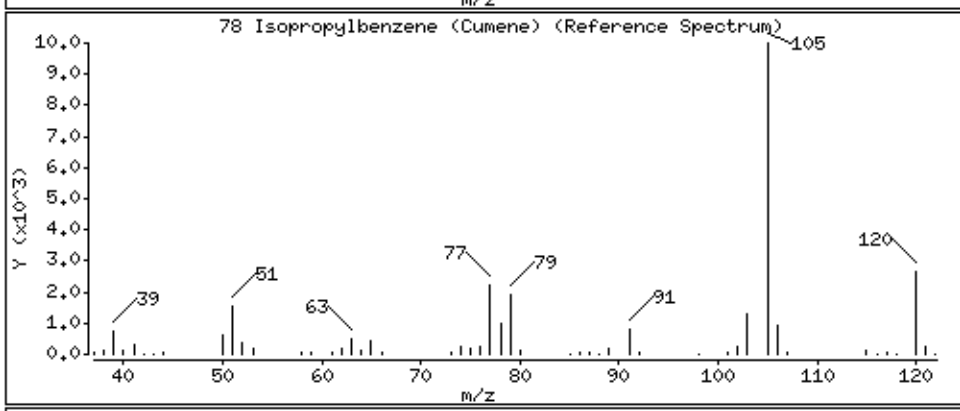
78 Isopropylbenzene (Cumene)

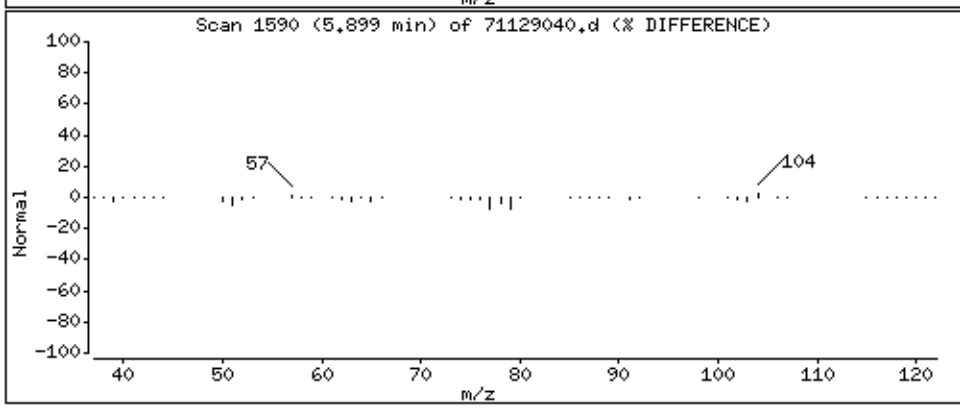
Concentration: 17.4 ug/L

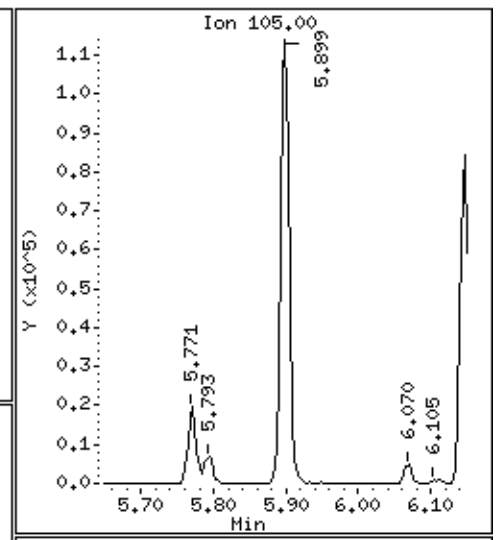
Review Code:

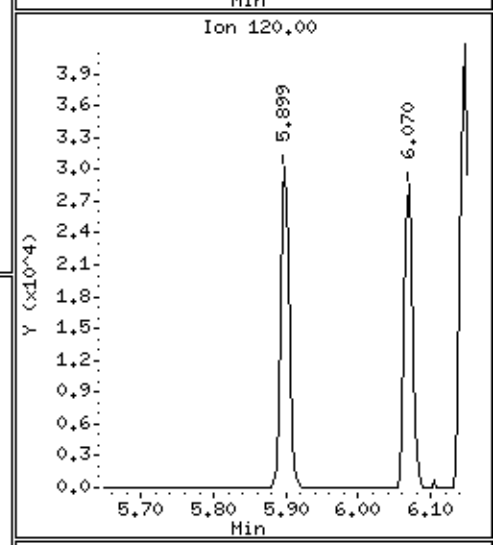


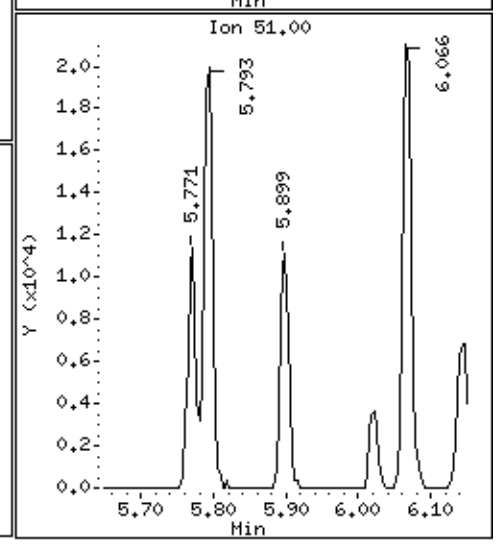












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

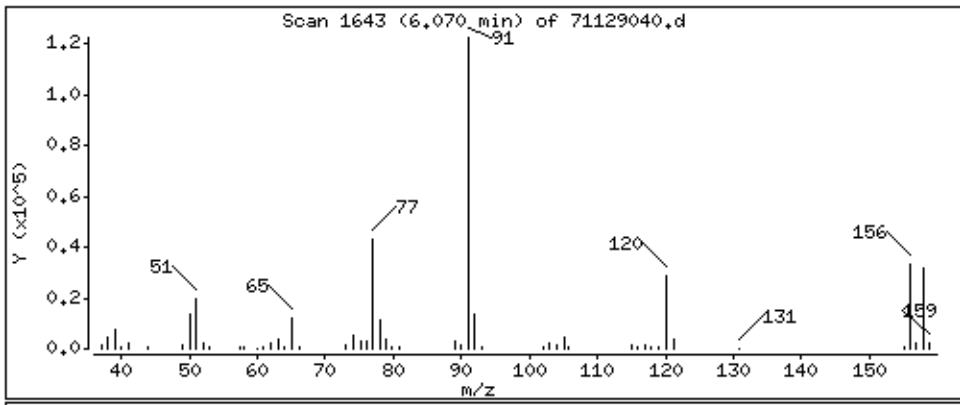
Column phase: RTX-VMS

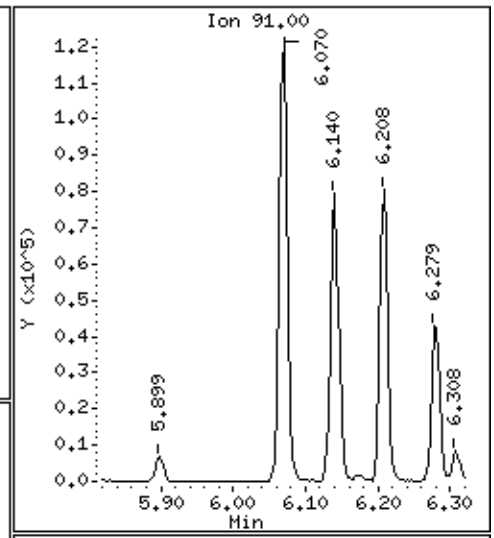
Column diameter: 0.18

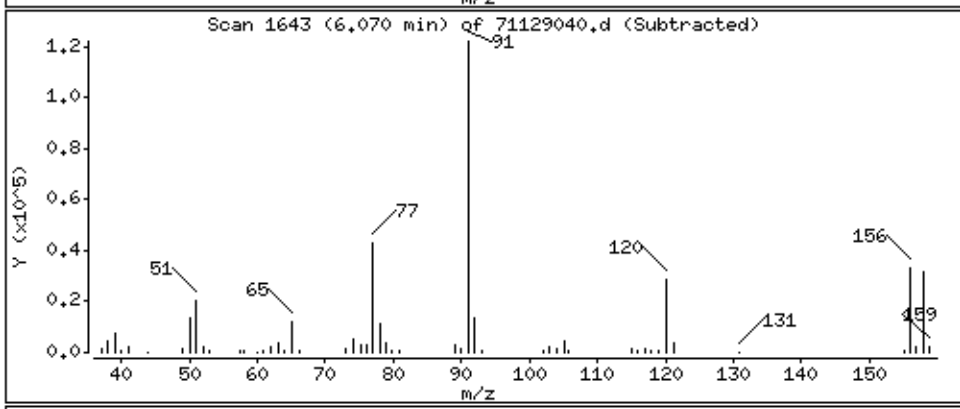
80 n-Propylbenzene

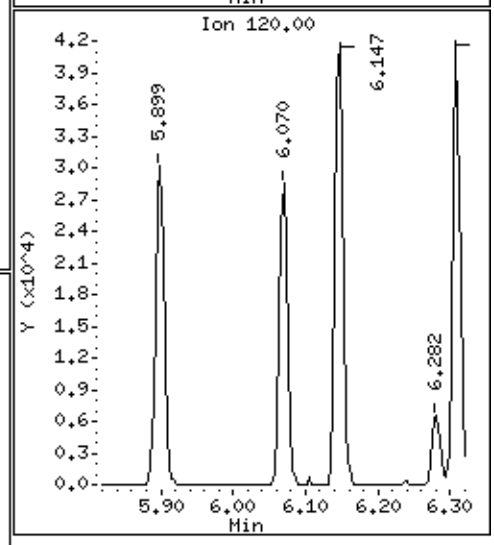
Concentration: 15.8 ug/L

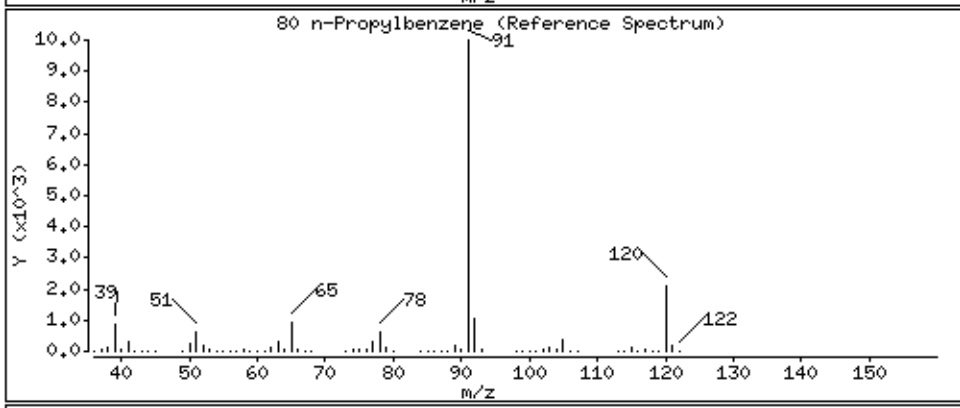
Review Code:

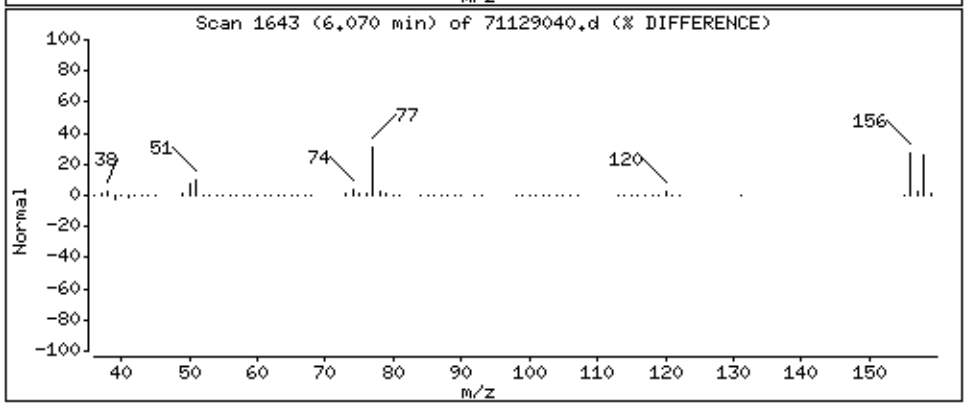












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

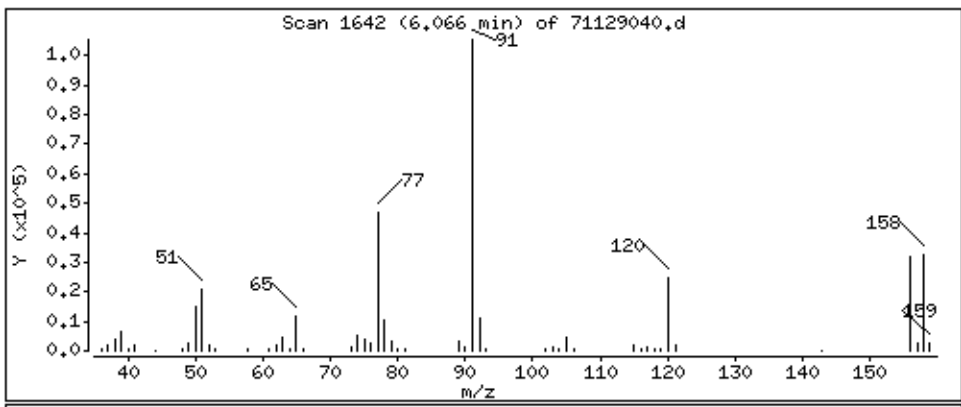
Column phase: RTX-VMS

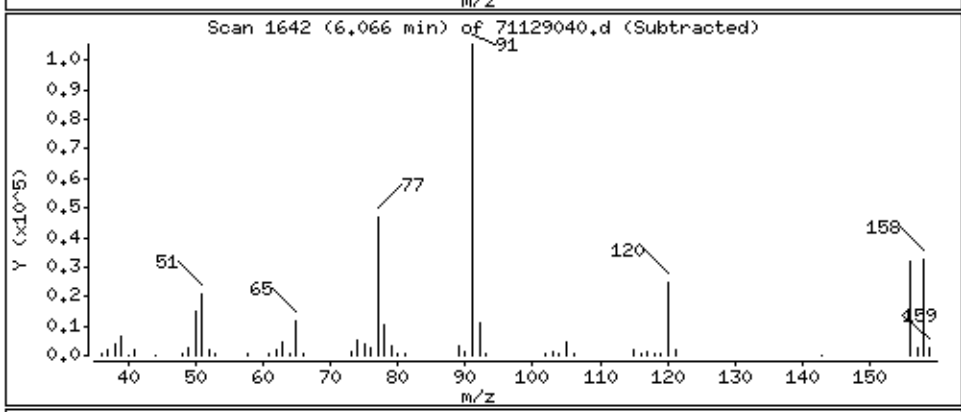
Column diameter: 0.18

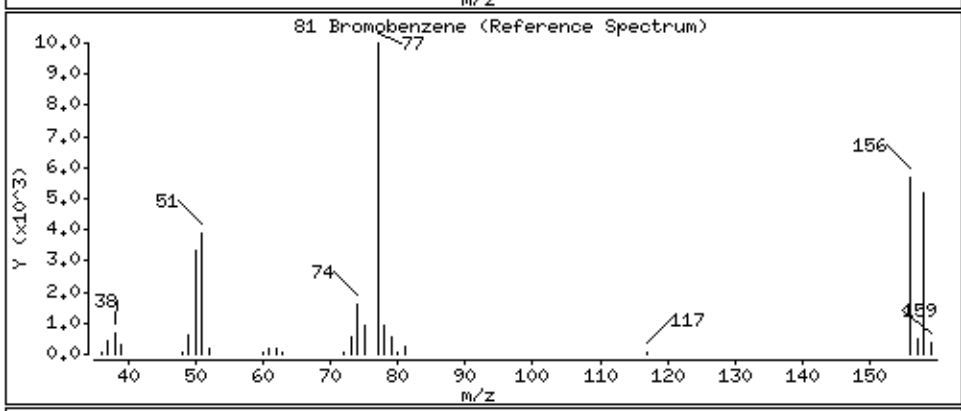
81 Bromobenzene

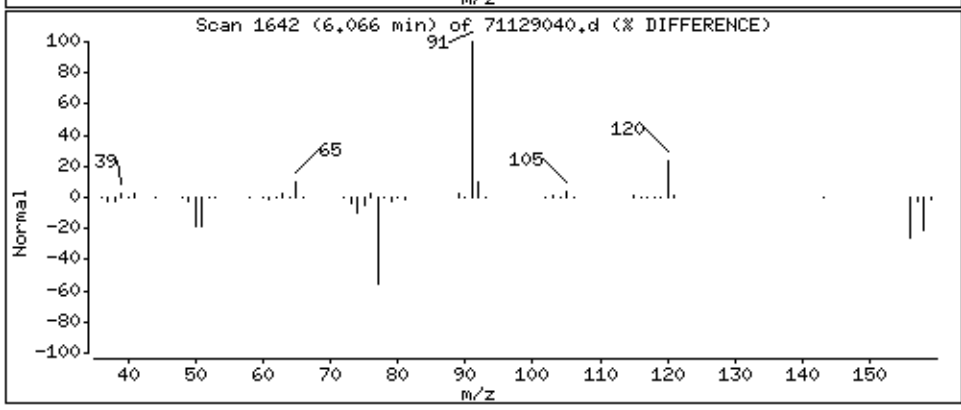
Concentration: 14.2 ug/L

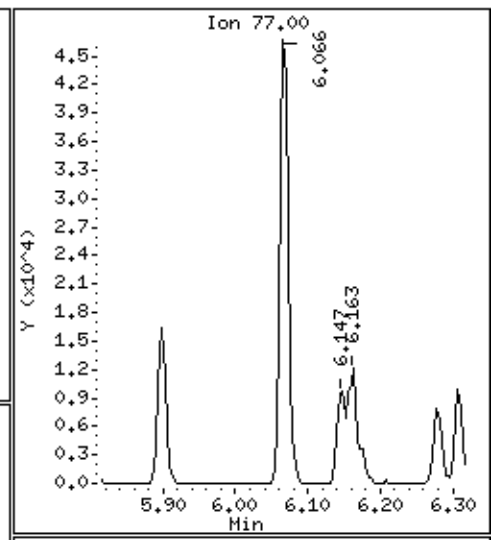
Review Code:

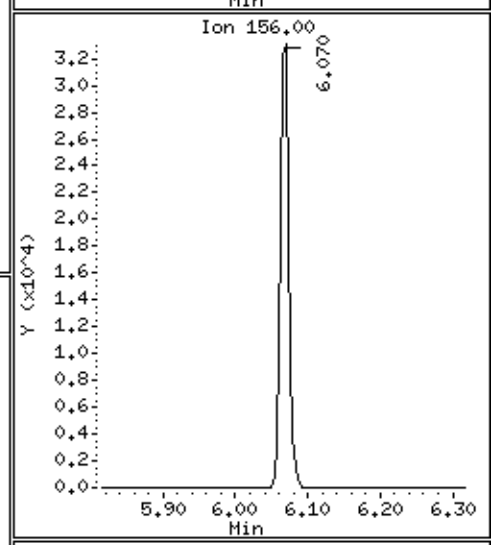


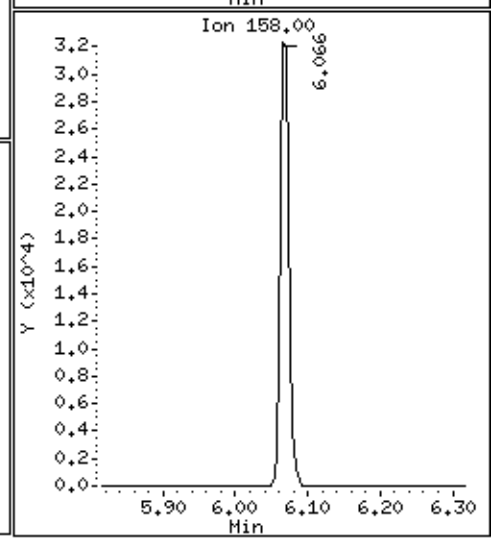












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

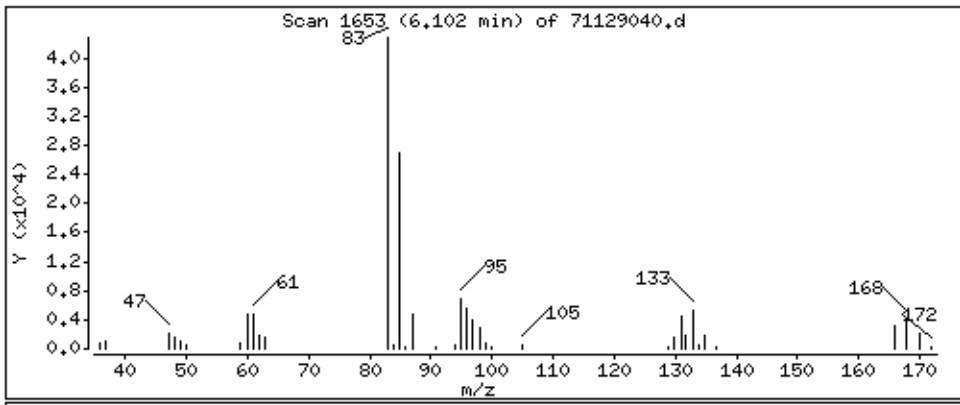
Column phase: RTX-VMS

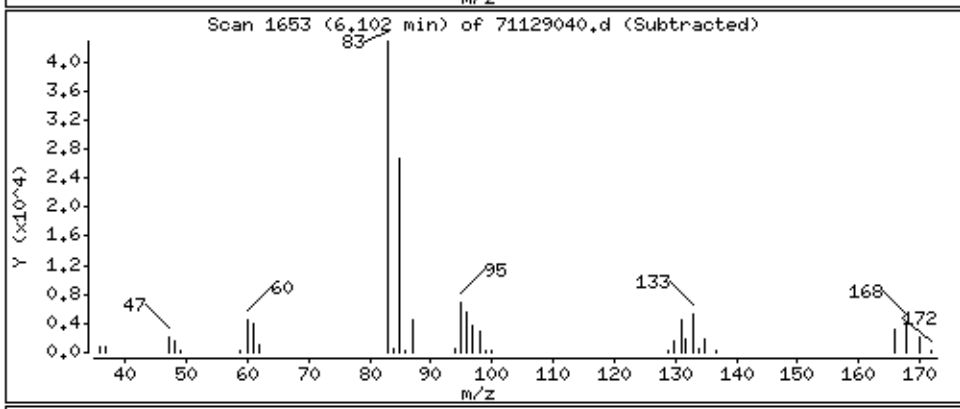
Column diameter: 0.18

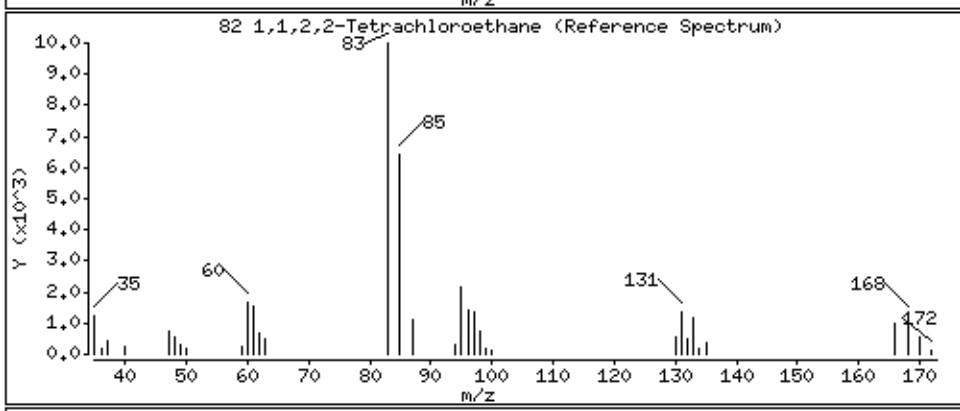
82 1,1,2,2-Tetrachloroethane

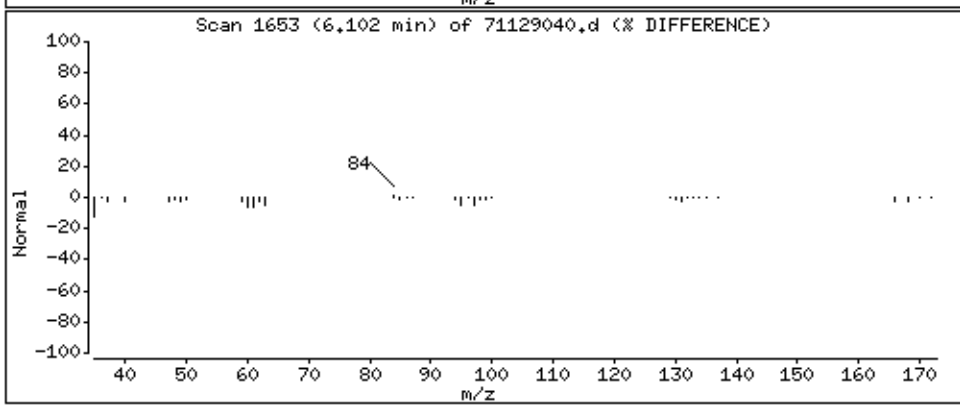
Concentration: 15.2 ug/L

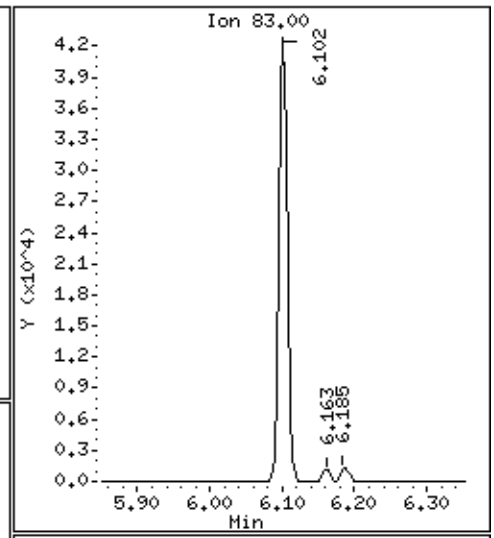
Review Code:

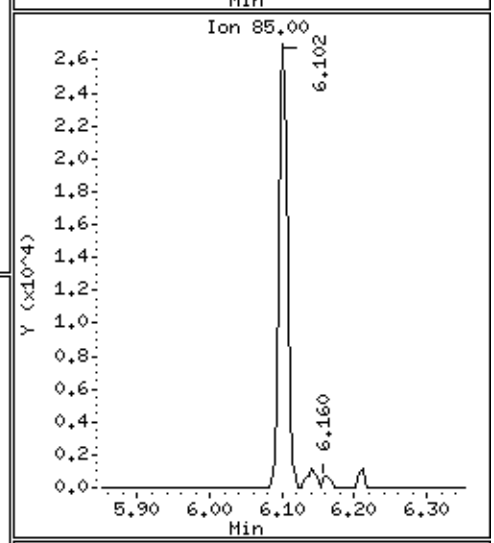


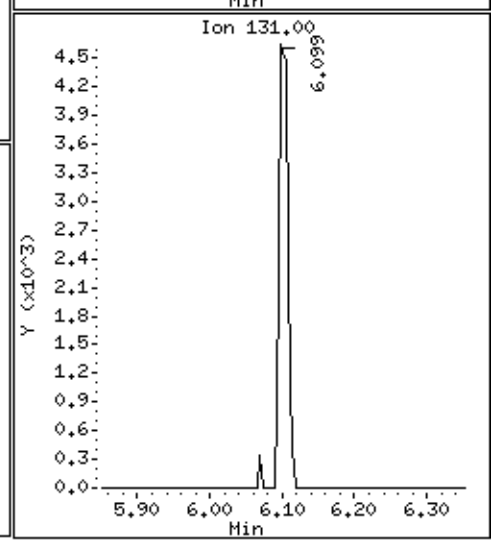












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

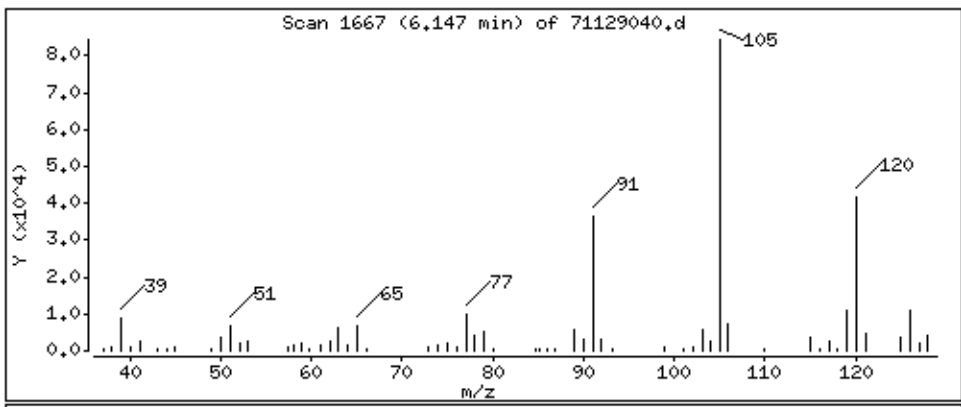
Column phase: RTX-VMS

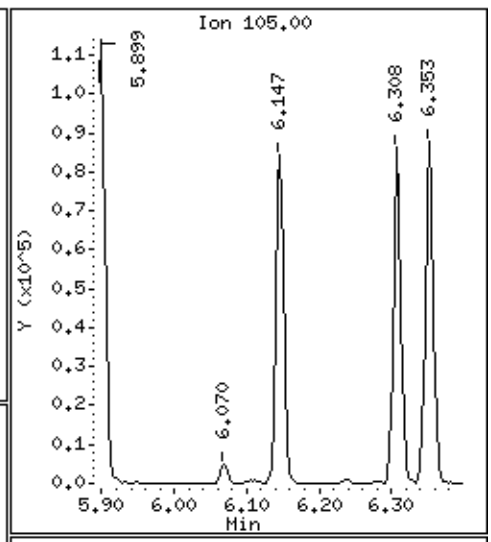
Column diameter: 0.18

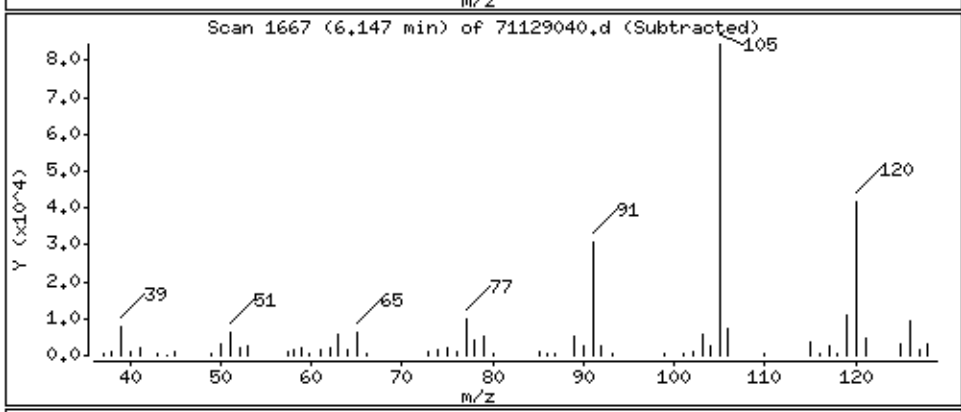
83 1,3,5-Trimethylbenzene

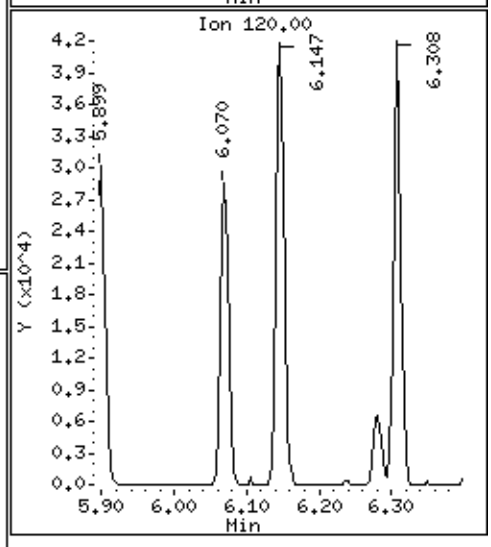
Concentration: 15.3 ug/L

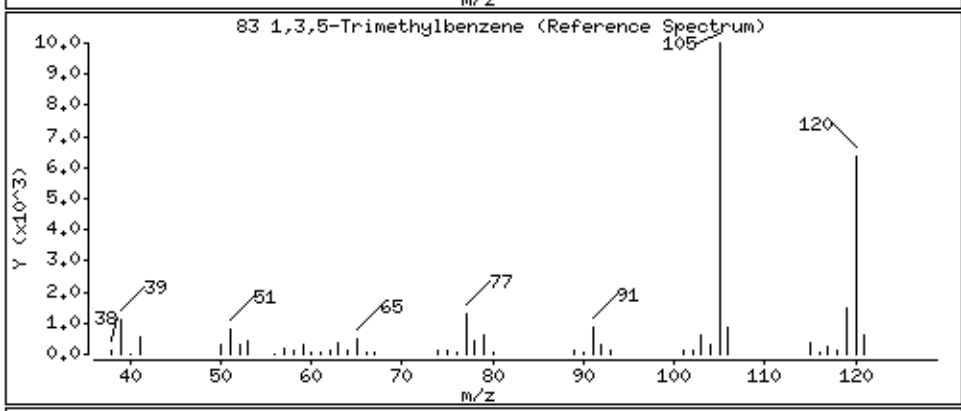
Review Code:

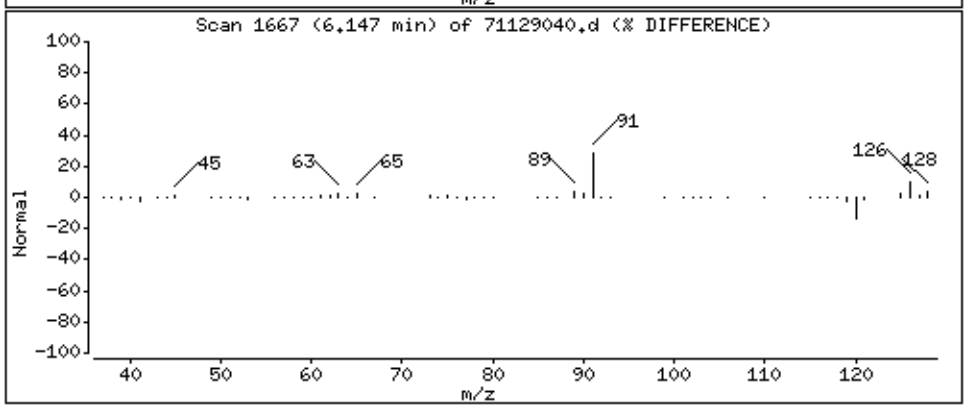












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

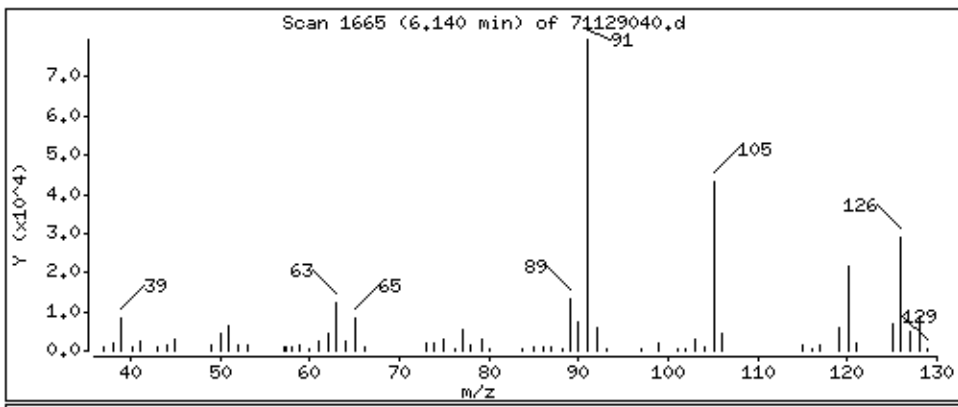
Column phase: RTX-VMS

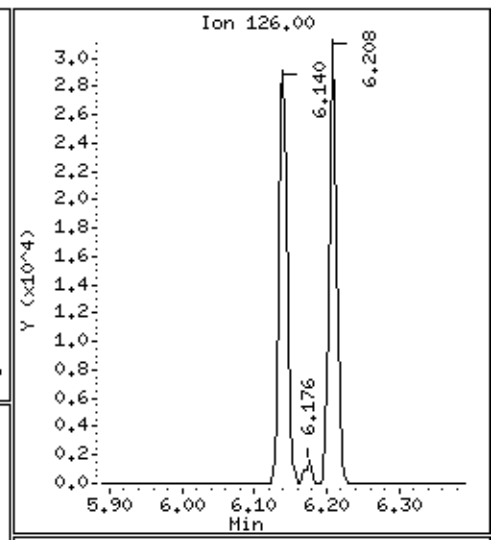
Column diameter: 0.18

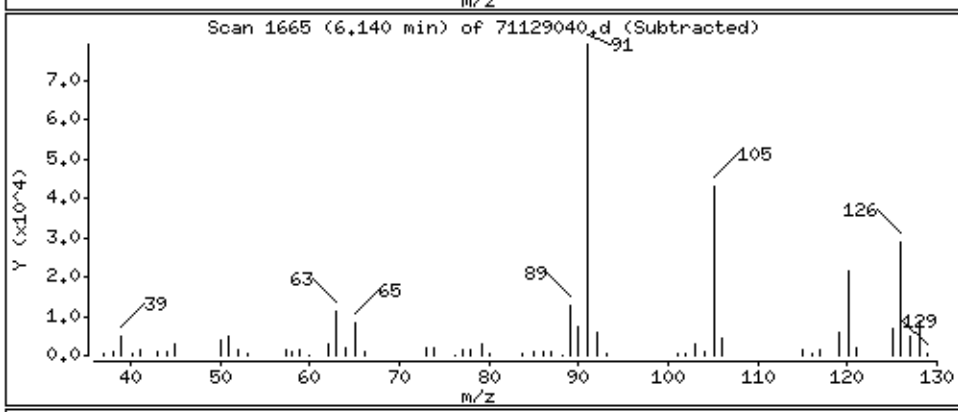
84 2-Chlorotoluene

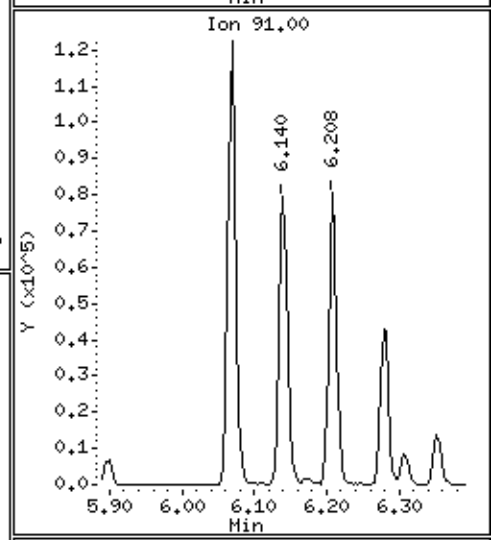
Concentration: 16.2 ug/L

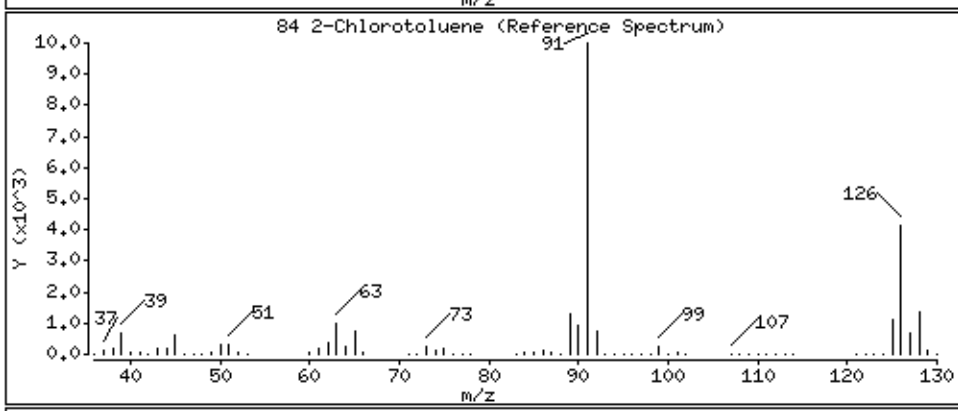
Review Code:

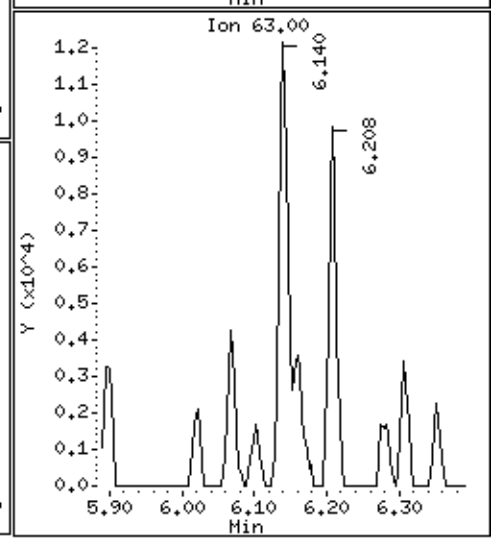


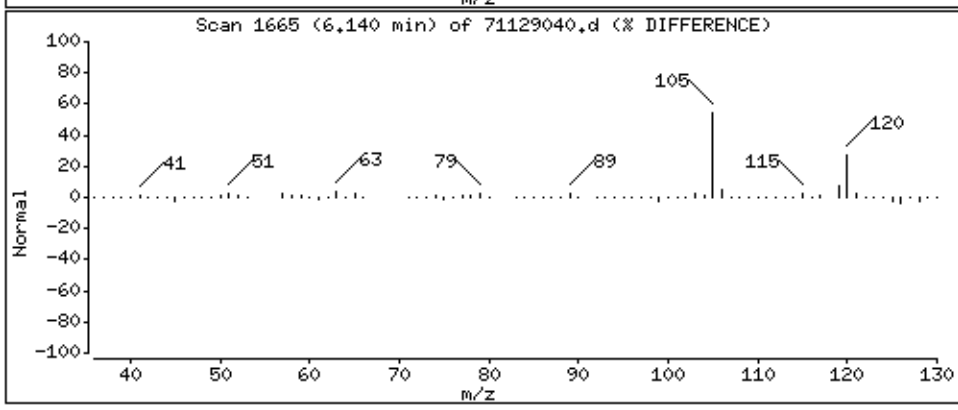












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

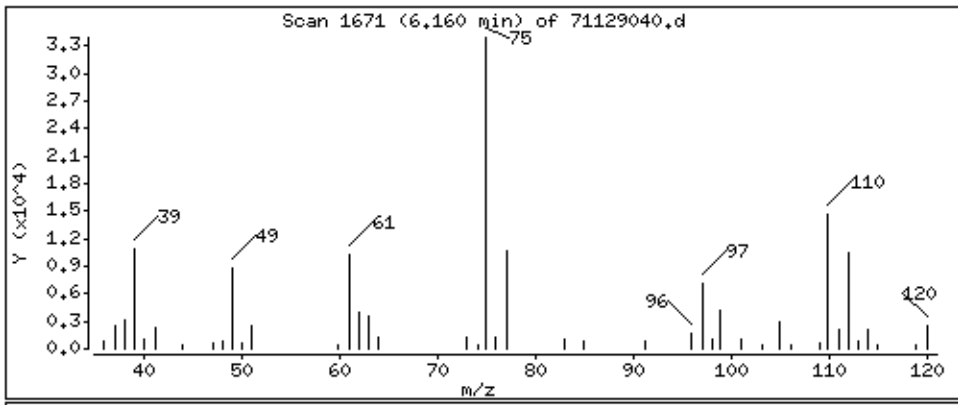
Column phase: RTX-VMS

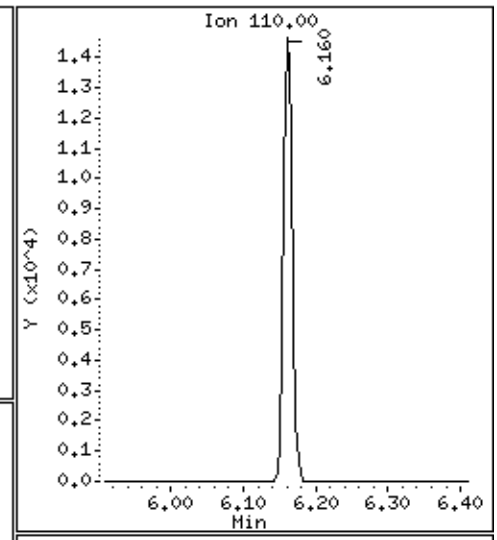
Column diameter: 0.18

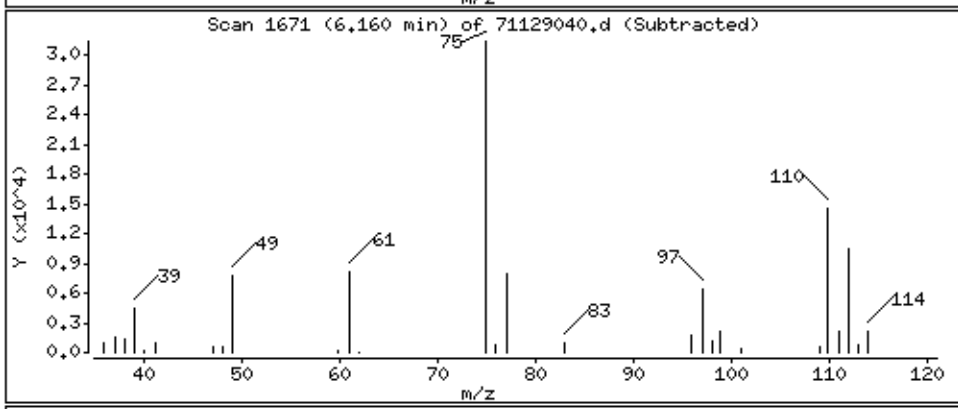
85 1,2,3-Trichloropropane

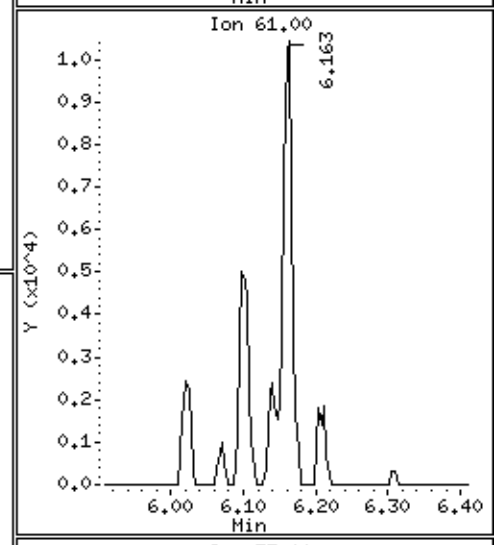
Concentration: 15.6 ug/L

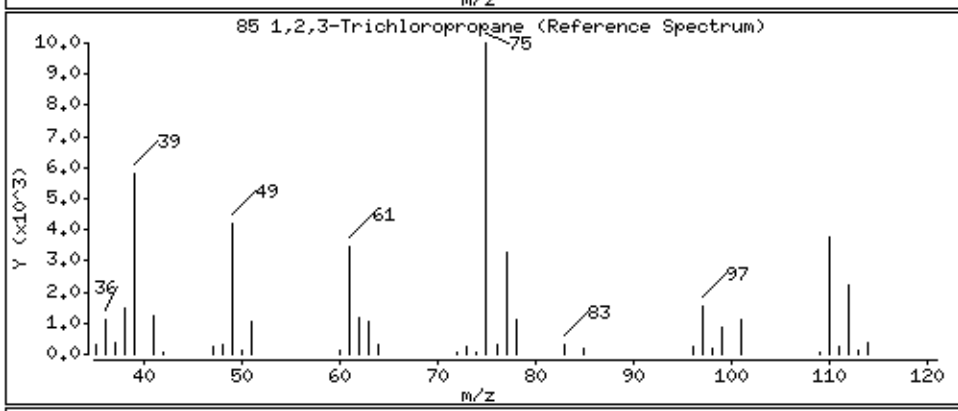
Review Code:

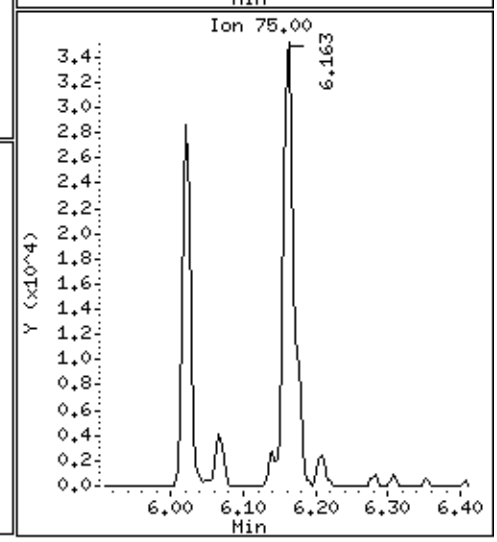


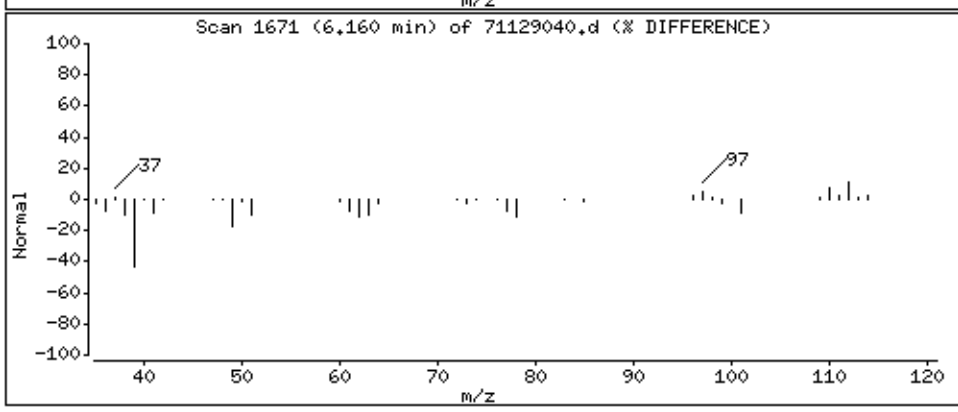












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

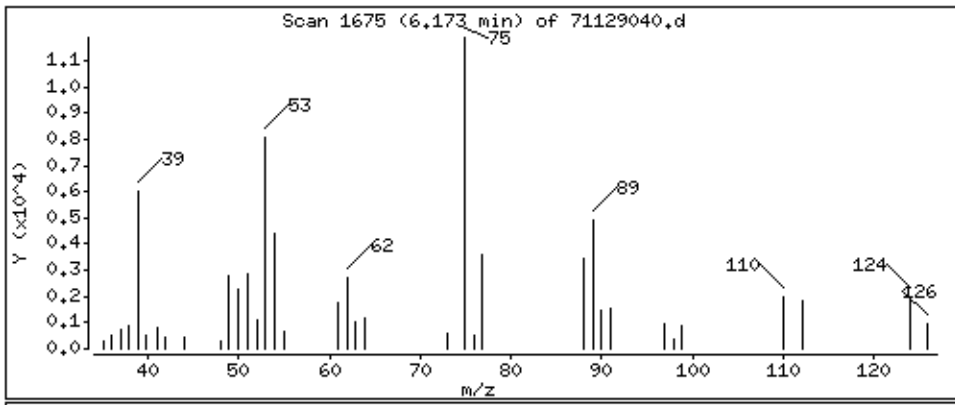
Column phase: RTX-VMS

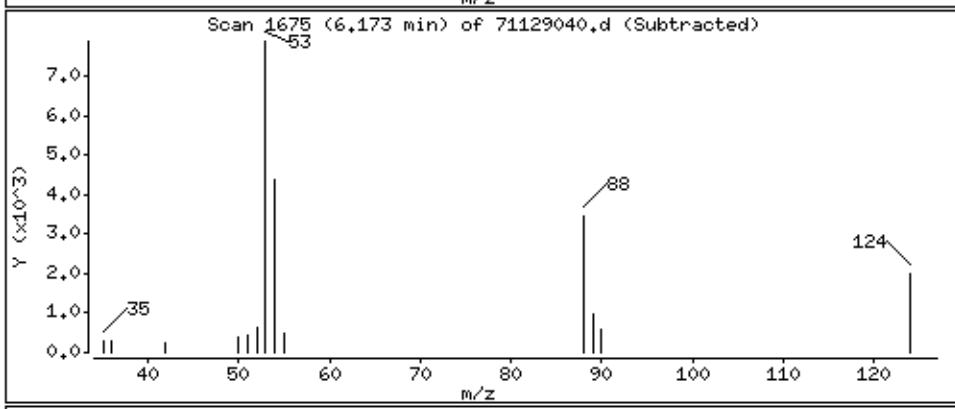
Column diameter: 0.18

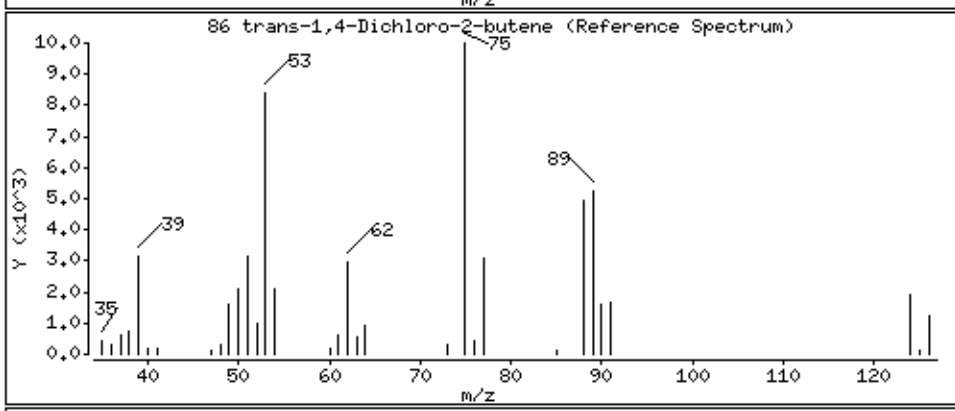
86 trans-1,4-Dichloro-2-butene

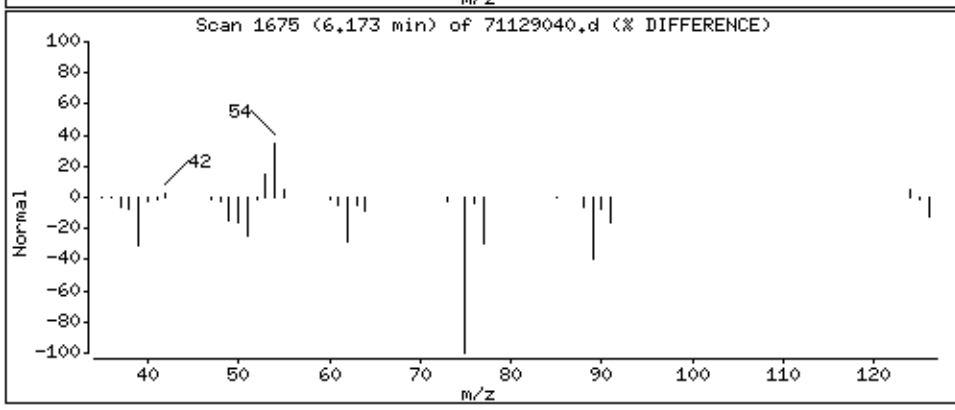
Concentration: 9.63 ug/L

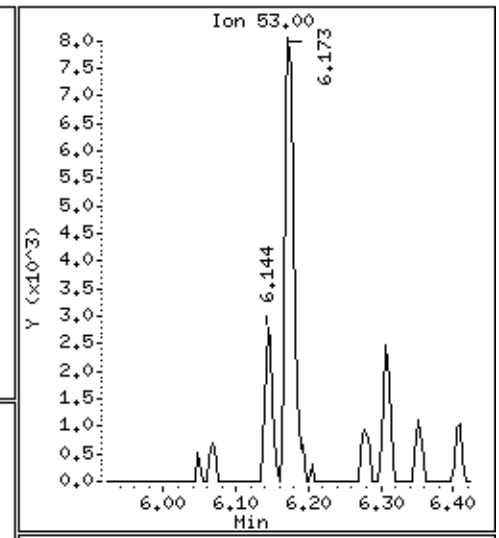
Review Code:

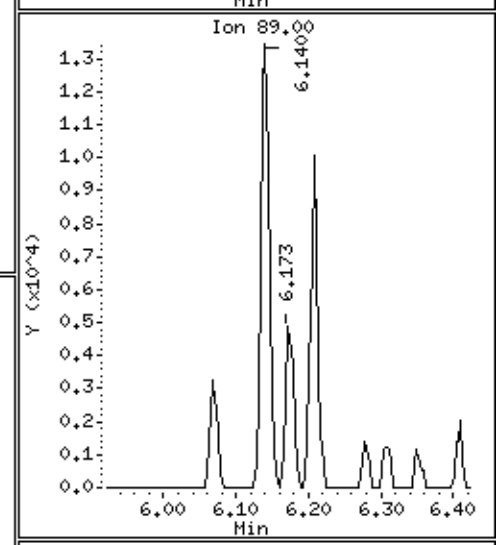


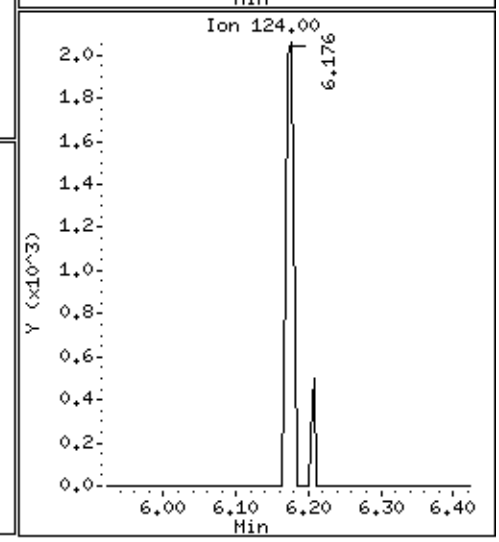












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

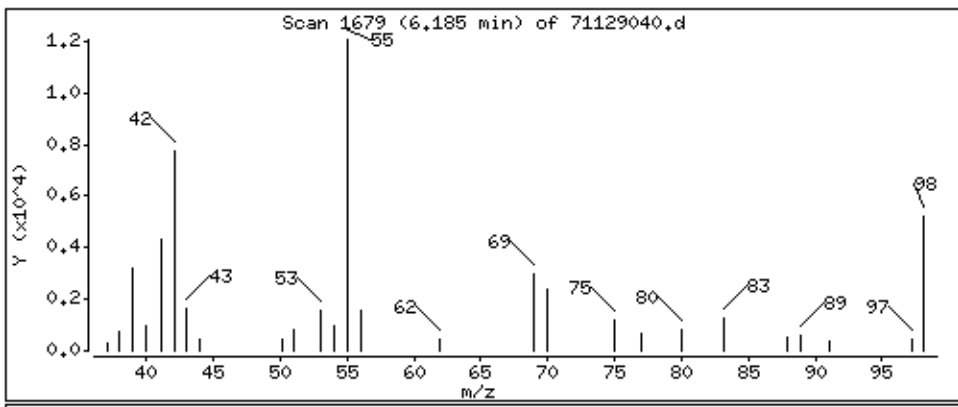
Column phase: RTX-VMS

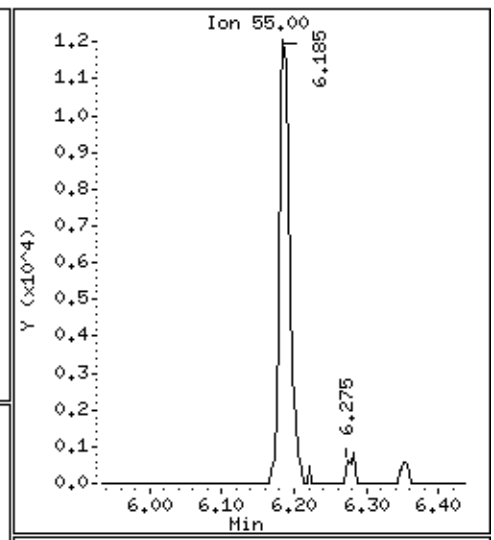
Column diameter: 0.18

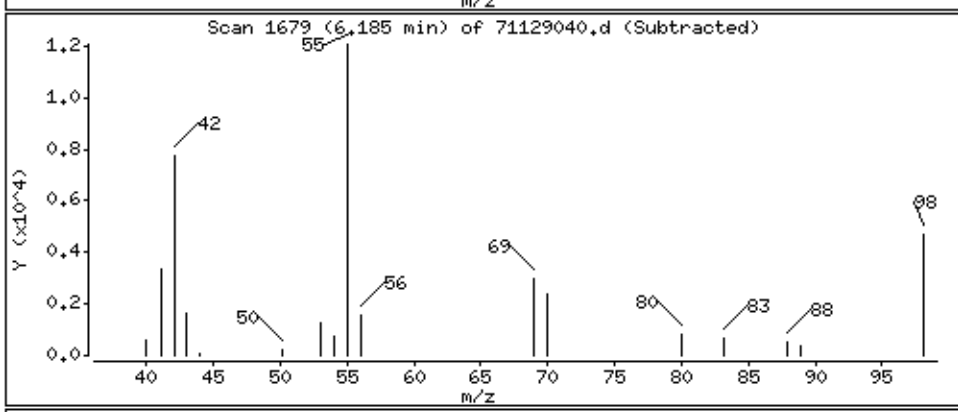
87 Cyclohexanone

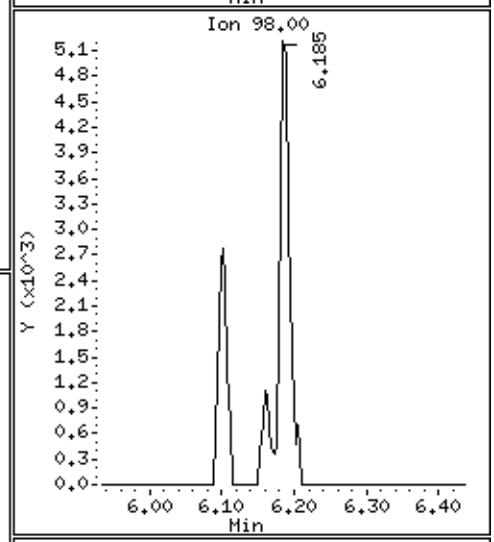
Concentration: 54.8 ug/L

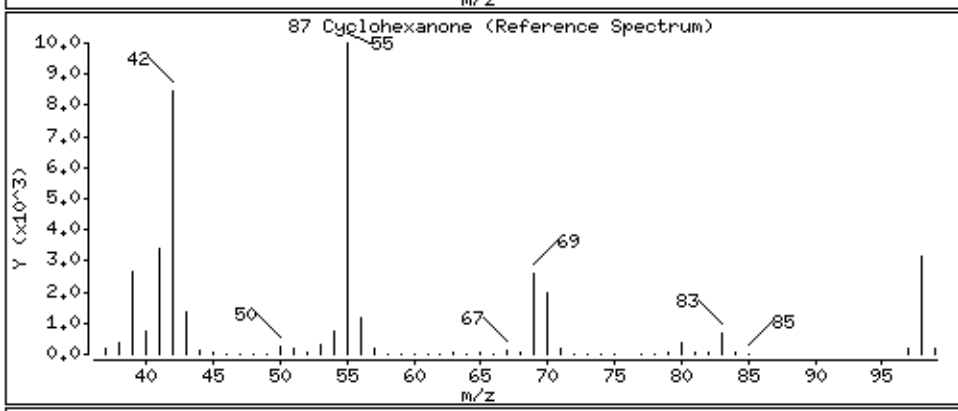
Review Code:

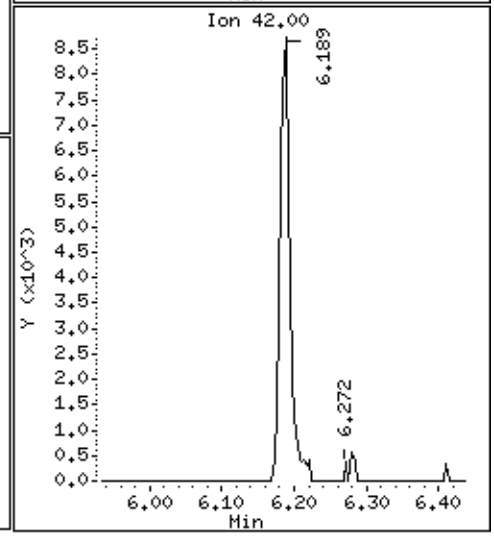


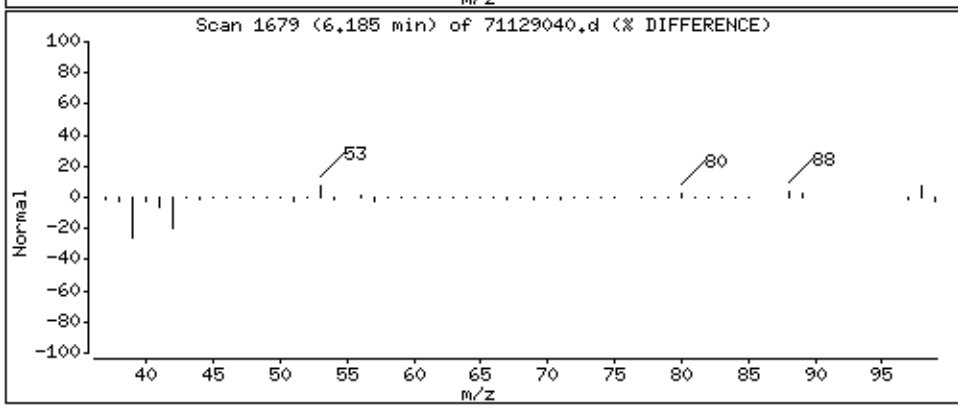












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

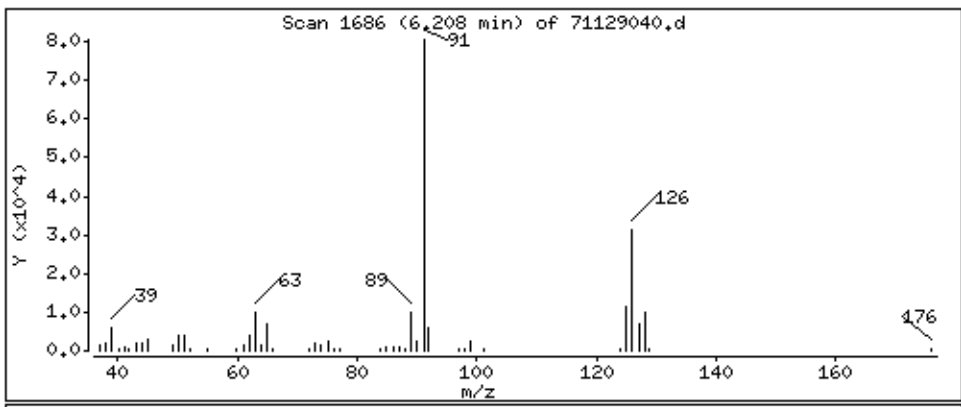
Column phase: RTX-VMS

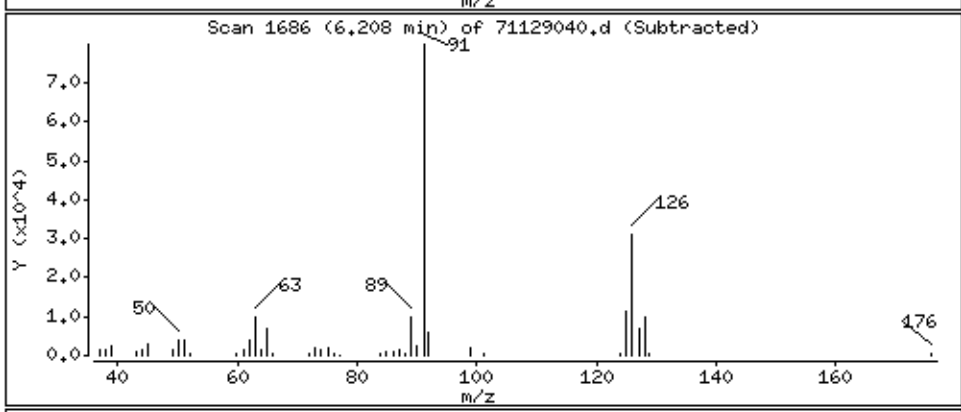
Column diameter: 0.18

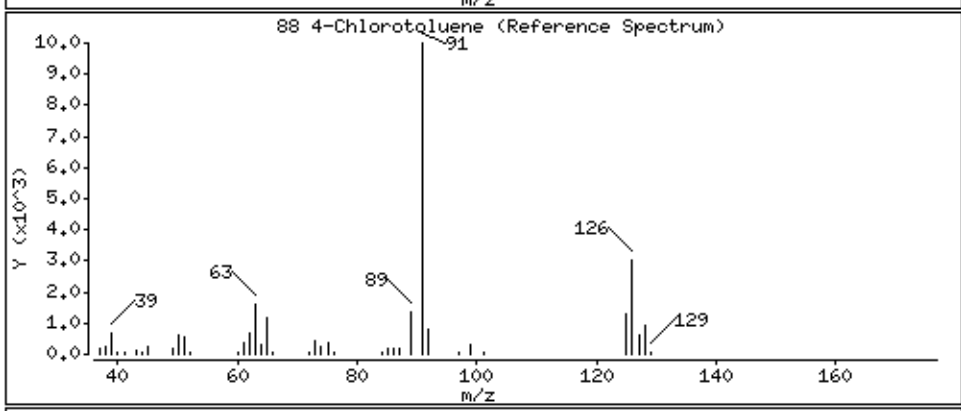
88 4-Chlorotoluene

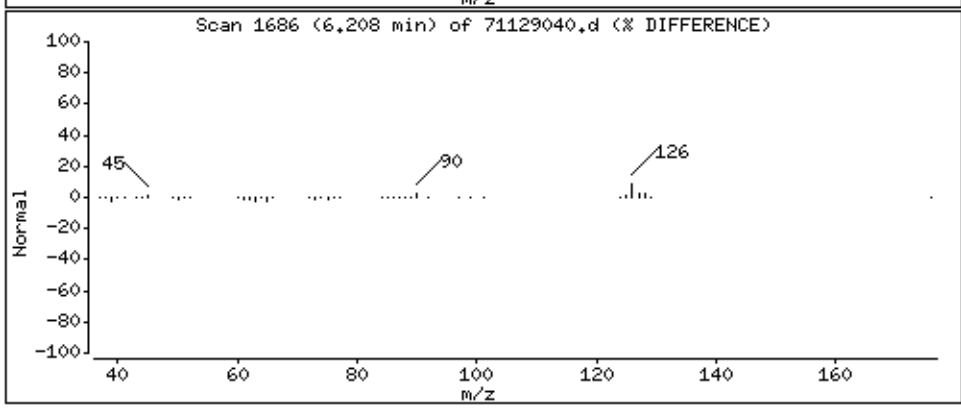
Concentration: 15.6 ug/L

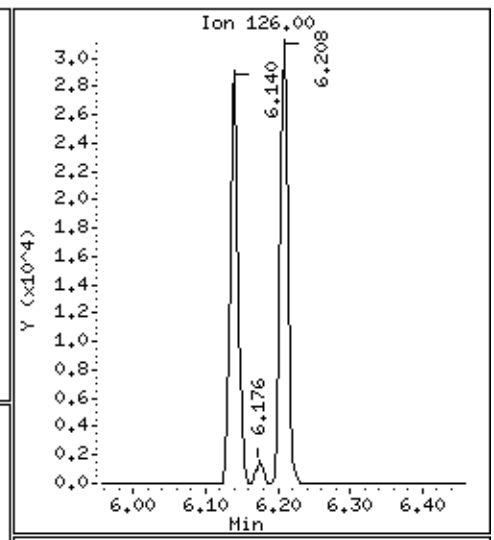
Review Code:

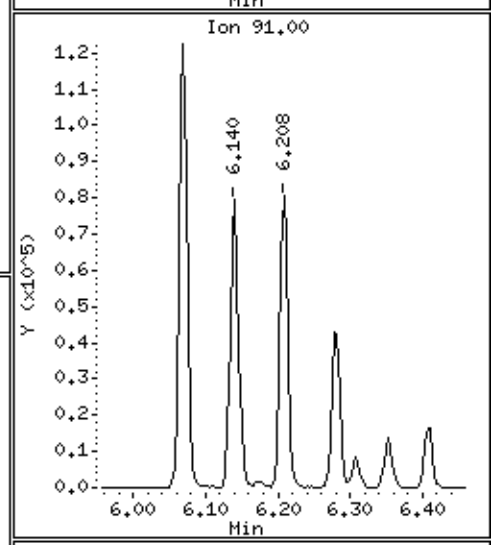


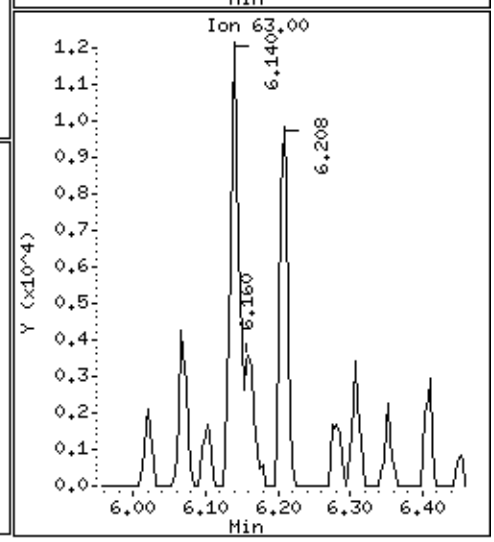












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

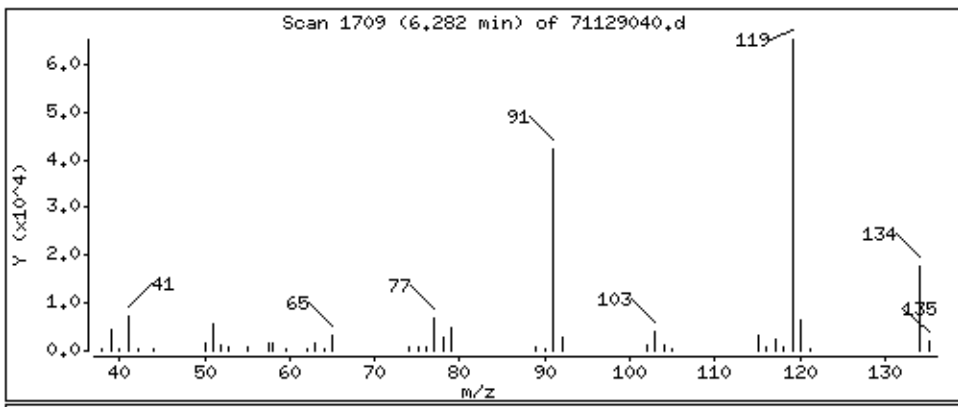
Column phase: RTX-VMS

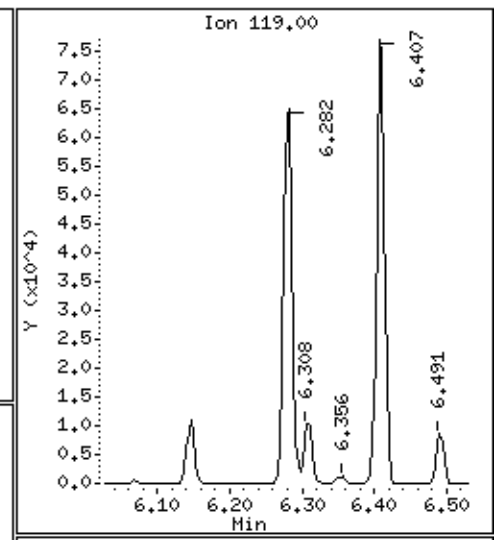
Column diameter: 0.18

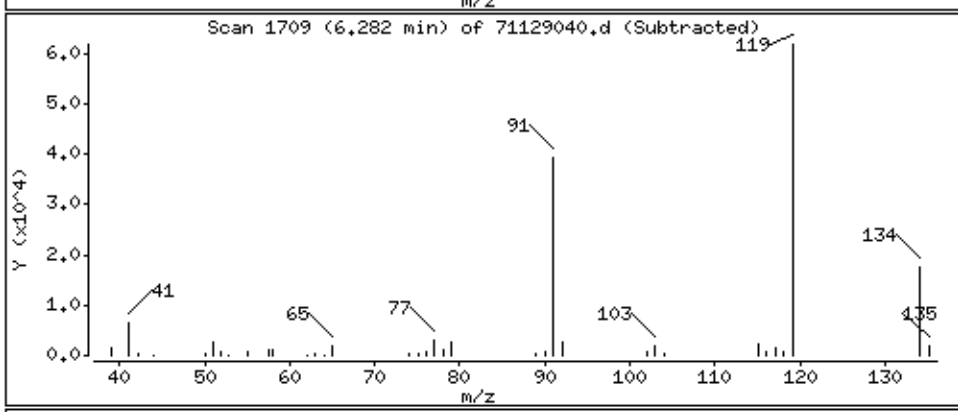
89 tert-Butylbenzene

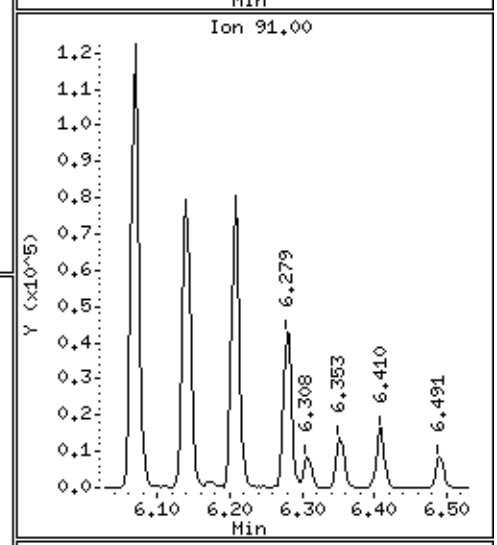
Concentration: 16.2 ug/L

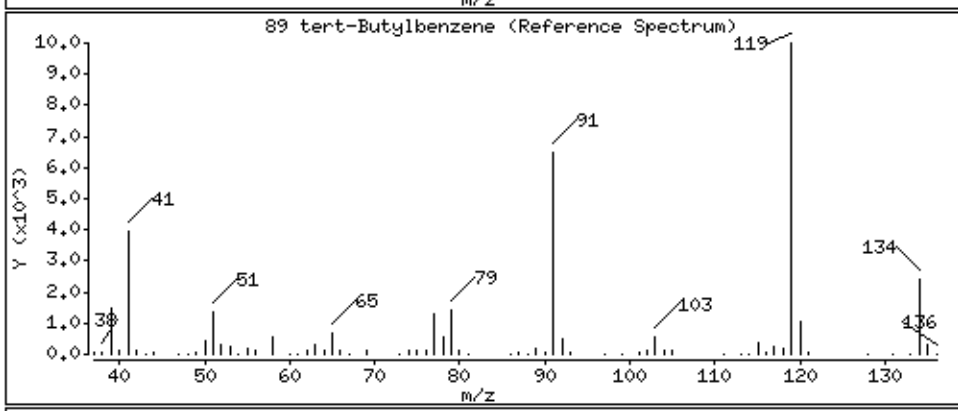
Review Code:

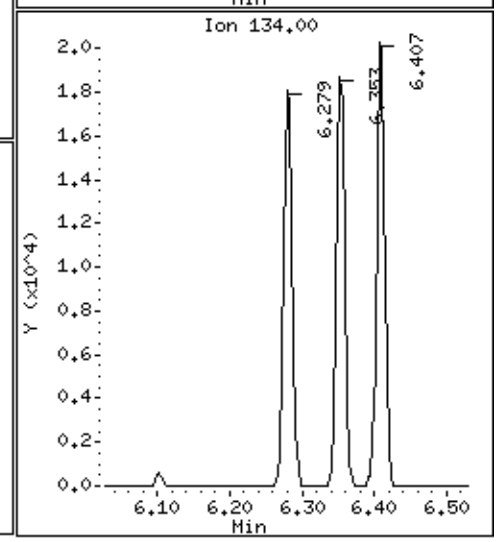


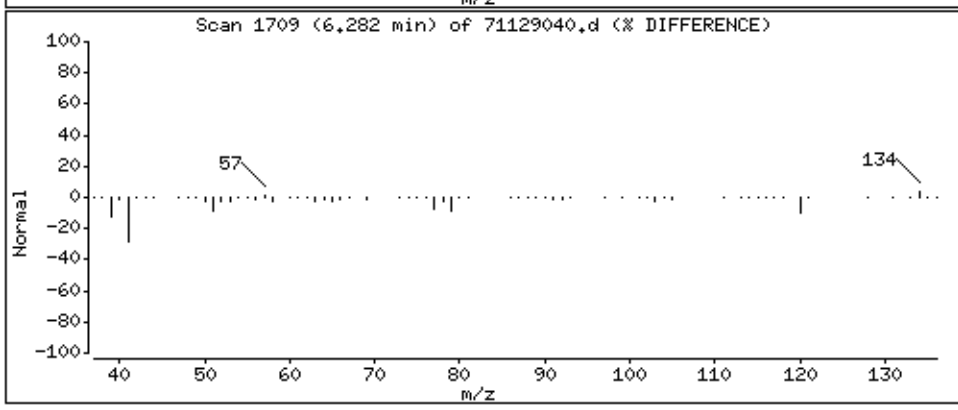












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

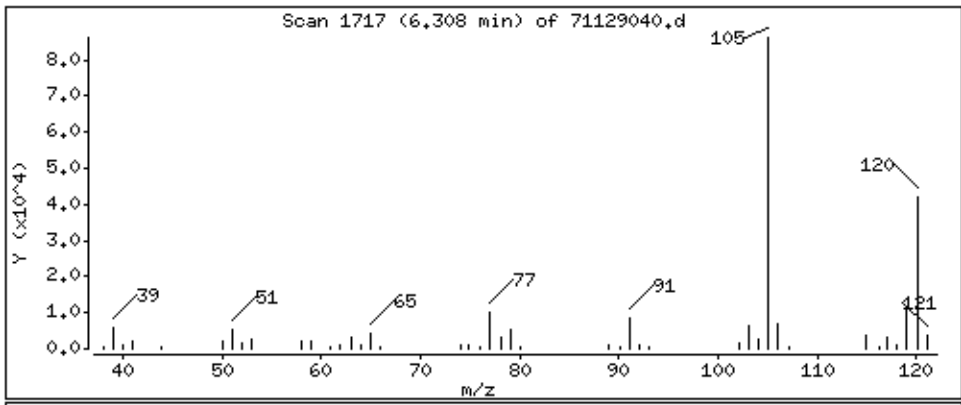
Column phase: RTX-VMS

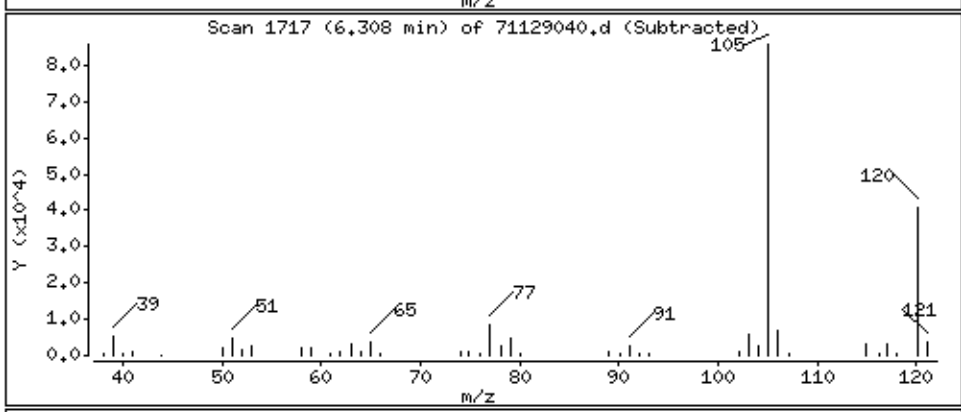
Column diameter: 0.18

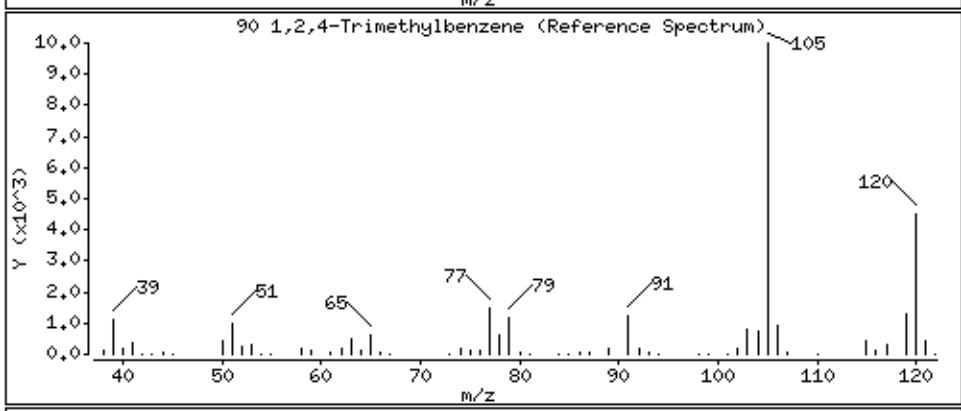
90 1,2,4-Trimethylbenzene

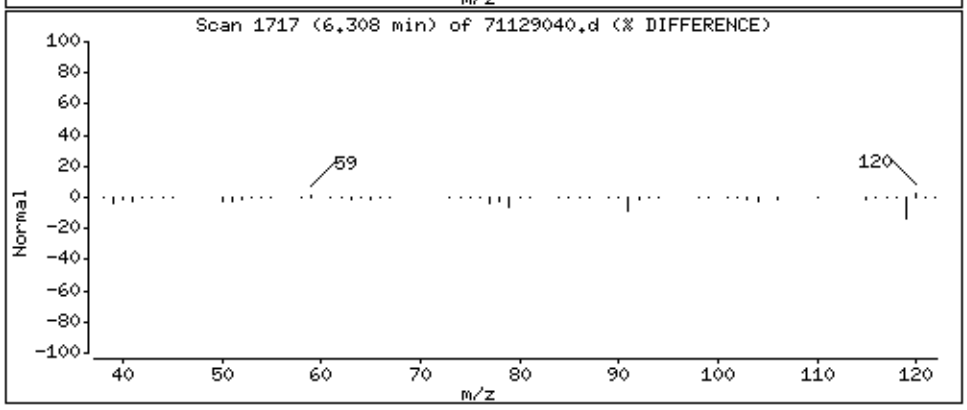
Concentration: 15.4 ug/L

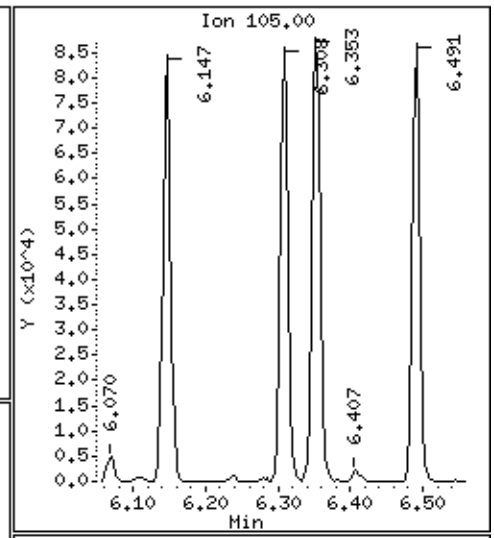
Review Code:

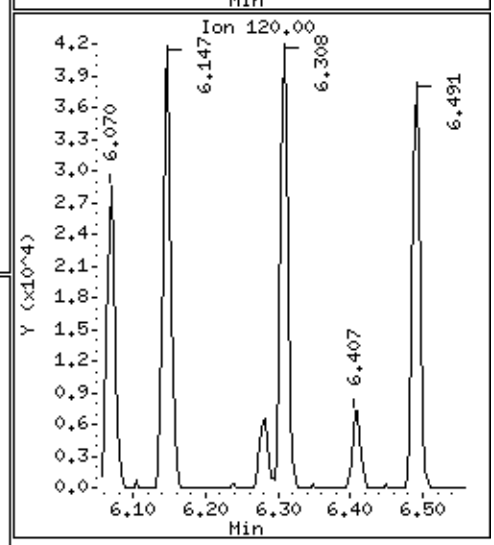












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

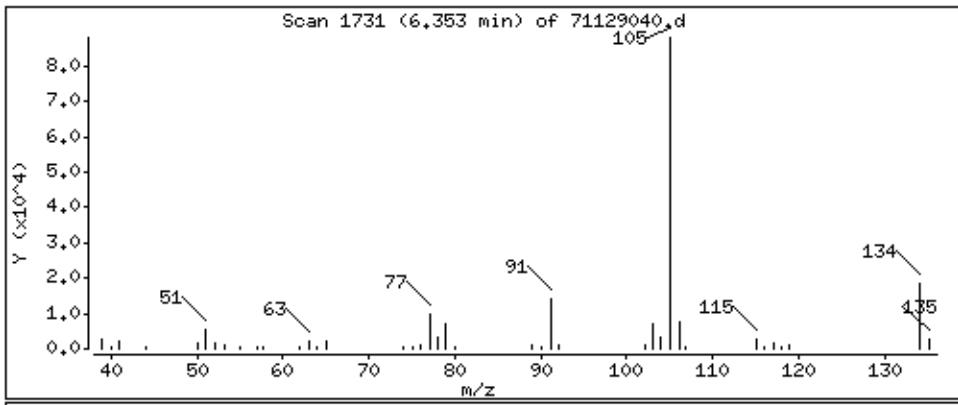
Column phase: RTX-VMS

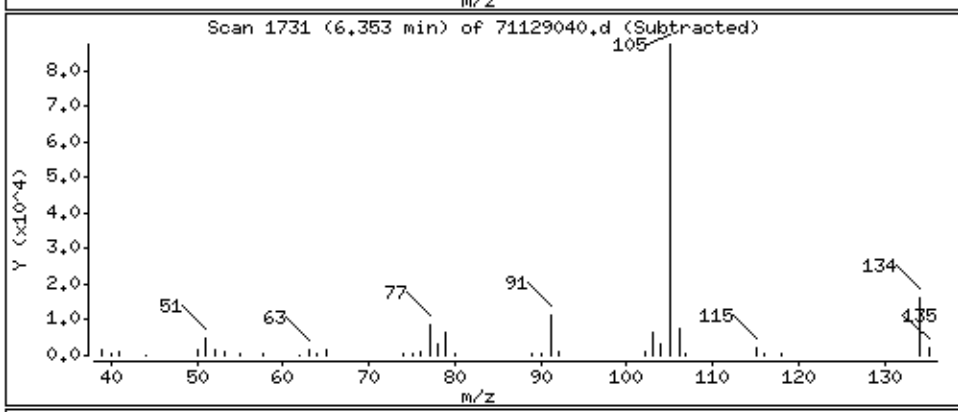
Column diameter: 0.18

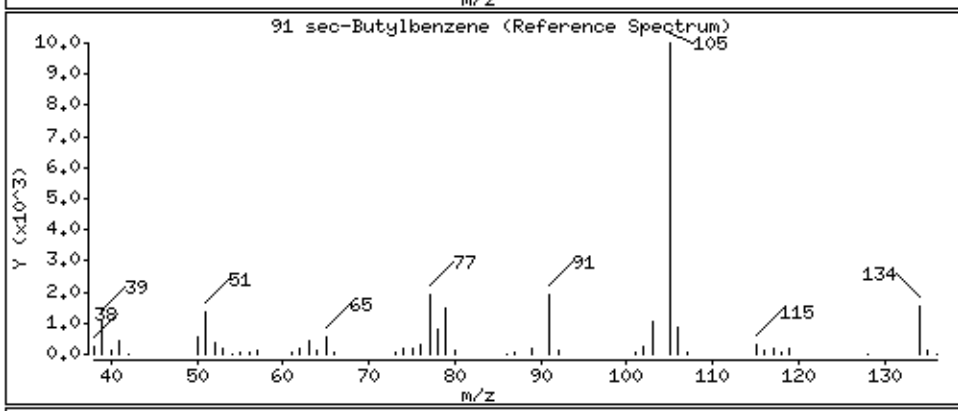
91 sec-Butylbenzene

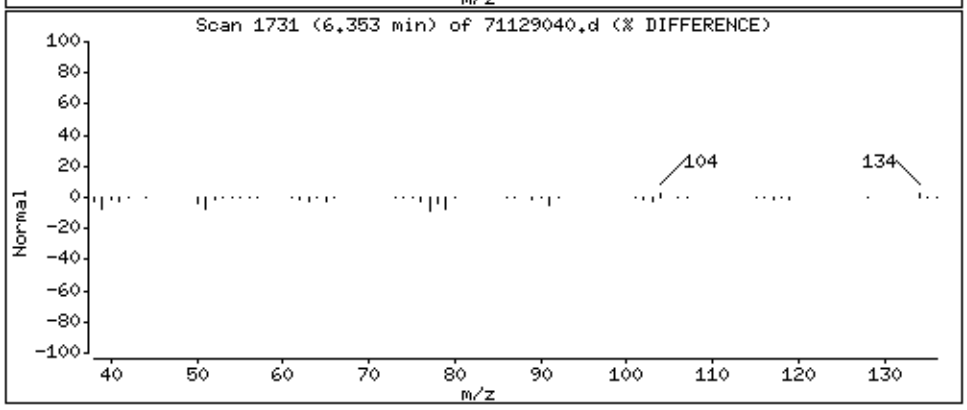
Concentration: 15.4 ug/L

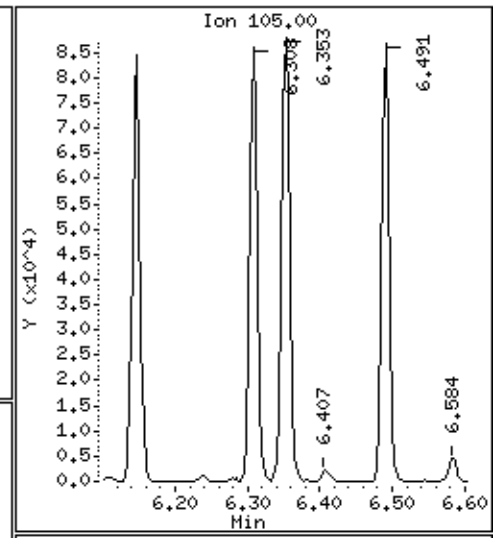
Review Code:

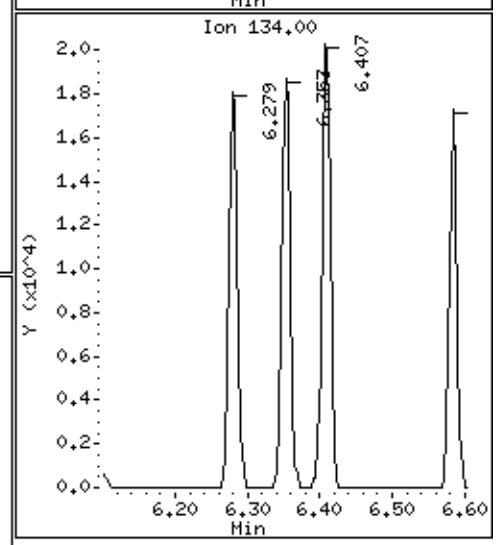












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

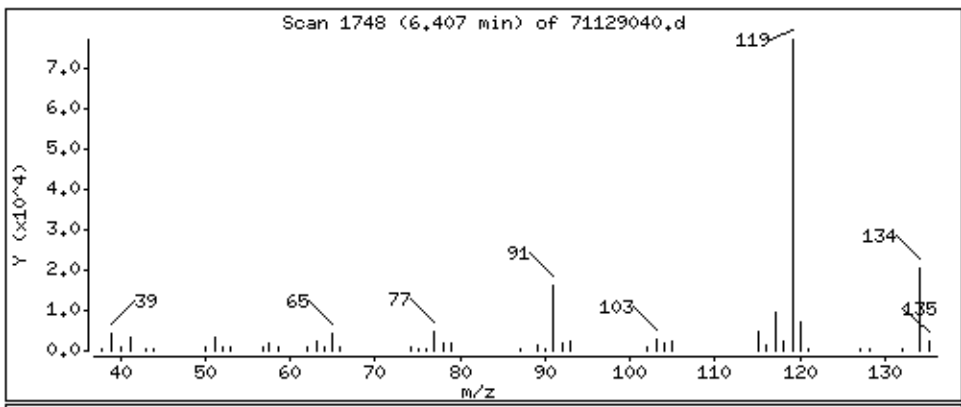
Column phase: RTX-VMS

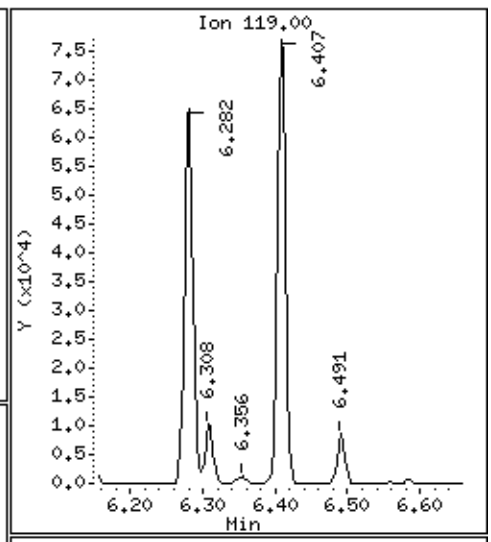
Column diameter: 0.18

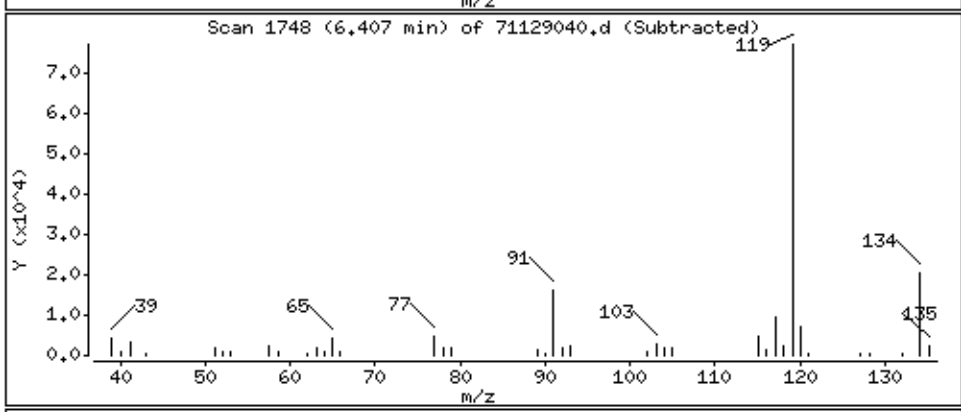
92 p-Isopropyltoluene

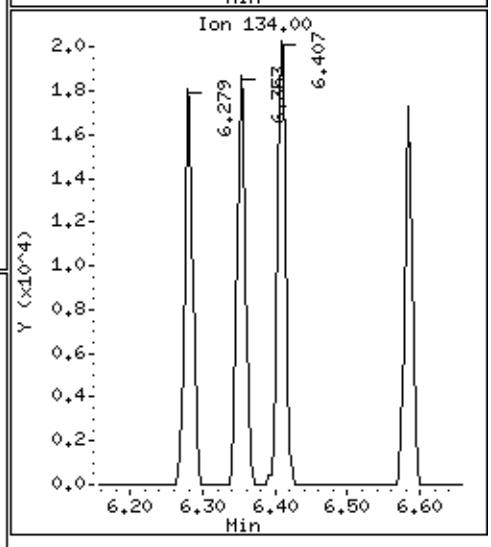
Concentration: 15.7 ug/L

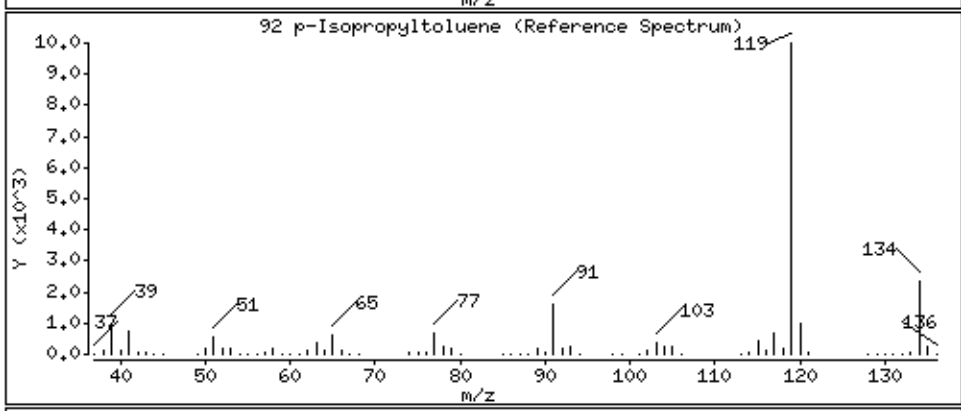
Review Code:

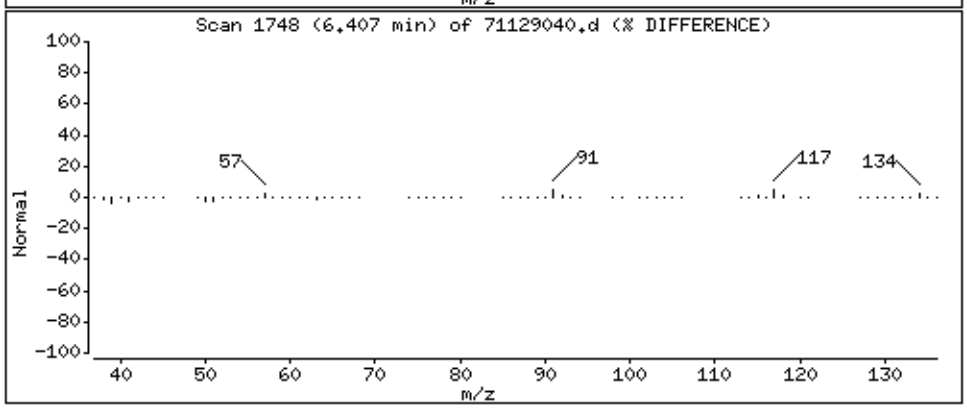












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

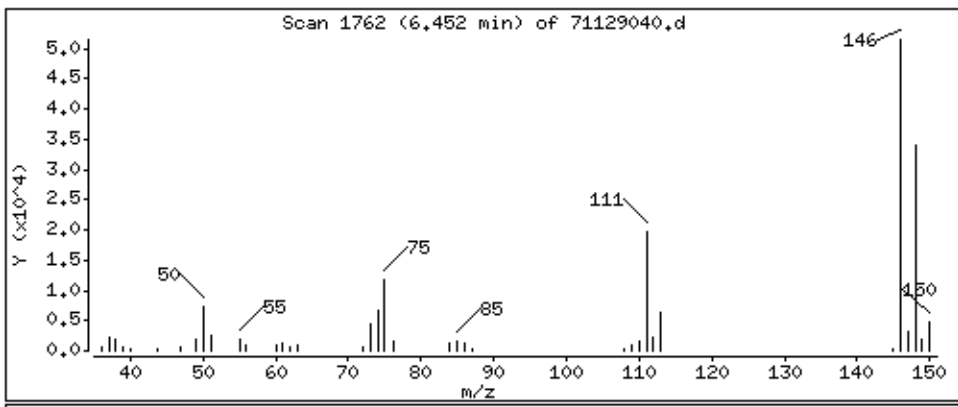
Column phase: RTX-VMS

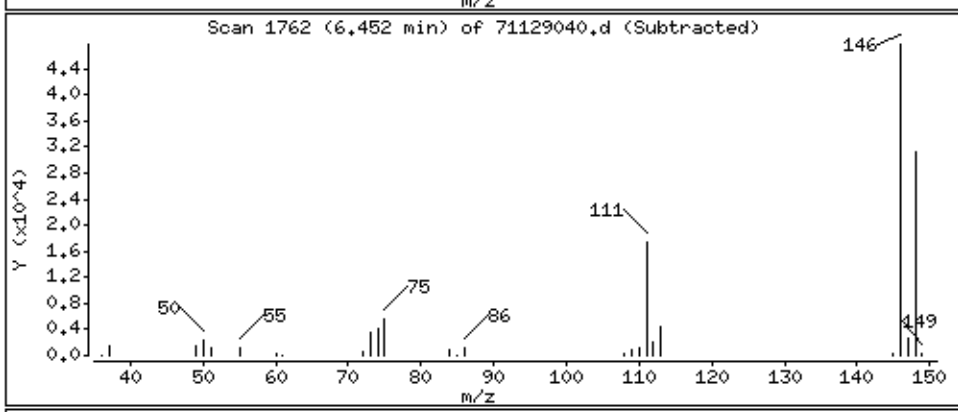
Column diameter: 0.18

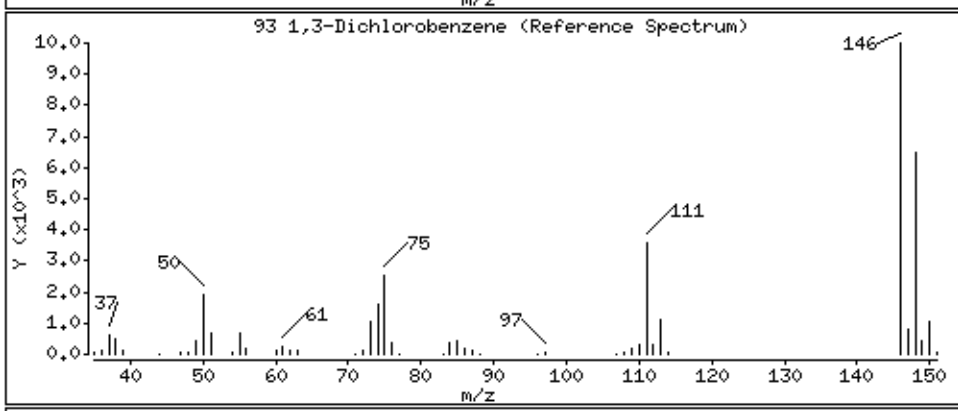
93 1,3-Dichlorobenzene

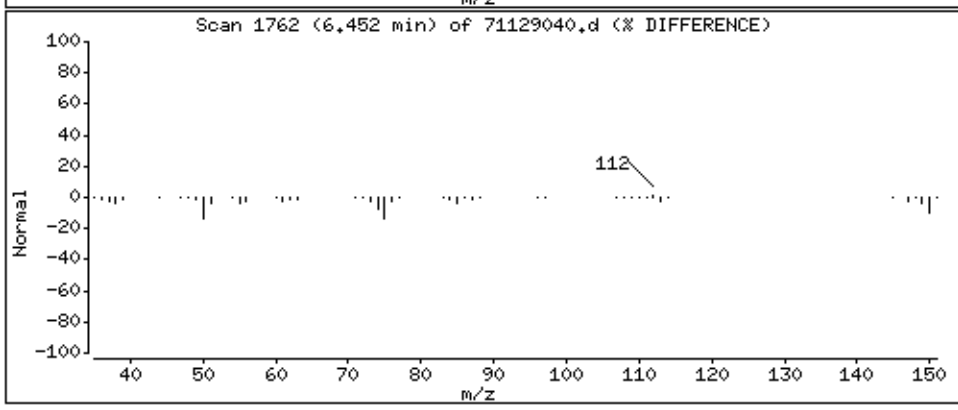
Concentration: 15.6 ug/L

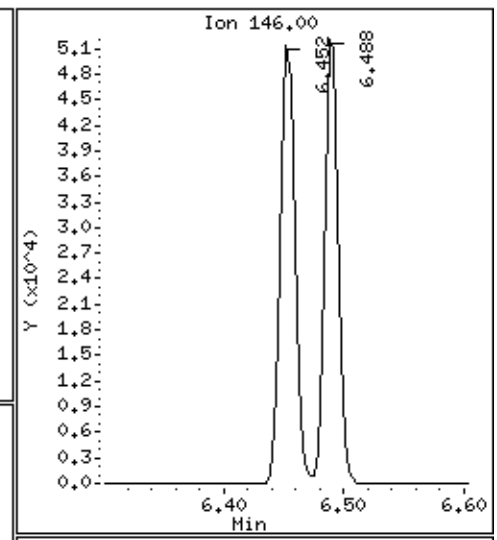
Review Code:

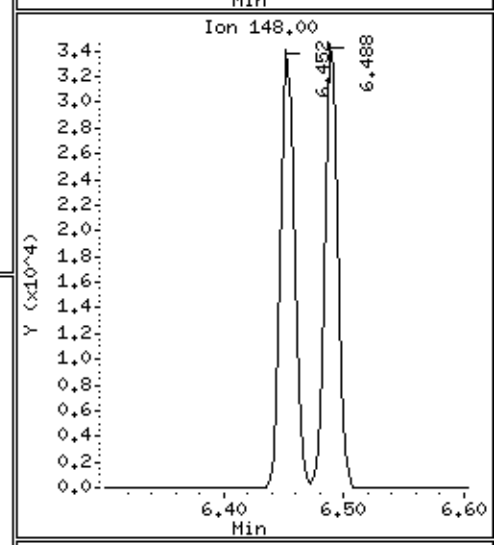


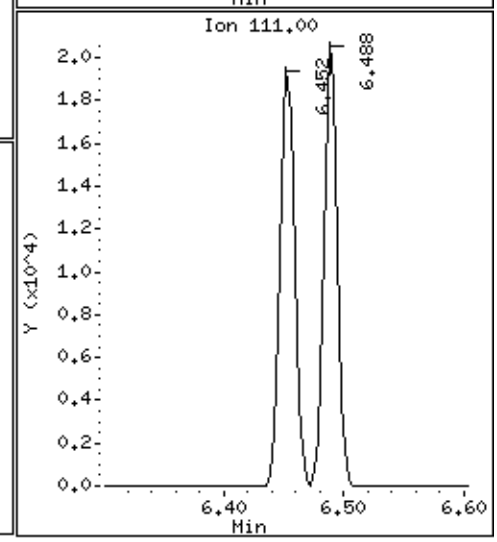












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

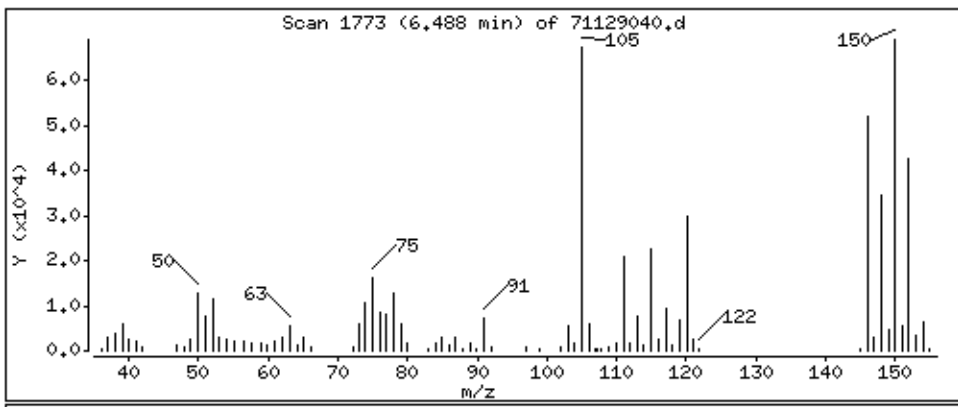
Column phase: RTX-VMS

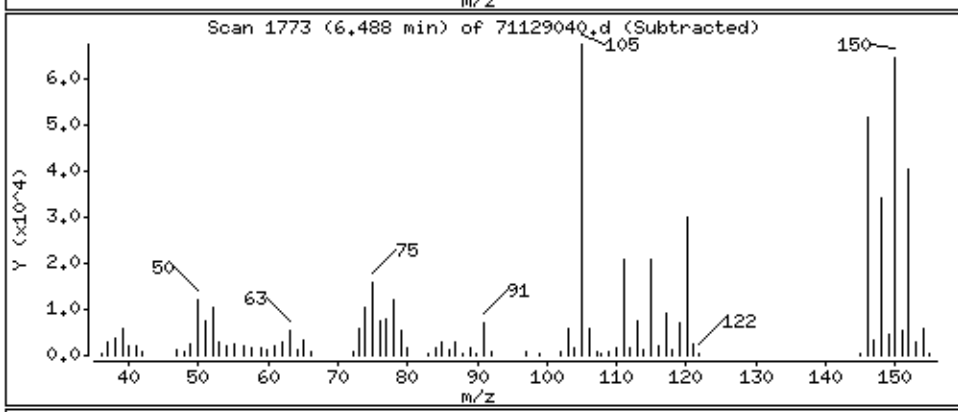
Column diameter: 0.18

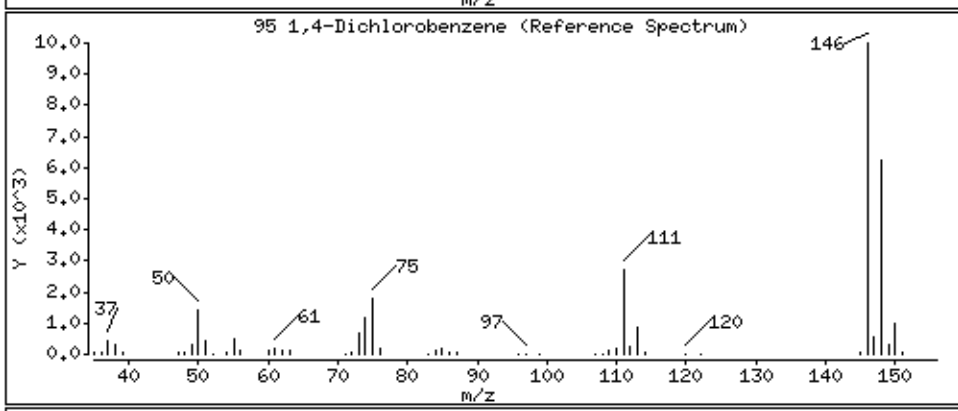
95 1,4-Dichlorobenzene

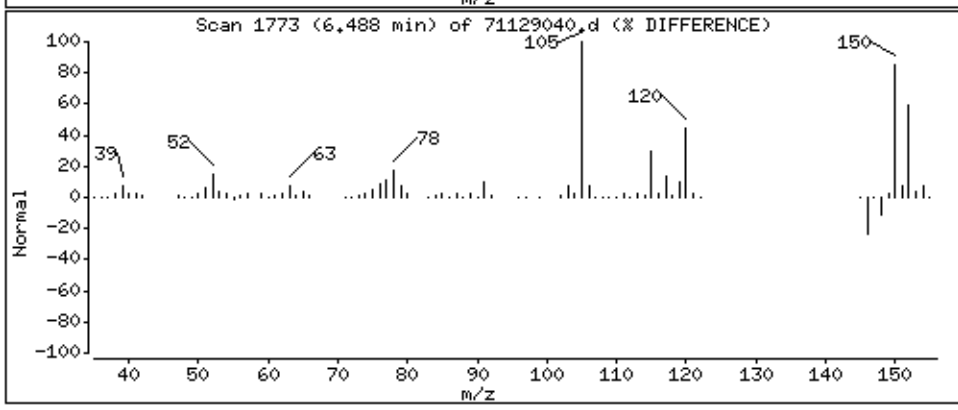
Concentration: 14.8 ug/L

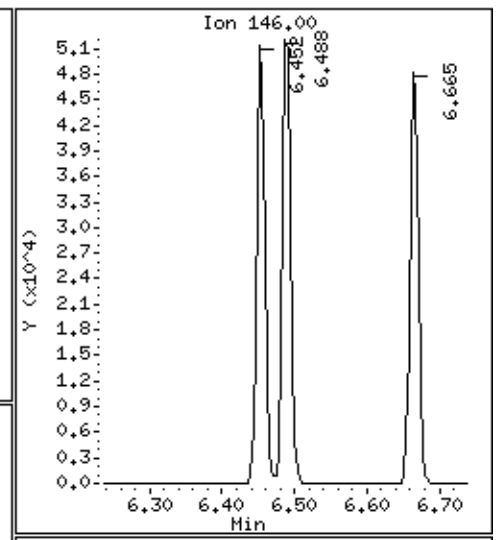
Review Code:

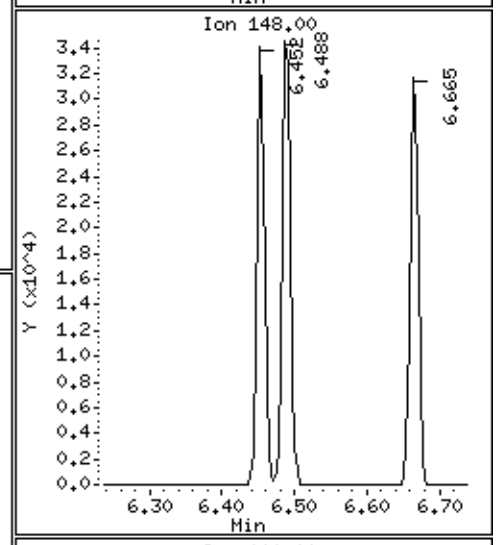


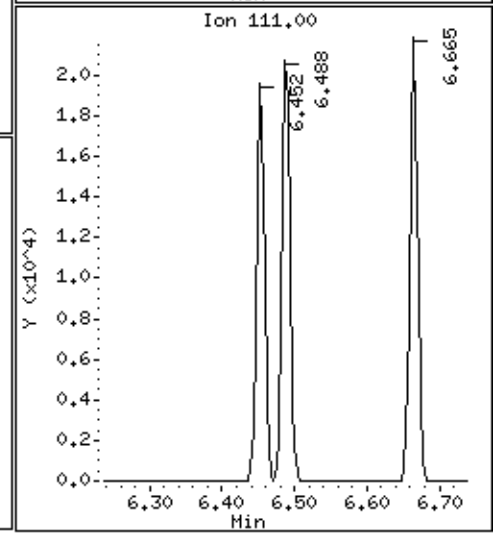












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

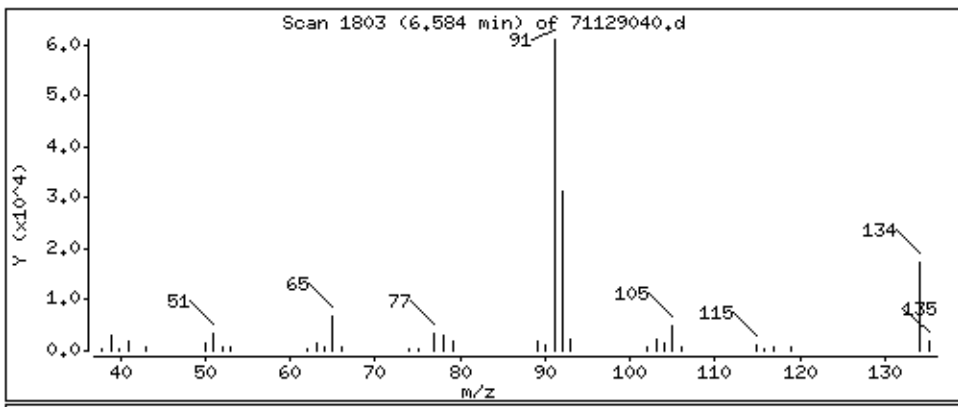
Column phase: RTX-VMS

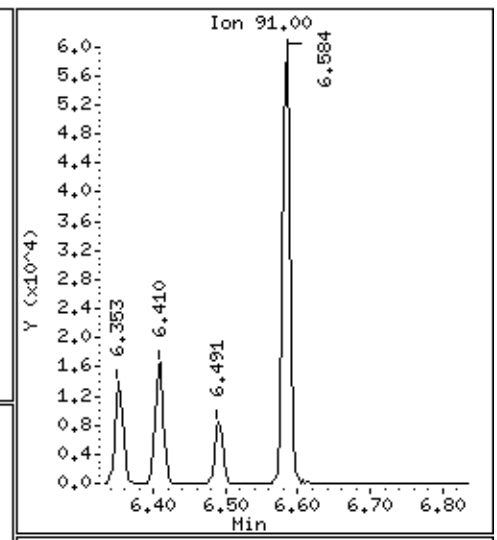
Column diameter: 0.18

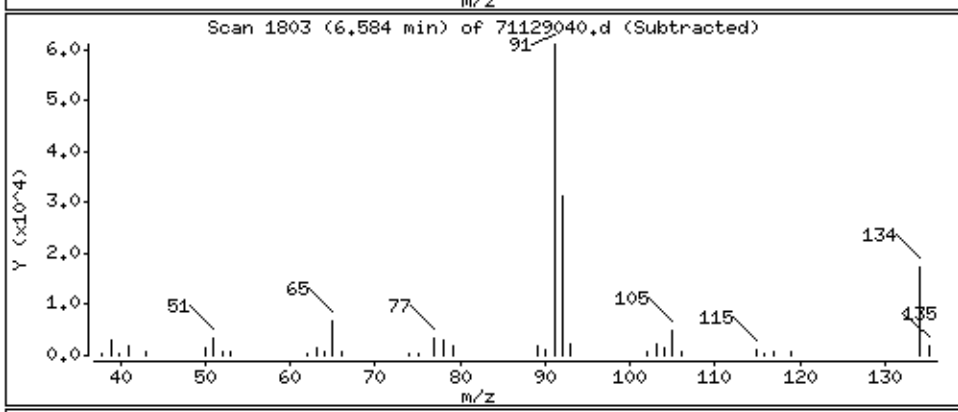
96 n-Butylbenzene

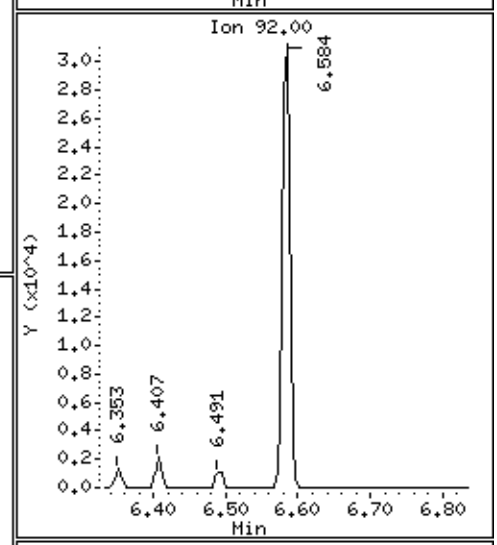
Concentration: 14.3 ug/L

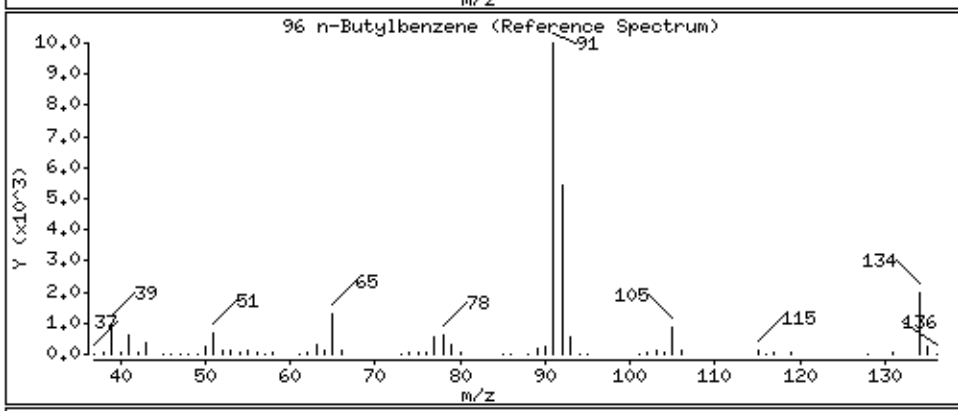
Review Code:

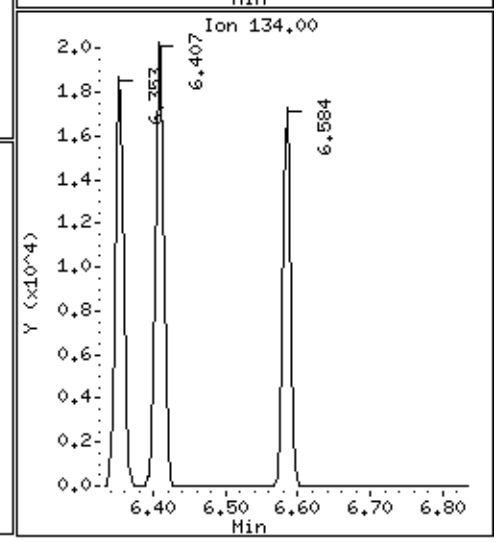


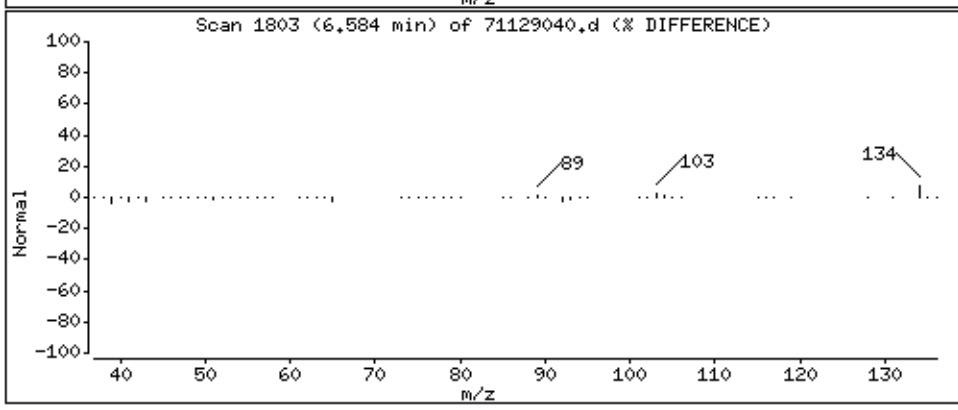












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

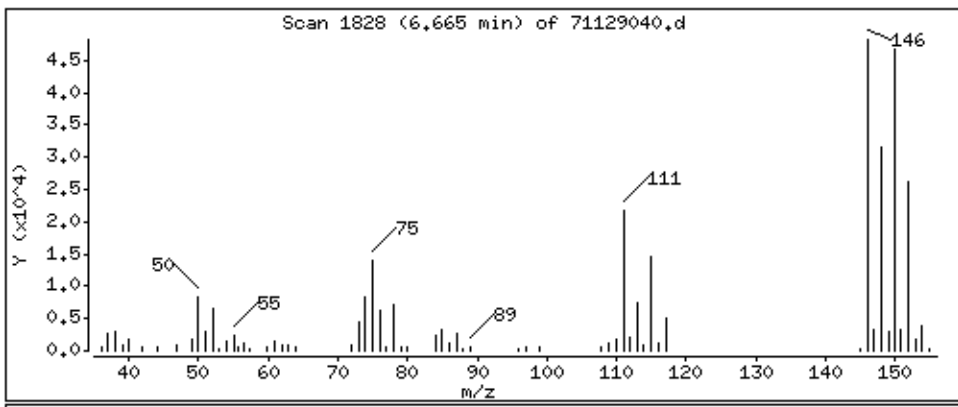
Column phase: RTX-VMS

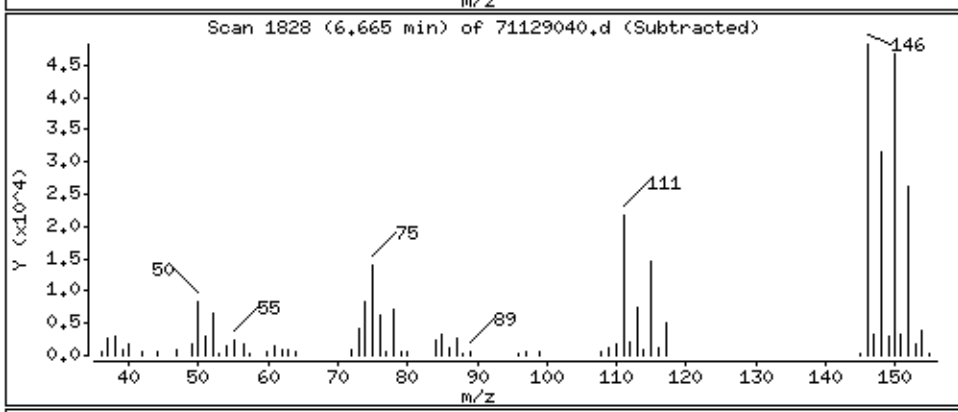
Column diameter: 0.18

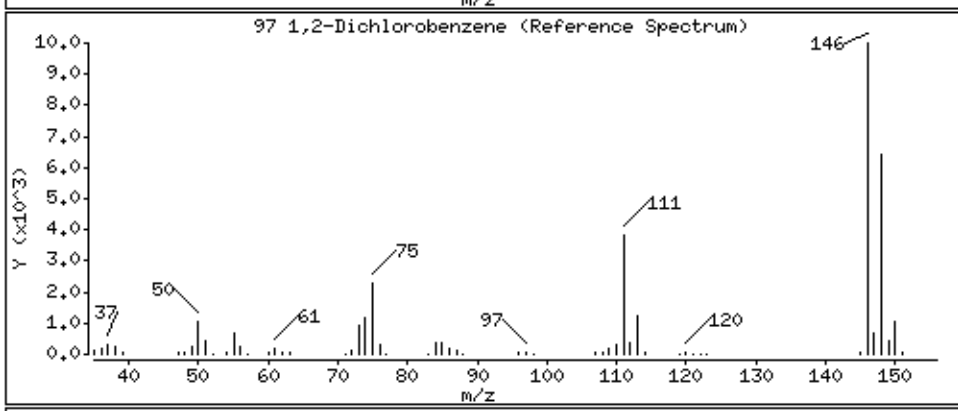
97 1,2-Dichlorobenzene

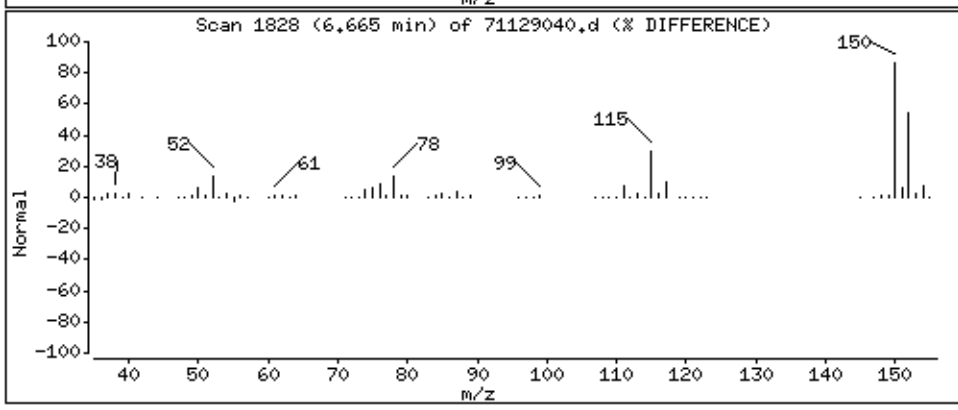
Concentration: 15.1 ug/L

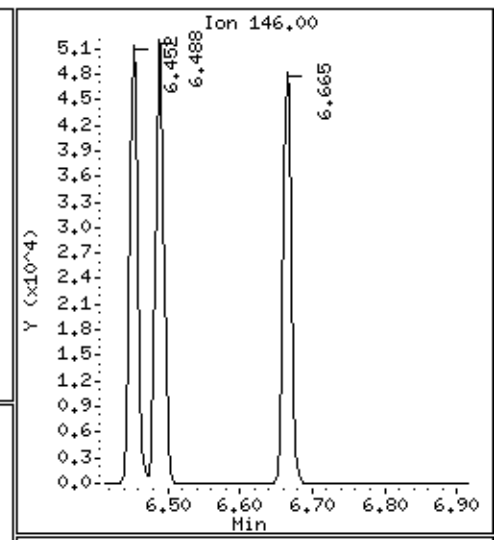
Review Code:

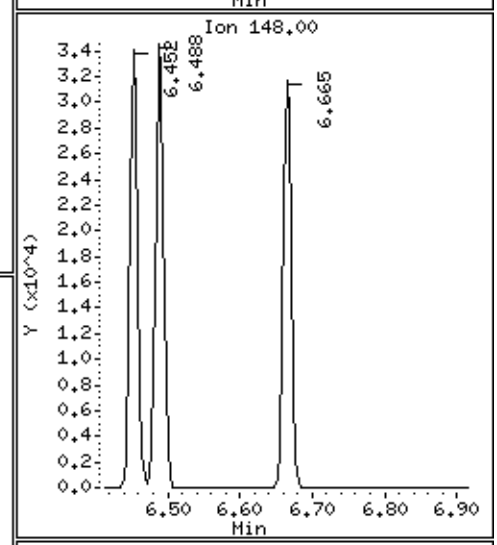


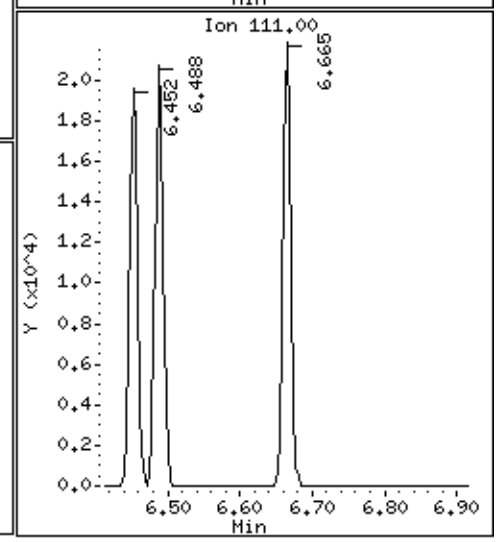












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

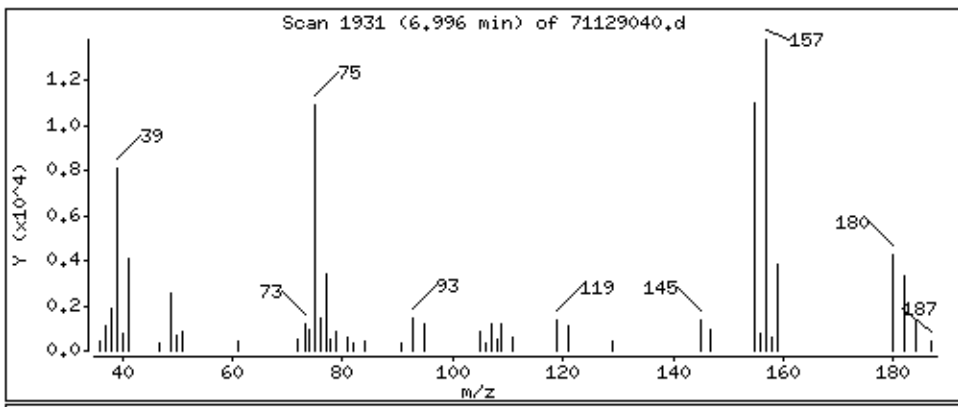
Column phase: RTX-VMS

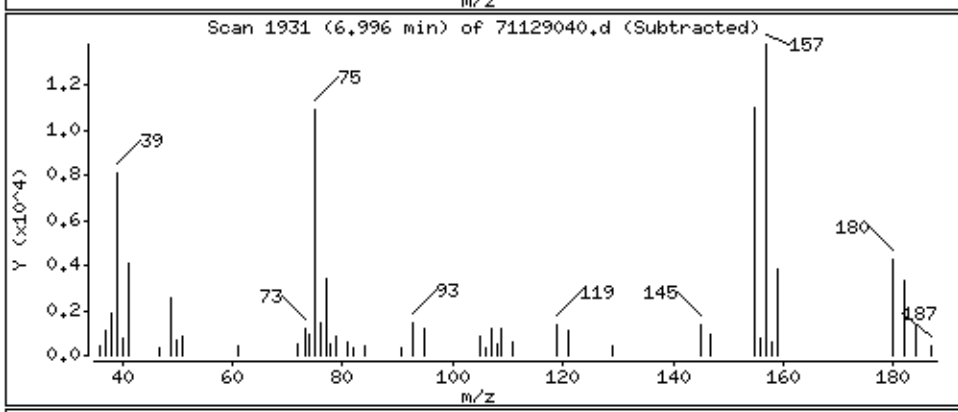
Column diameter: 0.18

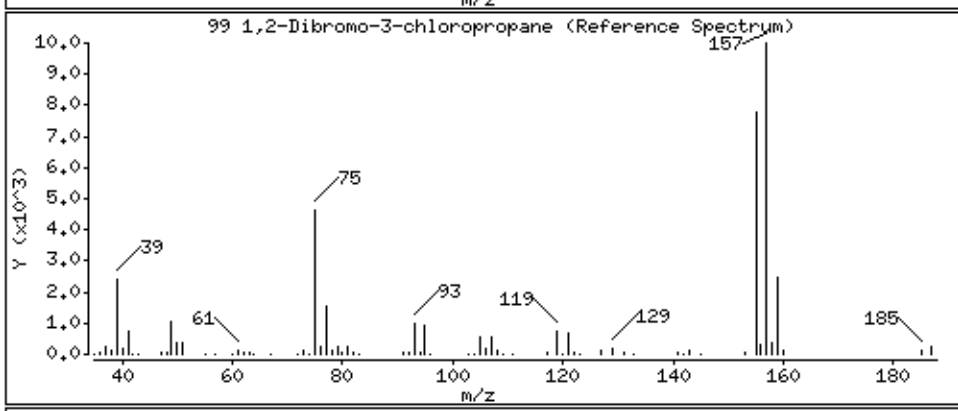
99 1,2-Dibromo-3-chloropropane

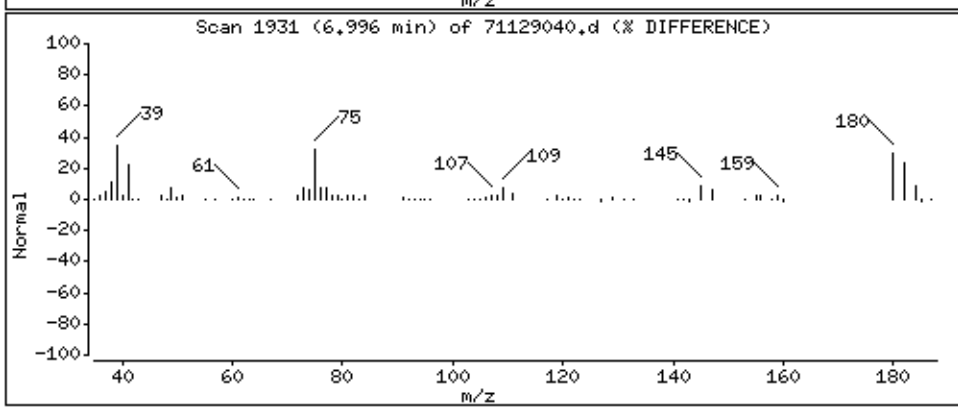
Concentration: 13.3 ug/L

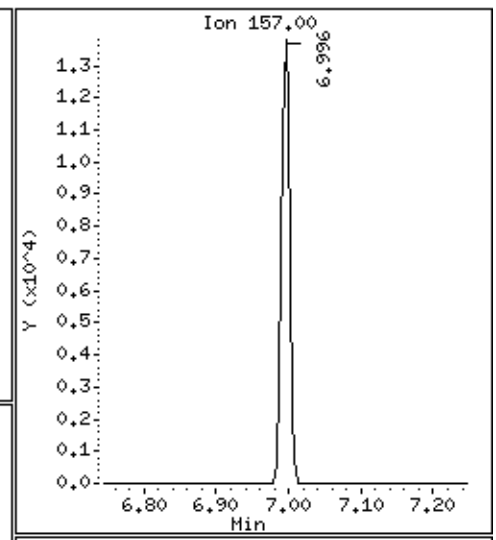
Review Code:

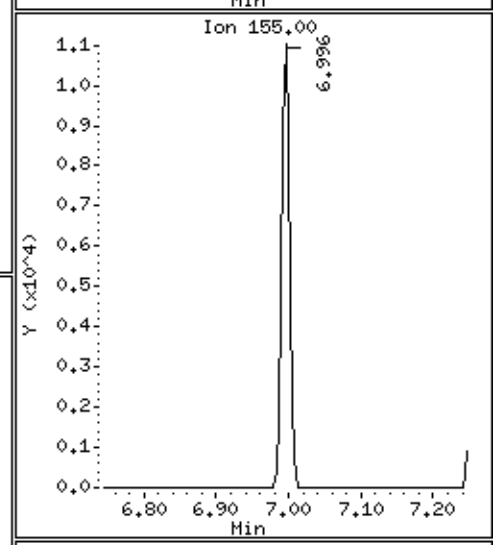


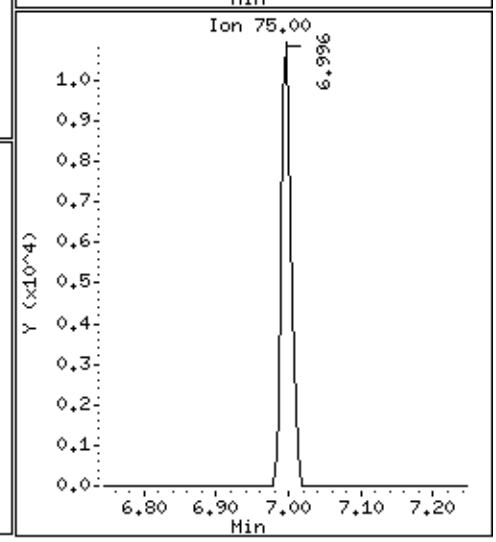












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

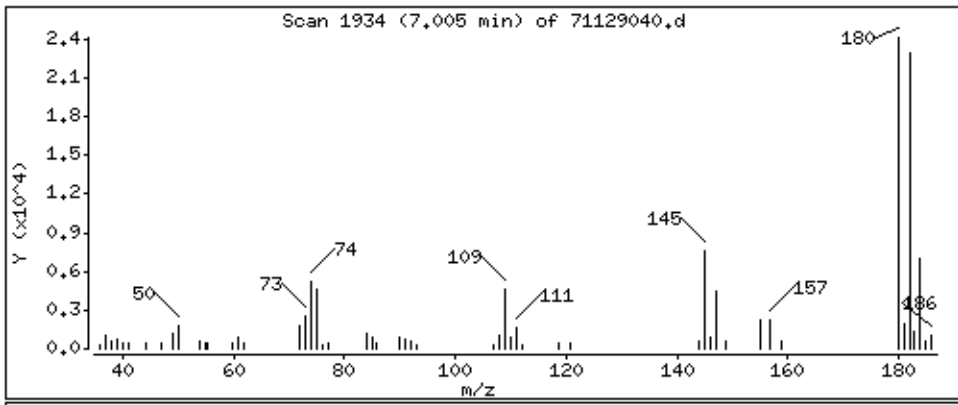
Column phase: RTX-VMS

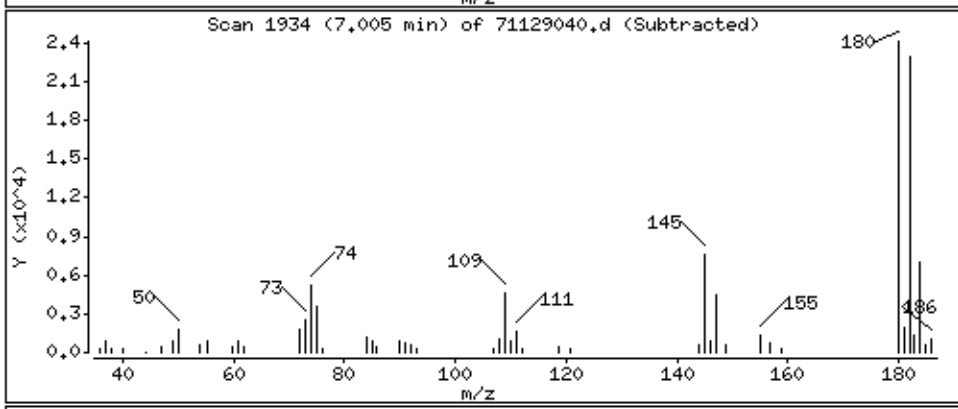
Column diameter: 0.18

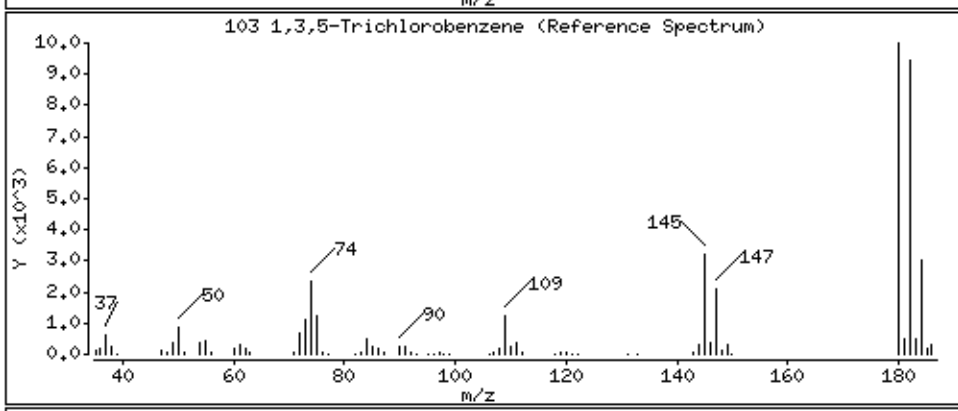
103 1,3,5-Trichlorobenzene

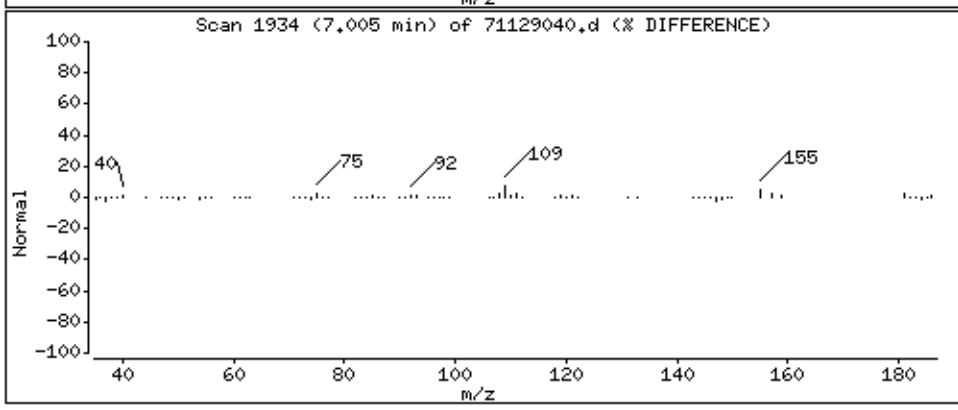
Concentration: 13.7 ug/L

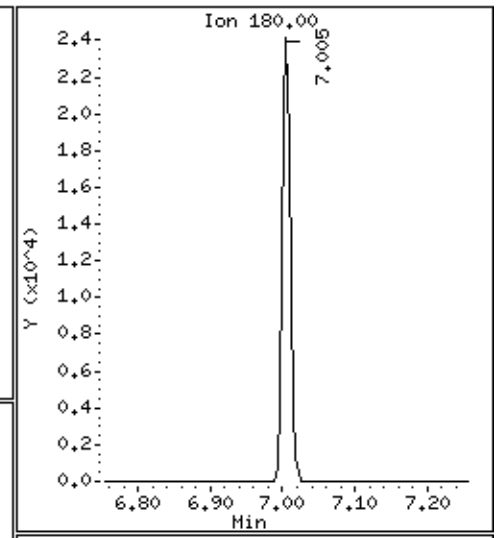
Review Code:

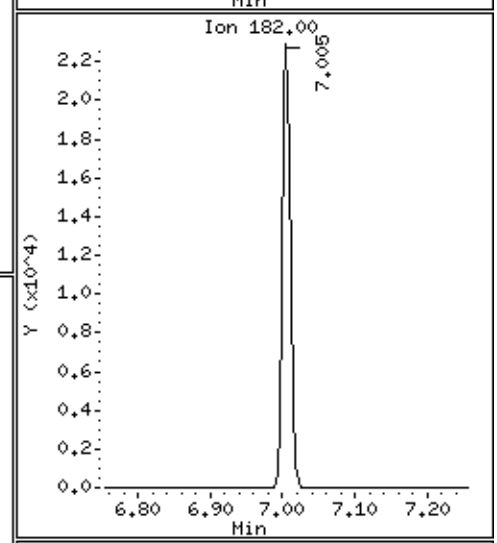


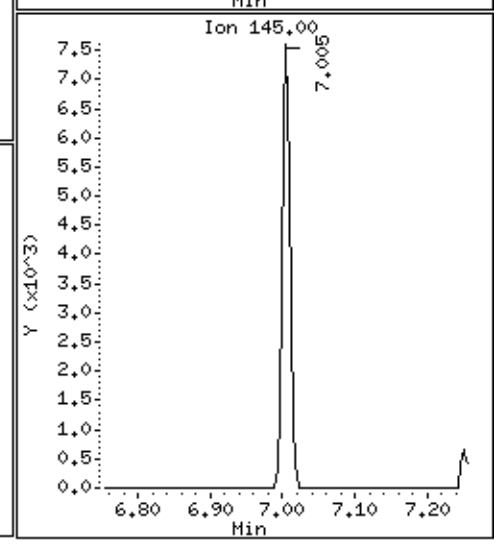












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

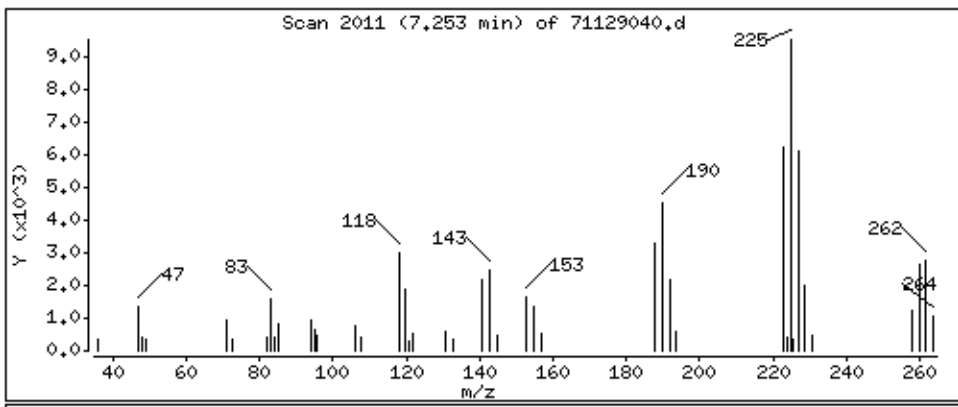
Column phase: RTX-VMS

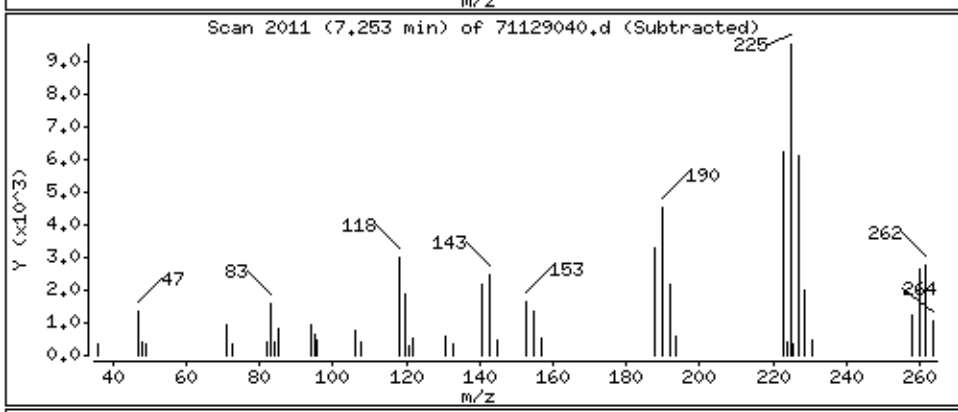
Column diameter: 0.18

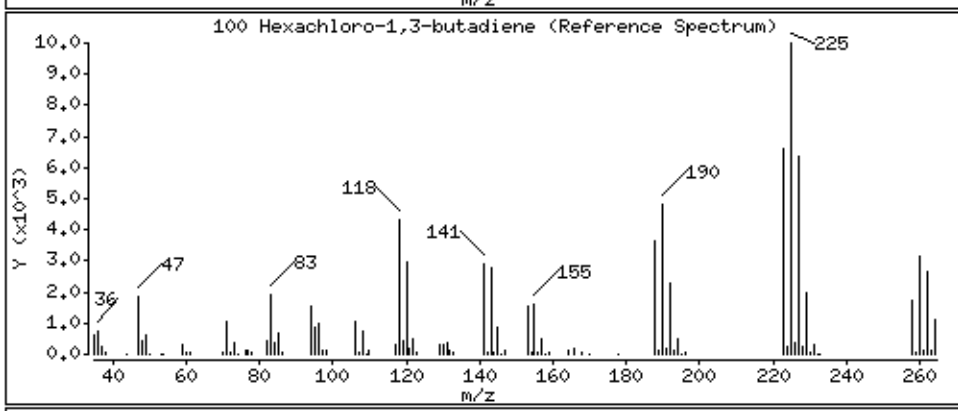
100 Hexachloro-1,3-butadiene

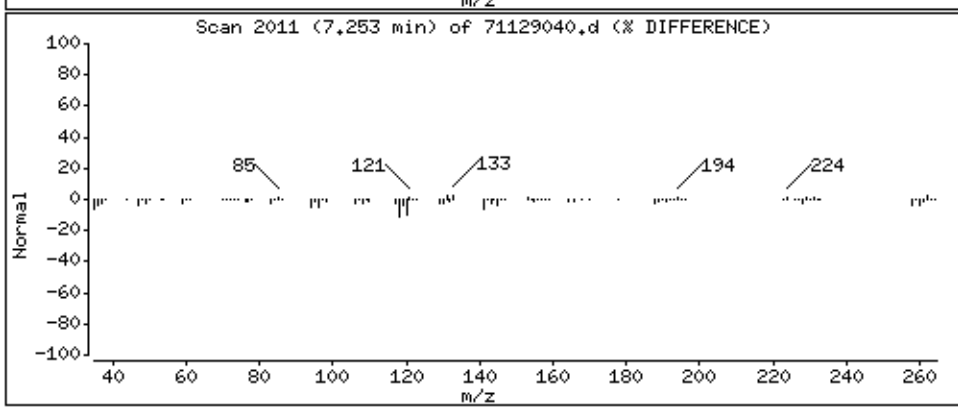
Concentration: 11.8 ug/L

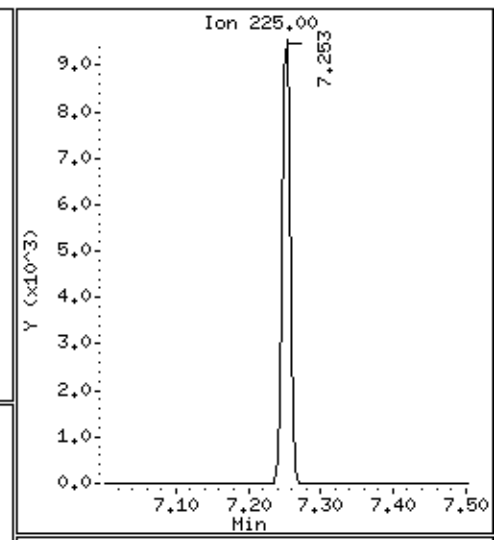
Review Code:

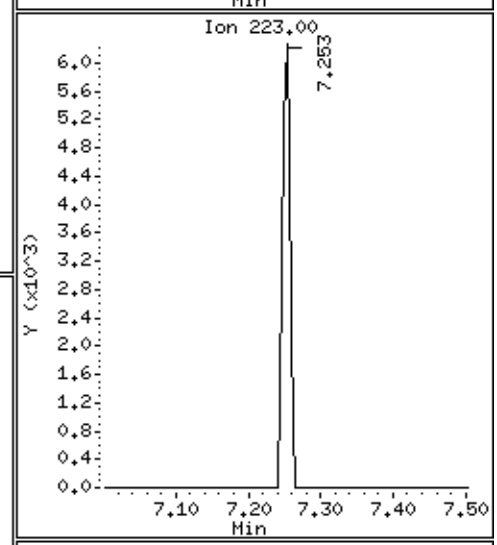


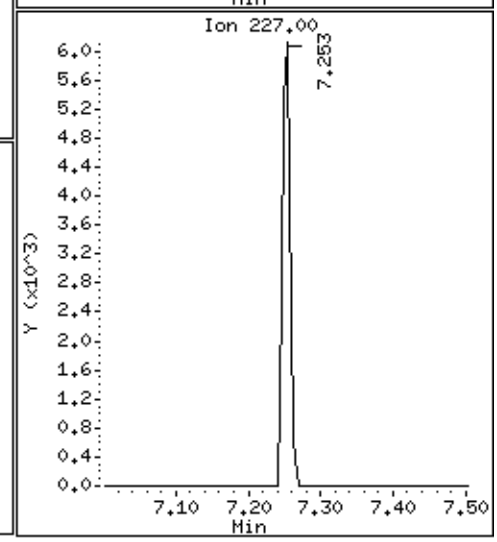












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

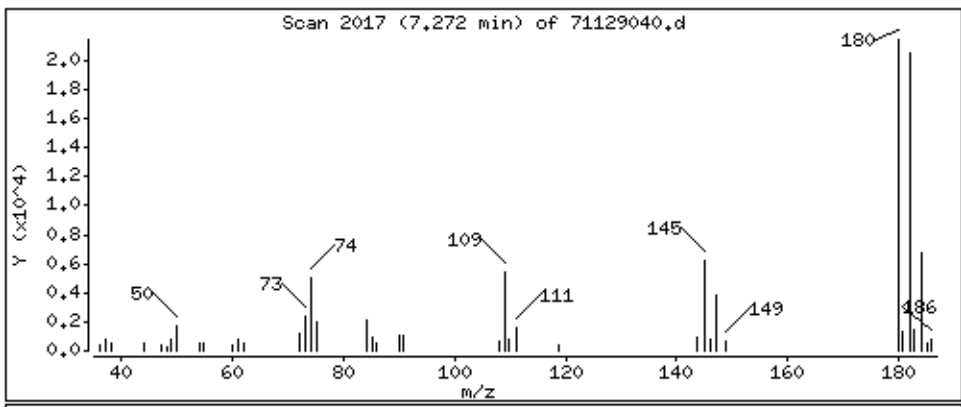
Column phase: RTX-VMS

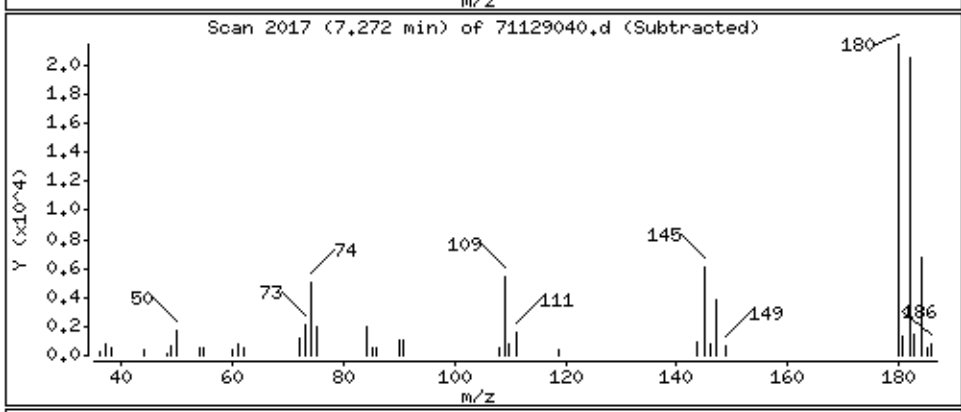
Column diameter: 0.18

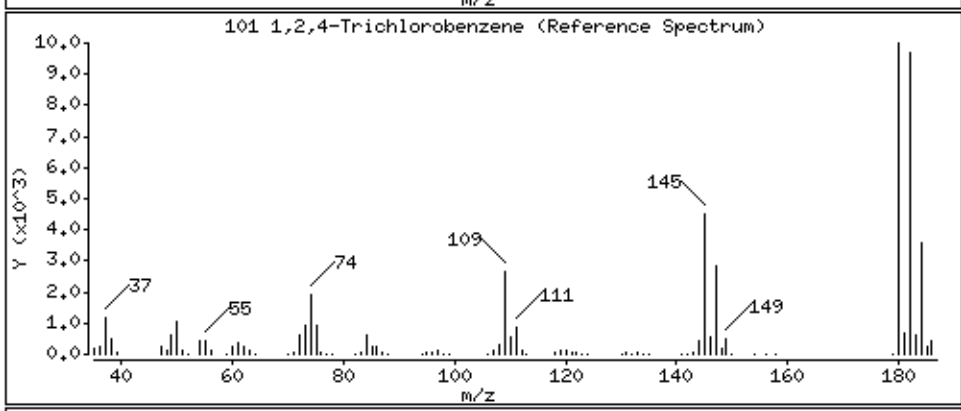
101 1,2,4-Trichlorobenzene

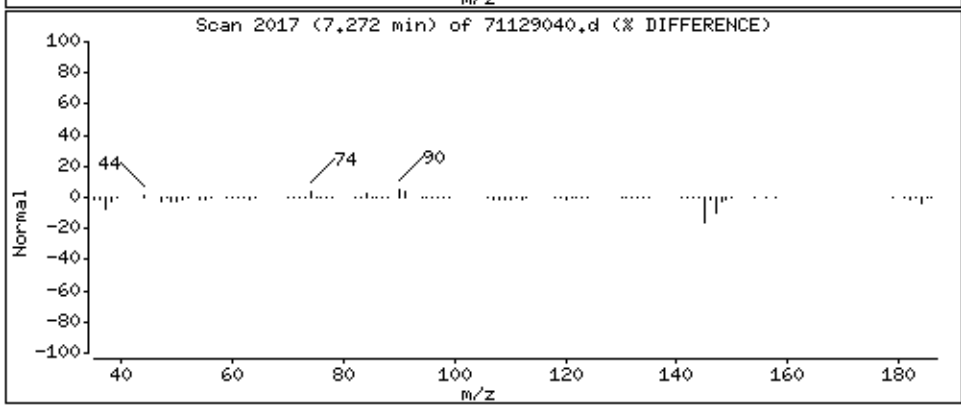
Concentration: 13.4 ug/L

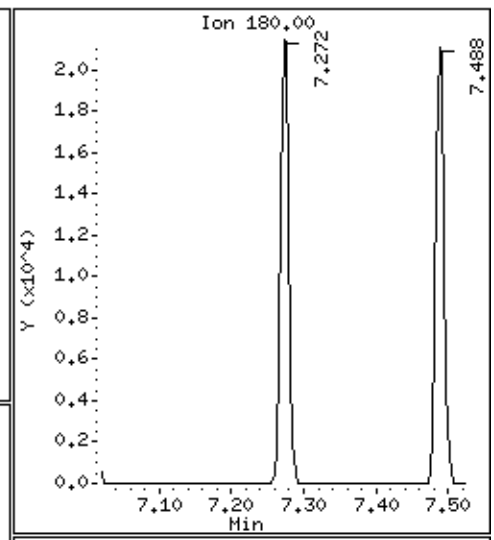
Review Code:

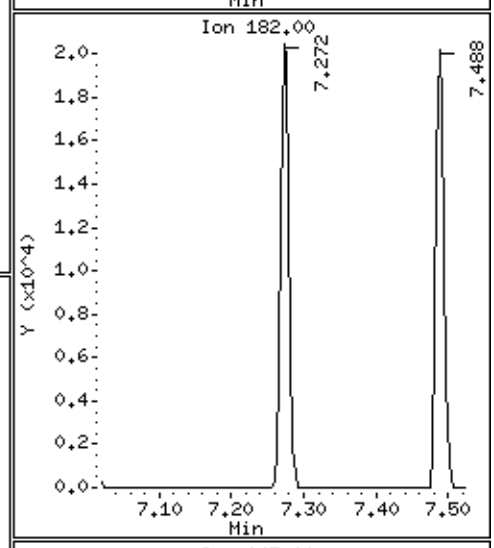


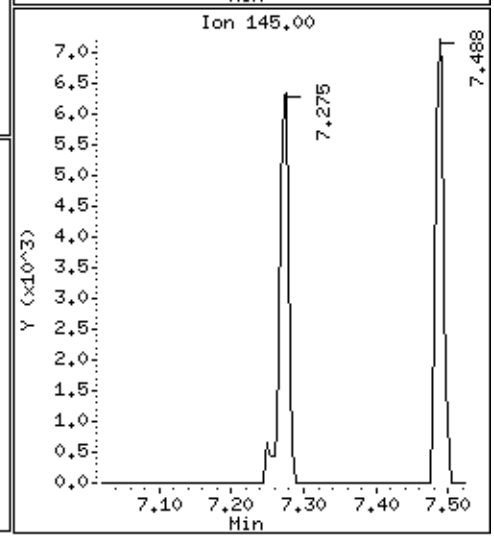












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

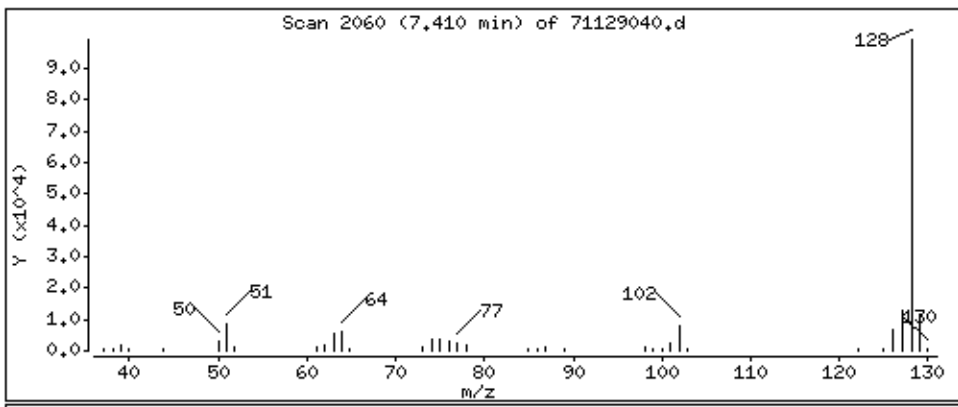
Column phase: RTX-VMS

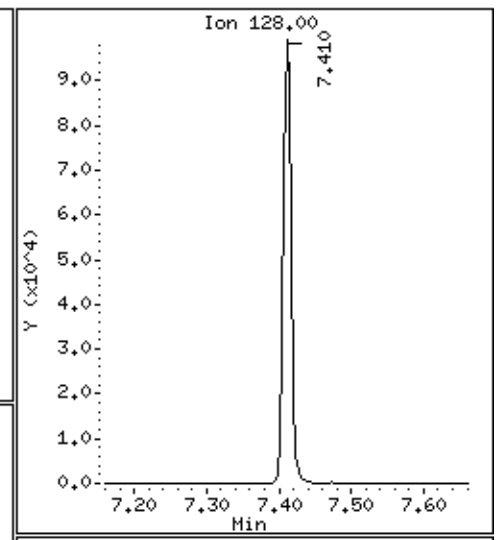
Column diameter: 0.18

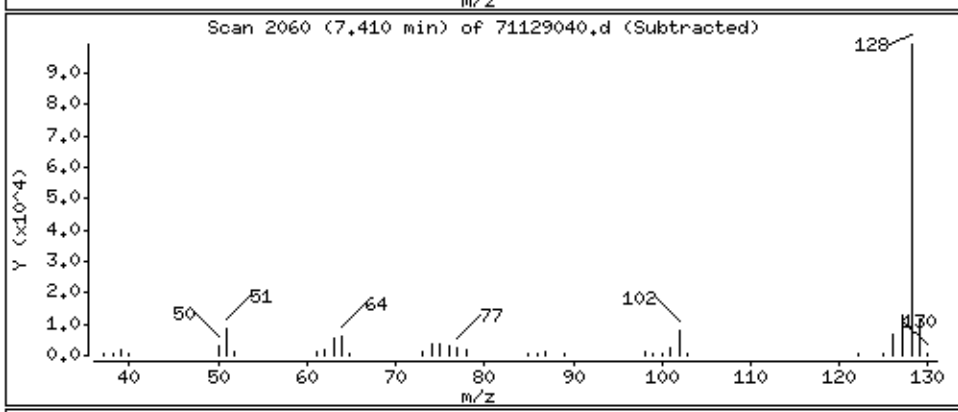
102 Naphthalene

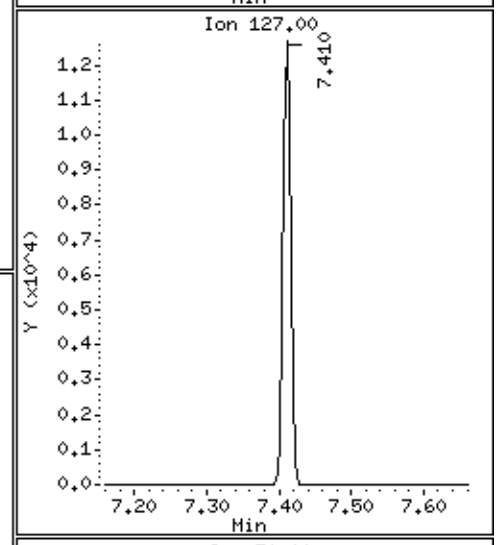
Concentration: 13.6 ug/L

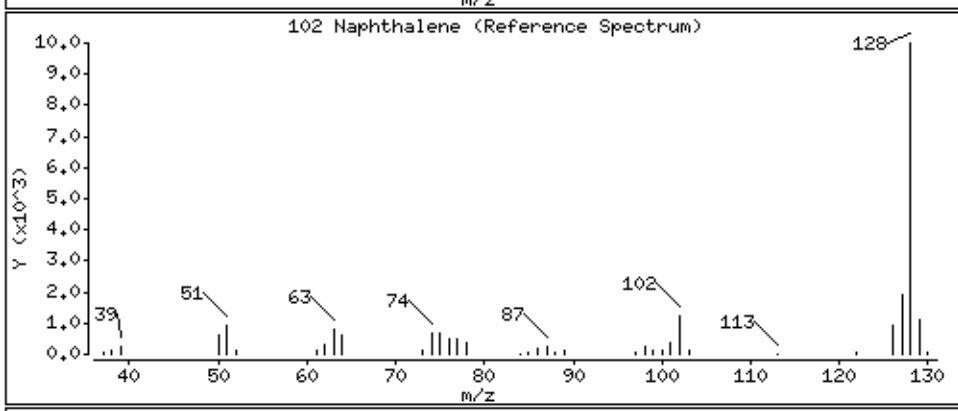
Review Code:

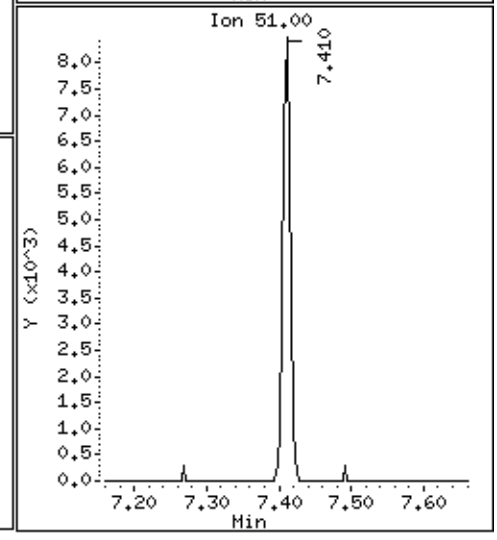


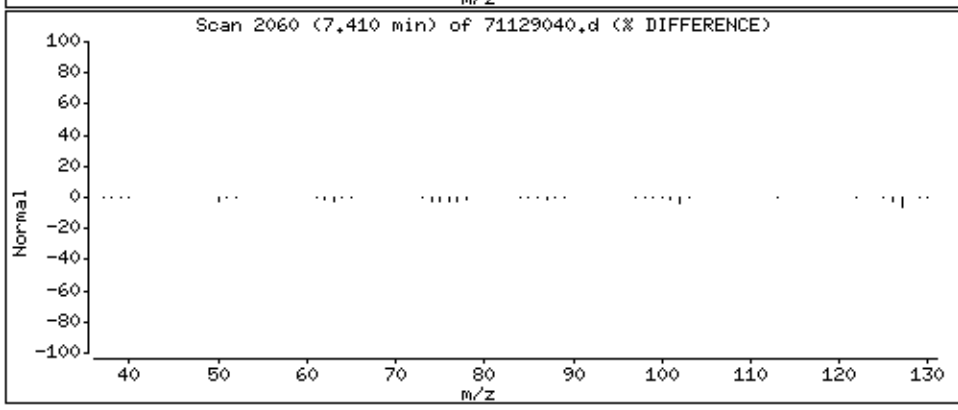












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Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

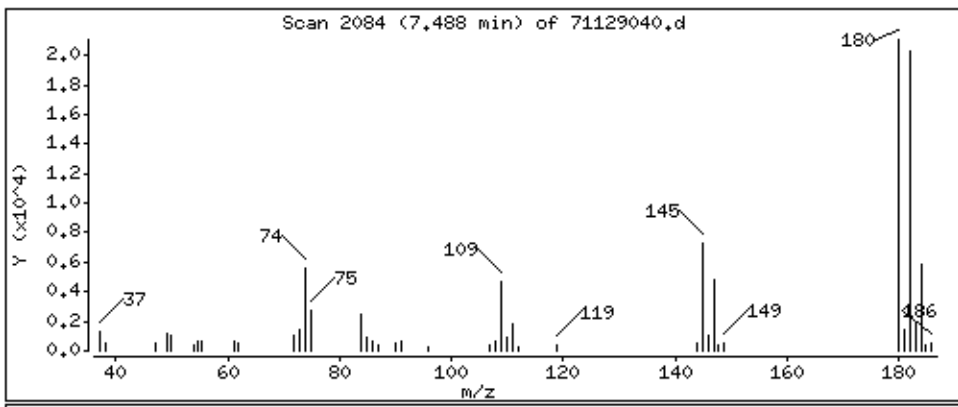
Column phase: RTX-VMS

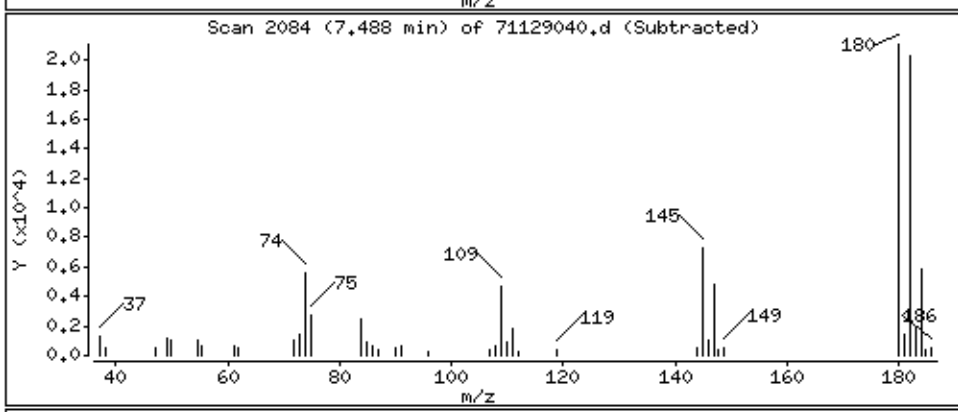
Column diameter: 0.18

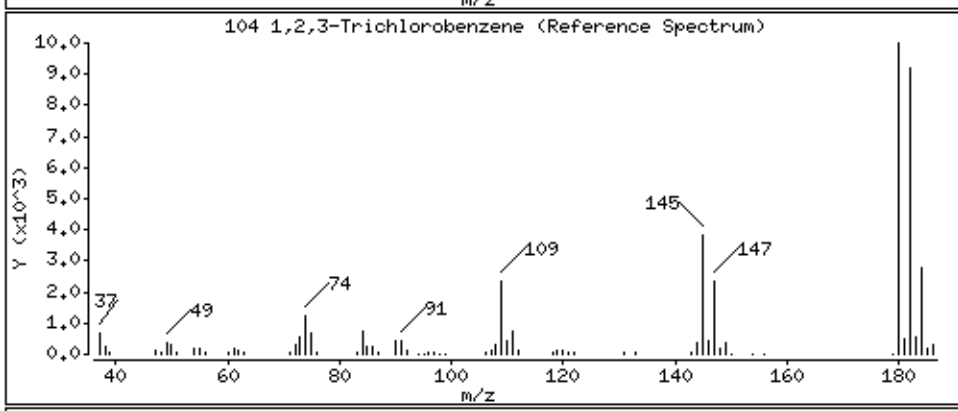
104 1,2,3-Trichlorobenzene

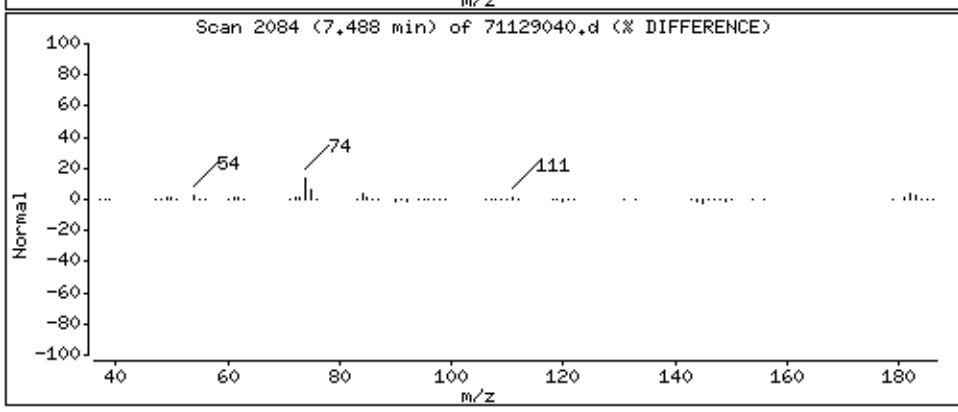
Concentration: 13.2 ug/L

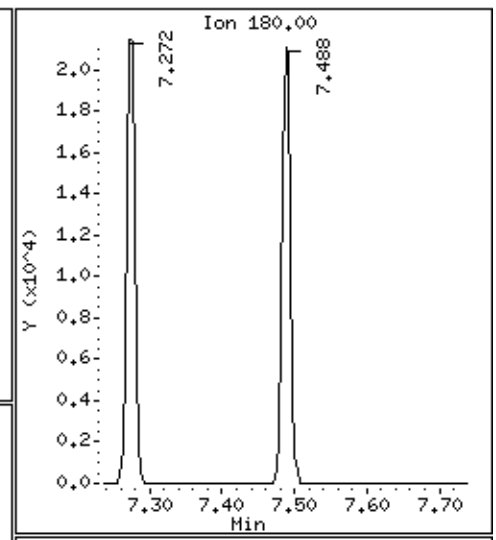
Review Code:

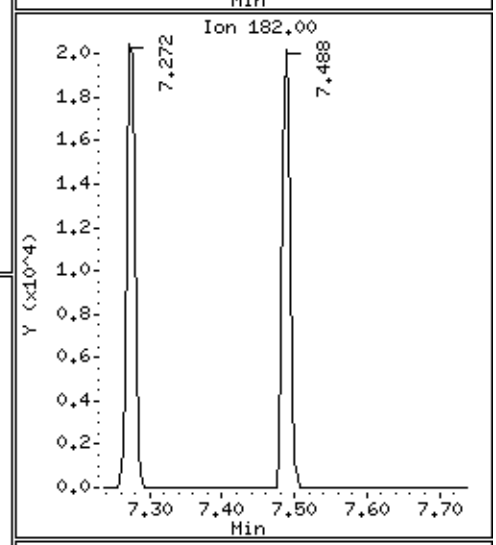


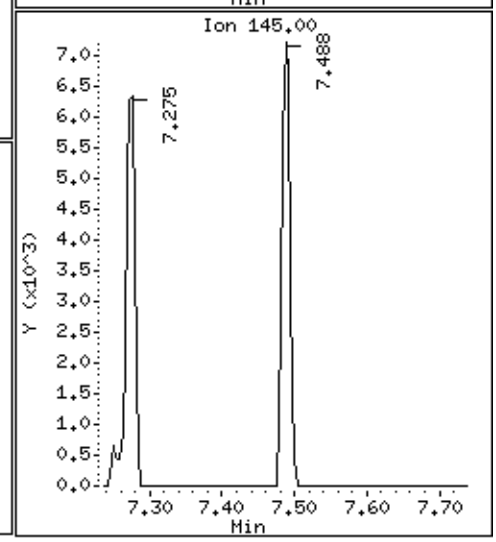












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040.d

Date : 29-NOV-2019 16:12

Client ID: MS

Instrument: 30mv7b.i

Sample Info: 30337003006

Purge Volume: 5.0

Operator: LEL

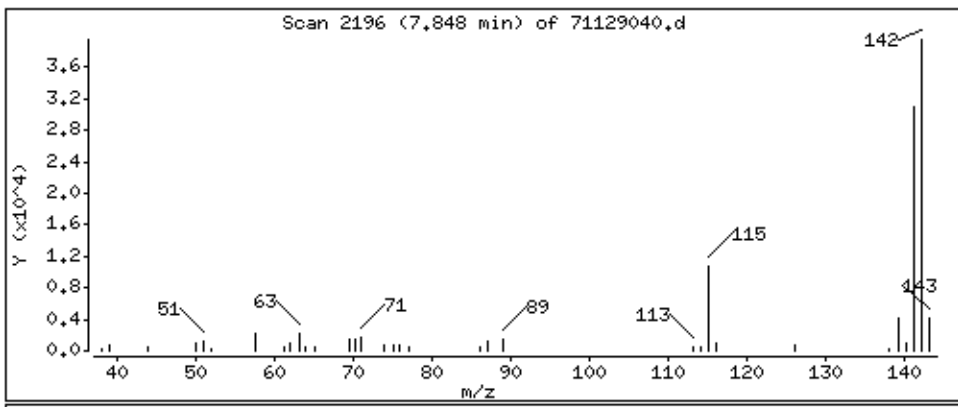
Column phase: RTX-VMS

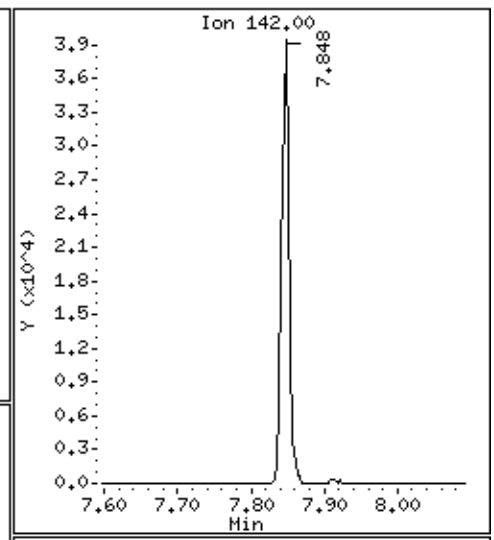
Column diameter: 0.18

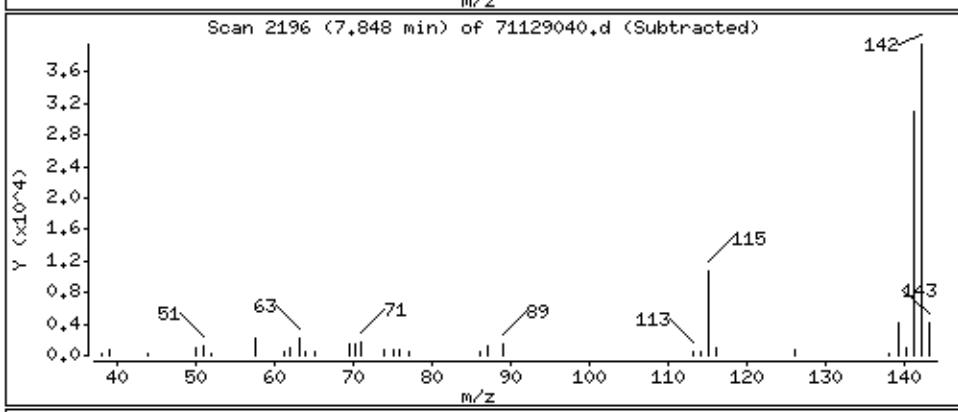
105 2-Methylnaphthalene

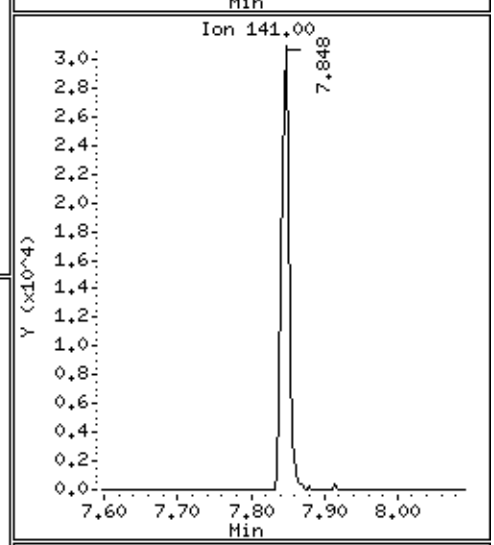
Concentration: 12.5 ug/L

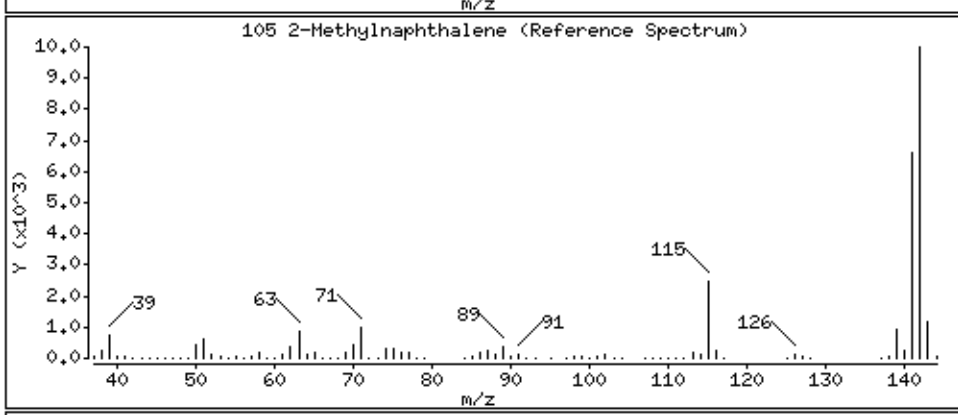
Review Code:

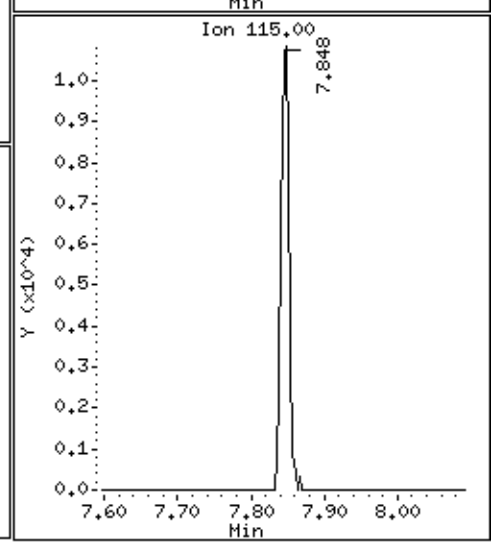


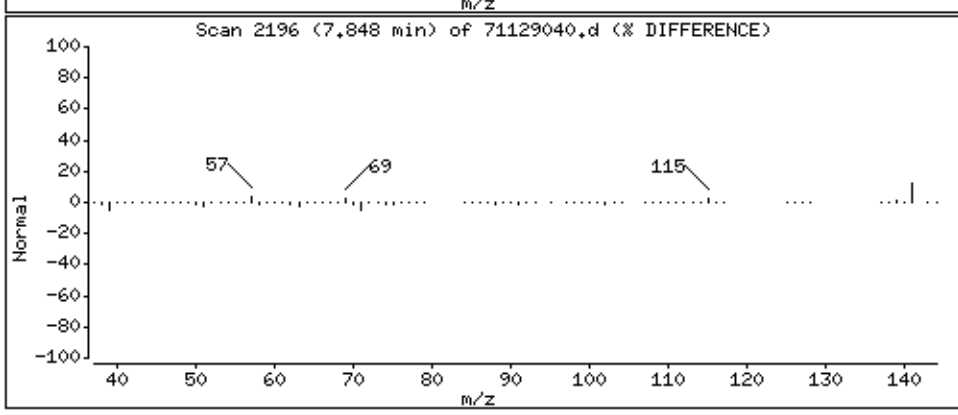












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129040.d
Injection Date: 29-NOV-2019 16:12
Instrument: 30mv7b.i
Lab Sample ID: 30337003006
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:37 Lab Sample ID: 30337003007

Date Analyzed: 11/29/2019 16:37 Lab File ID: 7191129.B\2.B\71129042.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	19.0	
71-43-2	Benzene	13.6	
108-86-1	Bromobenzene	12.9	
74-97-5	Bromochloromethane	14.3	
75-27-4	Bromodichloromethane	14.6	
75-25-2	Bromoform	10.8	
74-83-9	Bromomethane	6.6	
78-93-3	2-Butanone (MEK)	17.1	
104-51-8	n-Butylbenzene	12.5	
135-98-8	sec-Butylbenzene	13.7	
98-06-6	tert-Butylbenzene	14.2	
75-15-0	Carbon disulfide	12.0	
56-23-5	Carbon tetrachloride	15.5	
108-90-7	Chlorobenzene	14.9	
75-00-3	Chloroethane	20.5	
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	14.1	
74-87-3	Chloromethane	16.4	
95-49-8	2-Chlorotoluene	14.4	
106-43-4	4-Chlorotoluene	13.5	
96-12-8	1,2-Dibromo-3-chloropropane	10.9	
124-48-1	Dibromochloromethane	13.1	
106-93-4	1,2-Dibromoethane (EDB)	13.5	
74-95-3	Dibromomethane	13.3	
95-50-1	1,2-Dichlorobenzene	13.8	
541-73-1	1,3-Dichlorobenzene	13.6	
106-46-7	1,4-Dichlorobenzene	13.4	
75-71-8	Dichlorodifluoromethane	20.7	
75-34-3	1,1-Dichloroethane	42.2	
107-06-2	1,2-Dichloroethane	15.6	
75-35-4	1,1-Dichloroethene	66.5	
156-59-2	cis-1,2-Dichloroethene	56.2	
156-60-5	trans-1,2-Dichloroethene	16.0	
78-87-5	1,2-Dichloropropane	15.2	
142-28-9	1,3-Dichloropropane	12.7	
594-20-7	2,2-Dichloropropane	14.1	
563-58-6	1,1-Dichloropropene	14.5	

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

MSD

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:37 Lab Sample ID: 30337003007

Date Analyzed: 11/29/2019 16:37 Lab File ID: 7191129.B\2.B\71129042.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	13.8	
10061-02-6	trans-1,3-Dichloropropene	13.4	
100-41-4	Ethylbenzene	14.5	
87-68-3	Hexachloro-1,3-butadiene	11.0	
591-78-6	2-Hexanone	15.5	
98-82-8	Isopropylbenzene (Cumene)	15.5	
99-87-6	p-Isopropyltoluene	13.7	
75-09-2	Methylene Chloride	17.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.6	
1634-04-4	Methyl-tert-butyl ether	13.8	
91-20-3	Naphthalene	12.4	
103-65-1	n-Propylbenzene	14.0	
100-42-5	Styrene	14.9	
630-20-6	1,1,1,2-Tetrachloroethane	14.8	
79-34-5	1,1,2,2-Tetrachloroethane	13.0	
127-18-4	Tetrachloroethene	14.6	
108-88-3	Toluene	14.1	
87-61-6	1,2,3-Trichlorobenzene	11.9	
120-82-1	1,2,4-Trichlorobenzene	12.6	
71-55-6	1,1,1-Trichloroethane	182	
79-00-5	1,1,2-Trichloroethane	14.2	
79-01-6	Trichloroethene	323	
75-69-4	Trichlorofluoromethane	18.8	
95-63-6	1,2,4-Trimethylbenzene	13.6	
108-67-8	1,3,5-Trimethylbenzene	13.8	
108-05-4	Vinyl acetate	13.0	
75-01-4	Vinyl chloride	23.9	
1330-20-7	Xylene (Total)	42.5	
179601-23-1	m&p-Xylene	28.5	
95-47-6	o-Xylene	14.0	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Lab Smp Id: 30337003007 Client Smp ID: MSD
Inj Date : 29-NOV-2019 16:37
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003007
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 42
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.841	0.841	(0.207)	36970	20.6766	20.7	
2 Chloromethane	50	0.941	0.941	(0.231)	36942	16.3739	16.4	
3 Vinyl chloride	62	0.979	0.979	(0.241)	51631	23.9390	23.9	
4 Bromomethane	94	1.140	1.140	(0.280)	4755	6.64476	6.64	
5 Chloroethane	64	1.195	1.198	(0.294)	13195	20.5175	20.5	
6 Trichlorofluoromethane	101	1.269	1.269	(0.312)	56720	18.8433	18.8	
7 Diethyl ether (Ethyl ether)	59	1.436	1.439	(0.353)	23016	14.6467	14.6	
8 Ethanol	46	1.532	1.542	(0.236)	3831	171.131	171	
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	185791	66.5294	66.5	
10 1,1,2-Trichlorotrifluoroethane	151	1.568	1.571	(0.386)	21465	14.2261	14.2	
11 Carbon disulfide	76	1.568	1.568	(0.386)	56200	11.9727	12.0	
12 Iodomethane	142	1.635	1.635	(0.402)	5732	6.61895	6.62	
13 Acrolein	56	1.751	1.754	(0.431)	6937	14.3242	14.3(M)	LT
14 Allyl chloride	41	1.834	1.835	(0.451)	202108	84.8975	84.9	
15 Methylene Chloride	49	1.905	1.902	(0.469)	34952	17.5679	17.6	
16 Acetone	58	1.950	1.944	(0.480)	7279	19.0325	19.0	
17 trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	38187	16.0113	16.0	
18 Methyl acetate	74	2.027	2.024	(0.499)	12408	16.3329	16.3(Q)	
19 n-Hexane	86	2.056	2.063	(0.506)	3493	12.3506	12.4	
20 Methyl-tert-butyl ether	73	2.088	2.089	(0.514)	67092	13.8498	13.8(Q)	
21 tert-Butyl Alcohol	59	2.175	2.172	(0.535)	60210	83.3722	83.4(Q)	
22 Acetonitrile	41	2.285	2.278	(0.562)	34244	86.1357	86.1	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Report Date: 02-Dec-2019 10:32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.375	2.375	(0.584)	87363	16.7333	16.7	
	24 Chloroprene	53	2.449	2.452	(0.602)	31420	17.3442	17.3	
	25 1,1-Dichloroethane	63	2.474	2.471	(0.609)	124028	42.1594	42.2	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	20875	16.8768	16.9	
	27 Ethyl-tert-butyl ether	59	2.690	2.687	(0.662)	77156	15.4883	15.5	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	59174	13.0350	13.0	
	29 cis-1,2-Dichloroethene	61	2.963	2.957	(0.729)	126452	56.2276	56.2	
	30 2,2-Dichloropropane	77	3.066	3.066	(0.754)	31597	14.0664	14.1	
	31 Cyclohexane	56	3.143	3.146	(0.773)	43944	16.4213	16.4	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	15977	14.2836	14.3	
	33 Chloroform	83	3.252	3.246	(0.800)	40109	14.1099	14.1	
	34 Ethyl acetate	43	3.410	3.407	(0.839)	24181	15.7402	15.7(Q)	
	35 Carbon tetrachloride	117	3.362	3.365	(0.827)	35491	15.5323	15.5	
	36 Tetrahydrofuran	42	3.416	3.407	(0.840)	27018	20.4839	20.5	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	48429	32.0766	32.1	
	38 1,1,1-Trichloroethane	97	3.439	3.439	(0.846)	446134	182.473	182	
	39 2-Butanone (MEK)	43	3.590	3.584	(0.883)	34150	17.0802	17.1	
	40 1,1-Dichloropropene	75	3.577	3.571	(0.880)	32283	14.4564	14.4(M)	LT
	41 Benzene	78	3.783	3.780	(0.930)	89162	13.6053	13.6	
	42 Propionitrile	54	3.821	3.822	(0.940)	7779	16.2868	16.3(M)	LT
	43 Methacrylonitrile	41	3.834	3.831	(0.943)	25648	16.5854	16.6	
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	56048	13.4067	13.4	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	50607	32.5817	32.6	
	45 Isobutanol	43	3.998	3.992	(0.983)	17425	86.2203	86.2(QM)	GT
	47 1,2-Dichloroethane	62	3.934	3.931	(0.968)	32179	15.5713	15.6	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	174643	30.0000		
	49 Methylcyclohexane	55	4.149	4.150	(1.021)	25120	15.9792	16.0(Q)	
	50 Trichloroethene	132	4.166	4.162	(1.025)	609108	323.117	323	
	51 Dibromomethane	174	4.384	4.384	(1.078)	17253	13.2633	13.3	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.090)	23494	15.2297	15.2	
	53 Bromodichloromethane	83	4.471	4.468	(1.100)	25828	14.6118	14.6	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	19179	14.1161	14.1	
	55 1,4-Dioxane (p-Dioxane)	88	4.567	4.568	(1.123)	5092	173.822	174(Q)	
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	4.747	4.744	(1.168)	30231	13.7929	13.8	
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	153548	28.6768	28.7	
	59 Toluene	91	4.847	4.844	(0.879)	96641	14.0787	14.1	
	60 2-Nitropropane	43	4.960	4.957	(1.220)	70869	84.1098	84.1	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	49218	17.6177	17.6	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	27603	14.6136	14.6	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	28115	13.4383	13.4	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	23889	16.7212	16.7	
	65 1,1,2-Trichloroethane	97	5.114	5.111	(0.928)	21688	14.2253	14.2	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	22068	13.1037	13.1	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	32645	12.7394	12.7	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	23703	13.5414	13.5	
	69 2-Hexanone	43	5.391	5.391	(0.978)	38217	15.4986	15.5	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	119033	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	31177	14.4555	14.4	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	60875	14.8503	14.8	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	22414	14.7524	14.8	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	74360	28.4509	28.4	
	75 o-Xylene	106	5.770	5.770	(1.047)	35523	14.0148	14.0	
	76 Styrene	104	5.792	5.793	(1.051)	57028	14.8518	14.8	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Report Date: 02-Dec-2019 10:32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	5.809	5.809	(0.896)	14174	10.7810	10.8	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	82555	15.4868	15.5	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	47362	28.7551	28.8	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	82721	13.9569	14.0	
	81 Bromobenzene	77	6.066	6.066	(0.936)	33748	12.9441	12.9	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	29054	12.9751	13.0	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	56639	13.7512	13.8	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	20089	14.3755	14.4	
	85 1,2,3-Trichloropropane	110	6.162	6.159	(0.951)	10673	13.3834	13.4	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.953)	6404	8.87997	8.88(Q)	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	12399	57.1691	57.2	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	20041	13.5491	13.5	
	89 tert-Butylbenzene	119	6.281	6.278	(0.969)	47239	14.1546	14.2	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	55670	13.6174	13.6	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	61115	13.6913	13.7	
	92 p-Isopropyltoluene	119	6.410	6.407	(0.989)	51683	13.6757	13.7	
	93 1,3-Dichlorobenzene	146	6.455	6.452	(0.996)	34928	13.6255	13.6	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	52843	30.0000		
	95 1,4-Dichlorobenzene	146	6.490	6.487	(1.001)	36862	13.4090	13.4	
	96 n-Butylbenzene	91	6.583	6.584	(1.016)	36726	12.5429	12.5	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	24005	29.7937	29.8	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	34582	13.8250	13.8	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	8960	10.9309	10.9	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	16846	12.5018	12.5	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	6711	10.9746	11.0	
	101 1,2,4-Trichlorobenzene	180	7.275	7.272	(1.123)	15702	12.6189	12.6	
	102 Naphthalene	128	7.410	7.410	(1.143)	68104	12.3882	12.4	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	14717	11.8606	11.9	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	27229	11.8677	11.9	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003007
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MSD
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	20.7	
74-87-3	Chloromethane	16.4	
75-01-4	Vinyl chloride	23.9	
74-83-9	Bromomethane	6.64	
75-00-3	Chloroethane	20.5	
75-69-4	Trichlorofluoromethane	18.8	
60-29-7	Diethyl ether (Ethyl ether)	14.6	
64-17-5	Ethanol	171	
75-35-4	1,1-Dichloroethene	66.5	
76-13-1	1,1,2-Trichlorotrifluoroetha	14.2	
75-15-0	Carbon disulfide	12.0	
74-88-4	Iodomethane	6.62	
107-02-8	Acrolein	14.3	
107-05-1	Allyl chloride	84.9	
75-09-2	Methylene Chloride	17.6	
67-64-1	Acetone	19.0	
156-60-5	trans-1,2-Dichloroethene	16.0	
79-20-9	Methyl acetate	16.3	
110-54-3	n-Hexane	12.4	
1634-04-4	Methyl-tert-butyl ether	13.8	
75-65-0	tert-Butyl Alcohol	83.4	
75-05-8	Acetonitrile	86.1	
108-20-3	Diisopropyl ether	16.7	
126-99-8	Chloroprene	17.3	
75-34-3	1,1-Dichloroethane	42.2	
107-13-1	Acrylonitrile	16.9	
637-92-3	Ethyl-tert-butyl ether	15.5	
108-05-4	Vinyl acetate	13.0	
156-59-2	cis-1,2-Dichloroethene	56.2	
594-20-7	2,2-Dichloropropane	14.1	
110-82-7	Cyclohexane	16.4	
74-97-5	Bromochloromethane	14.3	
67-66-3	Chloroform	14.1	
141-78-6	Ethyl acetate	15.7	
56-23-5	Carbon tetrachloride	15.5	
109-99-9	Tetrahydrofuran	20.5	
71-55-6	1,1,1-Trichloroethane	182	
78-93-3	2-Butanone (MEK)	17.1	
563-58-6	1,1-Dichloropropene	14.4	
71-43-2	Benzene	13.6	
107-12-0	Propionitrile	16.3	
126-98-7	Methacrylonitrile	16.6	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003007
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MSD
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	13.4	
78-83-1	Isobutanol	86.2	
107-06-2	1,2-Dichloroethane	15.6	
108-87-2	Methylcyclohexane	16.0	
79-01-6	Trichloroethene	323	
74-95-3	Dibromomethane	13.3	
78-87-5	1,2-Dichloropropane	15.2	
75-27-4	Bromodichloromethane	14.6	
80-62-6	Methyl methacrylate	14.1	
123-91-1	1,4-Dioxane (p-Dioxane)	174	
10061-01-5	cis-1,3-Dichloropropene	13.8	
108-88-3	Toluene	14.1	
79-46-9	2-Nitropropane	84.1	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.6	
127-18-4	Tetrachloroethene	14.6	
10061-02-6	trans-1,3-Dichloropropene	13.4	
97-63-2	Ethyl methacrylate	16.7	
79-00-5	1,1,2-Trichloroethane	14.2	
124-48-1	Dibromochloromethane	13.1	
142-28-9	1,3-Dichloropropane	12.7	
106-93-4	1,2-Dibromoethane (EDB)	13.5	
591-78-6	2-Hexanone	15.5	
100-41-4	Ethylbenzene	14.4	
108-90-7	Chlorobenzene	14.8	
630-20-6	1,1,1,2-Tetrachloroethane	14.8	
7816-60-0	m&p-Xylene	28.4	
95-47-6	o-Xylene	14.0	
100-42-5	Styrene	14.8	
75-25-2	Bromoform	10.8	
98-82-8	Isopropylbenzene (Cumene)	15.5	
103-65-1	n-Propylbenzene	14.0	
108-86-1	Bromobenzene	12.9	
79-34-5	1,1,2,2-Tetrachloroethane	13.0	
108-67-8	1,3,5-Trimethylbenzene	13.8	
95-49-8	2-Chlorotoluene	14.4	
96-18-4	1,2,3-Trichloropropane	13.4	
110-57-6	trans-1,4-Dichloro-2-butene	8.88	
108-94-1	Cyclohexanone	57.2	
106-43-4	4-Chlorotoluene	13.5	
98-06-6	tert-Butylbenzene	14.2	
95-63-6	1,2,4-Trimethylbenzene	13.6	
135-98-8	sec-Butylbenzene	13.7	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Report Date: 02-Dec-2019 10:32

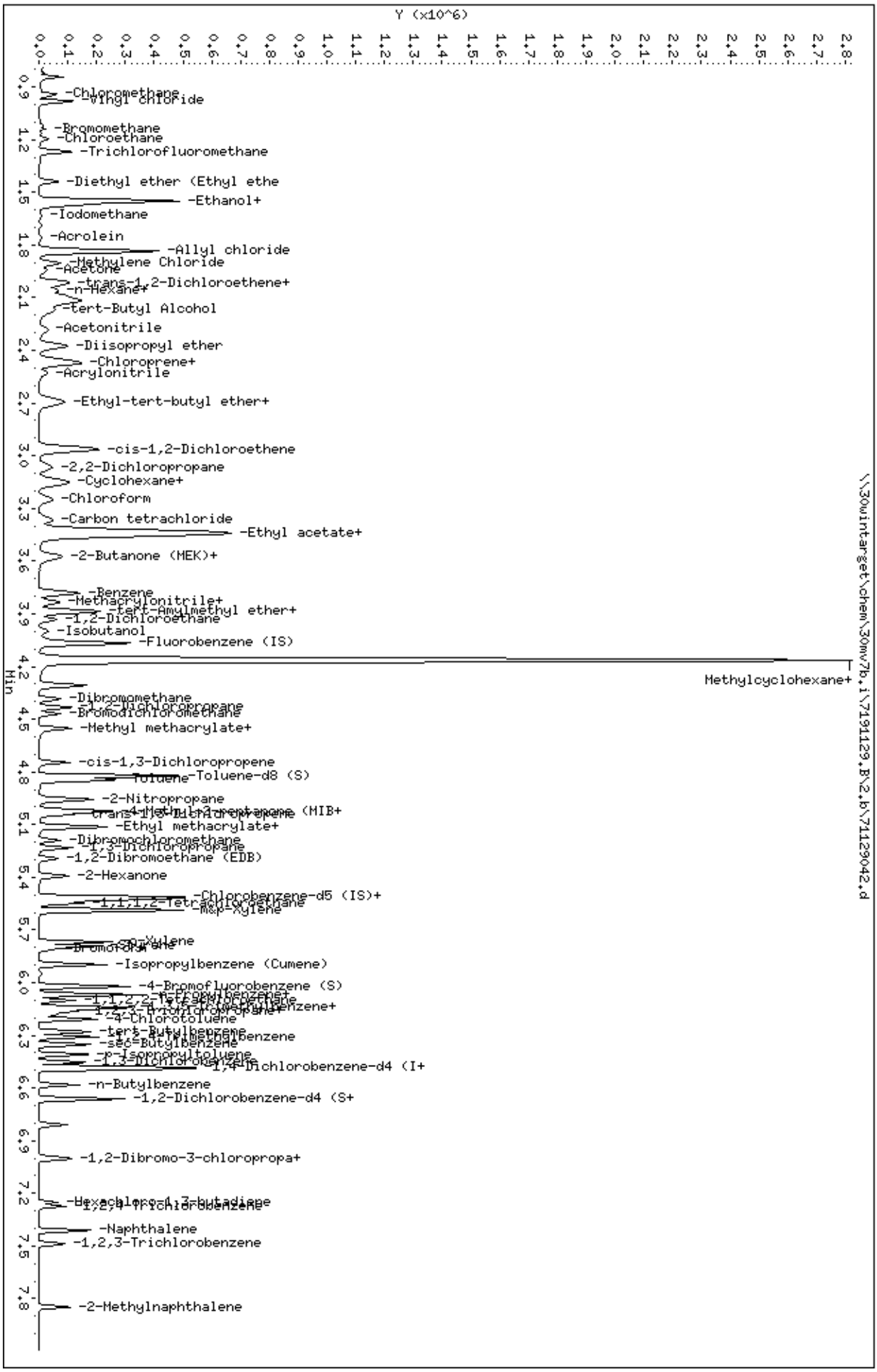
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003007
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MSD
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
99-87-6	p-Isopropyltoluene	13.7	
541-73-1	1,3-Dichlorobenzene	13.6	
106-46-7	1,4-Dichlorobenzene	13.4	
104-51-8	n-Butylbenzene	12.5	
95-50-1	1,2-Dichlorobenzene	13.8	
96-12-8	1,2-Dibromo-3-chloropropane	10.9	
108-70-3	1,3,5-Trichlorobenzene	12.5	
87-68-3	Hexachloro-1,3-butadiene	11.0	
120-82-1	1,2,4-Trichlorobenzene	12.6	
91-20-3	Naphthalene	12.4	
87-61-6	1,2,3-Trichlorobenzene	11.9	
91-57-6	2-Methylnaphthalene	11.9	
1868-53-7	Dibromofluoromethane (S)	32.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.6	
2037-26-5	Toluene-d8 (S)	28.7	
460-00-4	4-Bromofluorobenzene (S)	28.8	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.8	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Date : 29-NOV-2019 16:37
Client ID: MSD
Sample Info: 30337003007
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane+
-Tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
Methylcyclohexane+
-Dibromomethane
-1,1,2-Trichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-cis-1,3-Dichloropropene
-Toluene-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-trans-1,3-Dichloropropene
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
-o-Xylene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

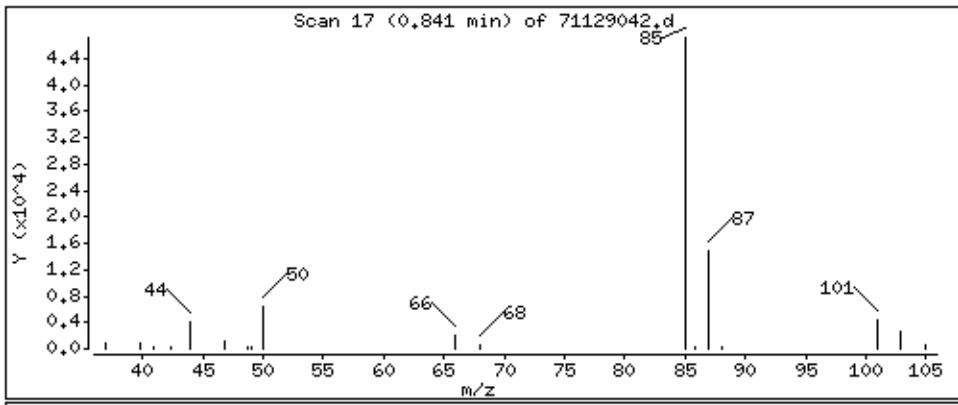
Column phase: RTX-VMS

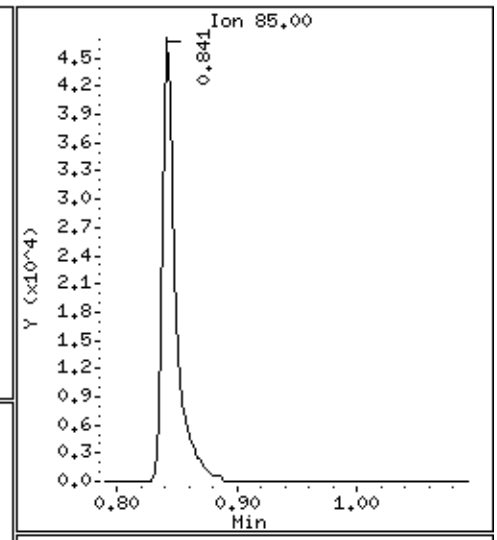
Column diameter: 0.18

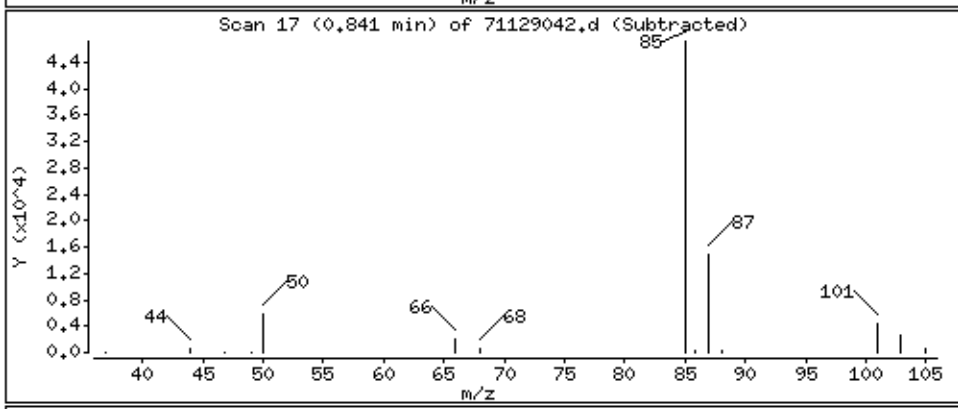
1 Dichlorodifluoromethane

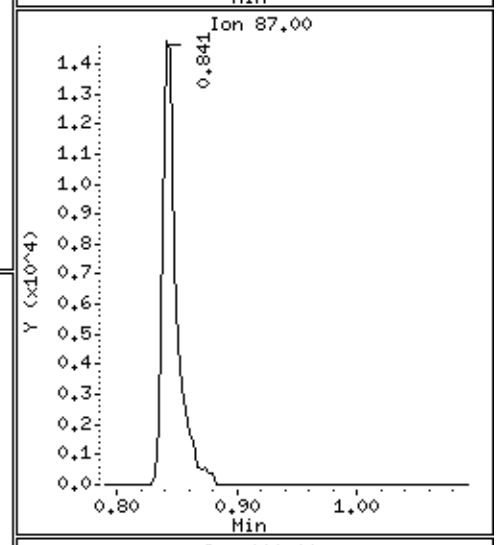
Concentration: 20.7 ug/L

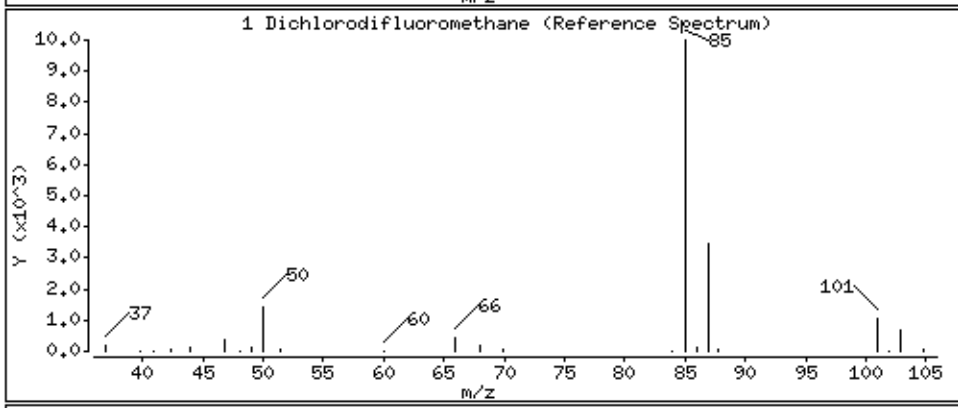
Review Code:

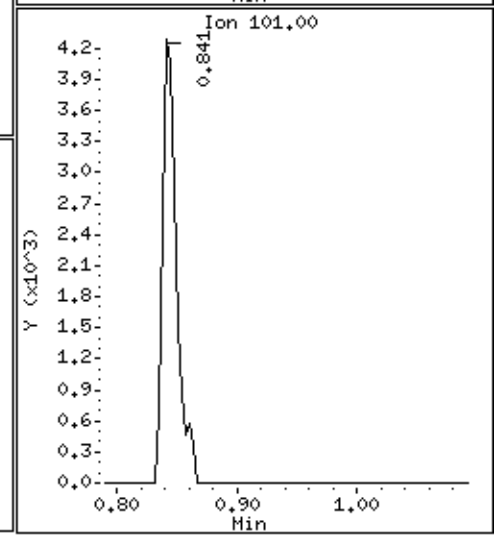


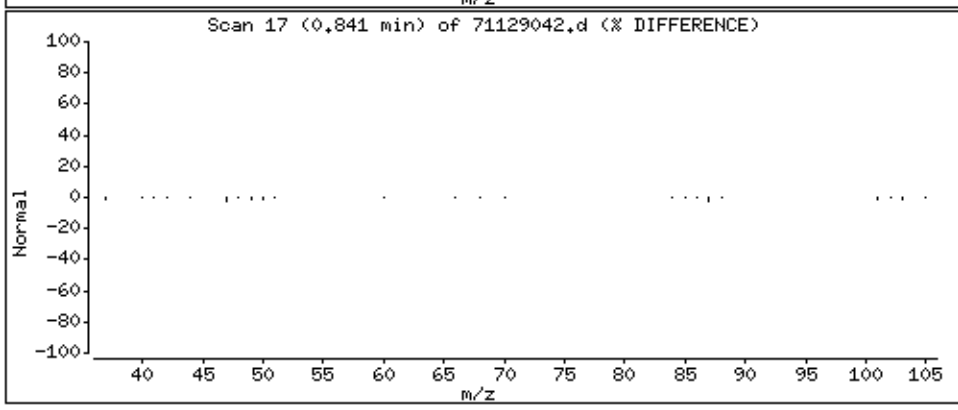












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

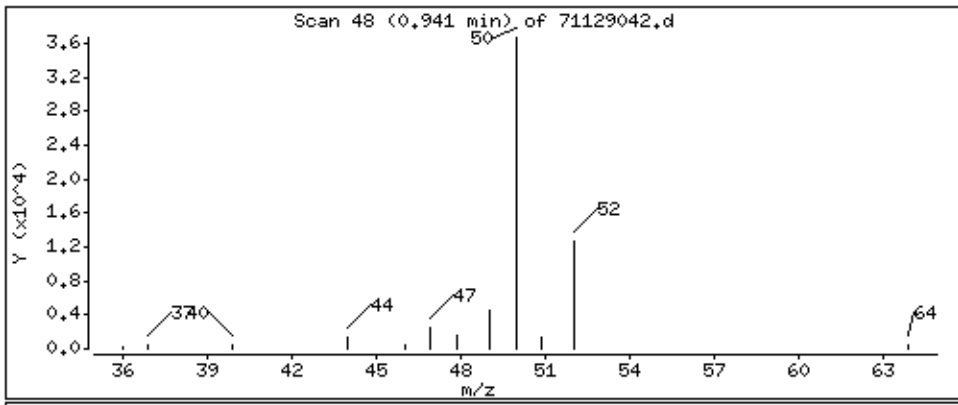
Client ID: MSD | Instrument: 30mv7b.i

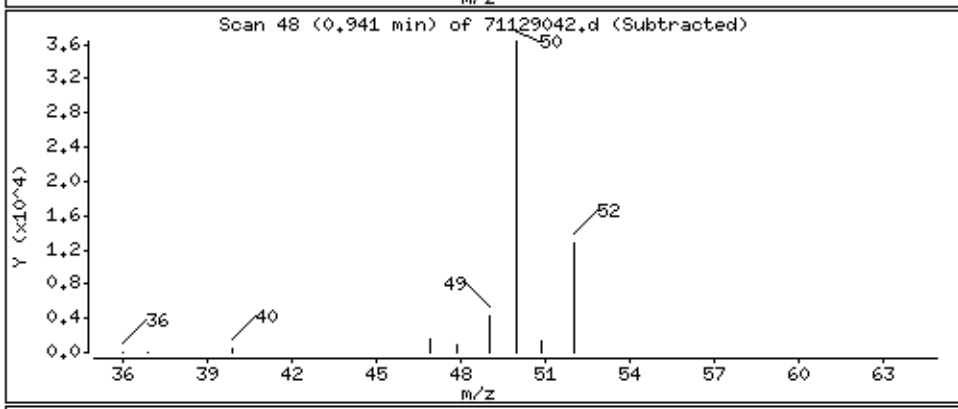
Sample Info: 30337003007

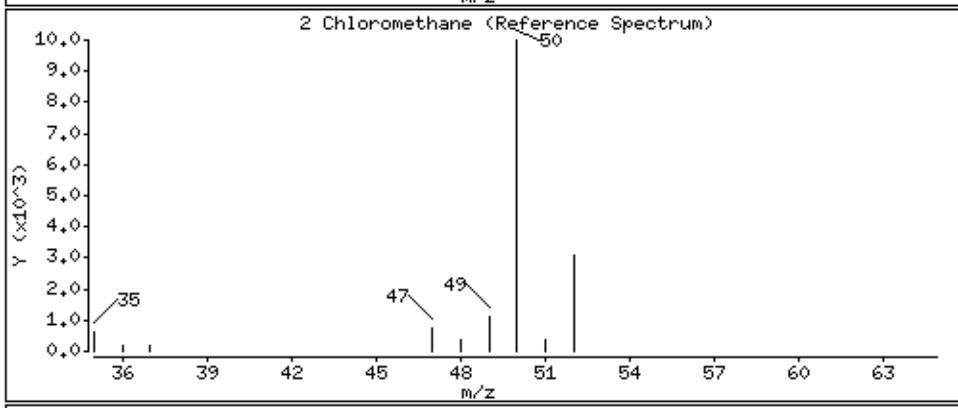
Purge Volume: 5.0 | Operator: LEL

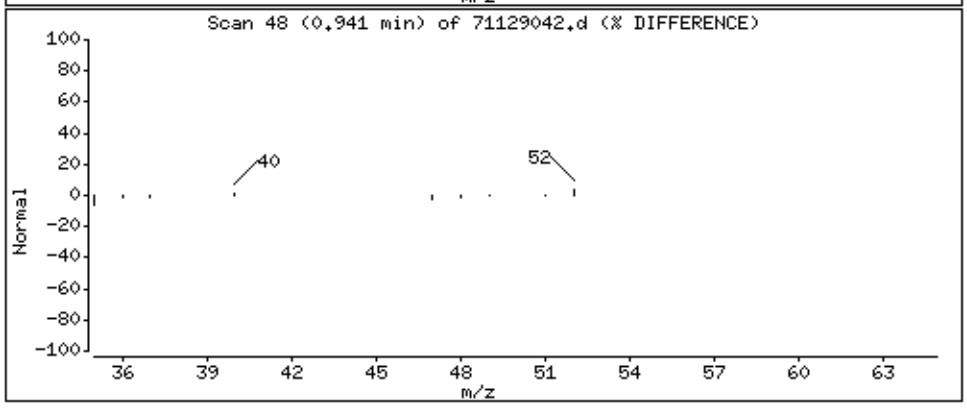
Column phase: RTX-VMS | Column diameter: 0.18

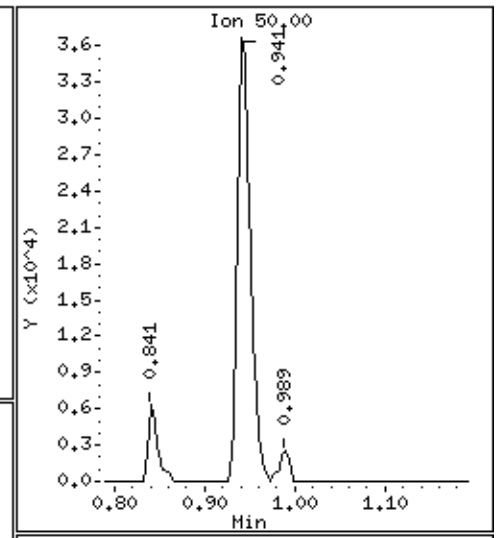
2 Chloromethane | Concentration: 16.4 ug/L | Review Code:

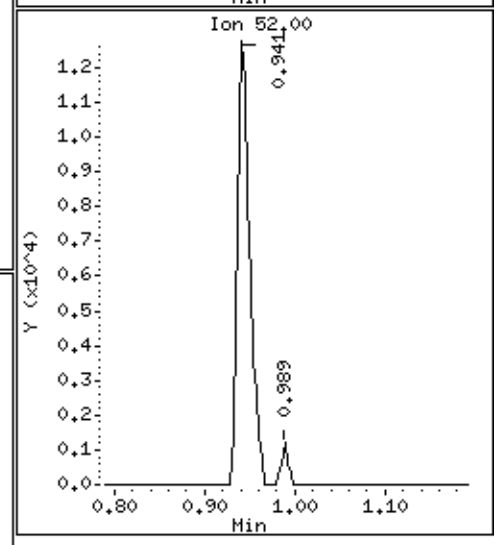












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

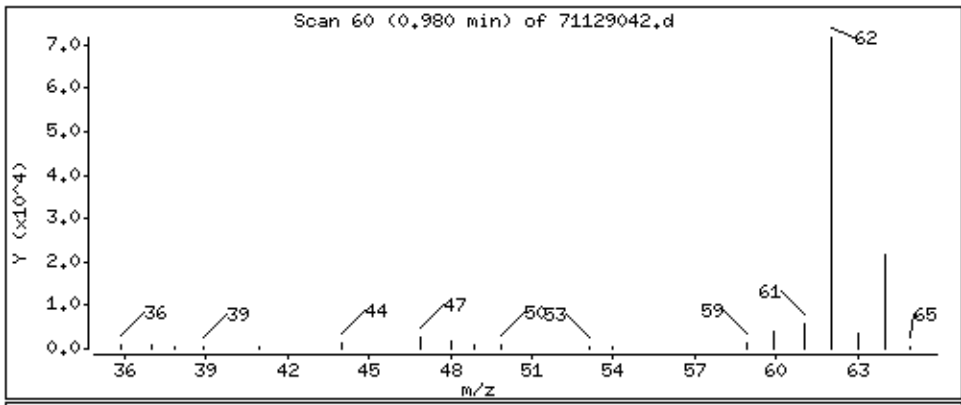
Column phase: RTX-VMS

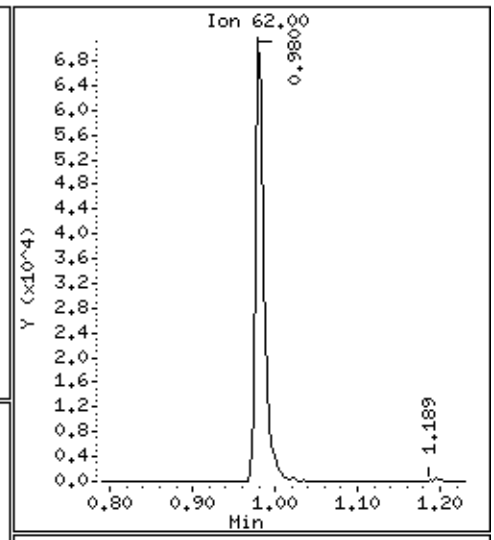
Column diameter: 0.18

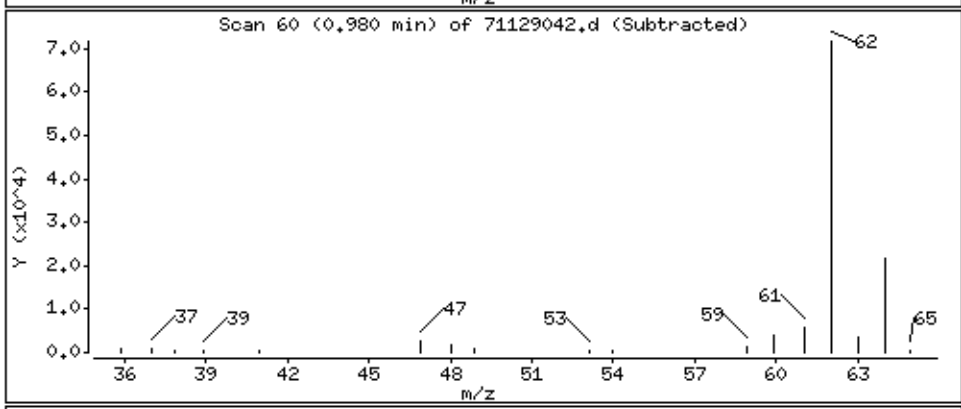
3 Vinyl chloride

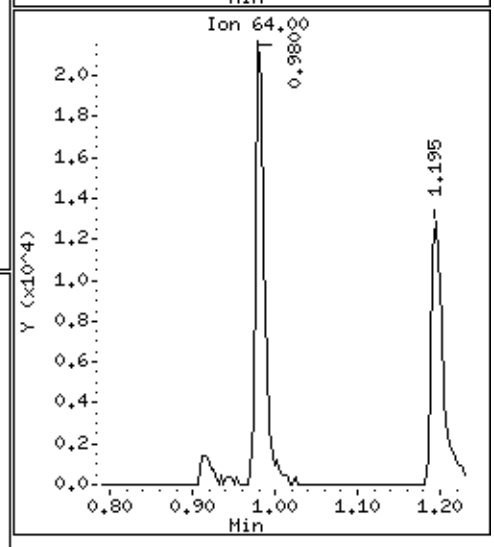
Concentration: 23.9 ug/L

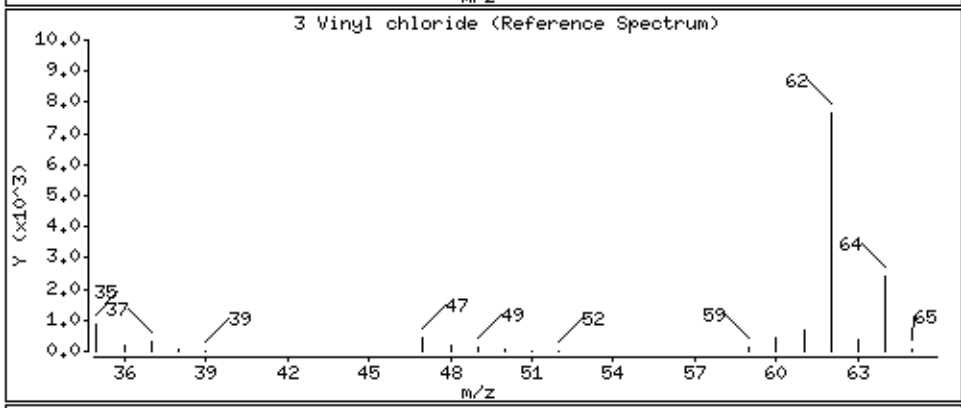
Review Code:

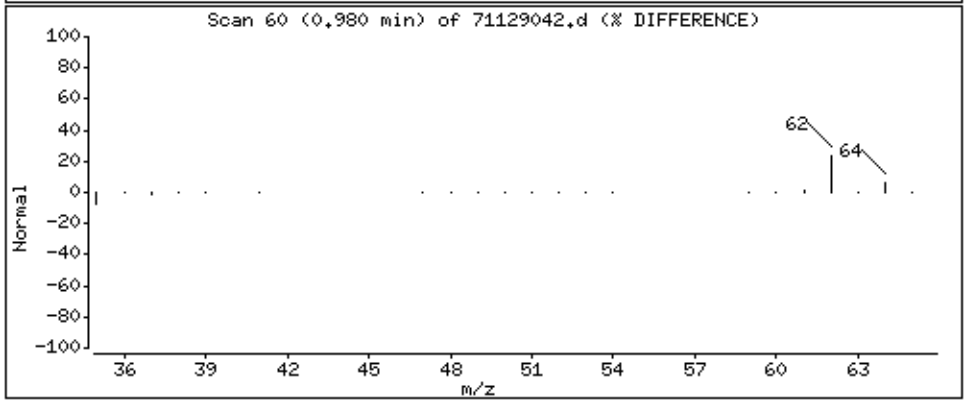












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

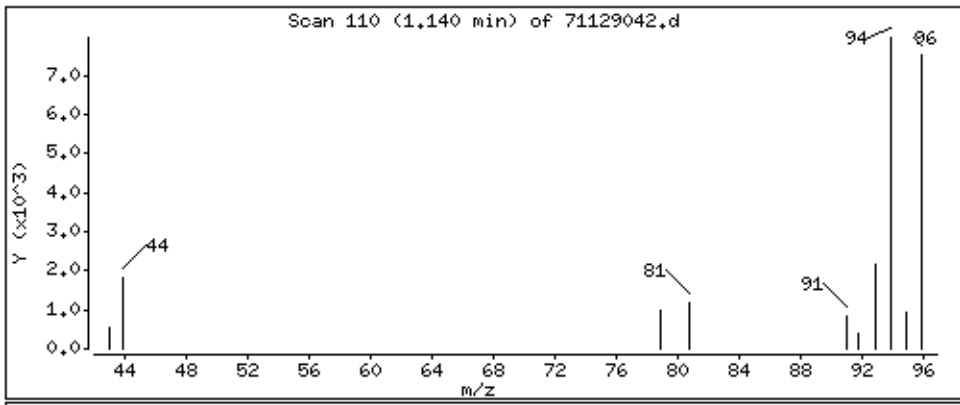
Column phase: RTX-VMS

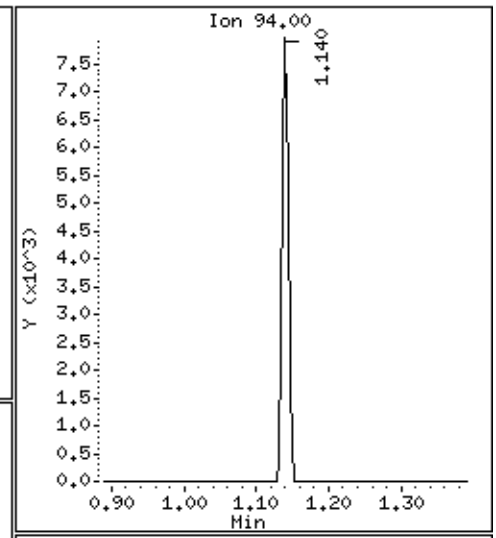
Column diameter: 0.18

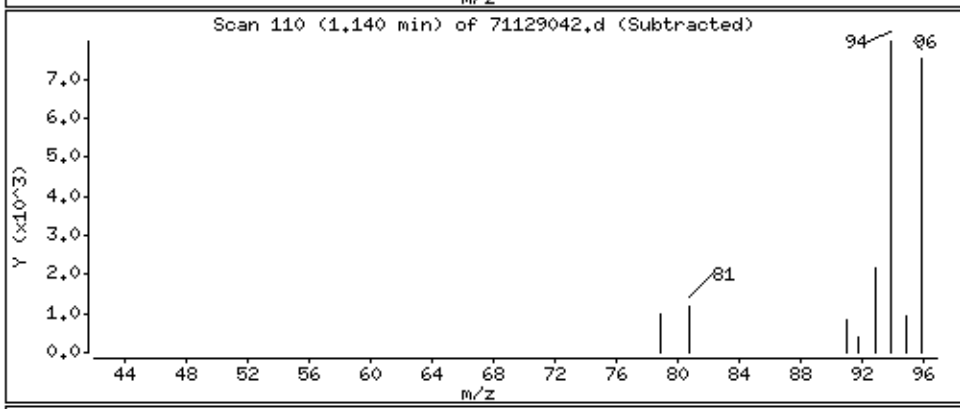
4 Bromomethane

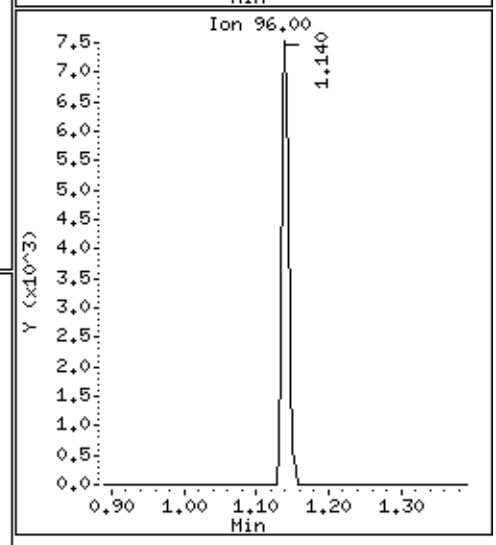
Concentration: 6.64 ug/L

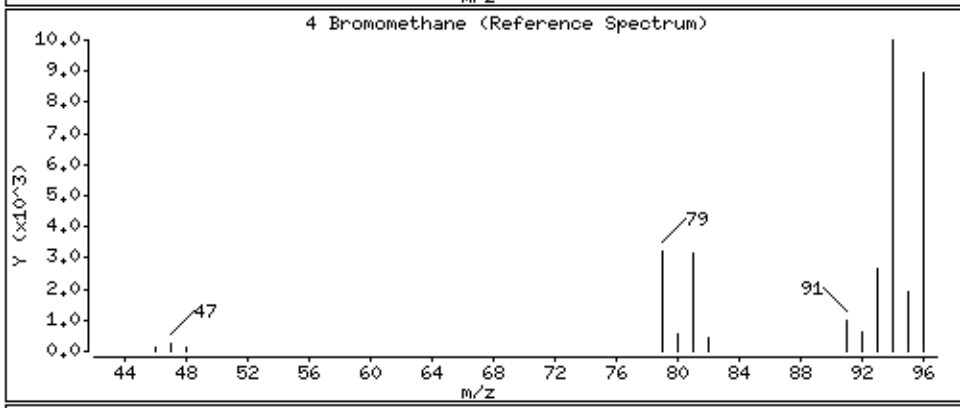
Review Code:

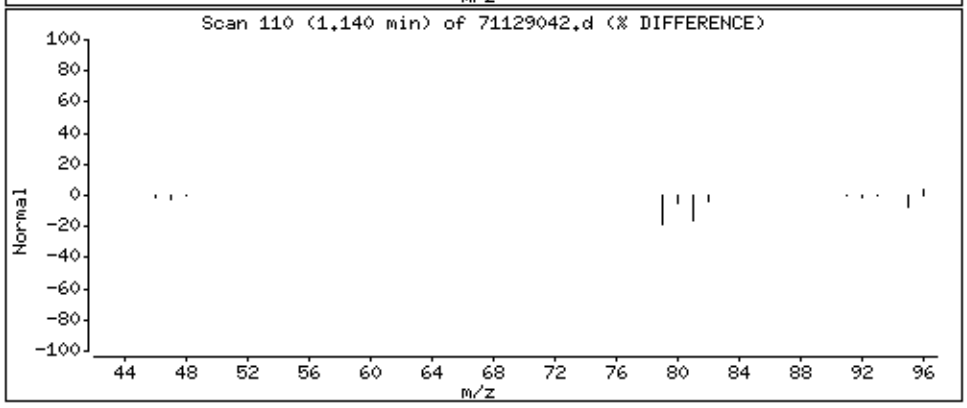












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

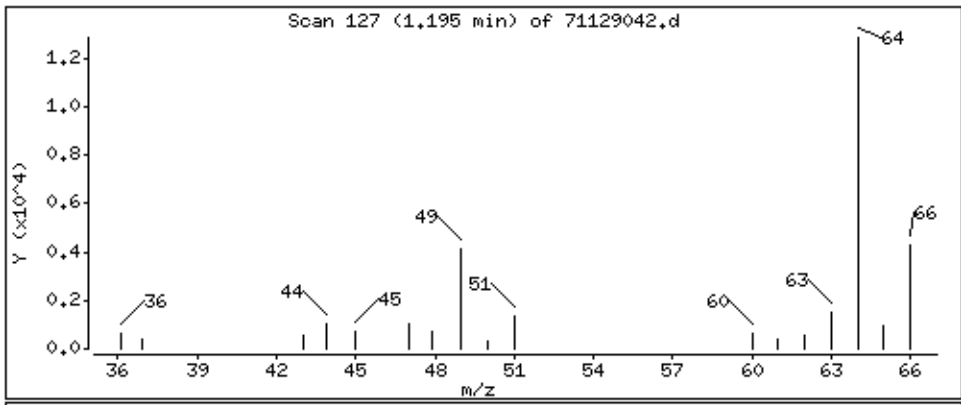
Column phase: RTX-VMS

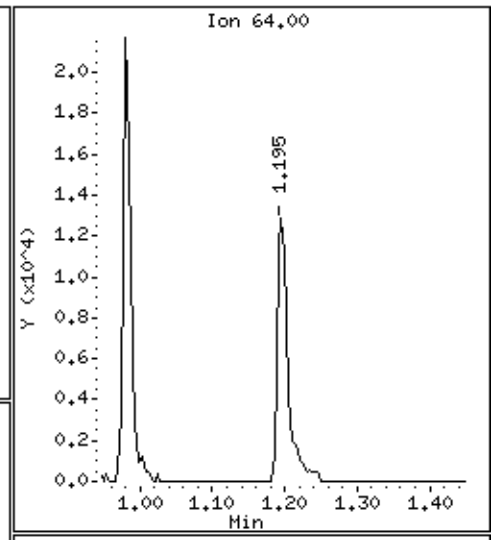
Column diameter: 0.18

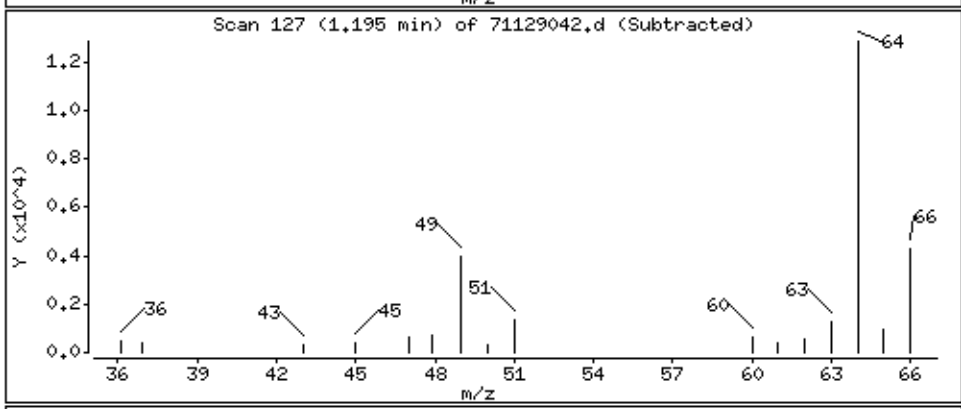
5 Chloroethane

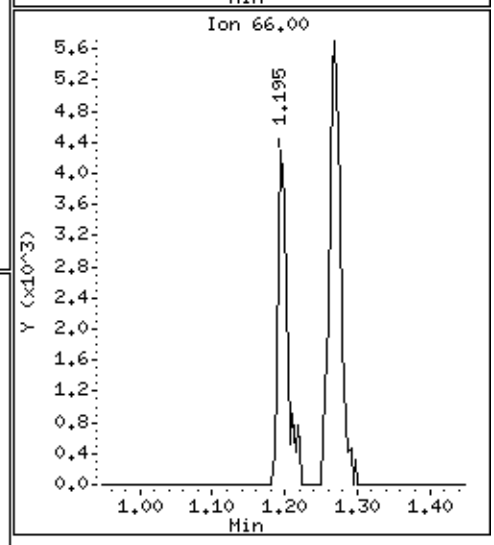
Concentration: 20.5 ug/L

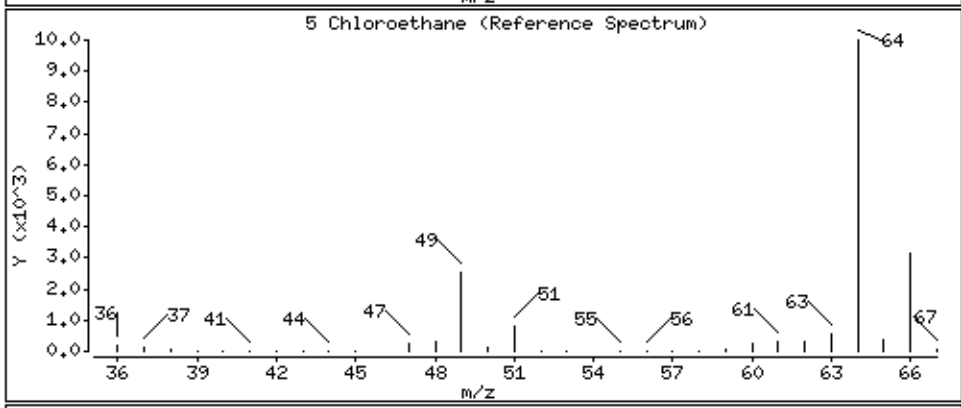
Review Code:

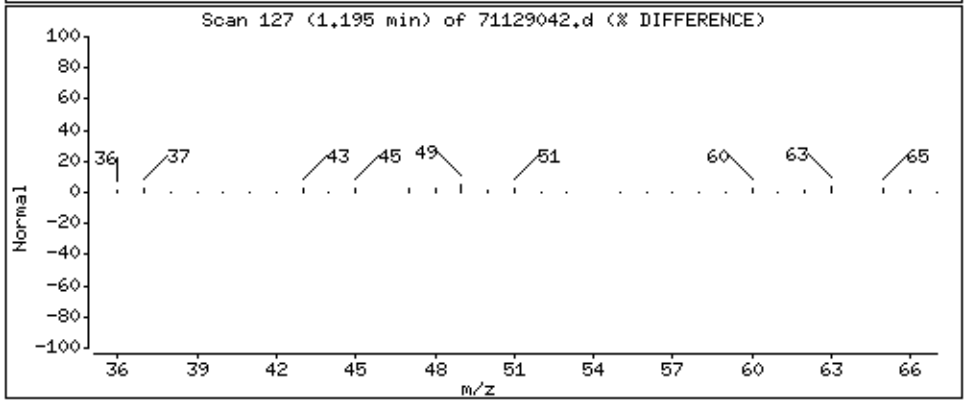












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

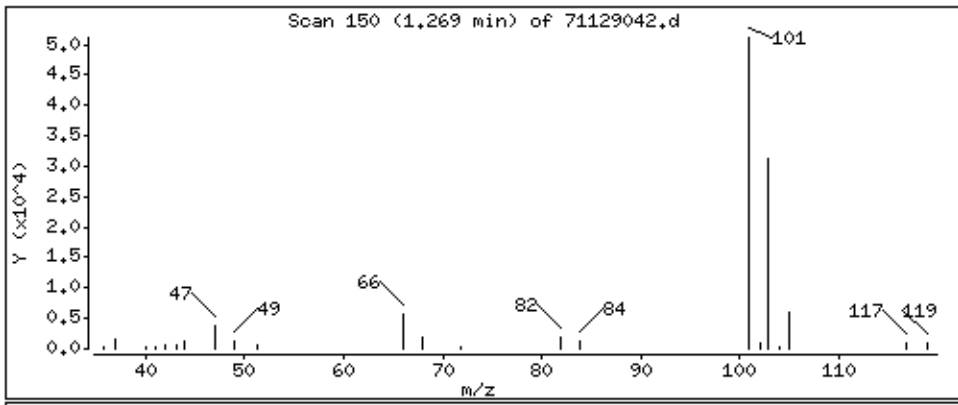
Column phase: RTX-VMS

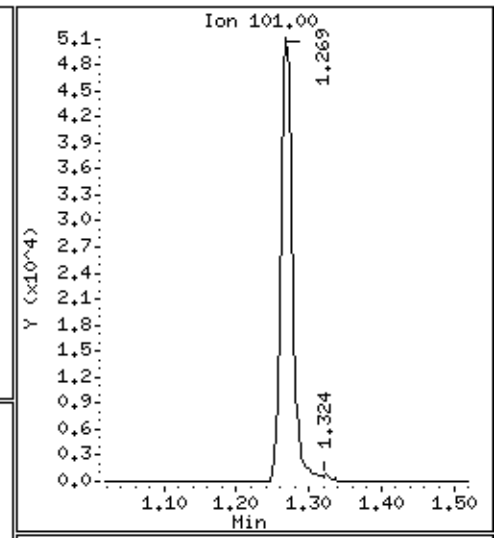
Column diameter: 0.18

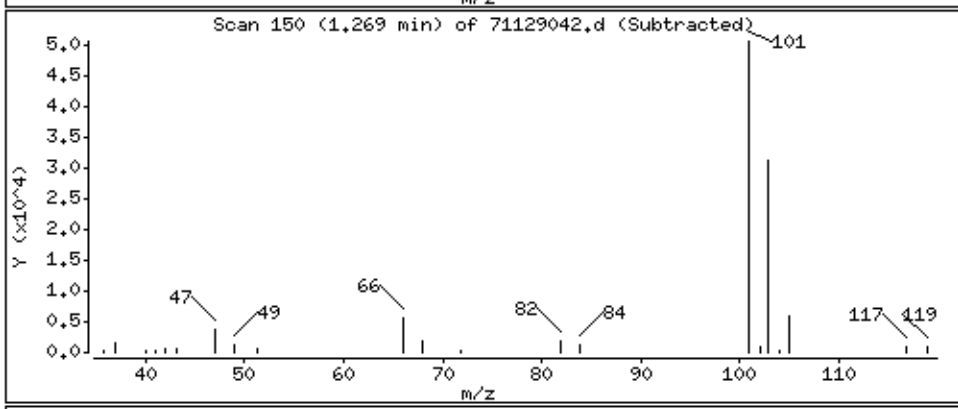
6 Trichlorofluoromethane

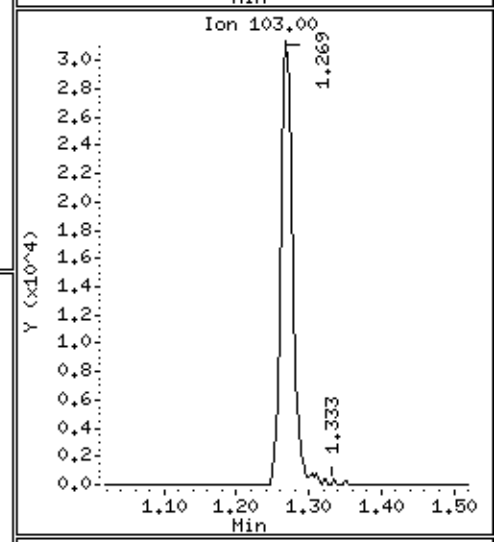
Concentration: 18.8 ug/L

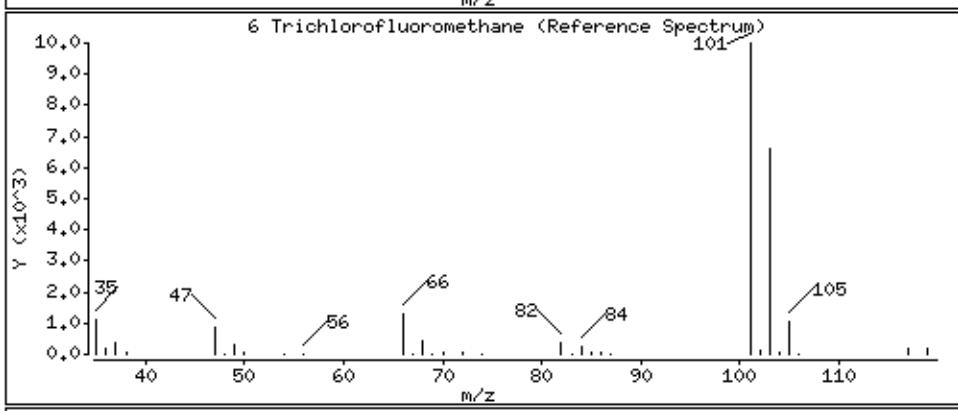
Review Code:

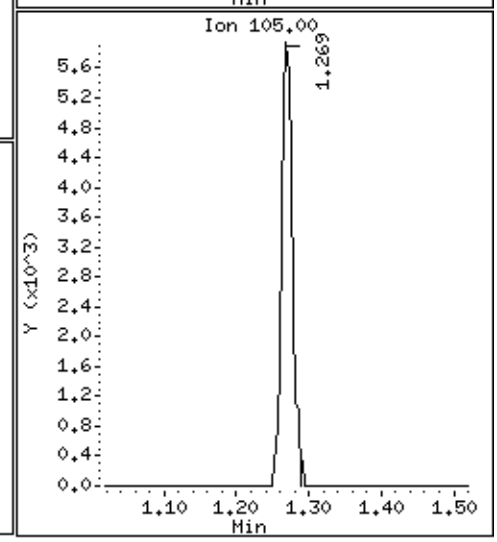


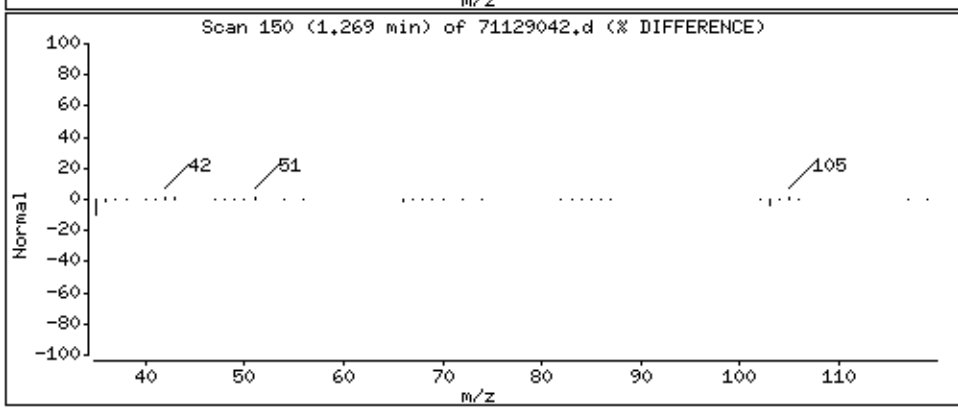












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

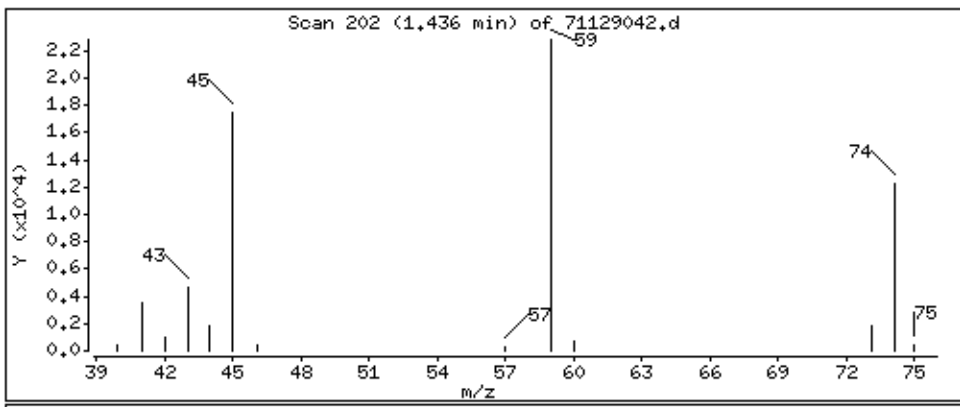
Column phase: RTX-VMS

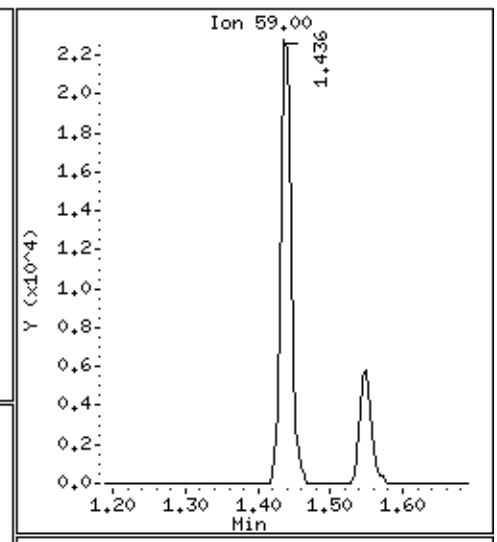
Column diameter: 0.18

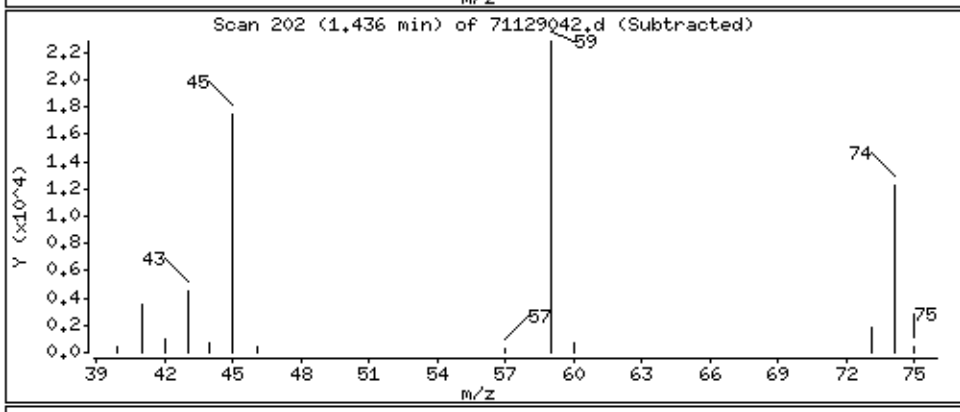
7 Diethyl ether (Ethyl ether)

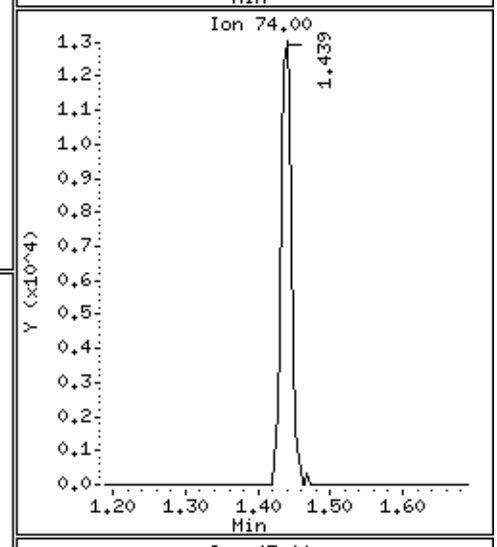
Concentration: 14.6 ug/L

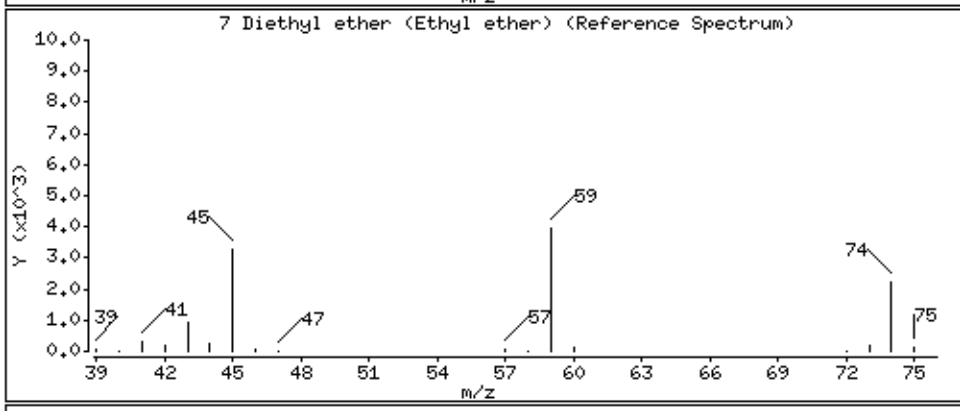
Review Code:

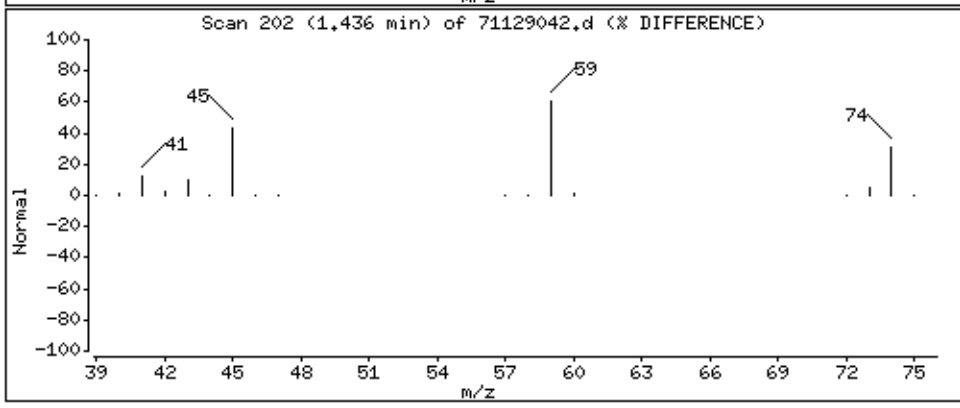


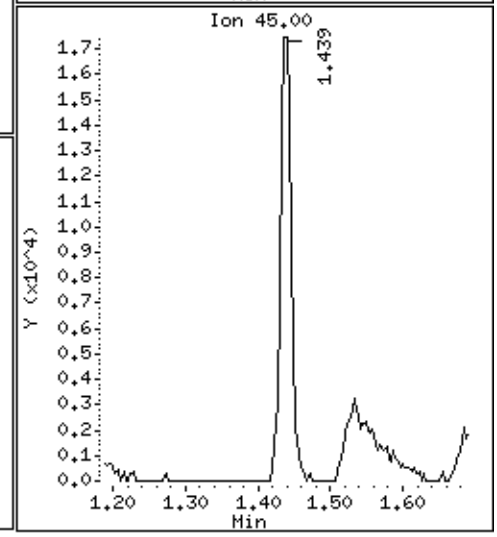












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

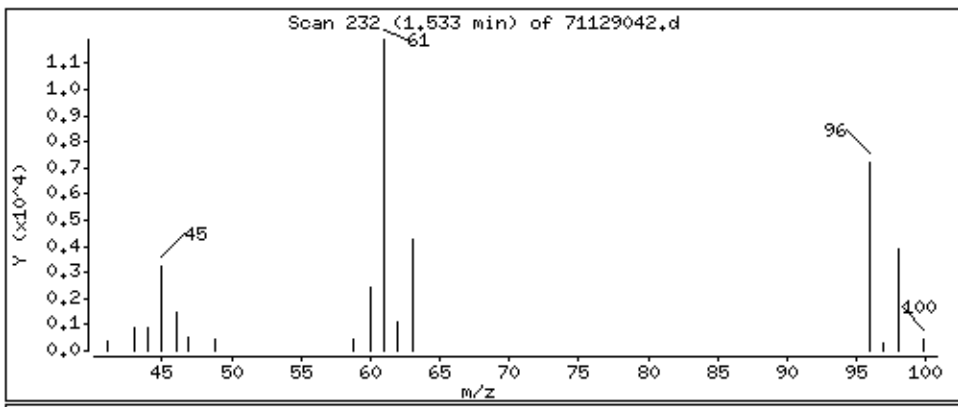
Column phase: RTX-VMS

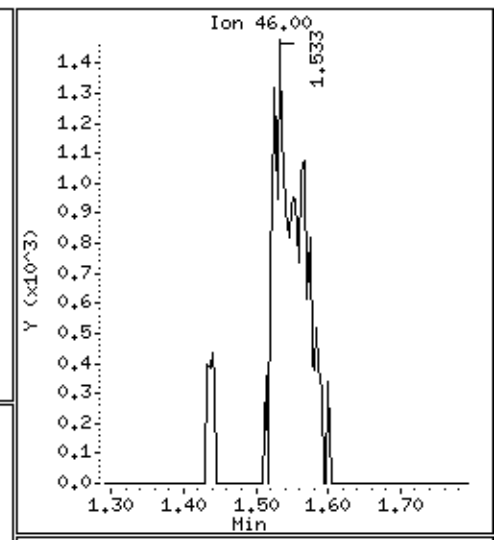
Column diameter: 0.18

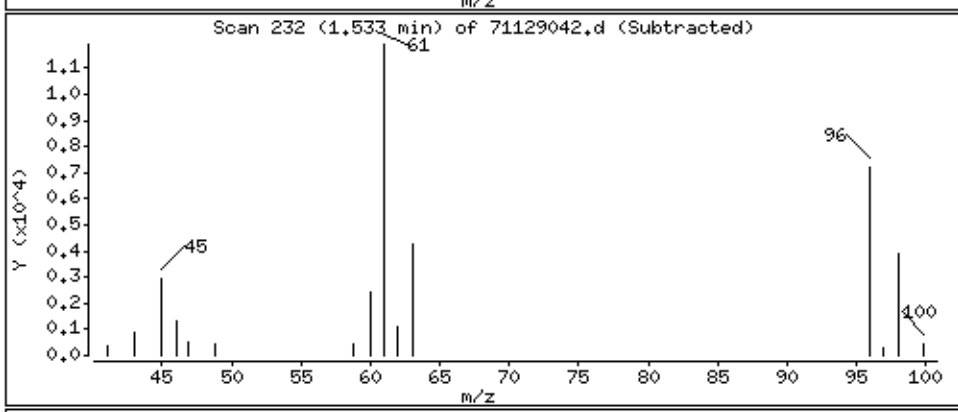
8 Ethanol

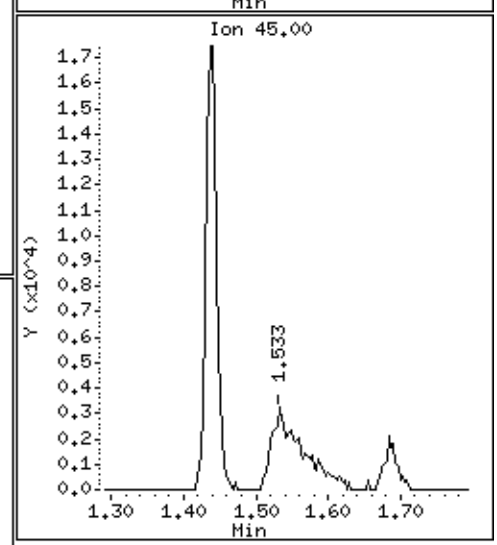
Concentration: 171 ug/L

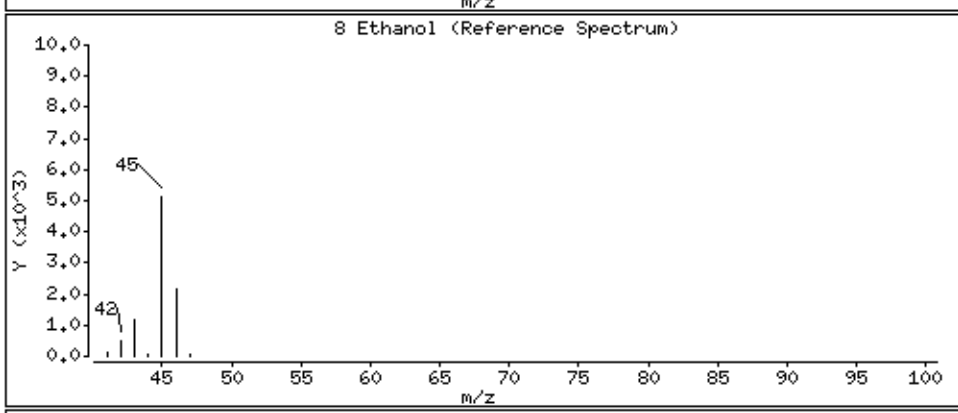
Review Code:

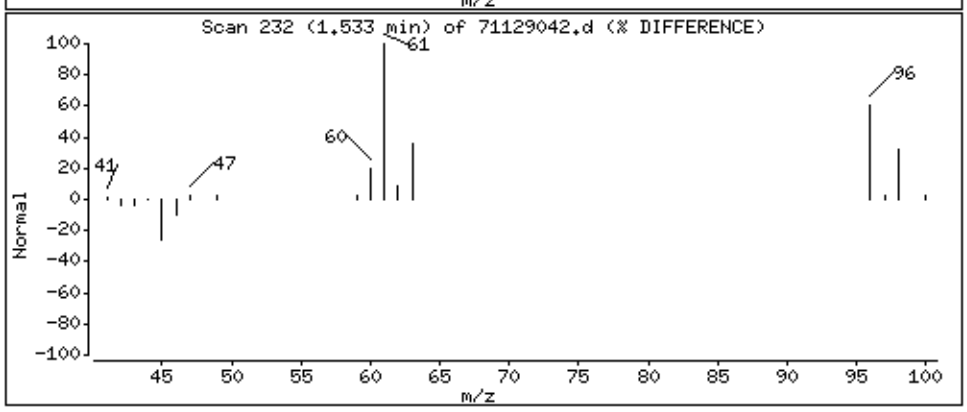












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

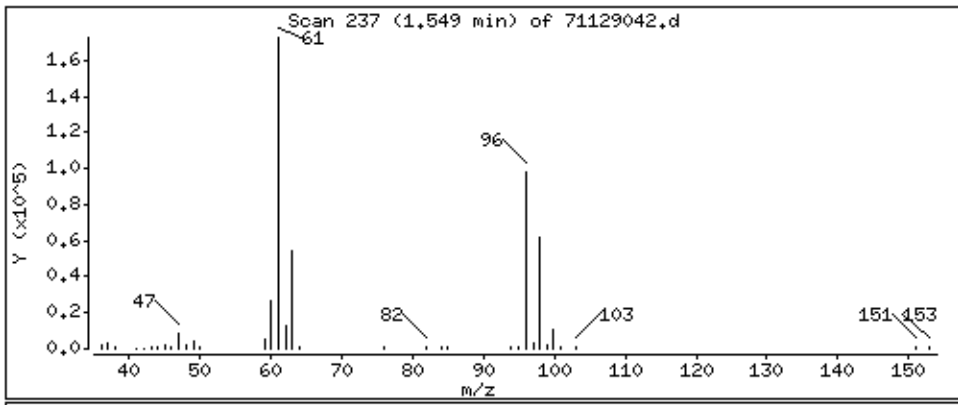
Column phase: RTX-VMS

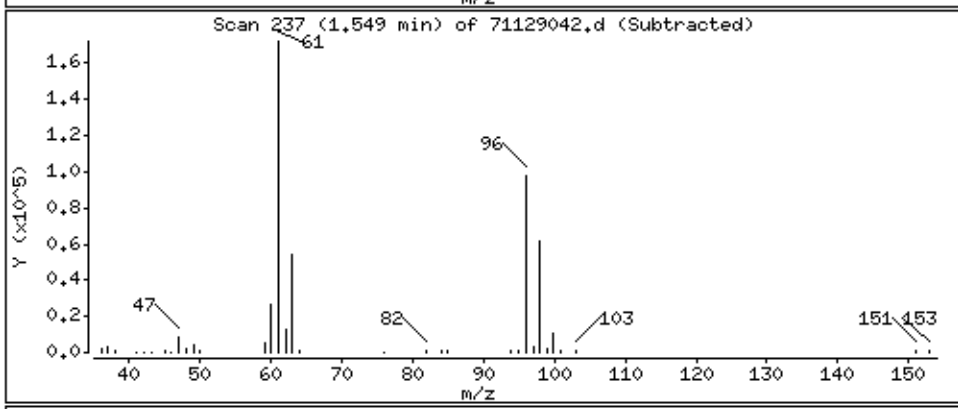
Column diameter: 0.18

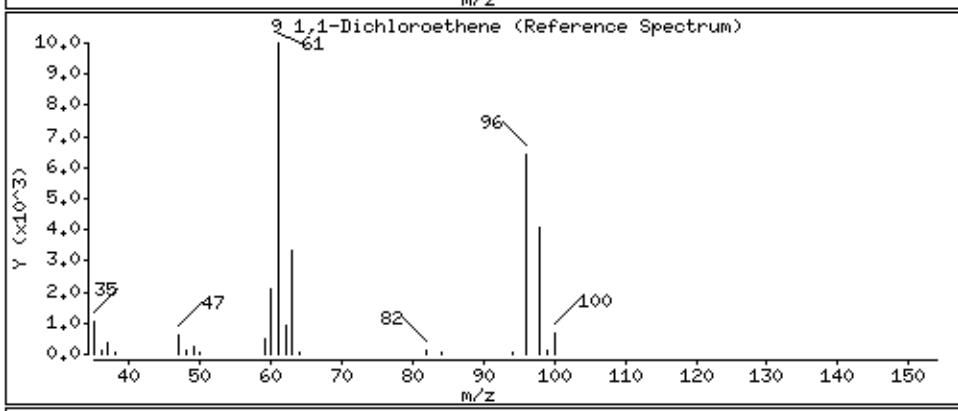
9 1,1-Dichloroethene

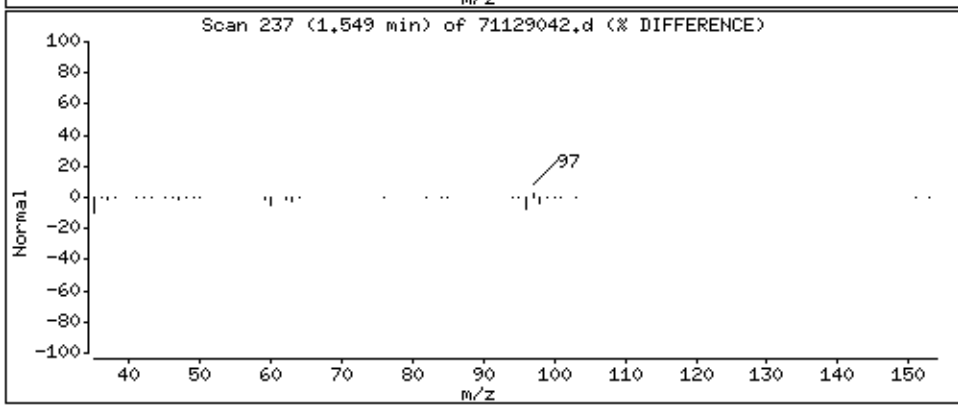
Concentration: 66.5 ug/L

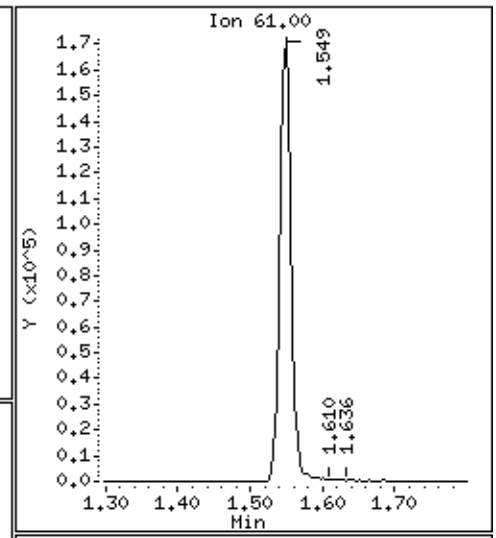
Review Code:

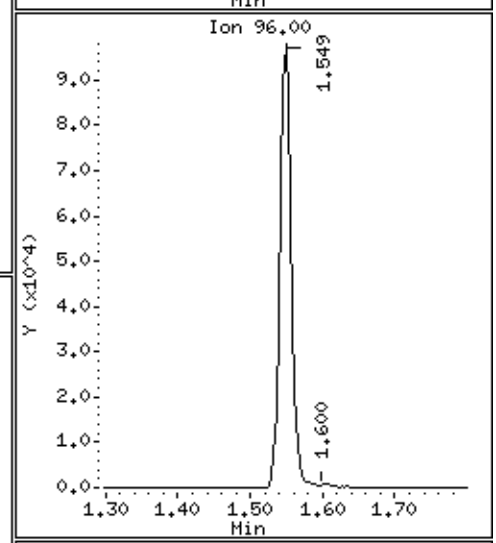


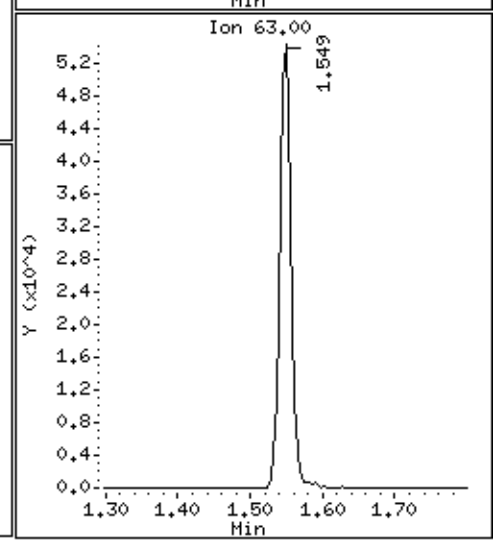












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

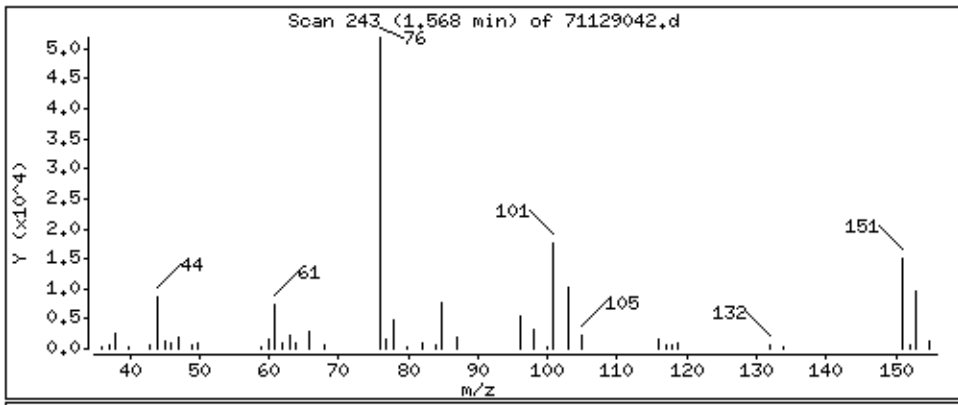
Column phase: RTX-VMS

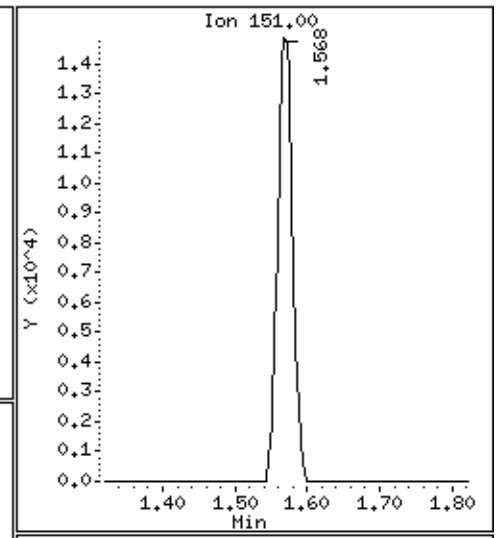
Column diameter: 0.18

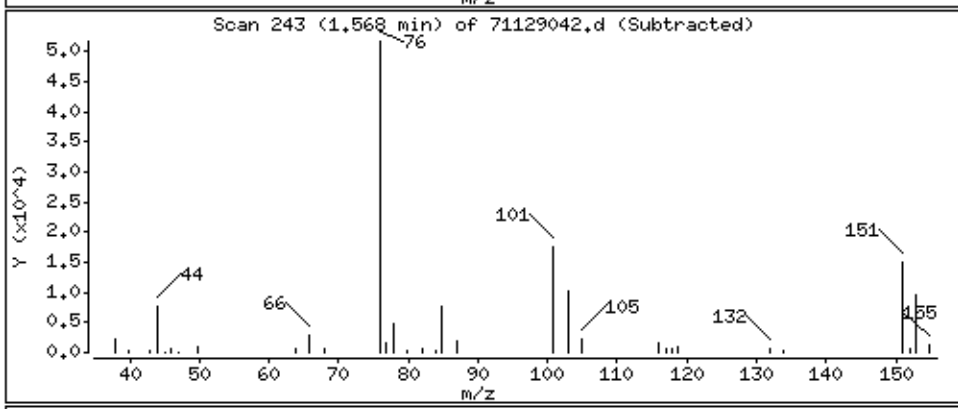
10 1,1,2-Trichlorotrifluoroethane

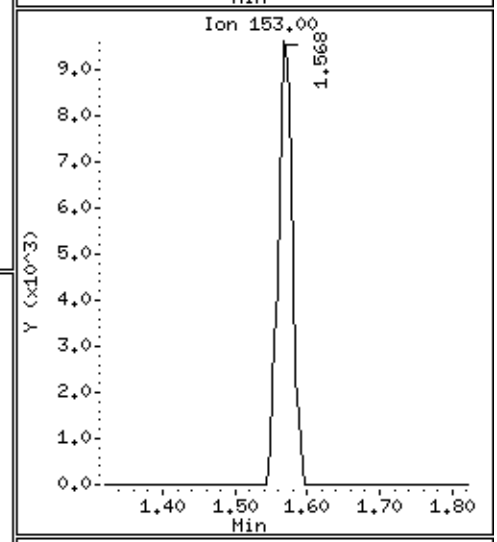
Concentration: 14.2 ug/L

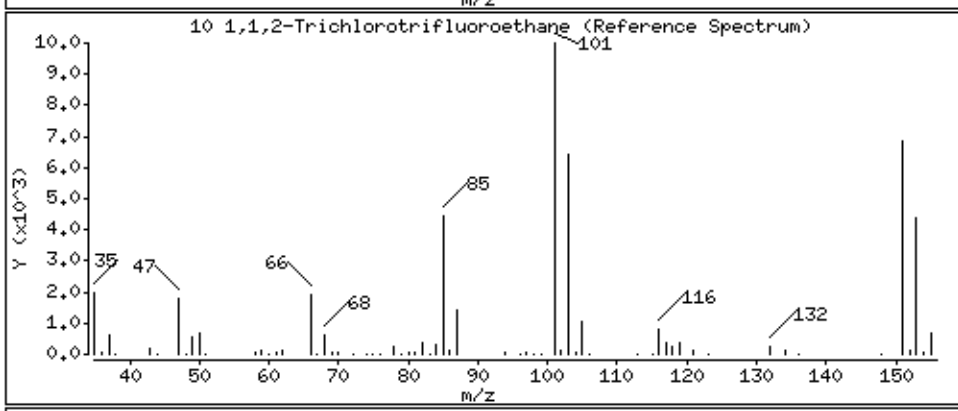
Review Code:

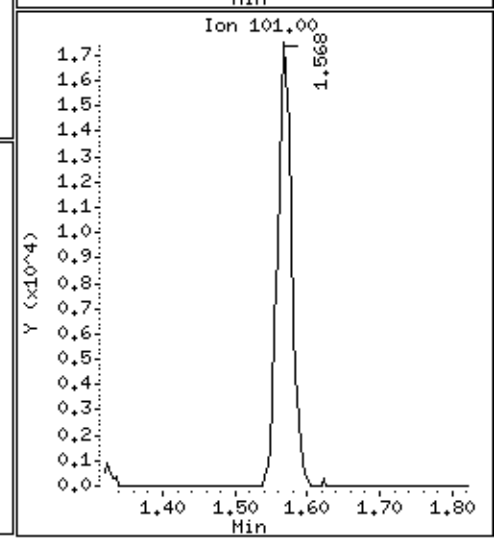


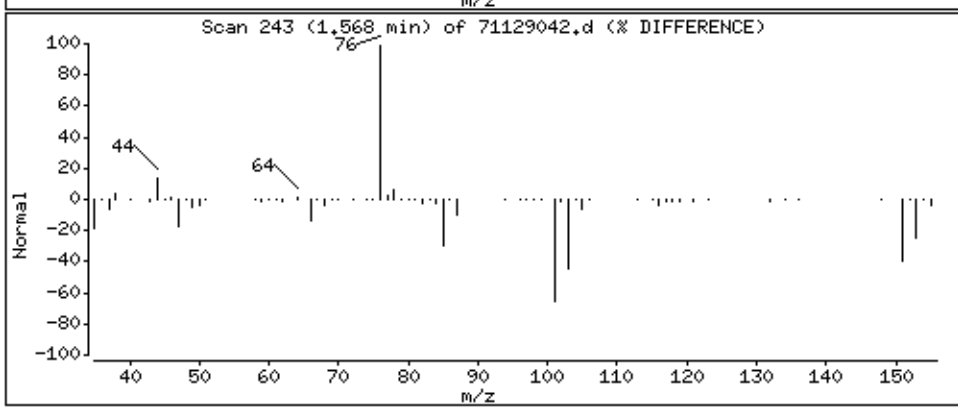












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

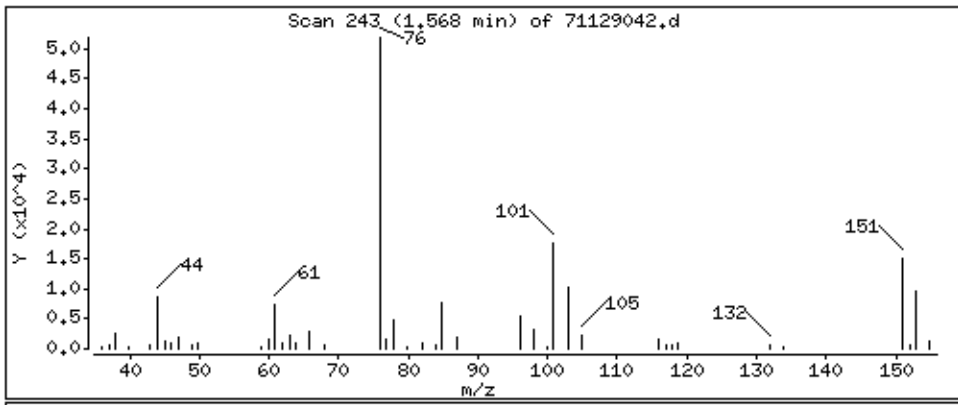
Column phase: RTX-VMS

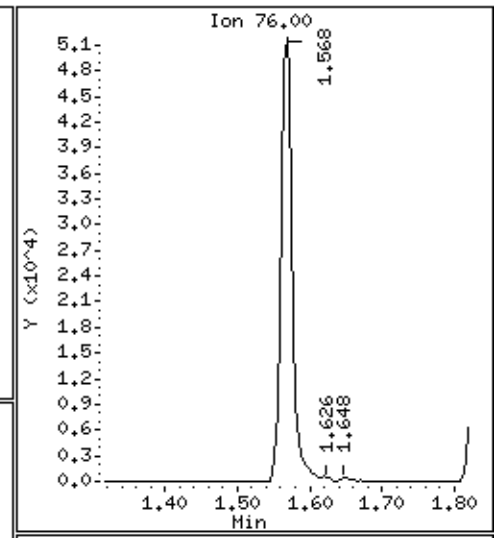
Column diameter: 0.18

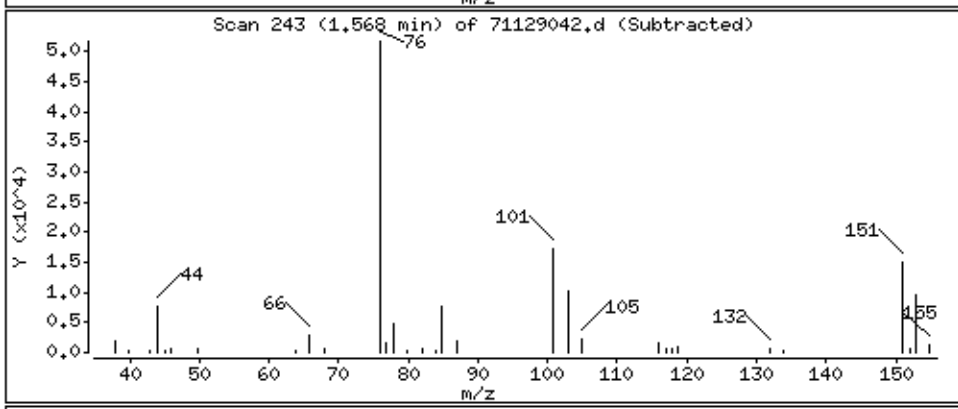
11 Carbon disulfide

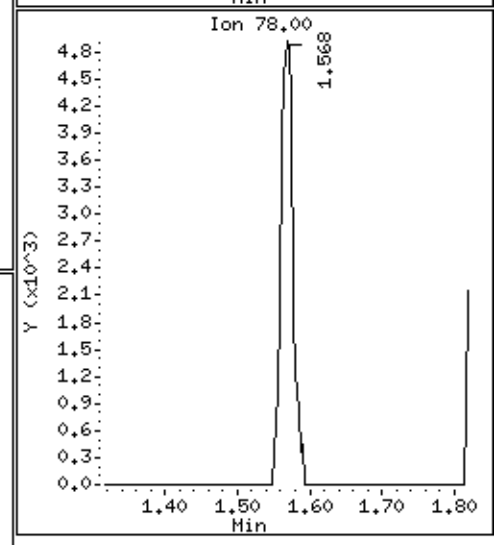
Concentration: 12.0 ug/L

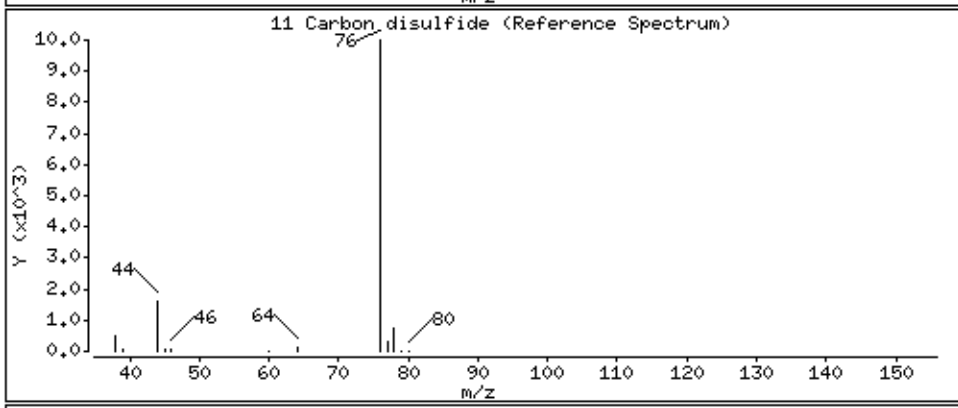
Review Code:

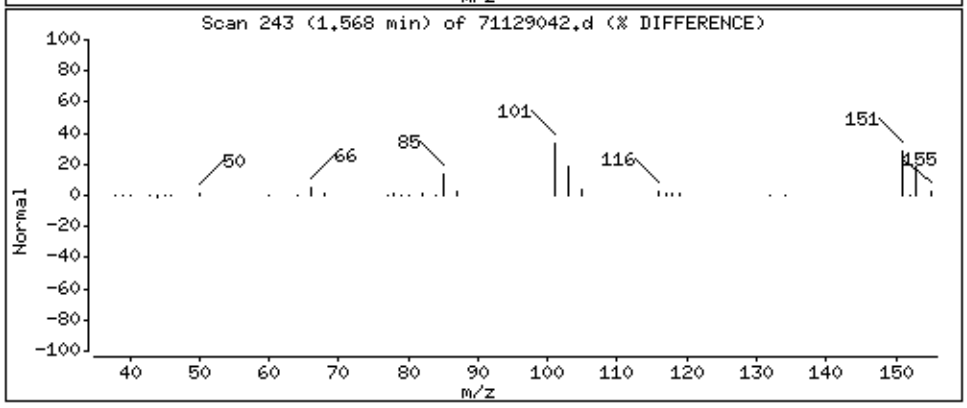












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

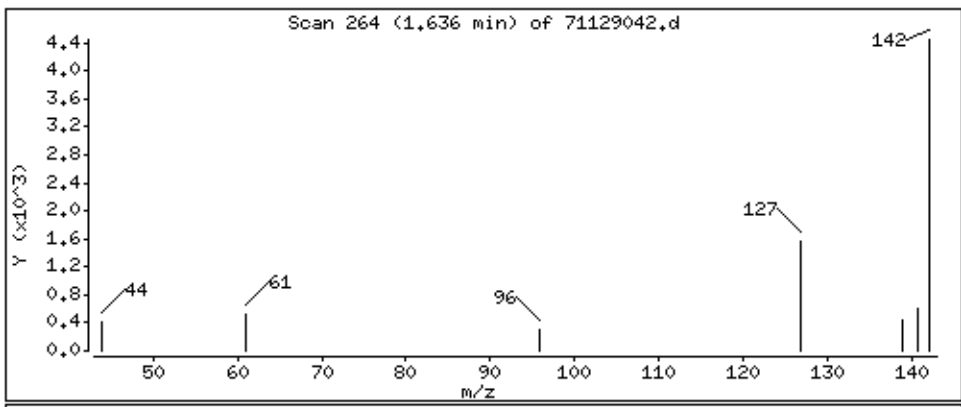
Column phase: RTX-VMS

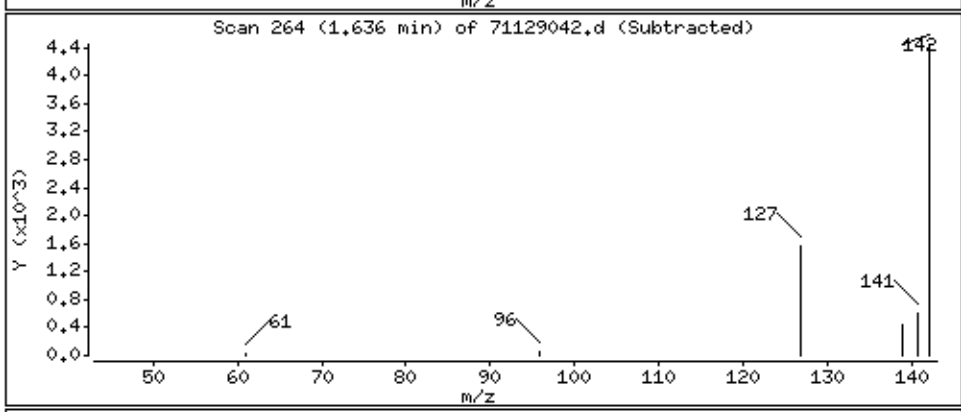
Column diameter: 0.18

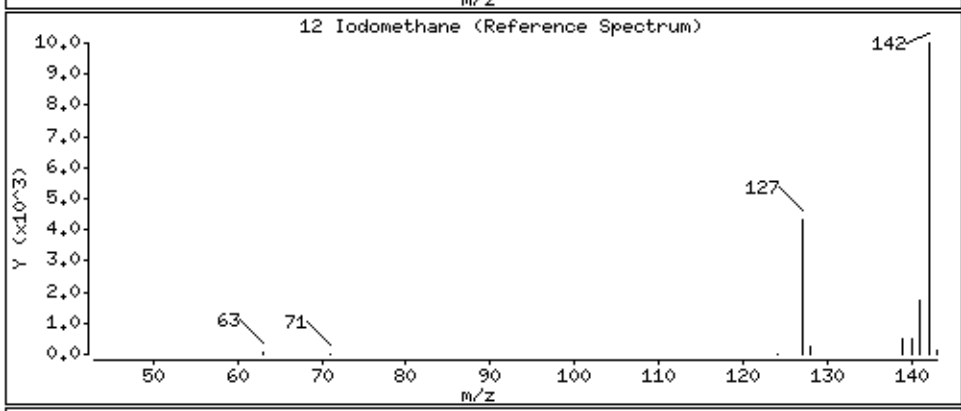
12 Iodomethane

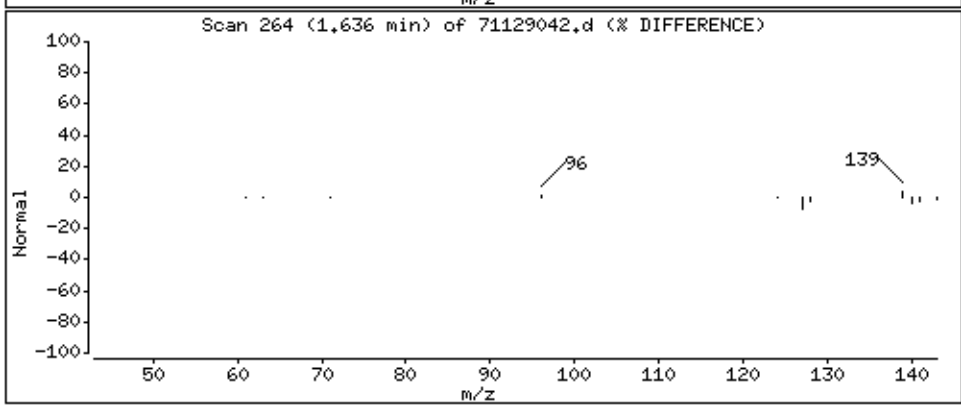
Concentration: 6.62 ug/L

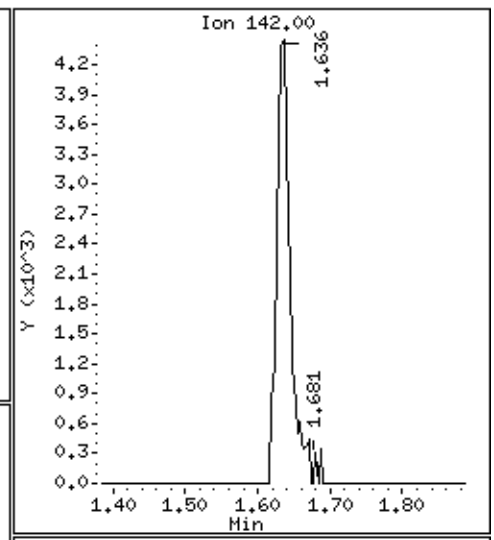
Review Code:

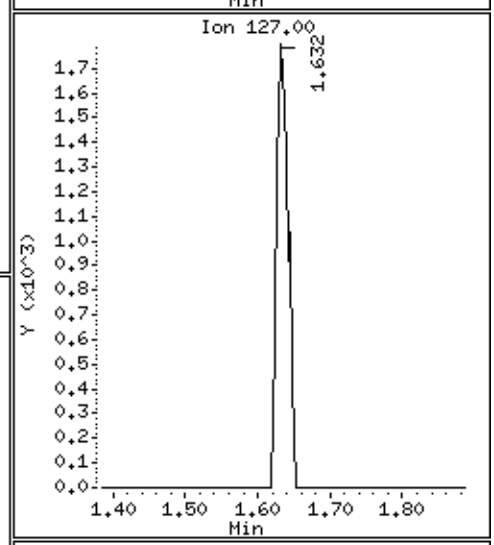


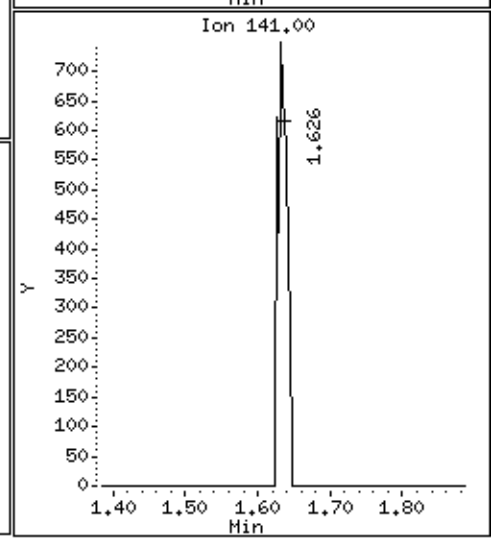












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

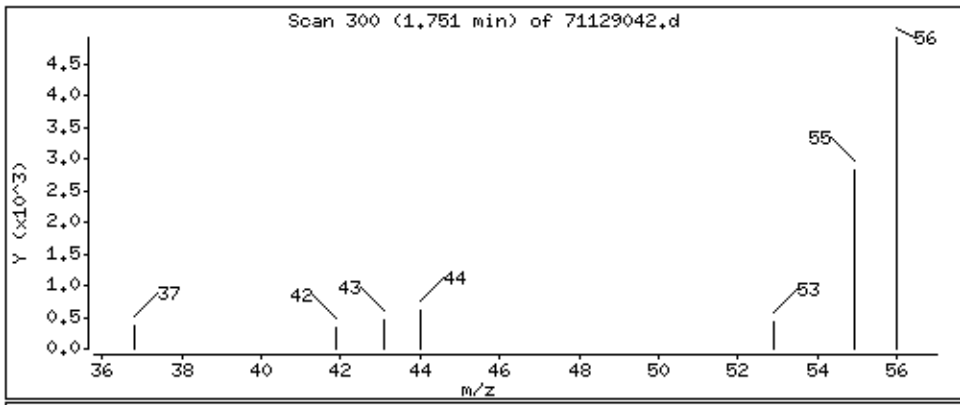
Column phase: RTX-VMS

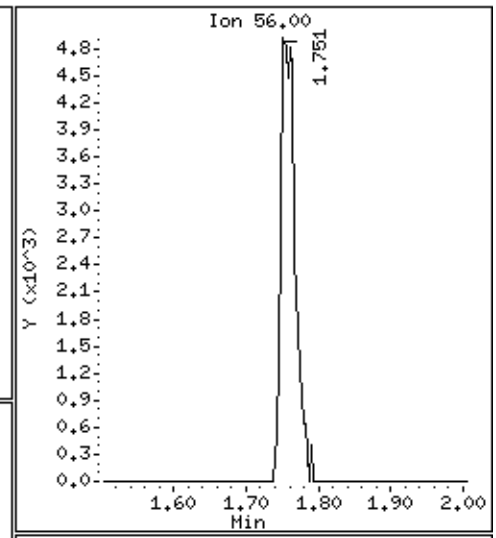
Column diameter: 0.18

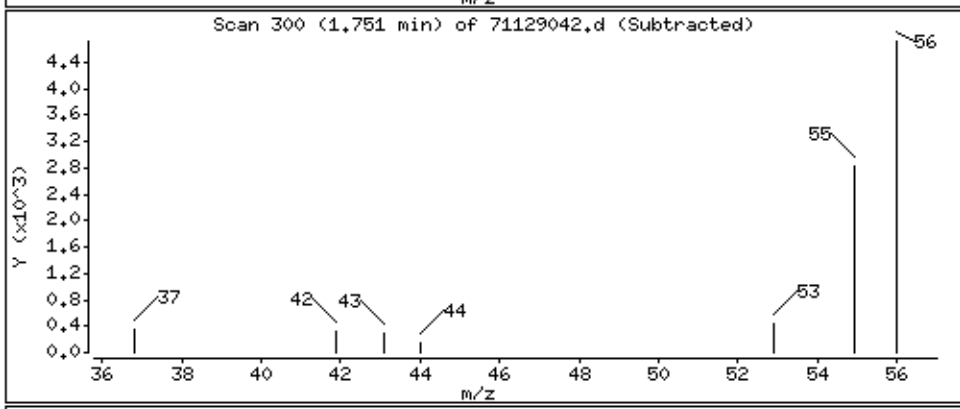
13 Acrolein

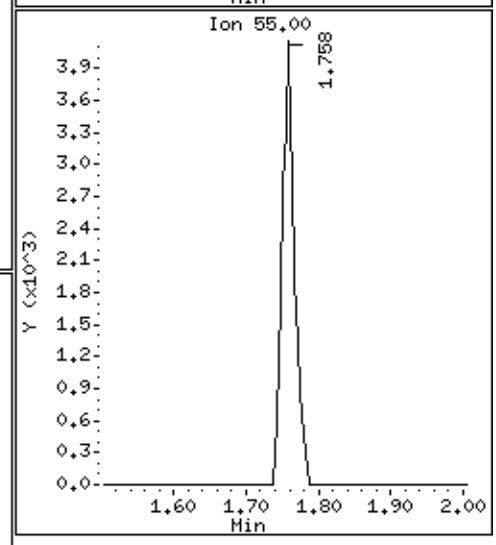
Concentration: 14.3 ug/L

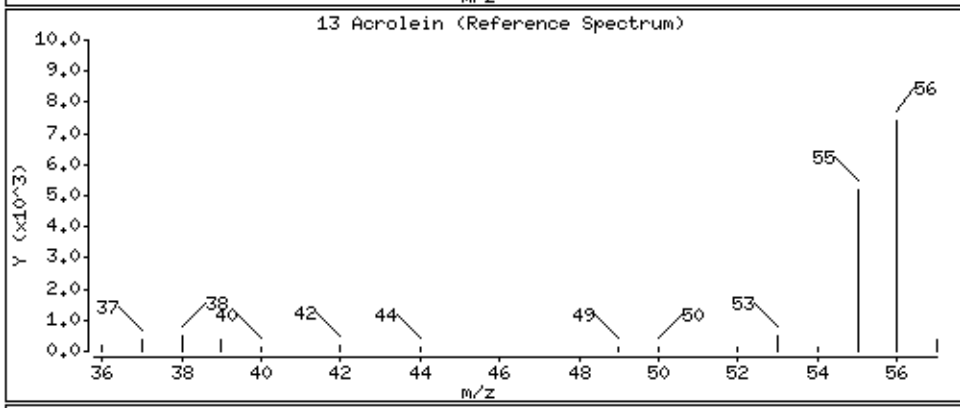
Review Code: LT

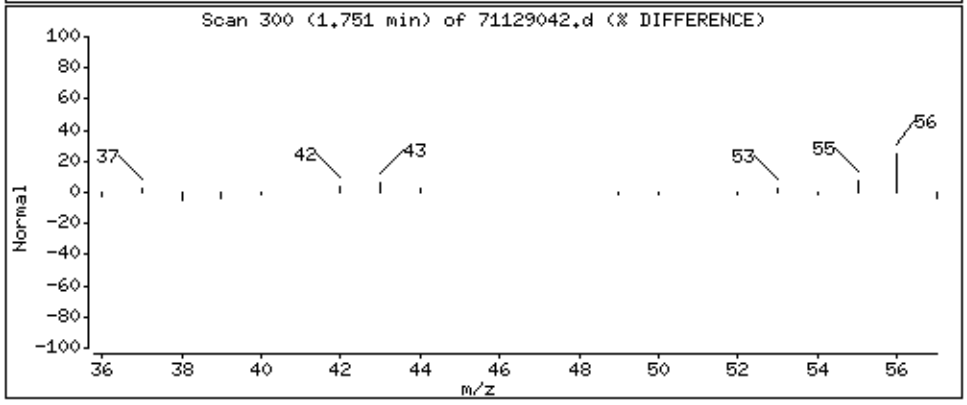












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

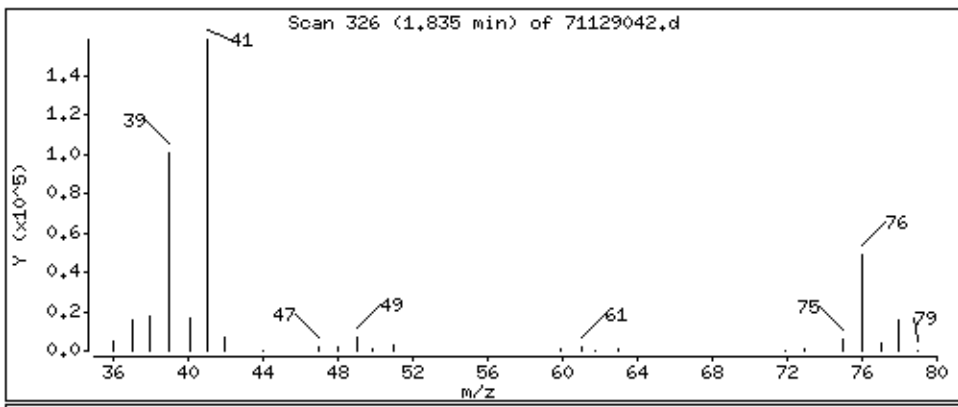
Column phase: RTX-VMS

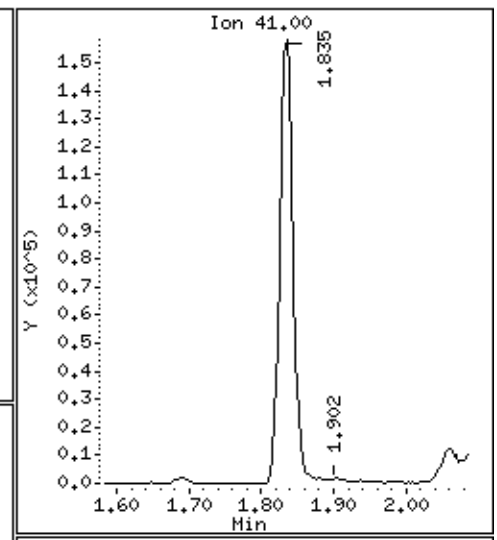
Column diameter: 0.18

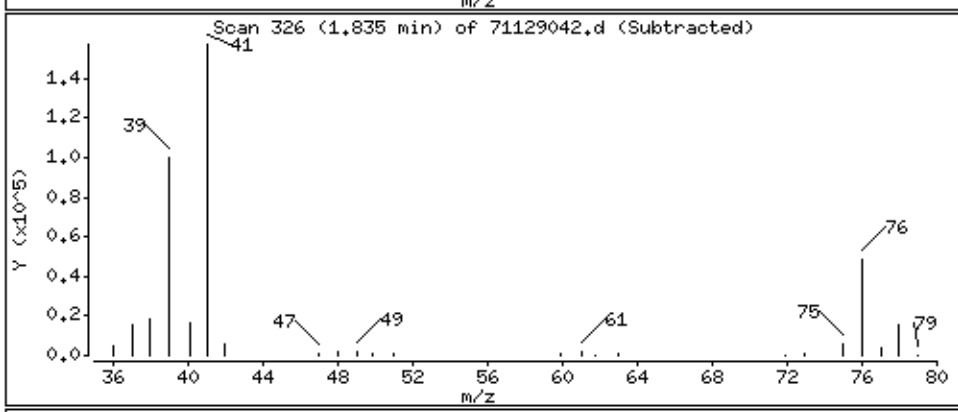
14 Allyl chloride

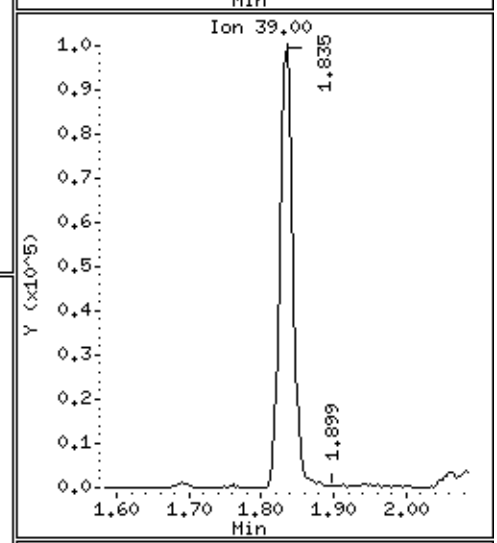
Concentration: 84.9 ug/L

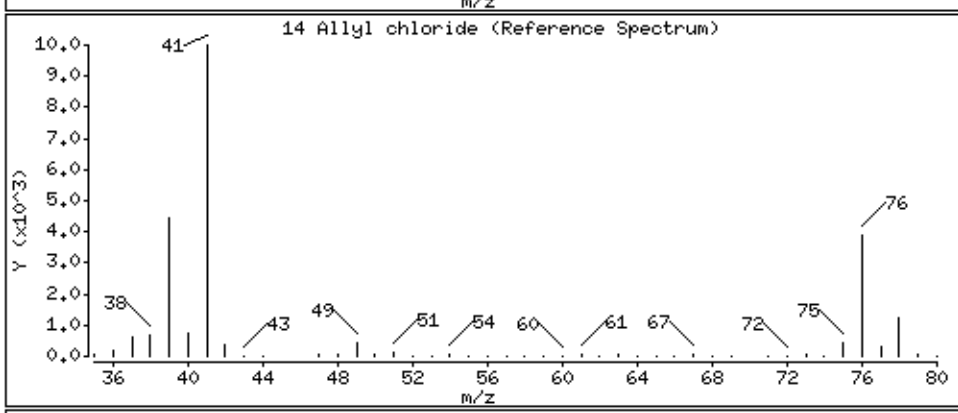
Review Code:

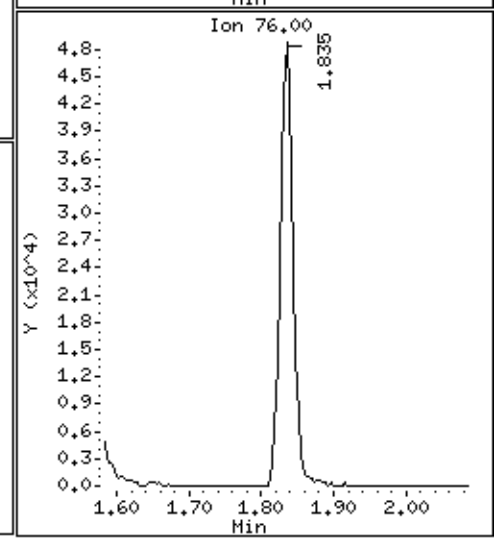


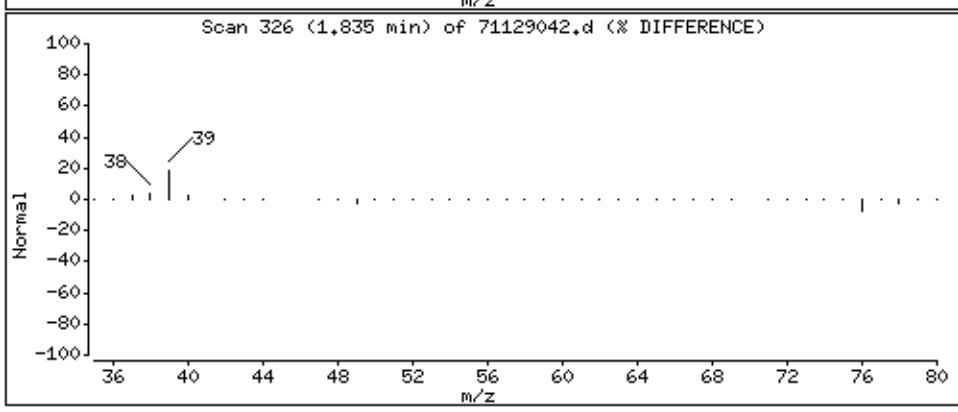












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

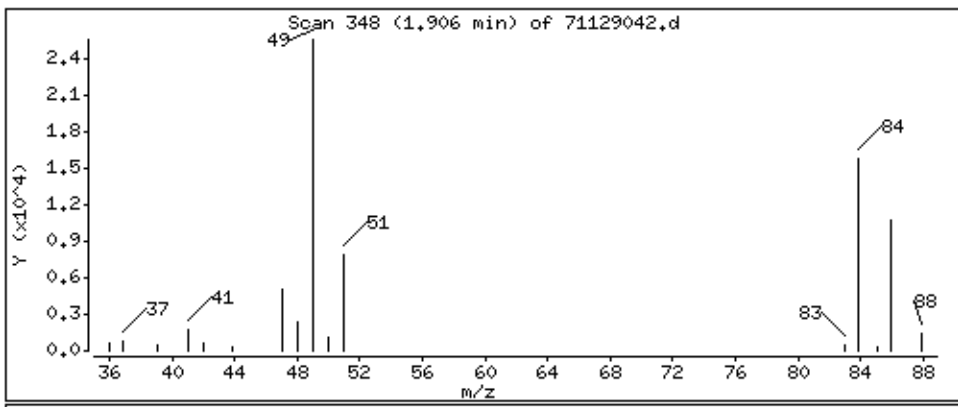
Column phase: RTX-VMS

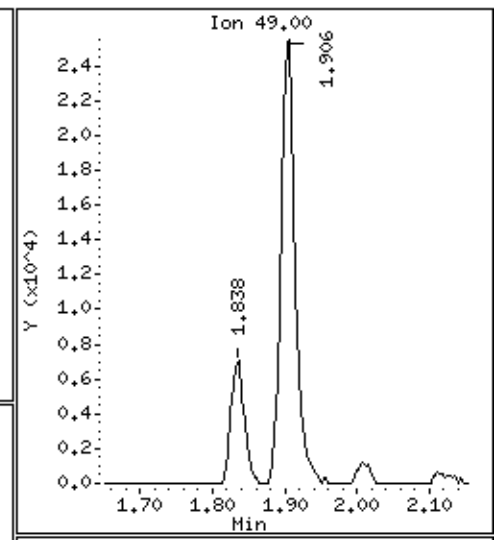
Column diameter: 0.18

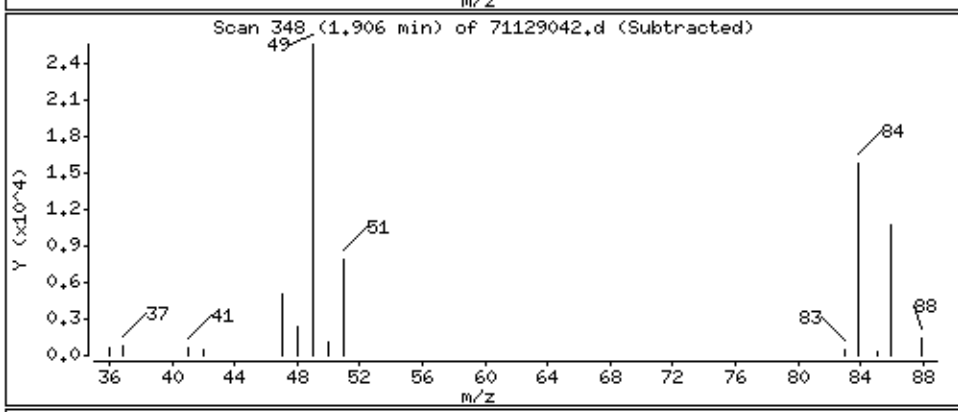
15 Methylene Chloride

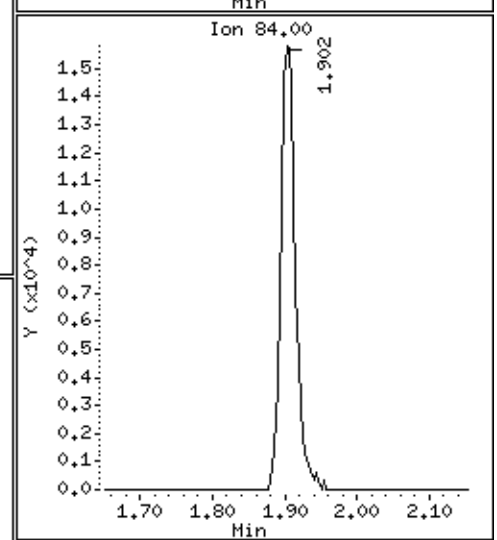
Concentration: 17.6 ug/L

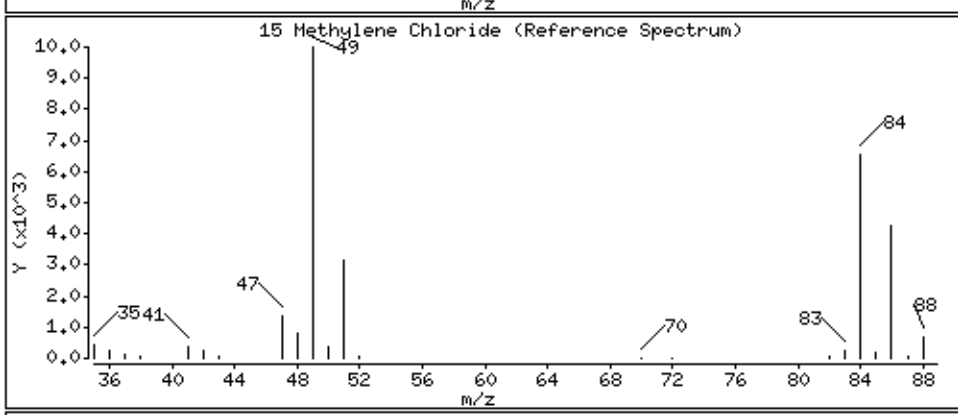
Review Code:

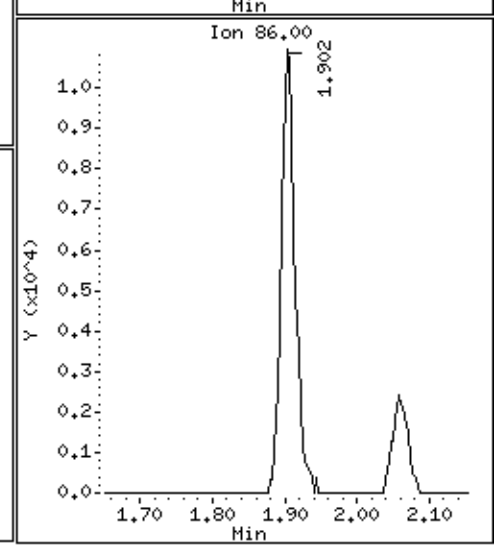


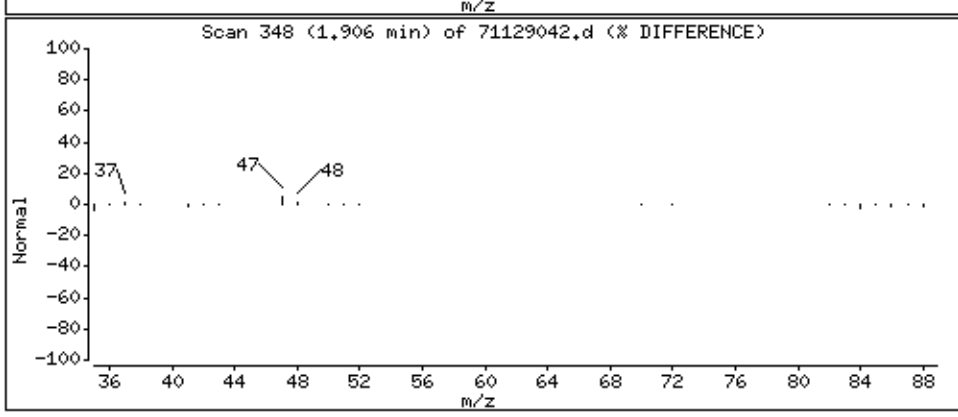












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

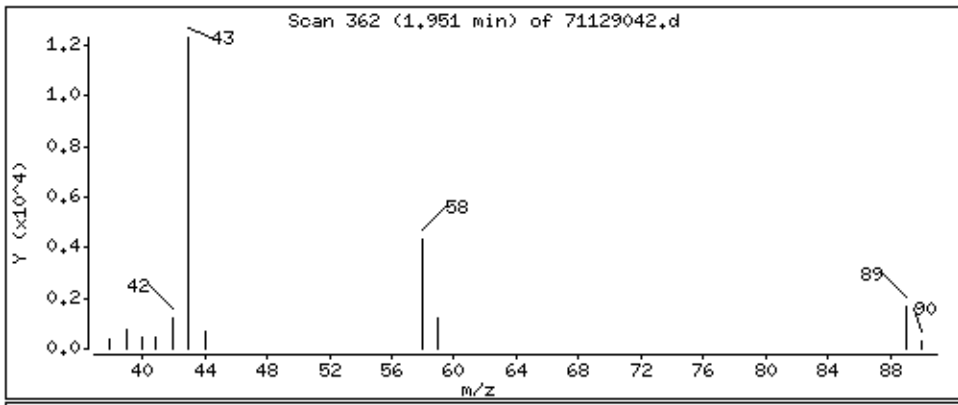
Column phase: RTX-VMS

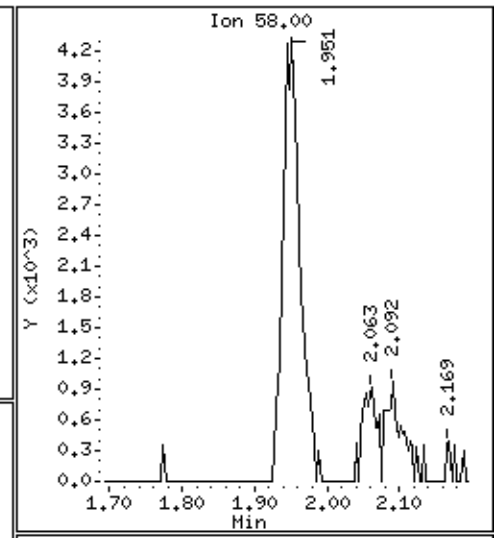
Column diameter: 0.18

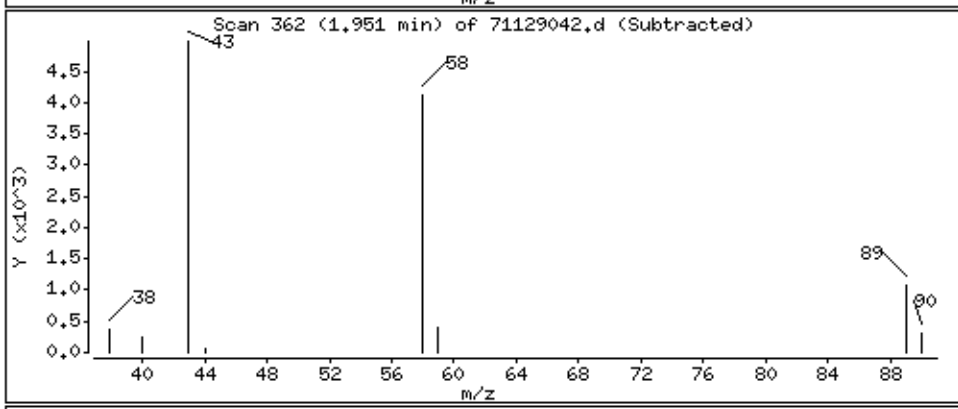
16 Acetone

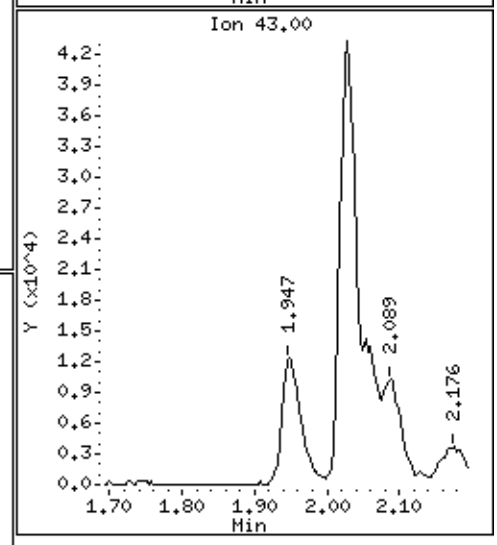
Concentration: 19.0 ug/L

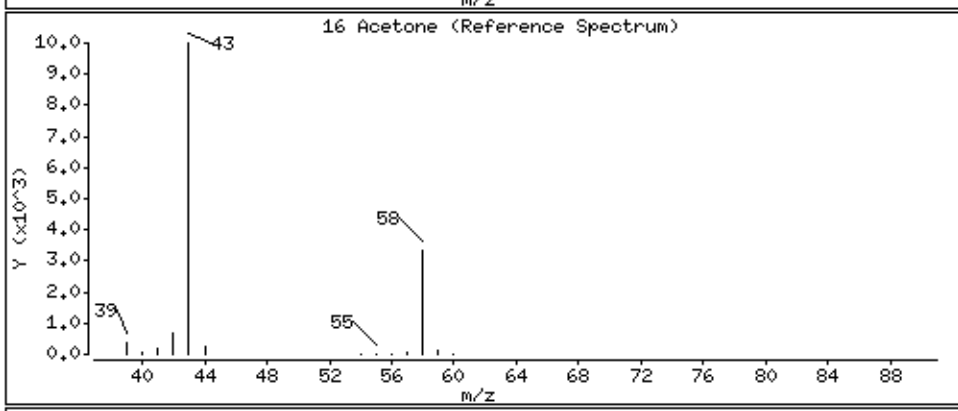
Review Code:

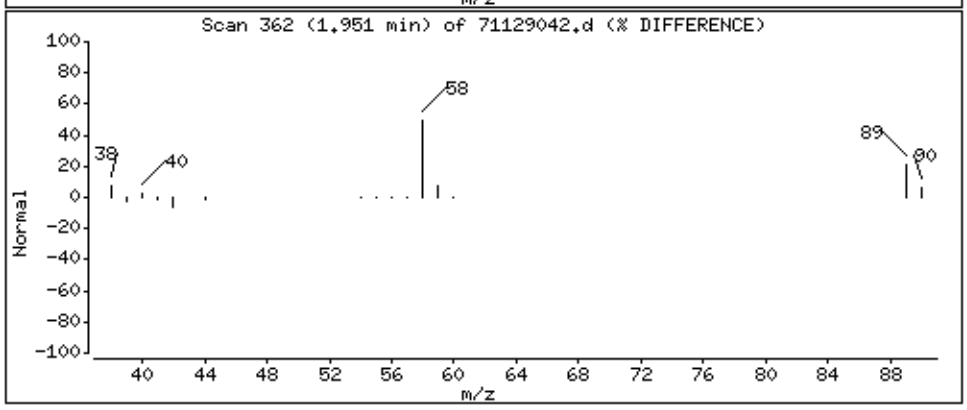












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

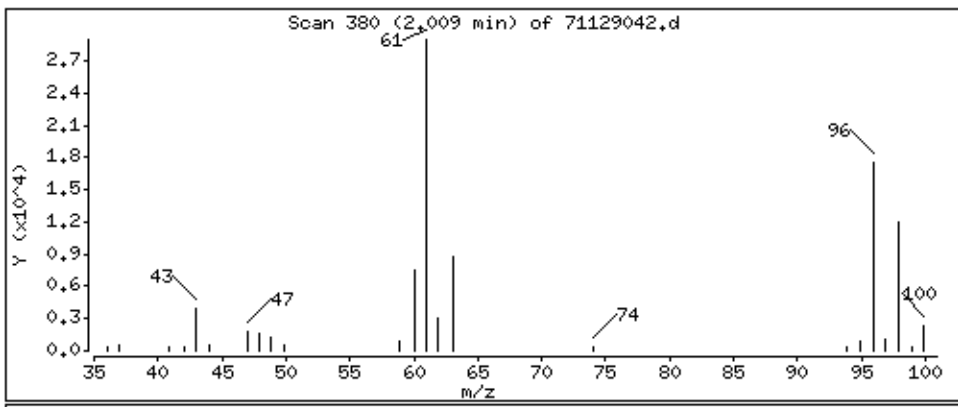
Column phase: RTX-VMS

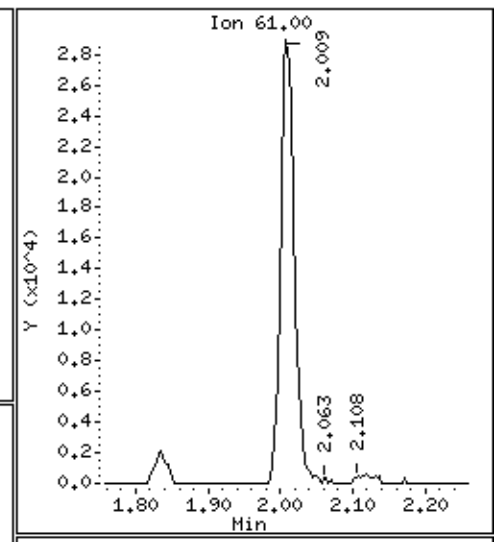
Column diameter: 0.18

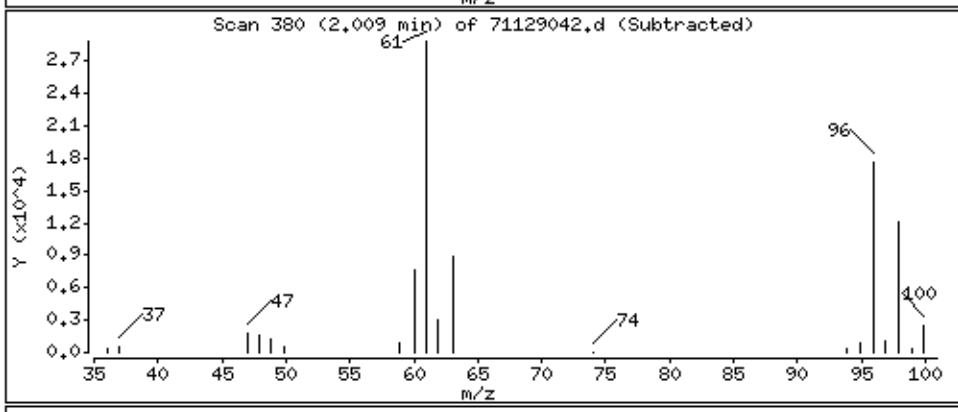
17 trans-1,2-Dichloroethene

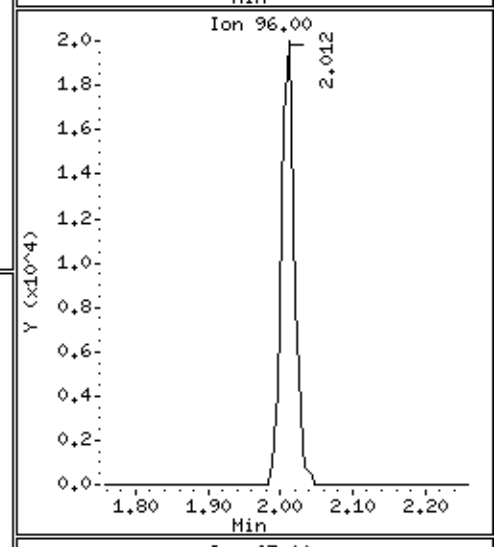
Concentration: 16.0 ug/L

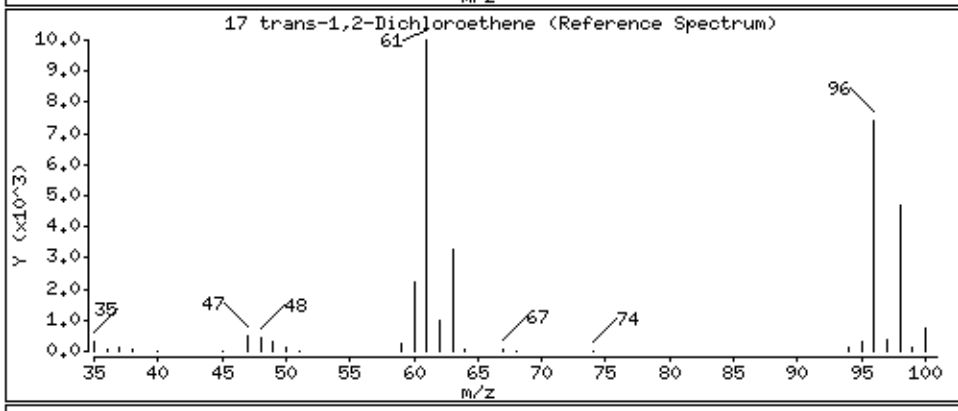
Review Code:

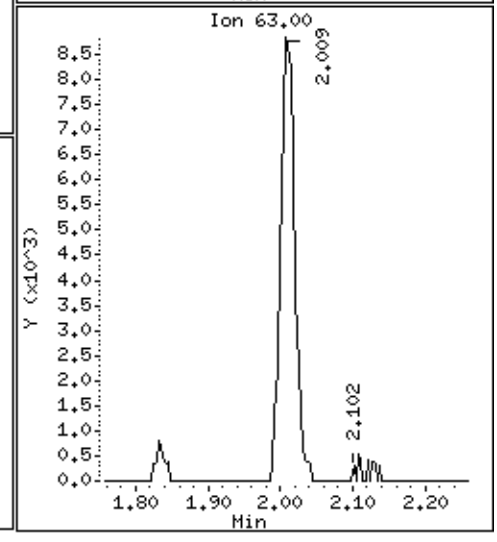


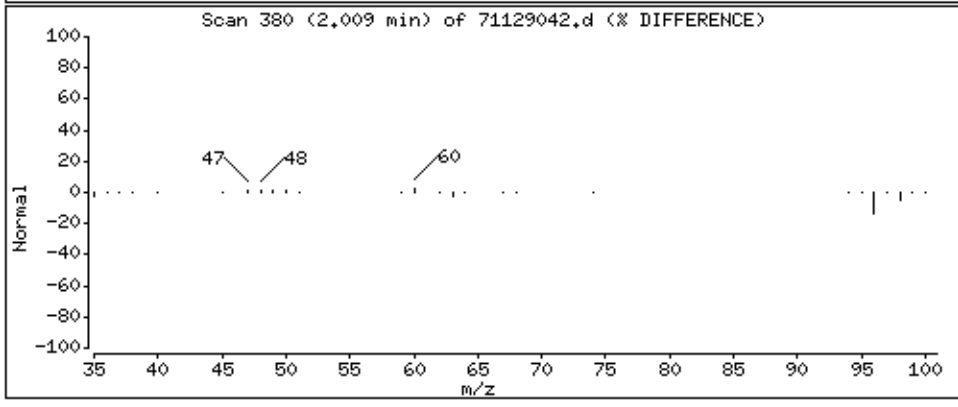












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

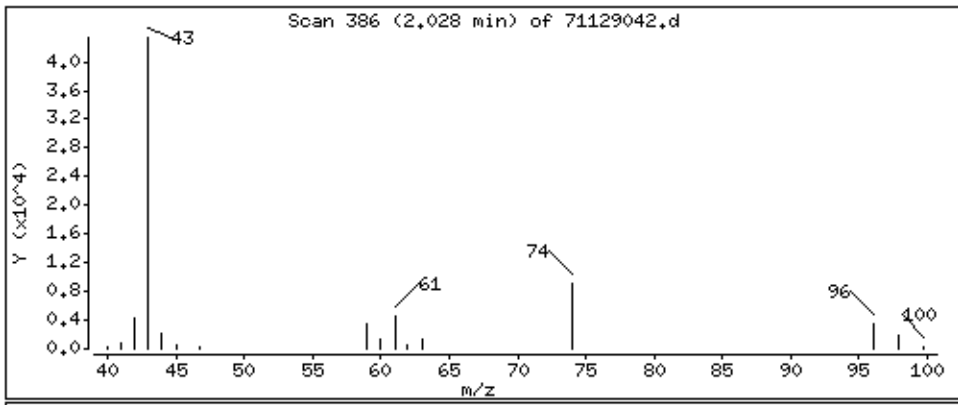
Column phase: RTX-VMS

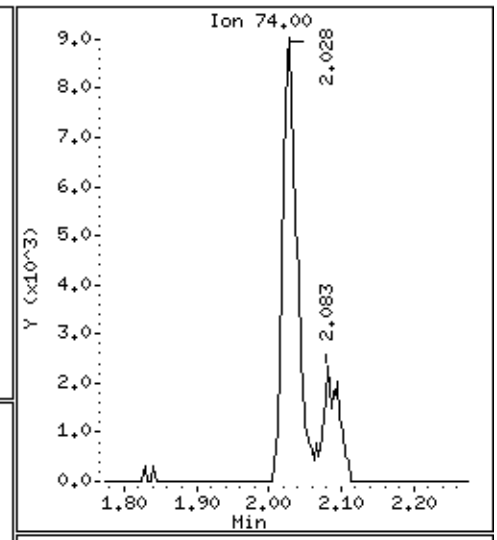
Column diameter: 0.18

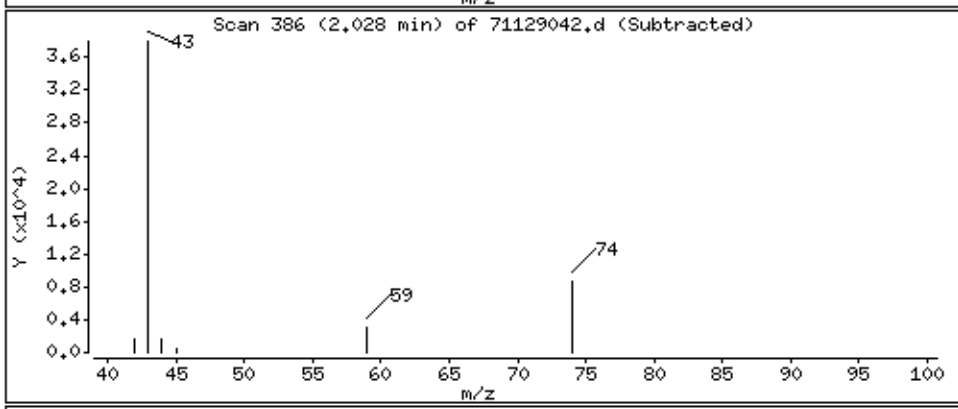
18 Methyl acetate

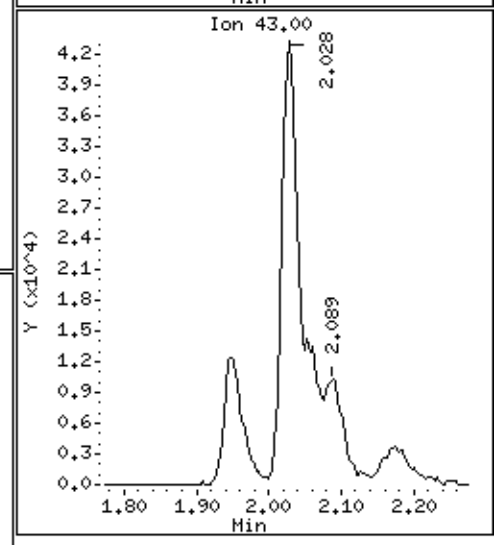
Concentration: 16.3 ug/L

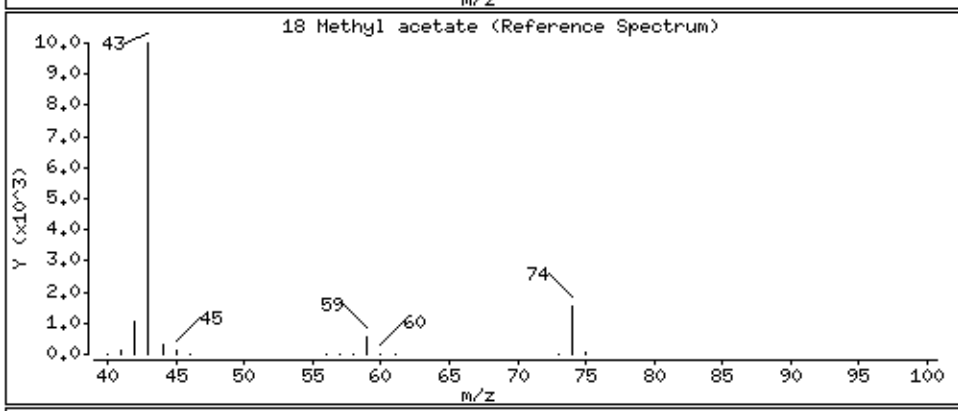
Review Code:

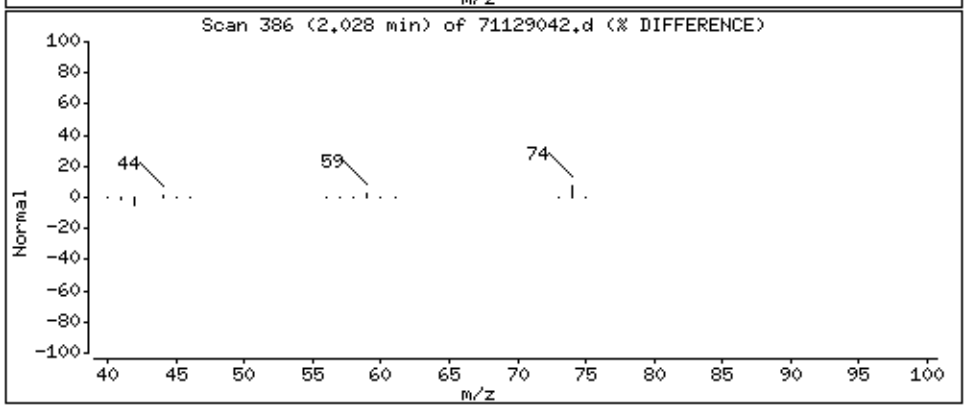












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

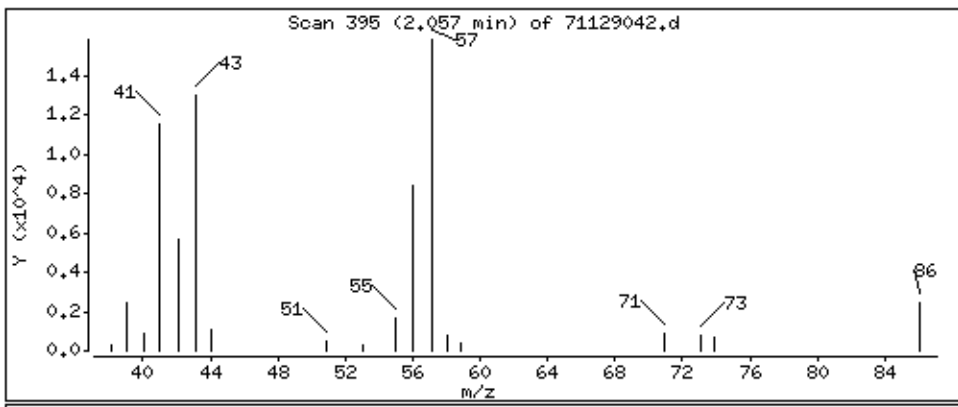
Column phase: RTX-VMS

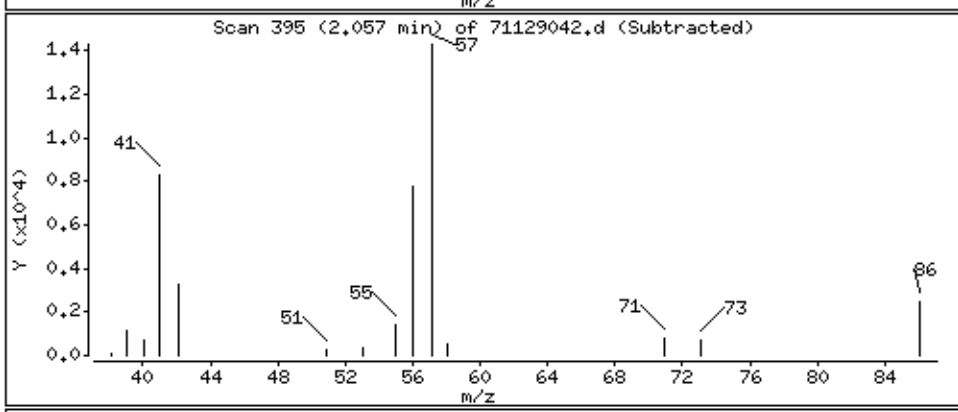
Column diameter: 0.18

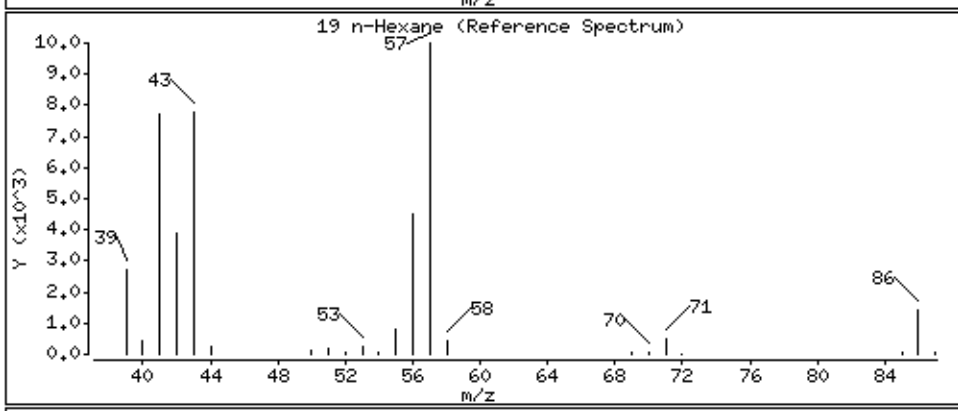
19 n-Hexane

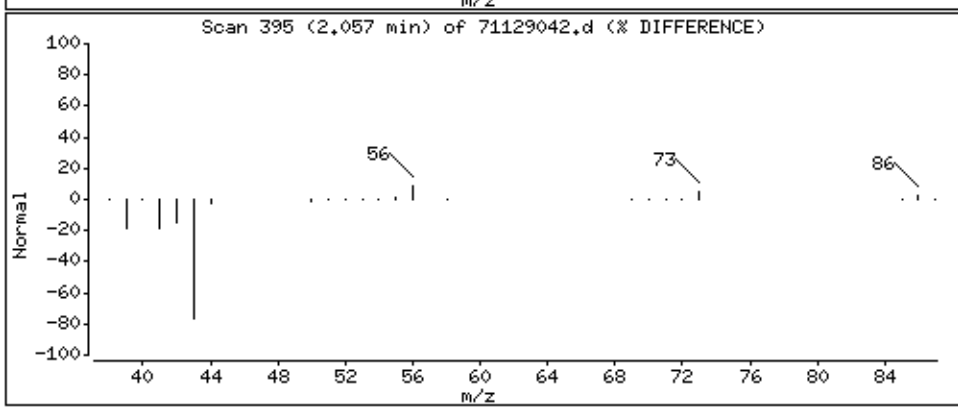
Concentration: 12.4 ug/L

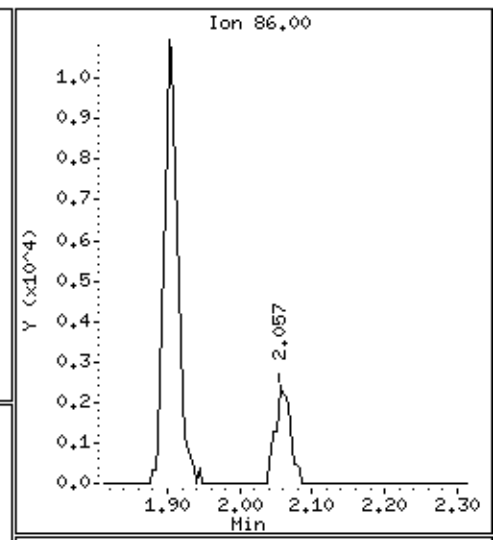
Review Code:

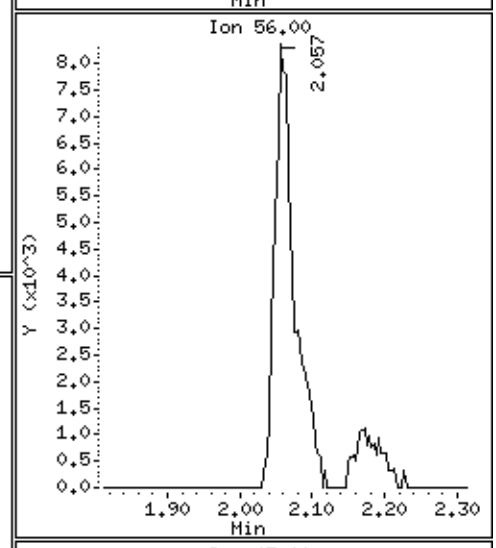


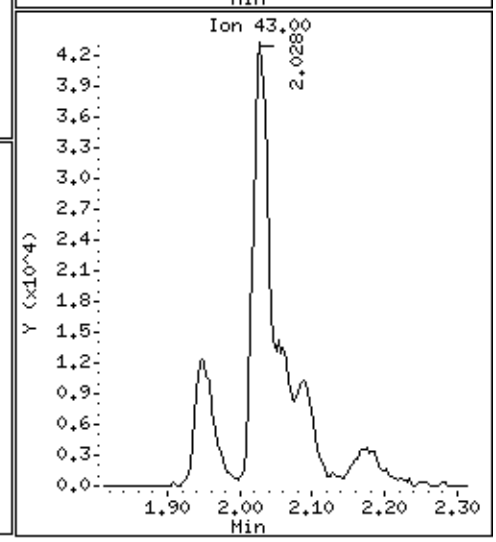












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

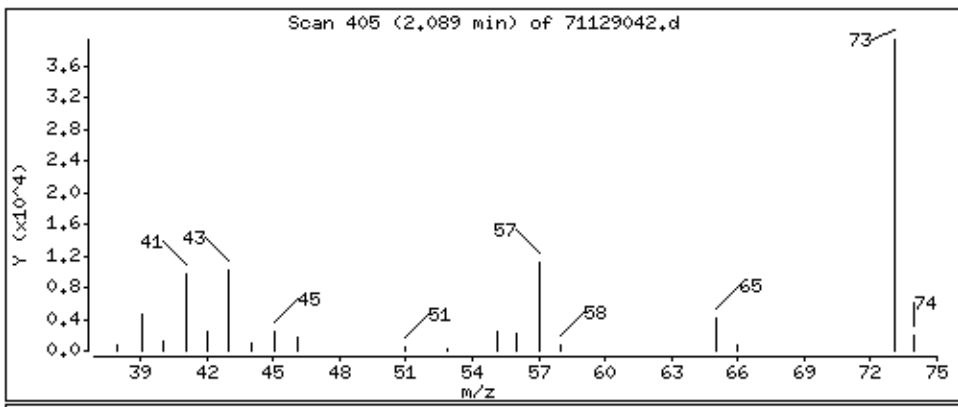
Column phase: RTX-VMS

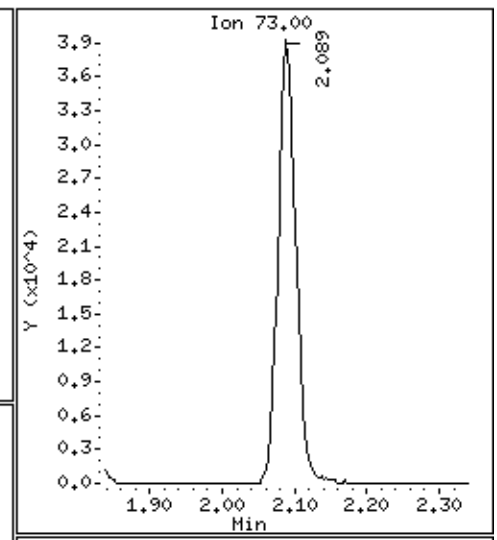
Column diameter: 0.18

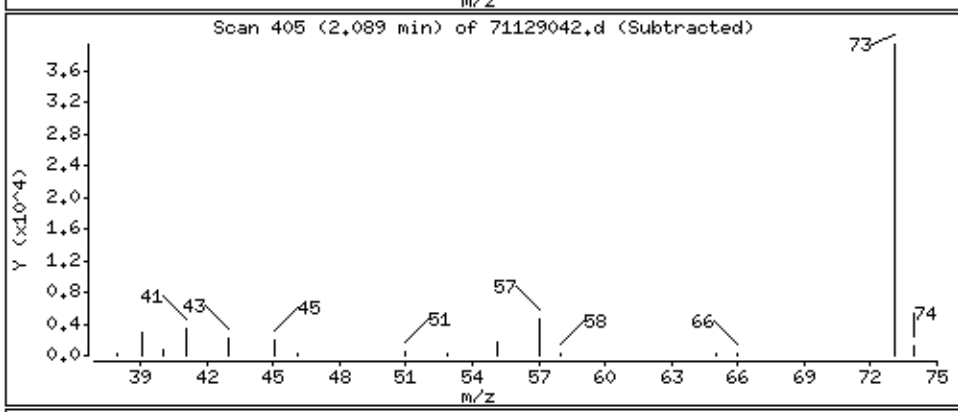
20 Methyl-tert-butyl ether

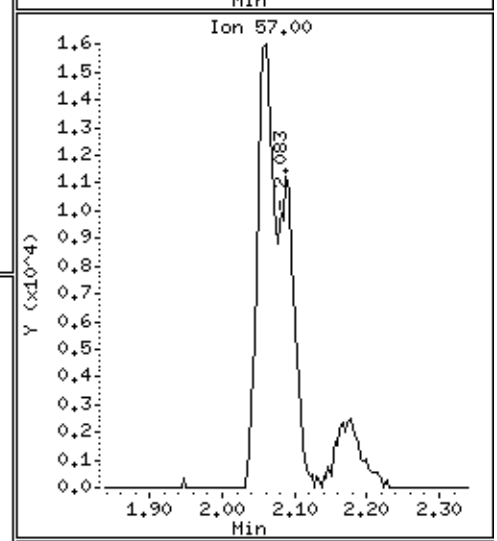
Concentration: 13.8 ug/L

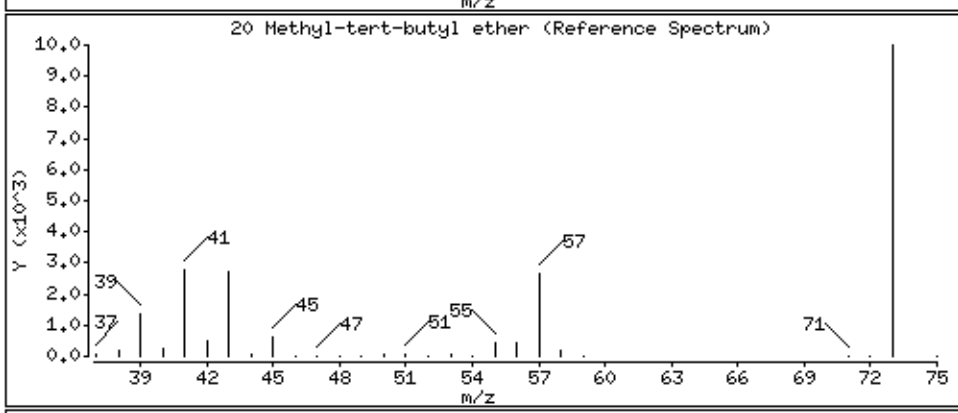
Review Code:

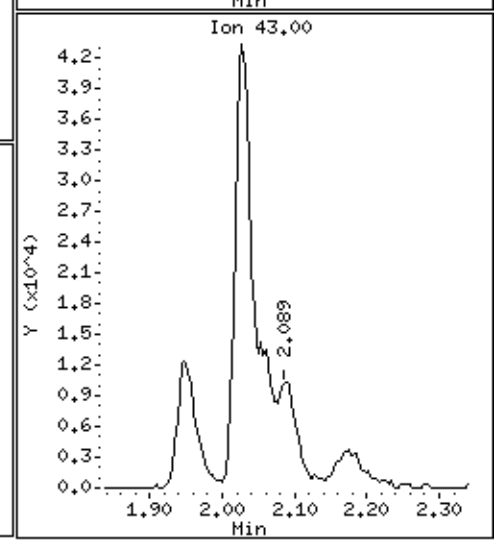


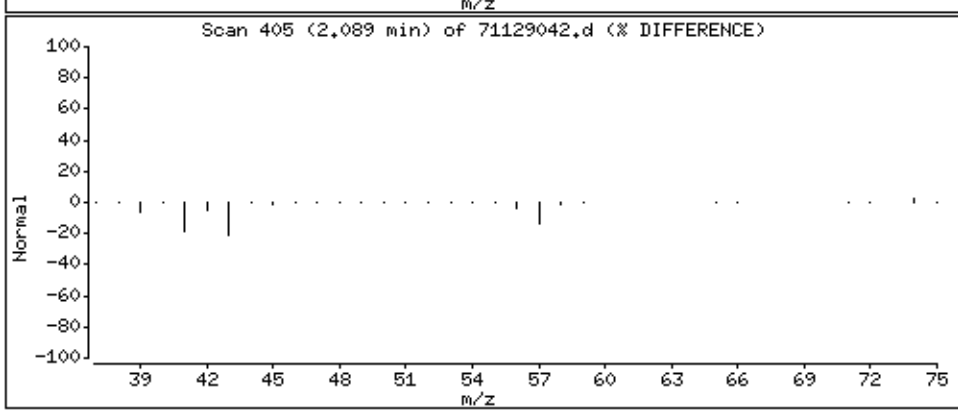












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

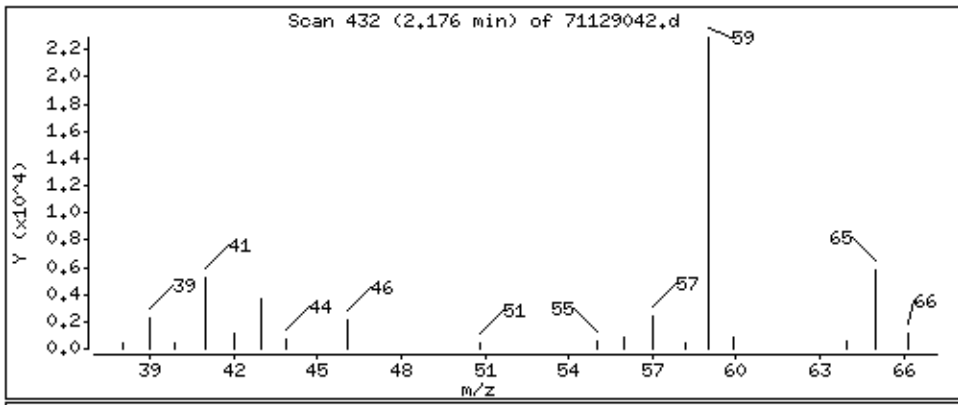
Column phase: RTX-VMS

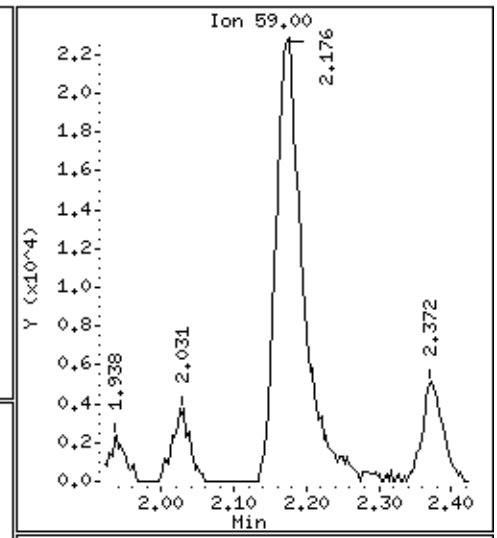
Column diameter: 0.18

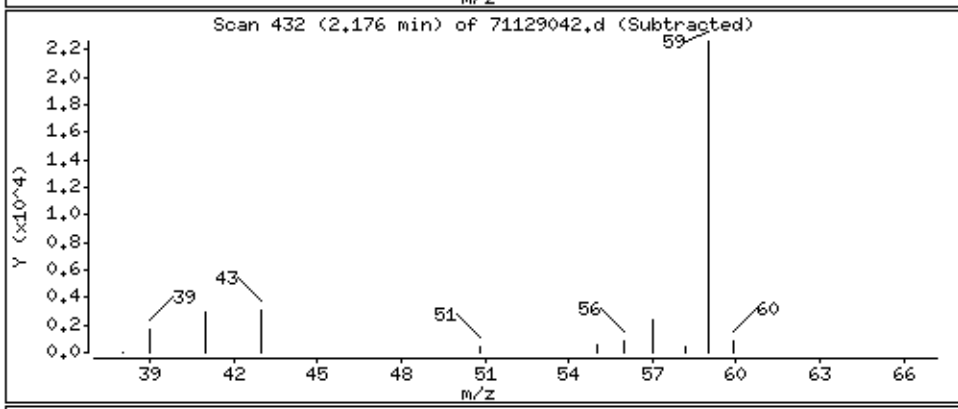
21 tert-Butyl Alcohol

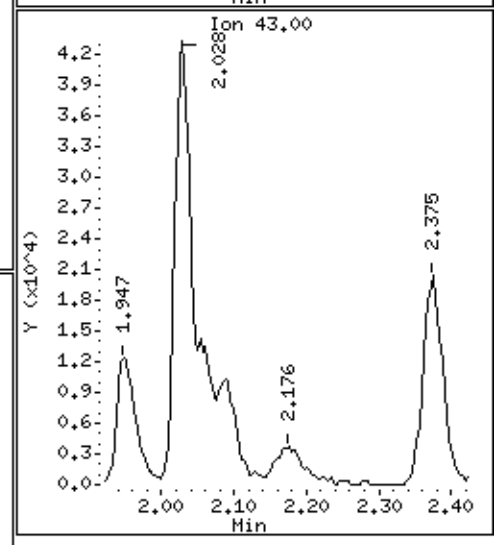
Concentration: 83.4 ug/L

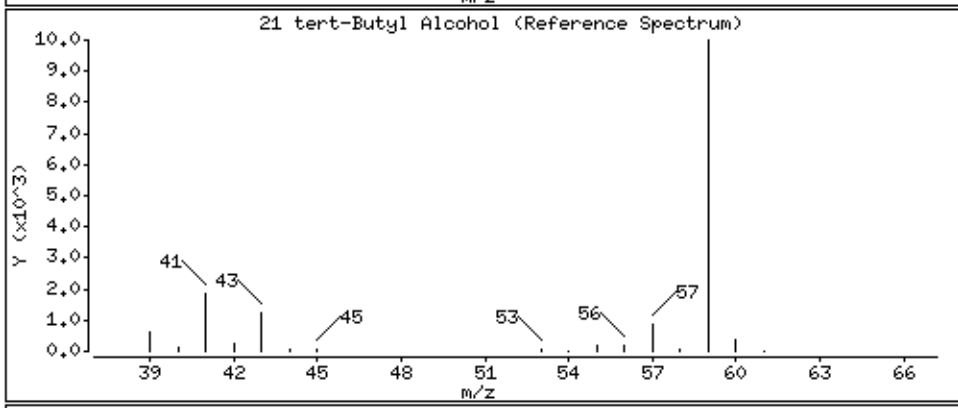
Review Code:

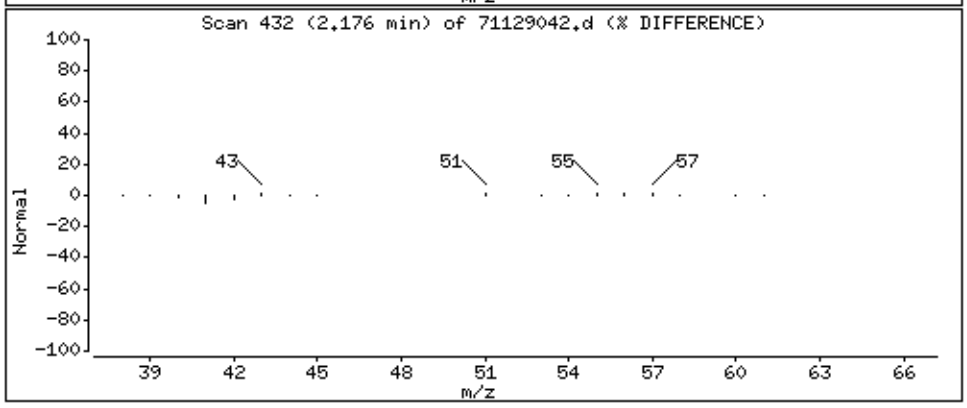












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

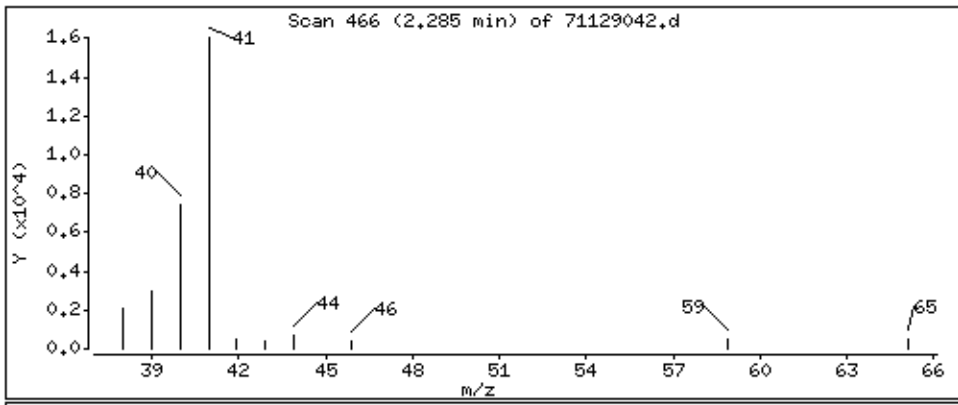
Client ID: MSD | Instrument: 30mv7b.i

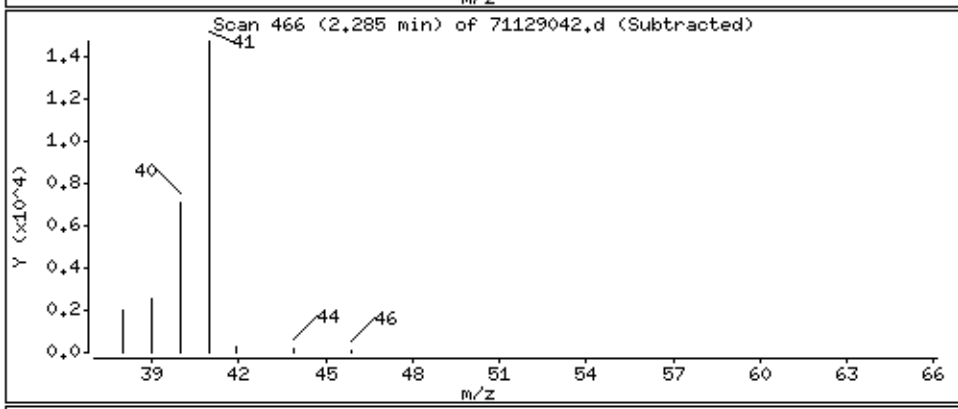
Sample Info: 30337003007

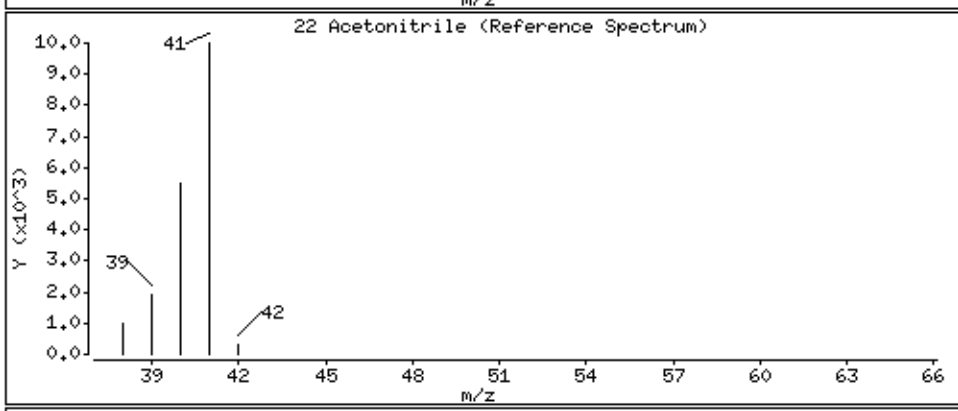
Purge Volume: 5.0 | Operator: LEL

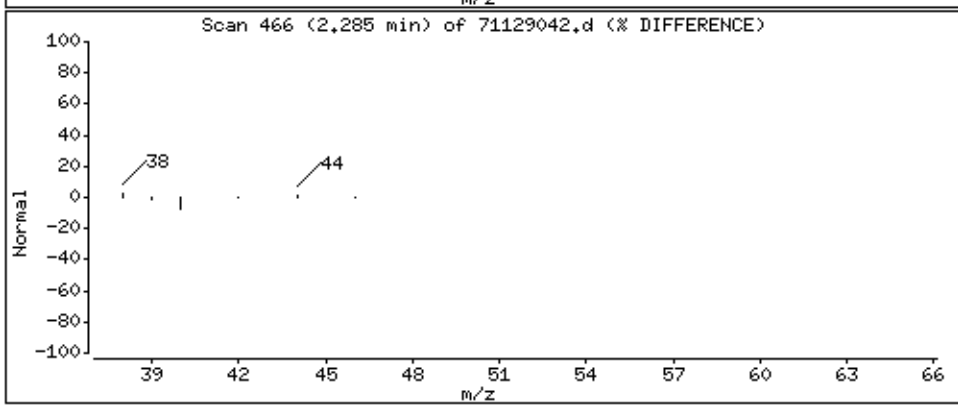
Column phase: RTX-VMS | Column diameter: 0.18

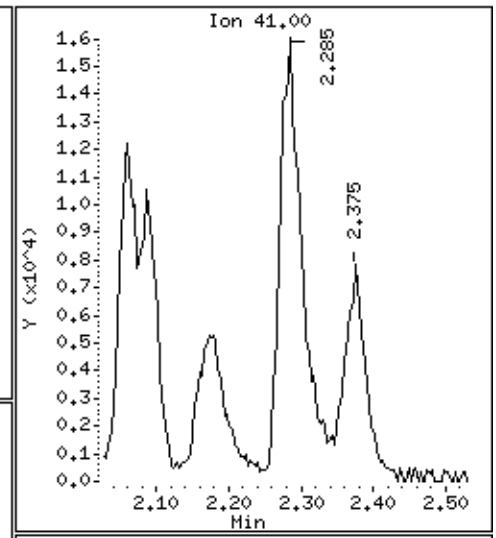
22 Acetonitrile | Concentration: 86.1 ug/L | Review Code:

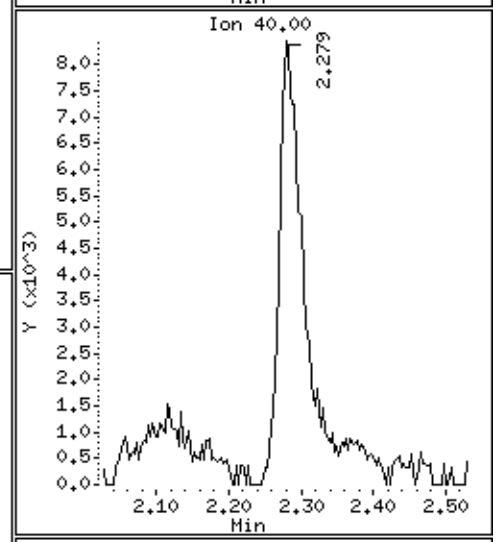


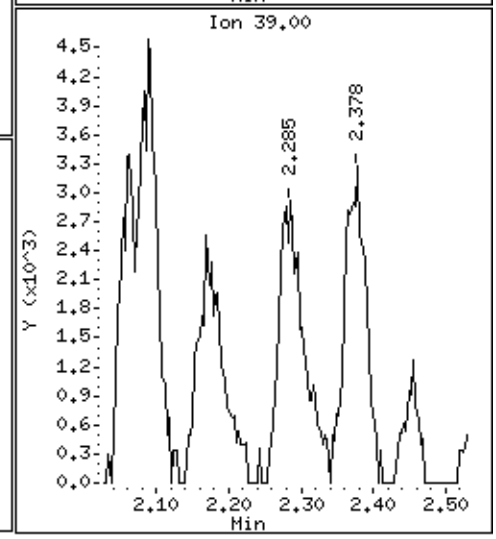












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

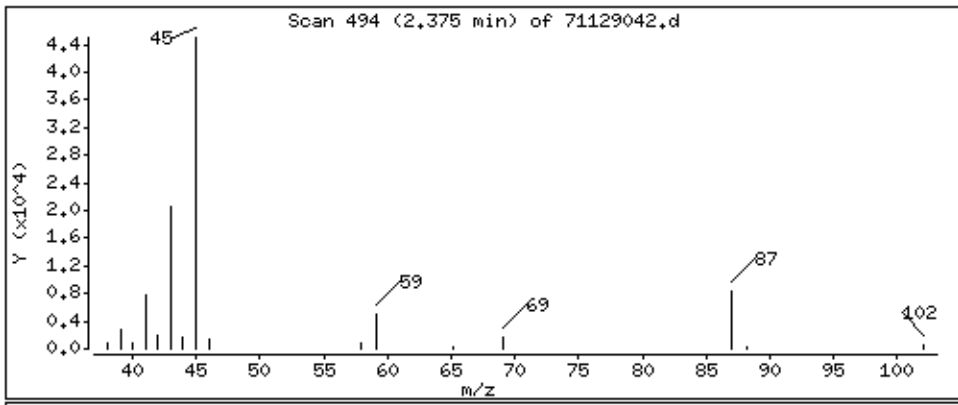
Column phase: RTX-VMS

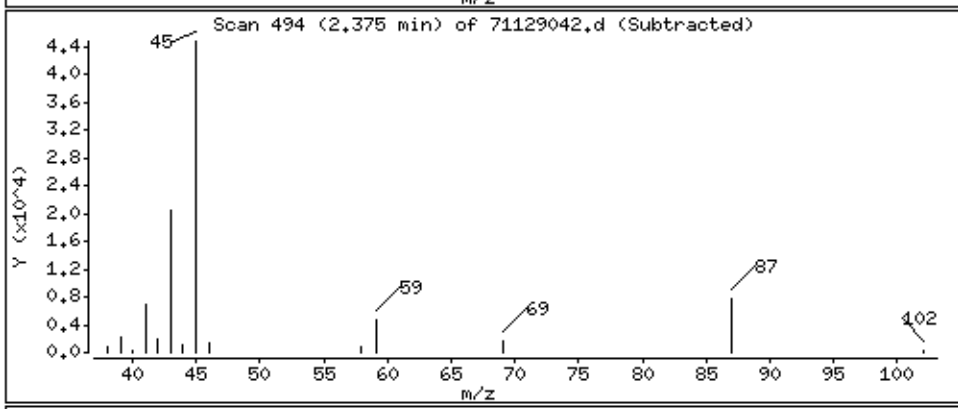
Column diameter: 0.18

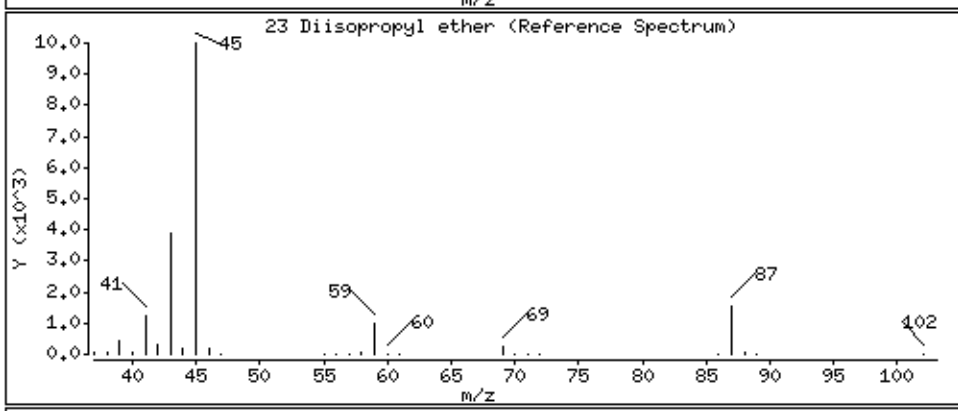
23 Diisopropyl ether

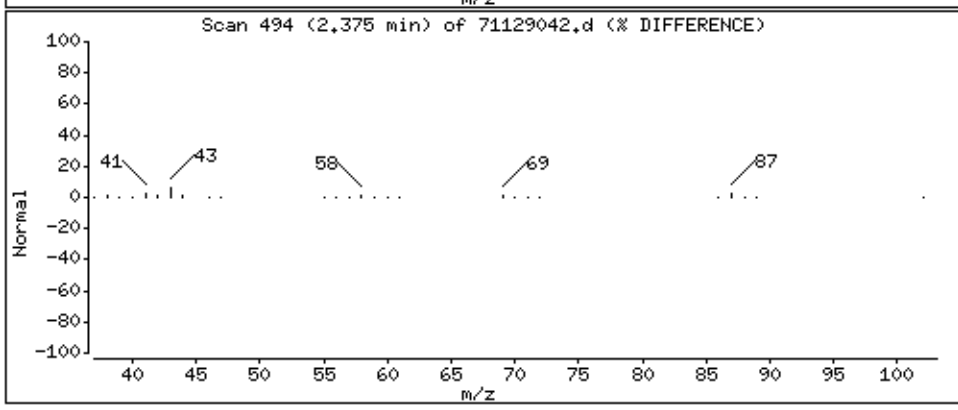
Concentration: 16.7 ug/L

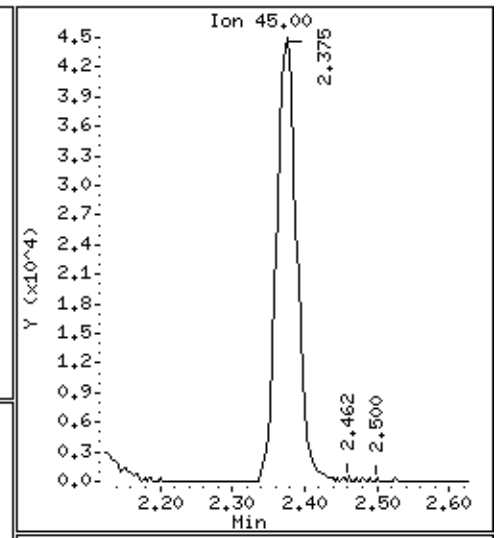
Review Code:

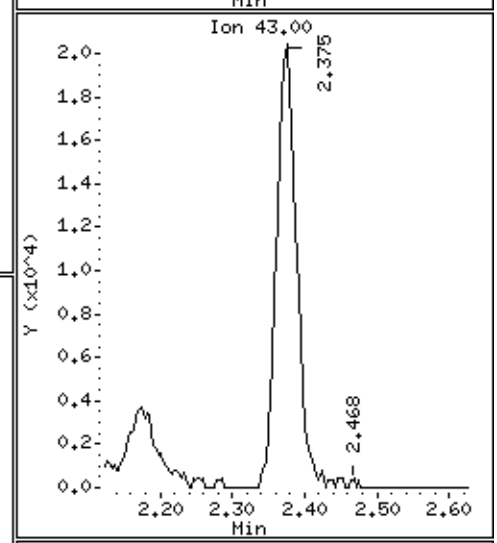


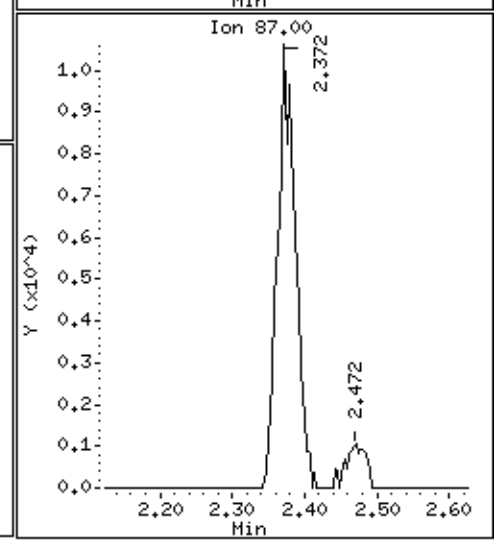












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

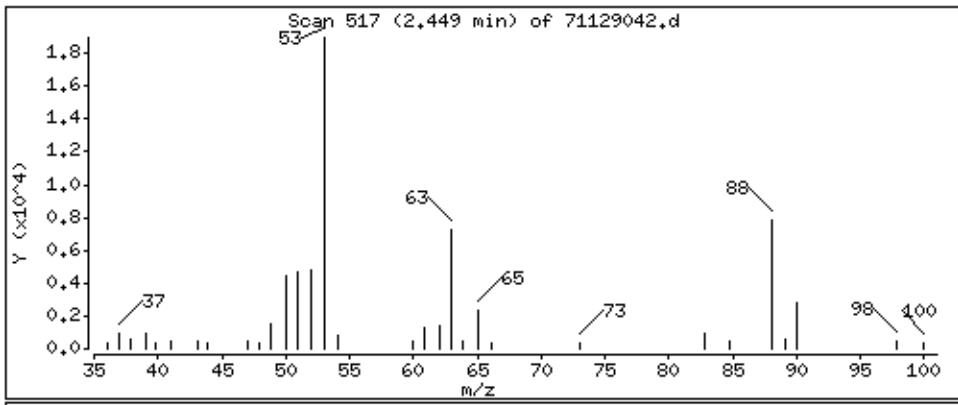
Column phase: RTX-VMS

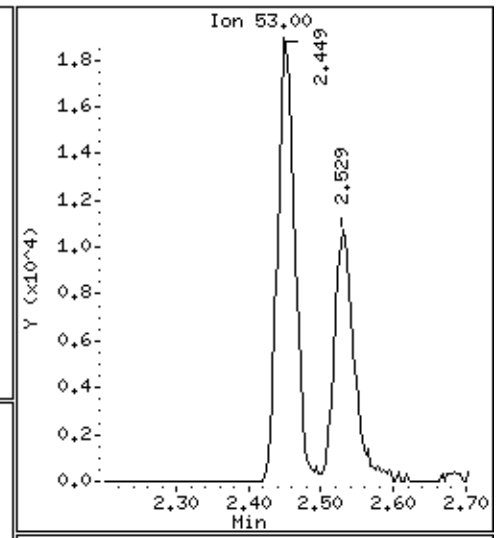
Column diameter: 0.18

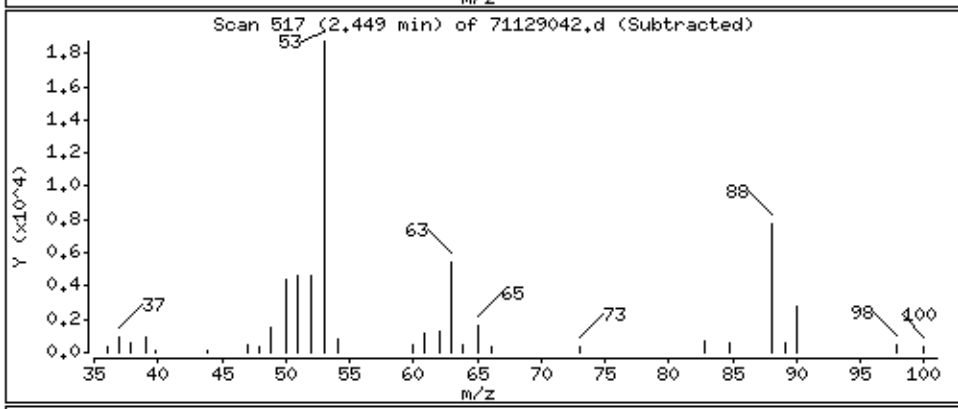
24 Chloroprene

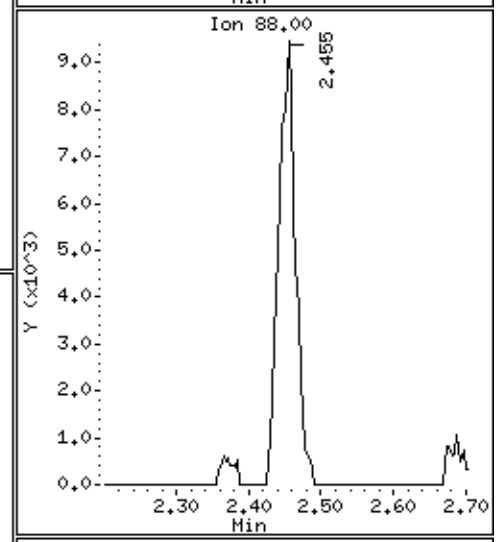
Concentration: 17.3 ug/L

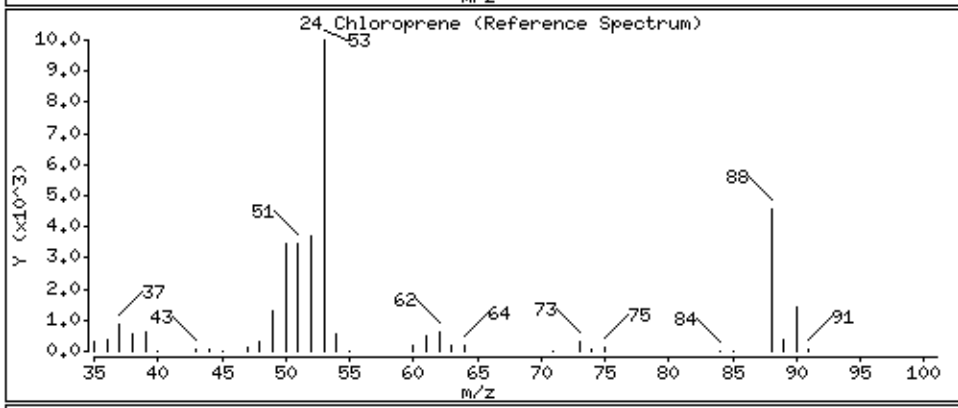
Review Code:

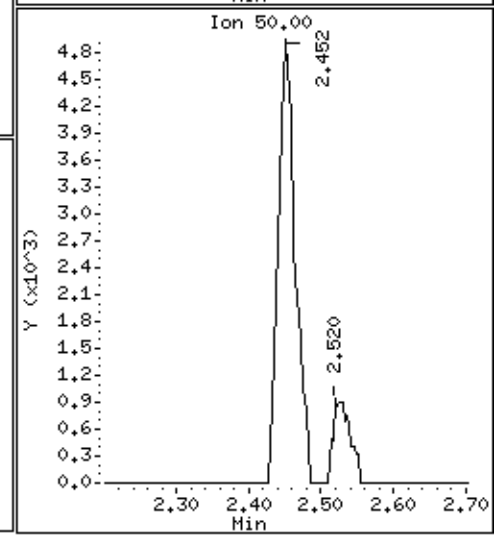


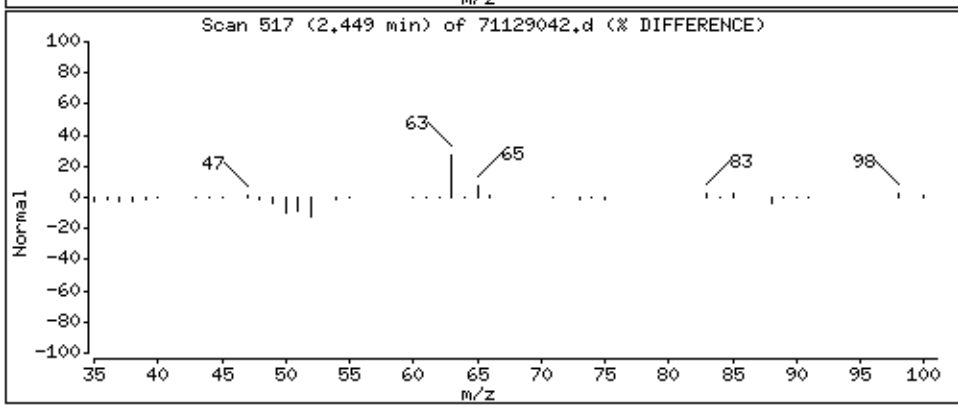












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

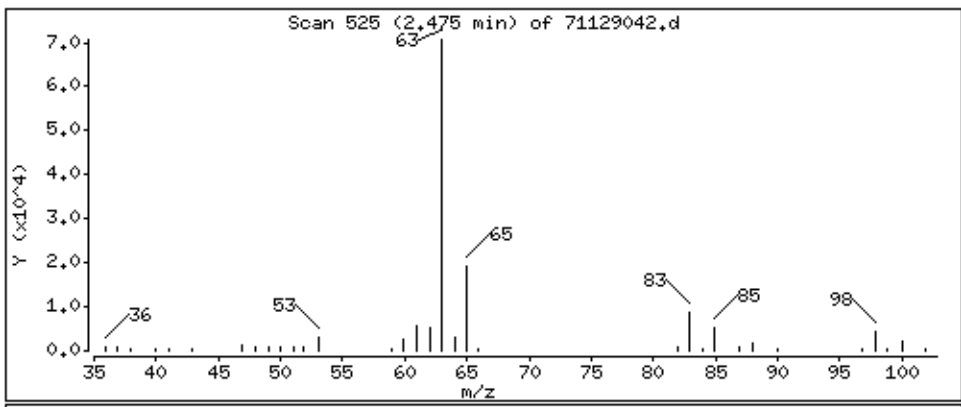
Column phase: RTX-VMS

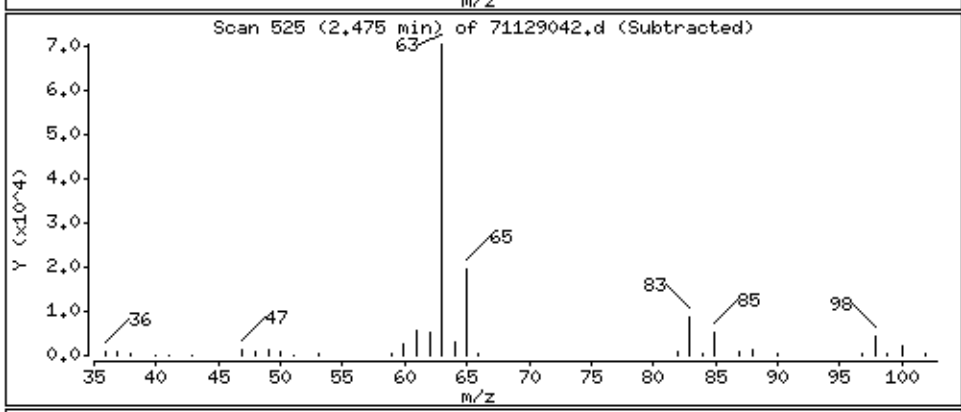
Column diameter: 0.18

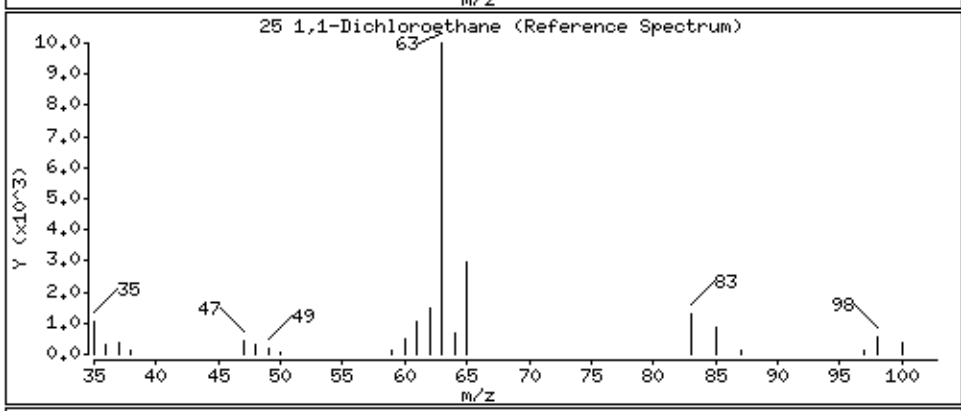
25 1,1-Dichloroethane

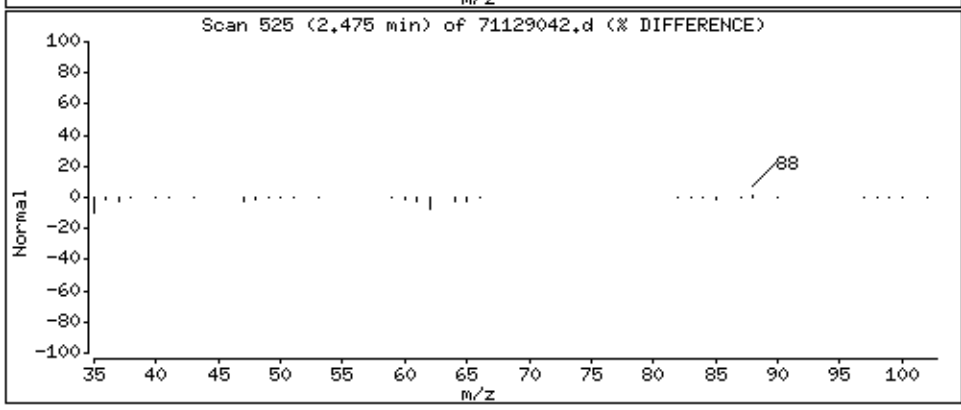
Concentration: 42.2 ug/L

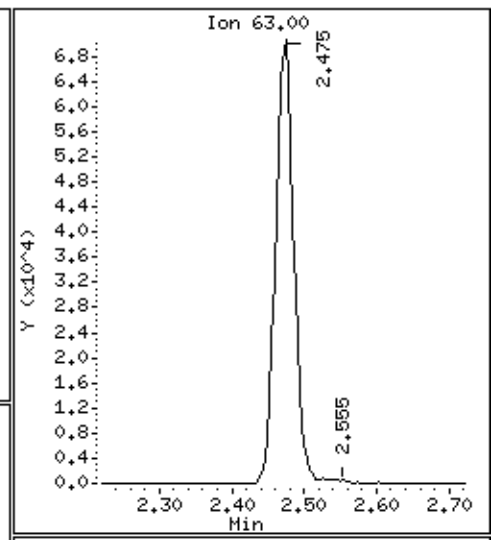
Review Code:

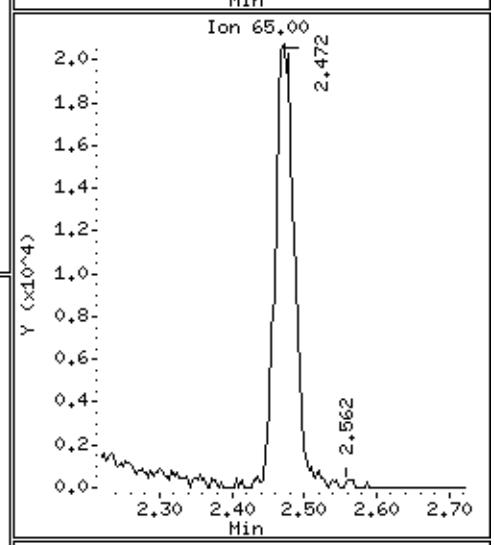


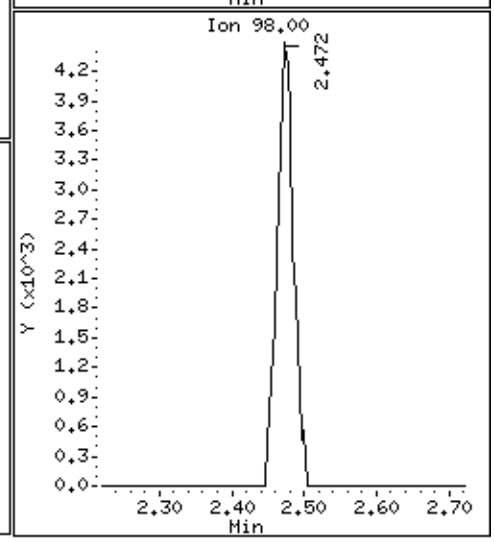












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

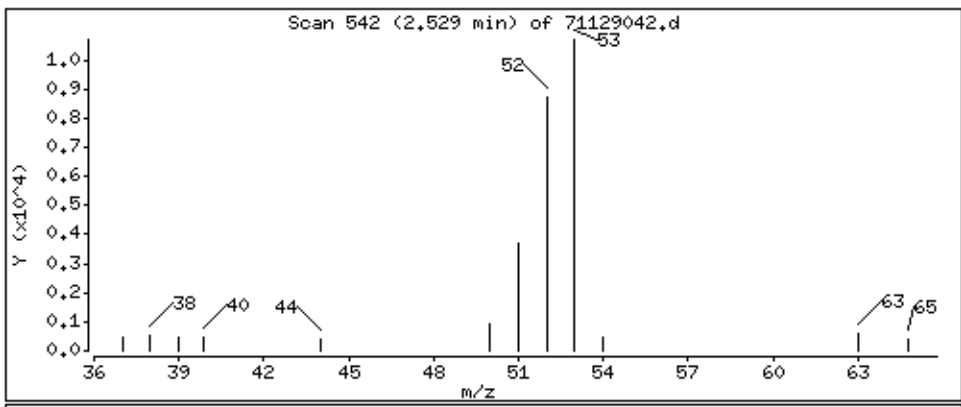
Column phase: RTX-VMS

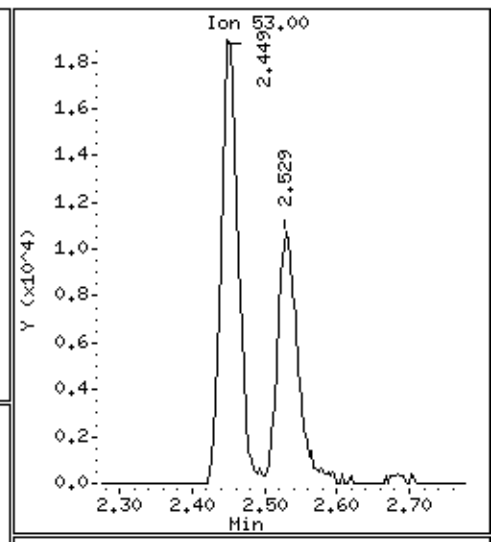
Column diameter: 0.18

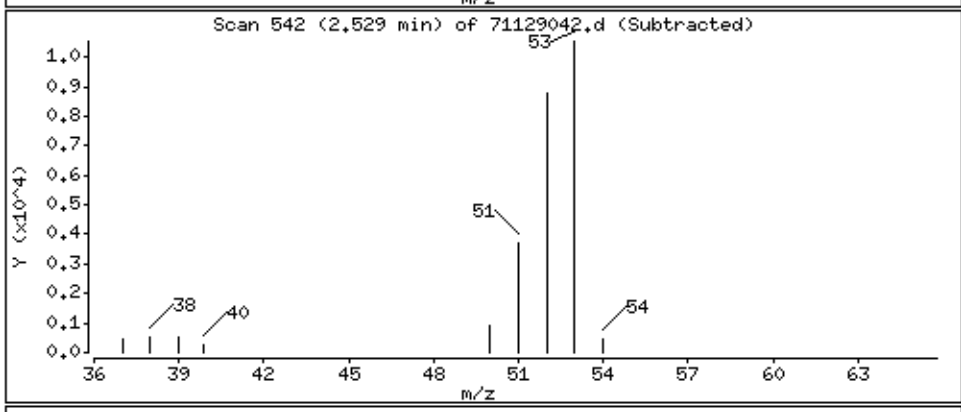
26 Acrylonitrile

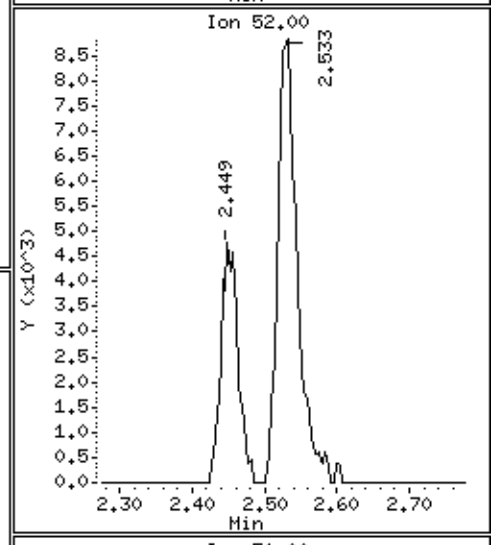
Concentration: 16.9 ug/L

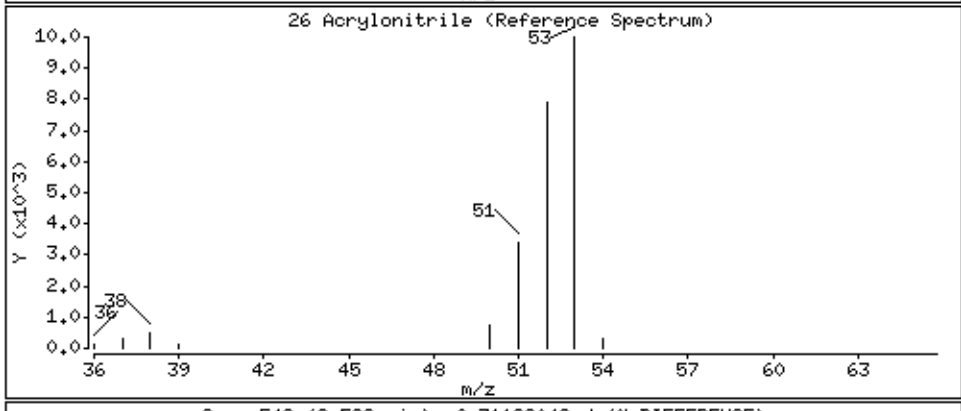
Review Code:

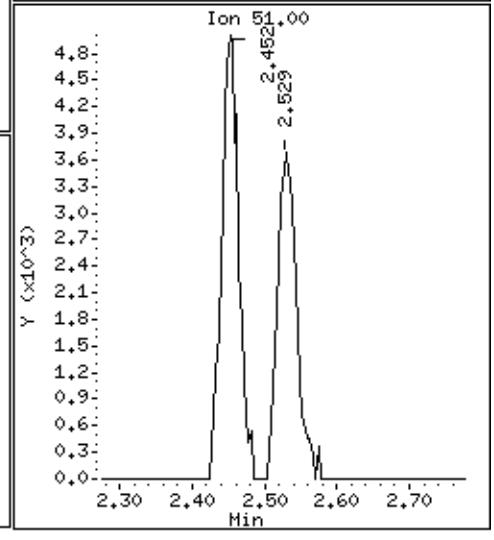


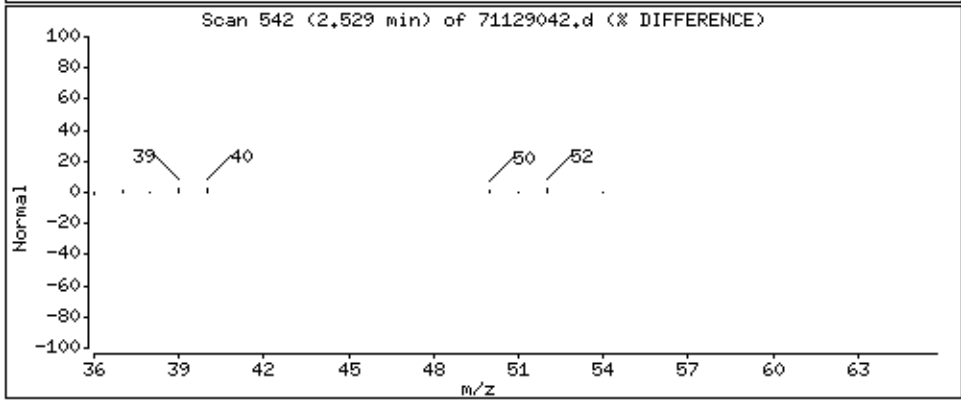












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

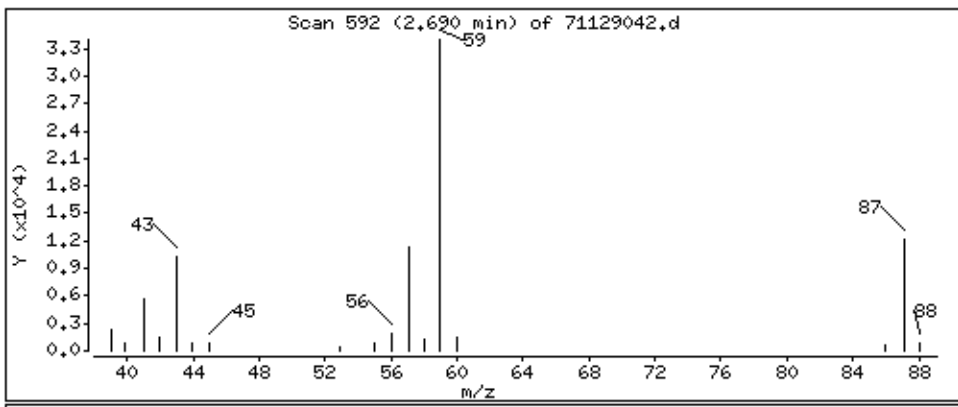
Column phase: RTX-VMS

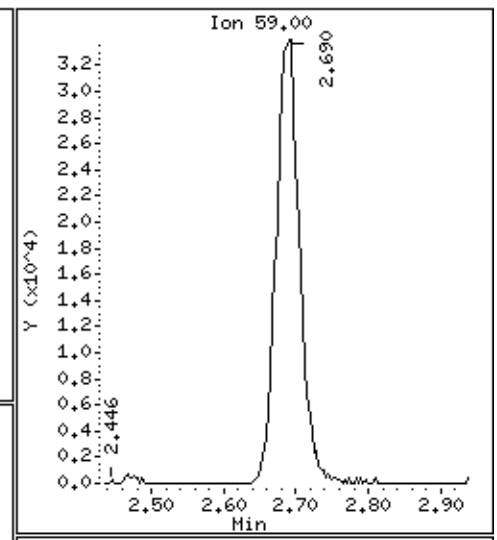
Column diameter: 0.18

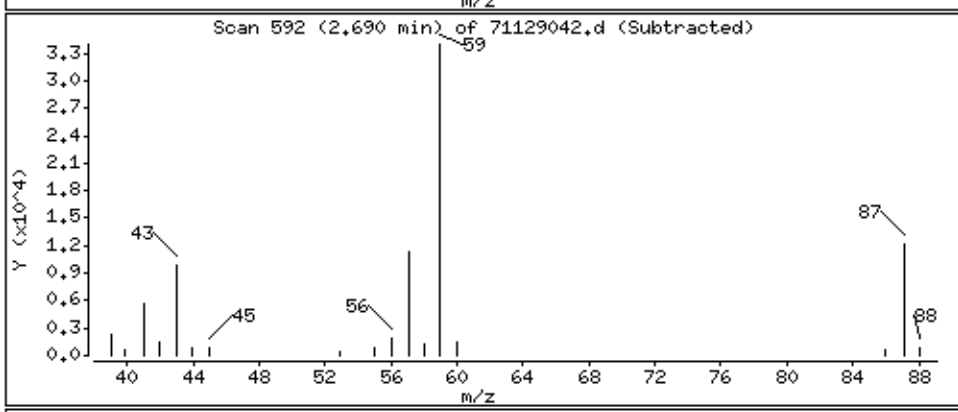
27 Ethyl-tert-butyl ether

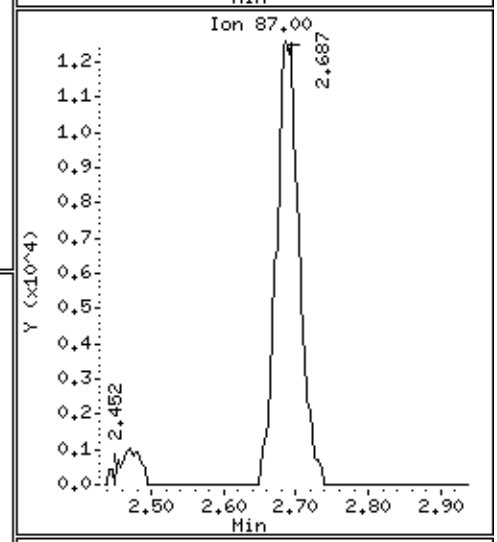
Concentration: 15.5 ug/L

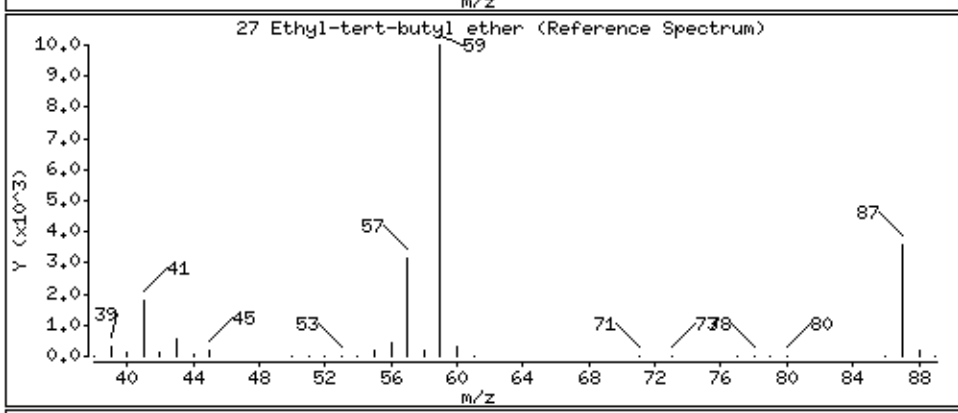
Review Code:

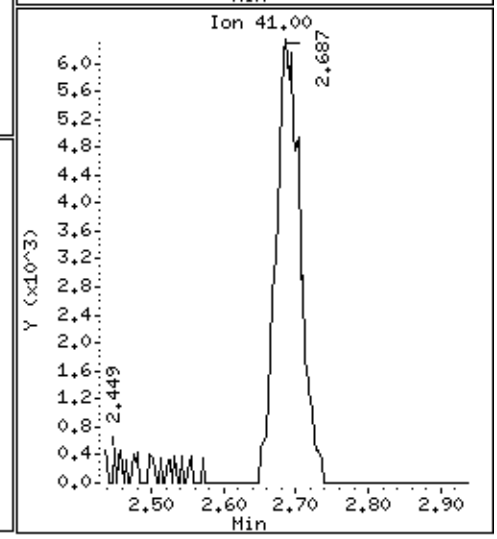


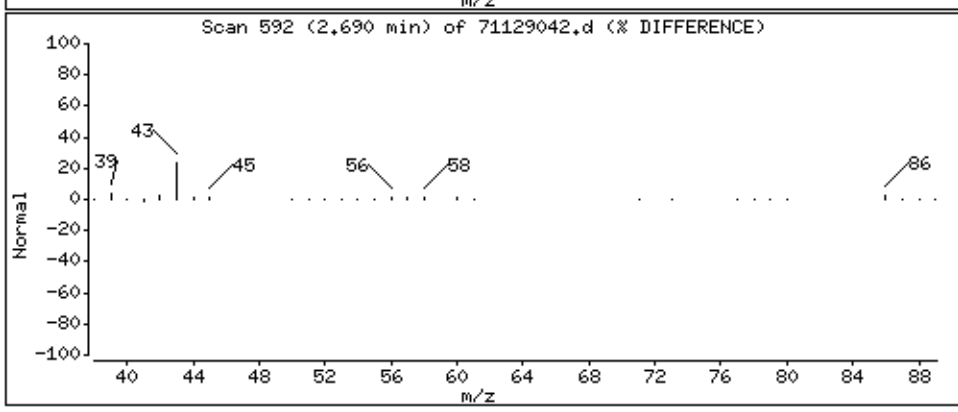












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

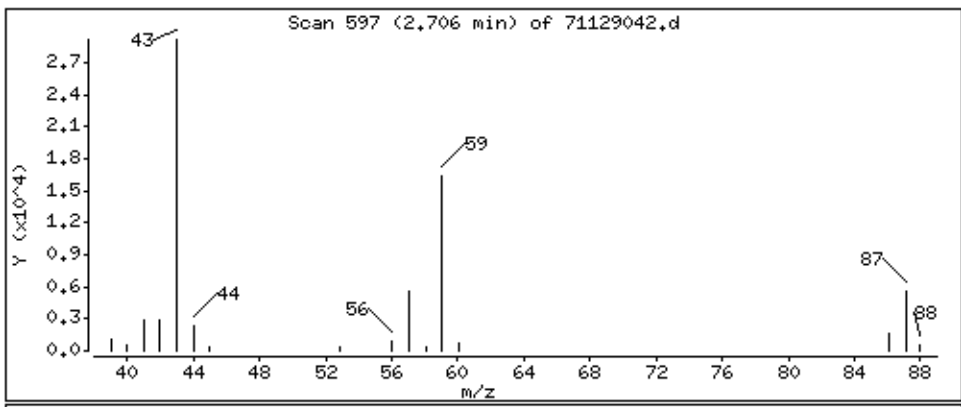
Column phase: RTX-VMS

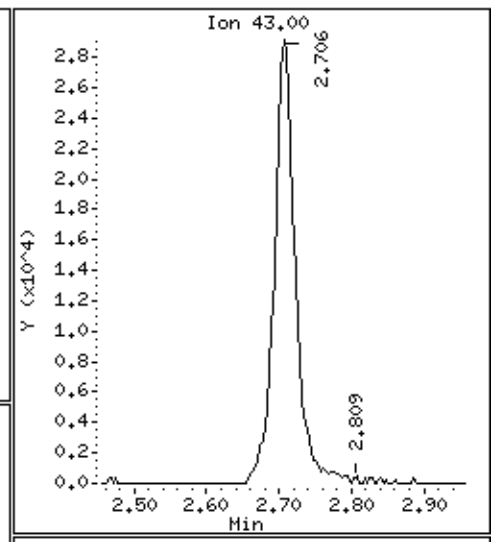
Column diameter: 0.18

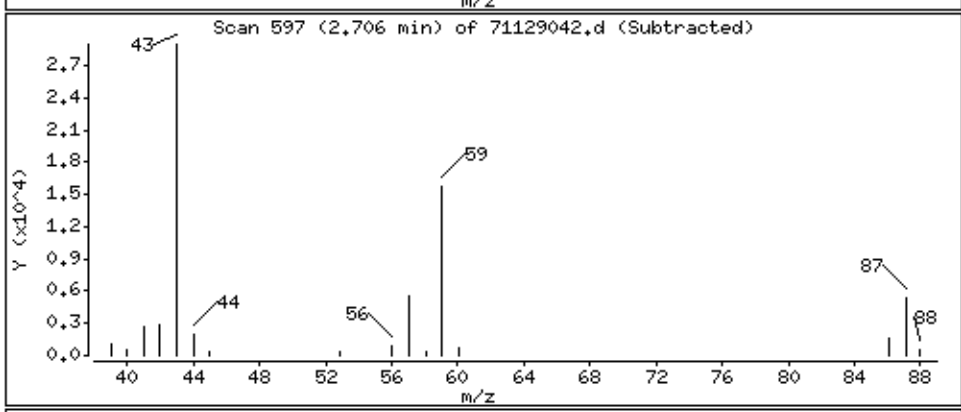
28 Vinyl acetate

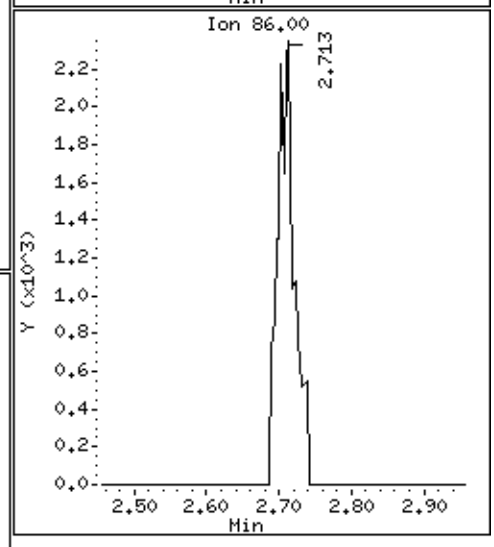
Concentration: 13.0 ug/L

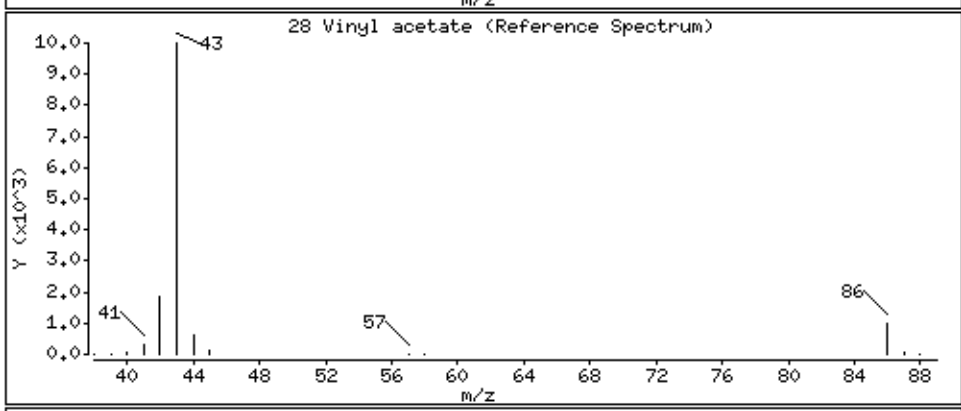
Review Code:

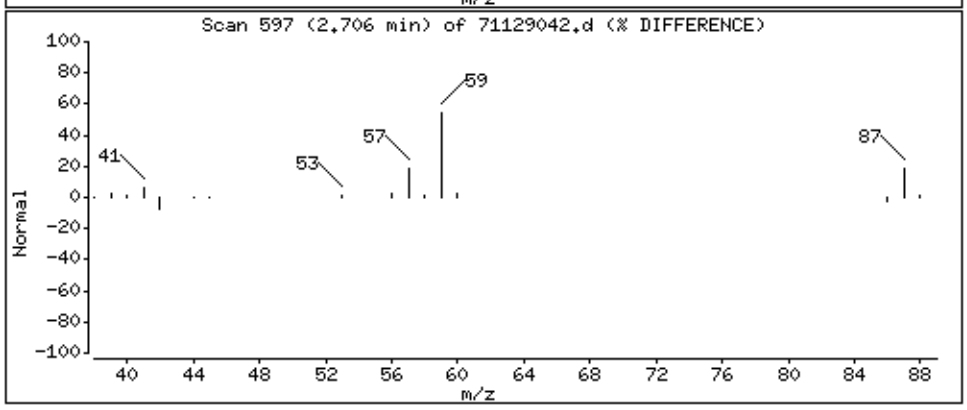












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

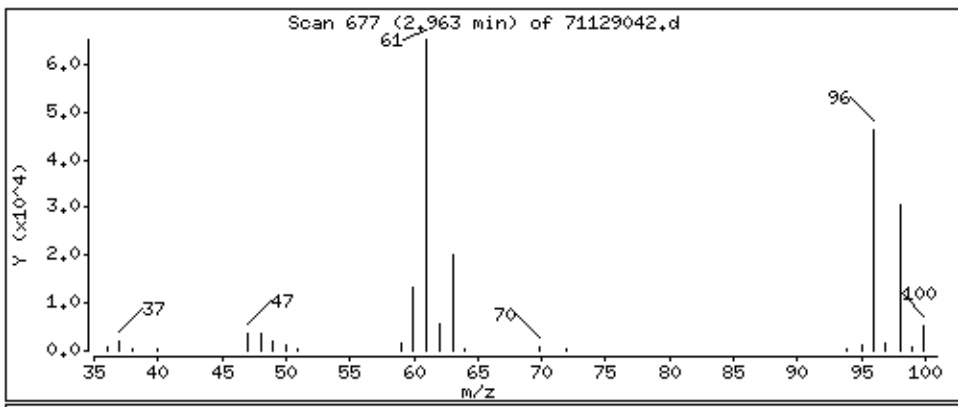
Column phase: RTX-VMS

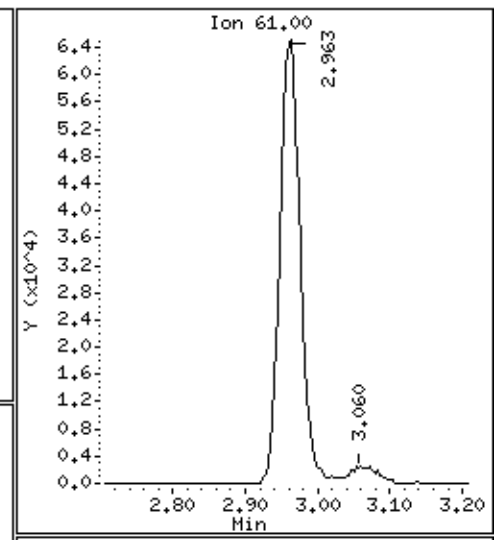
Column diameter: 0.18

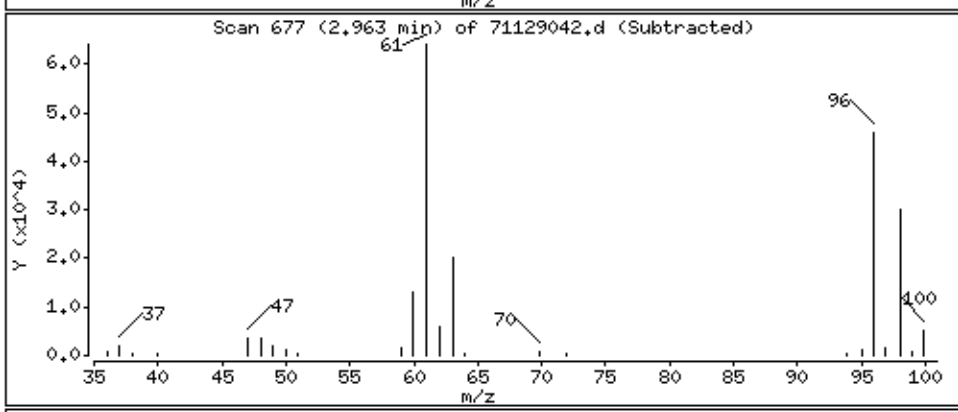
29 cis-1,2-Dichloroethene

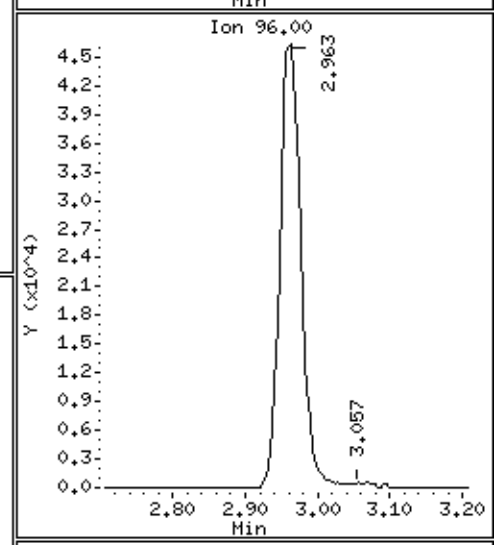
Concentration: 56.2 ug/L

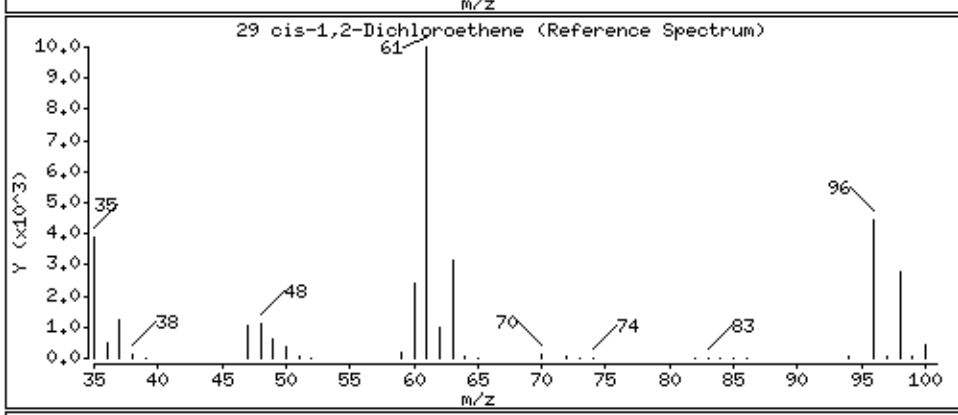
Review Code:

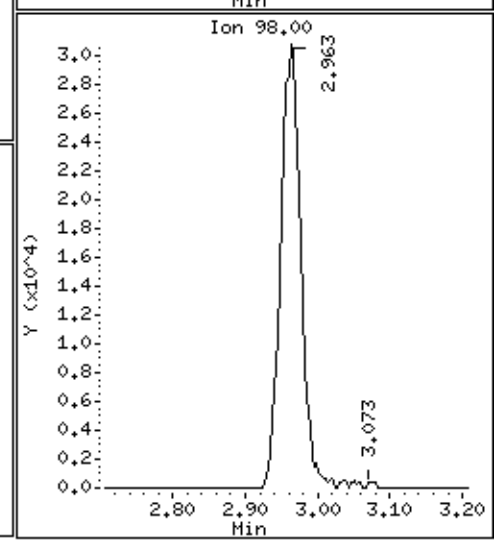


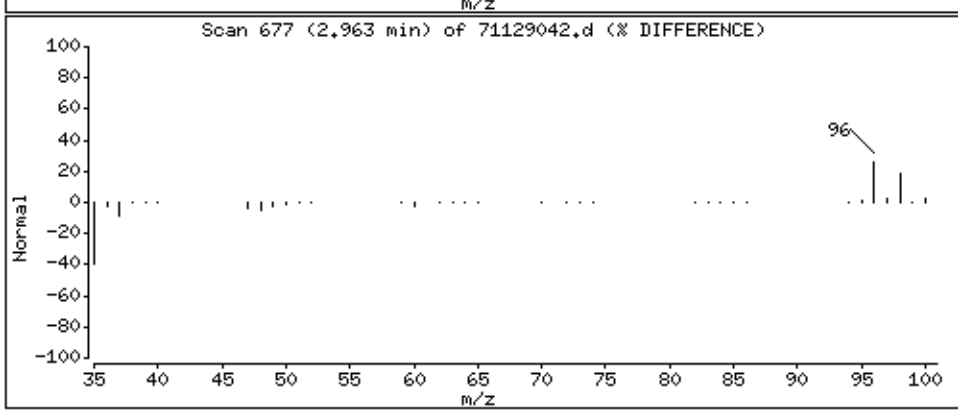












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

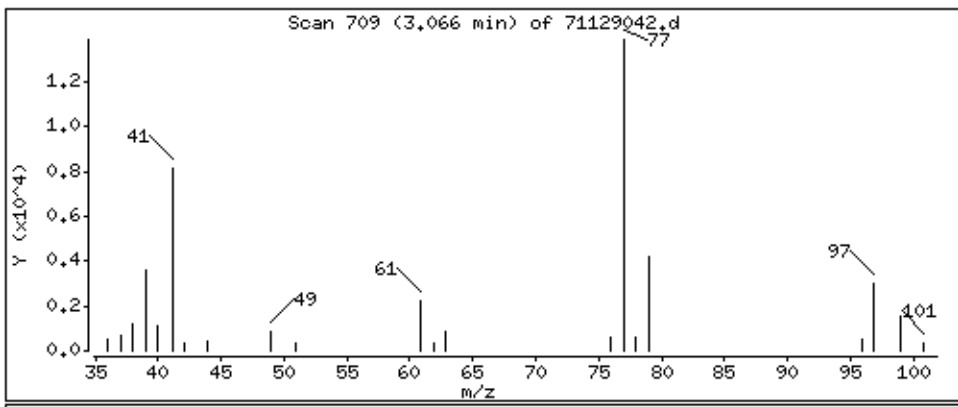
Column phase: RTX-VMS

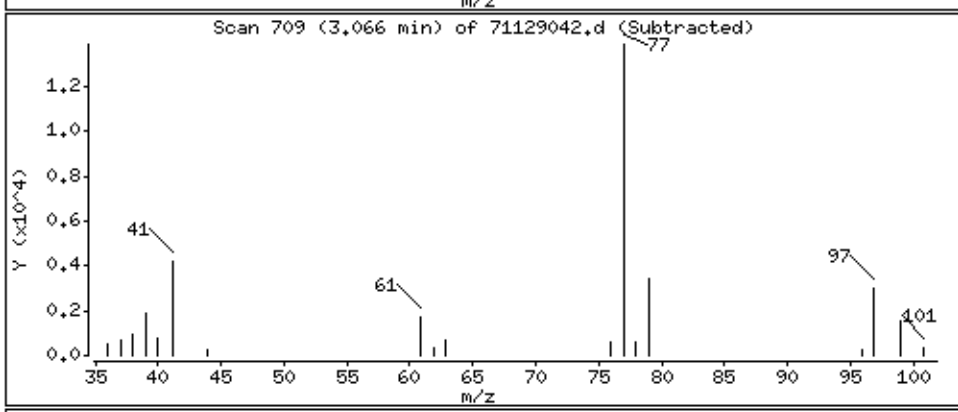
Column diameter: 0.18

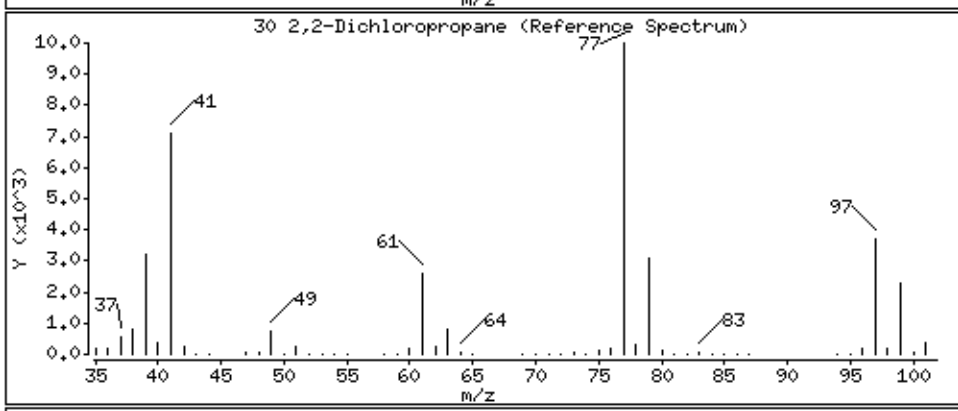
30 2,2-Dichloropropane

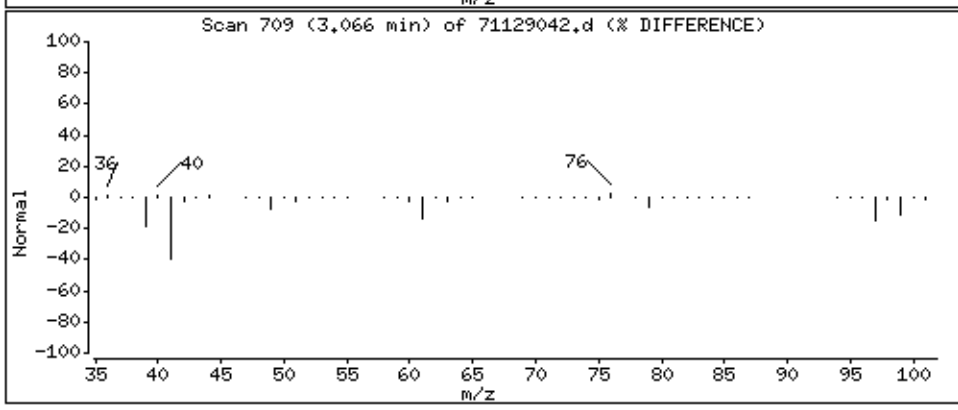
Concentration: 14.1 ug/L

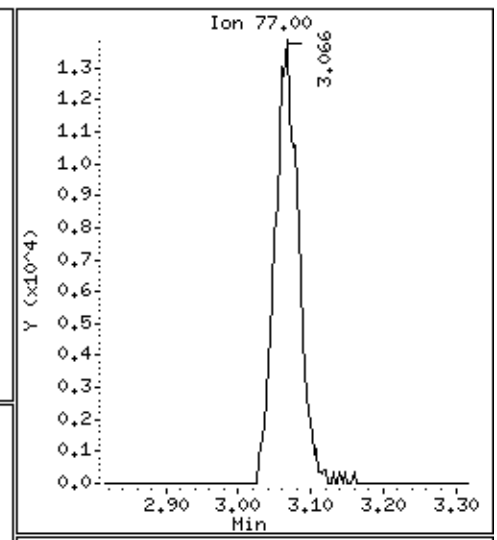
Review Code:

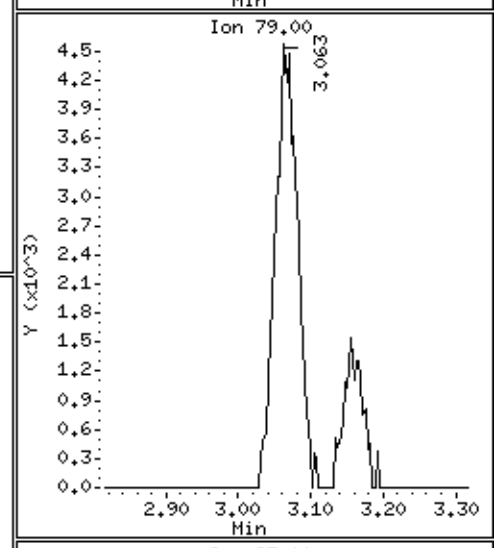


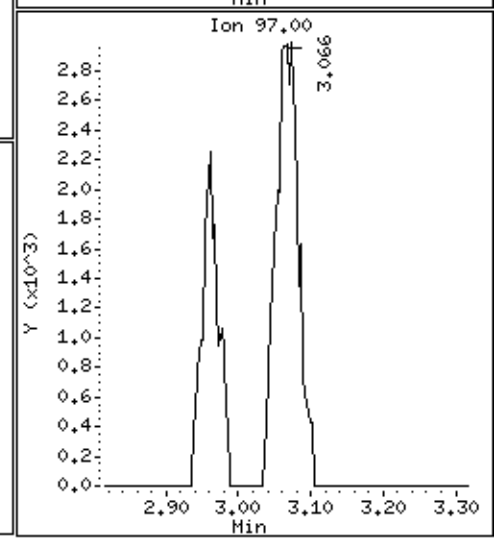












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

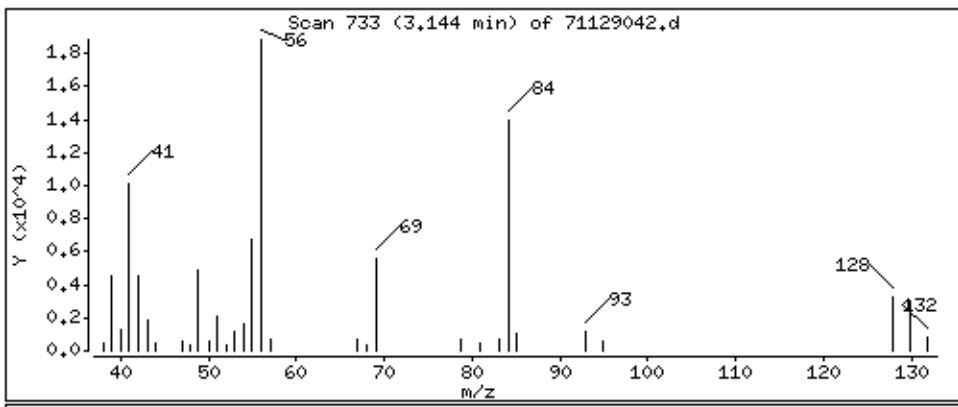
Column phase: RTX-VMS

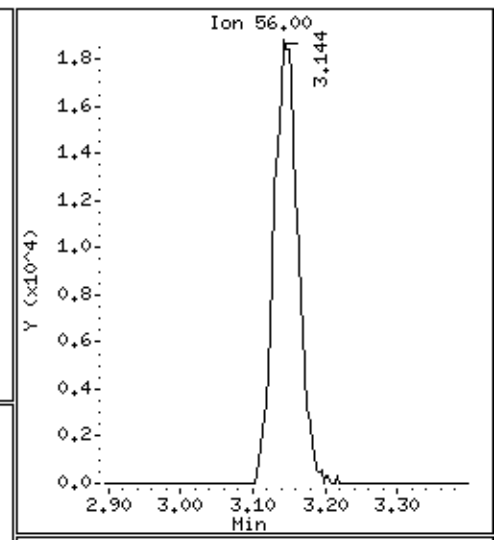
Column diameter: 0.18

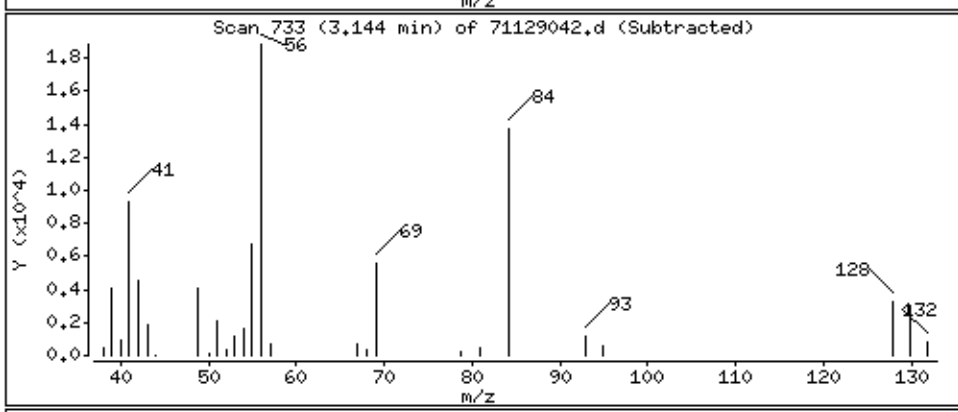
31 Cyclohexane

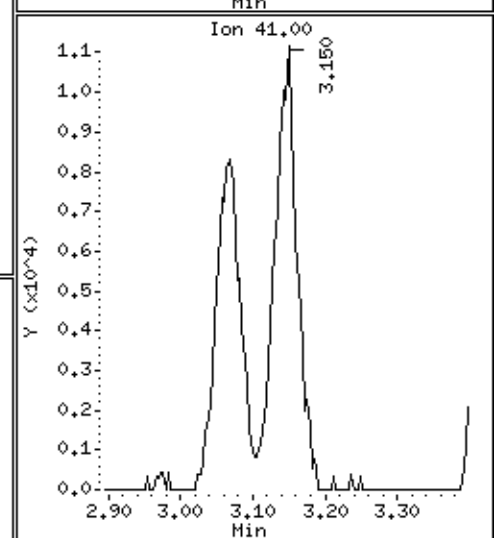
Concentration: 16.4 ug/L

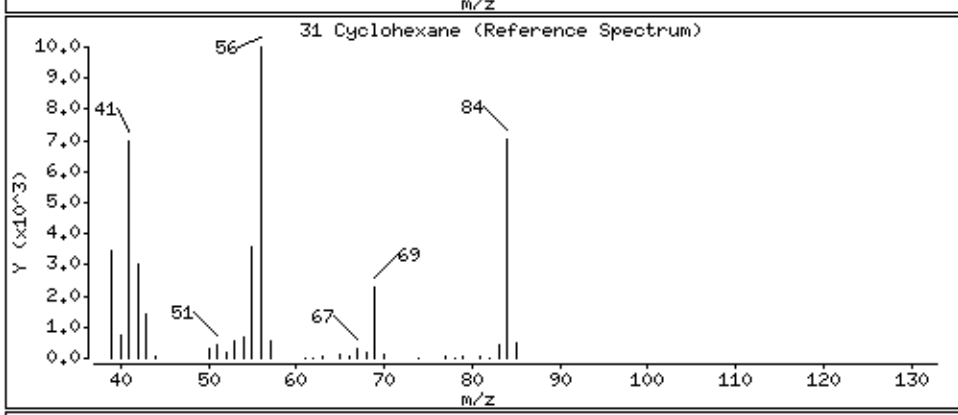
Review Code:

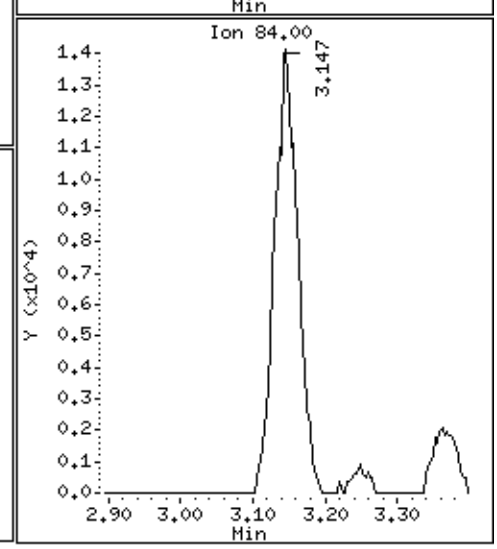


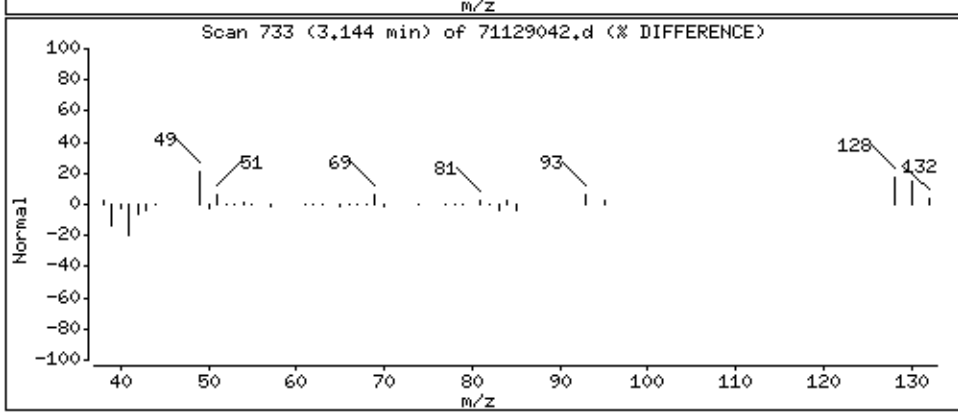












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

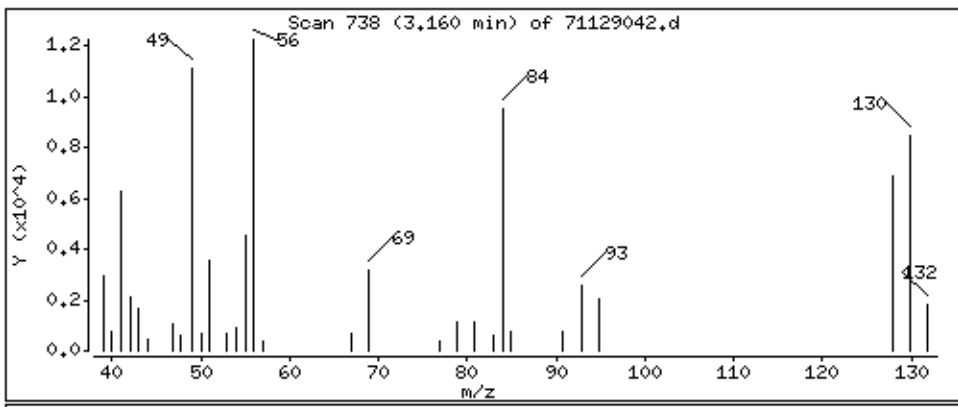
Column phase: RTX-VMS

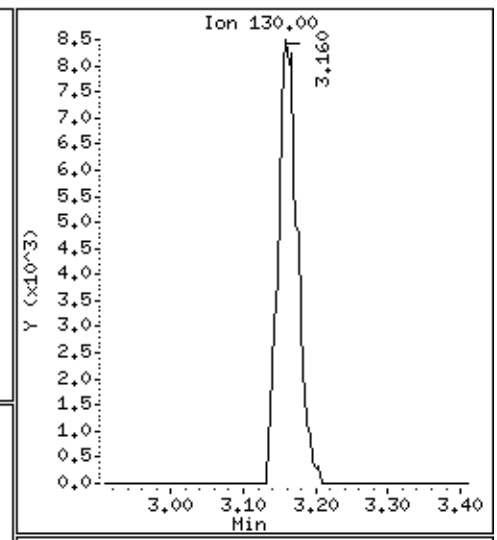
Column diameter: 0.18

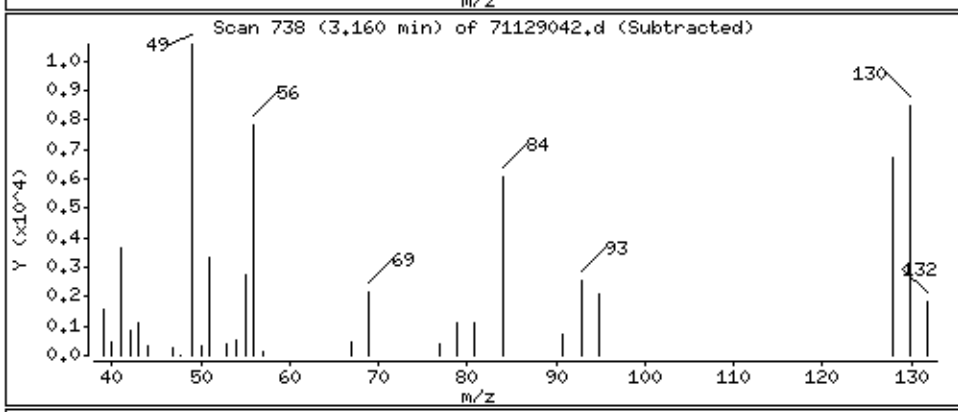
32 Bromochloromethane

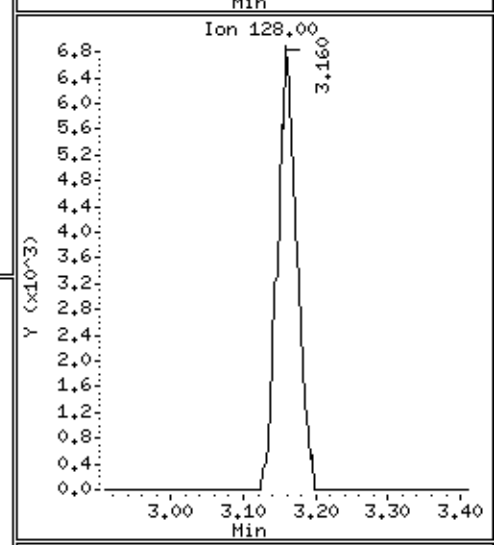
Concentration: 14.3 ug/L

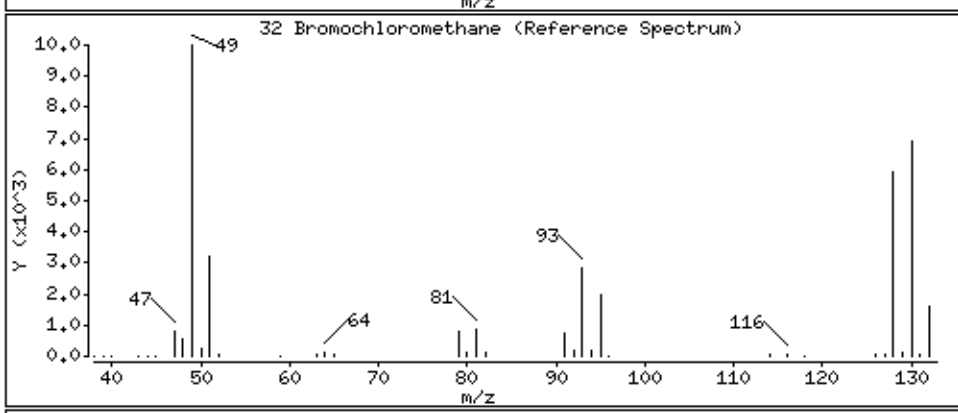
Review Code:

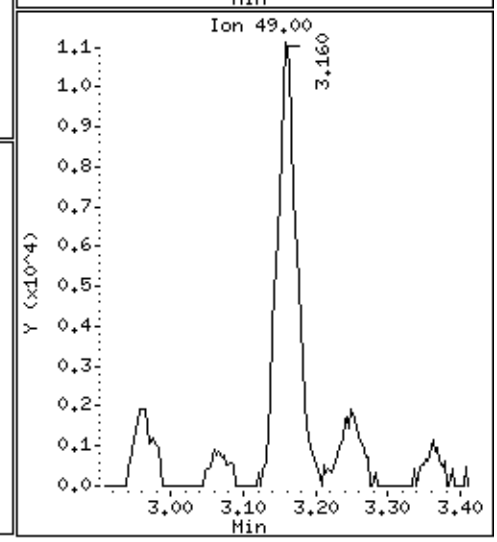


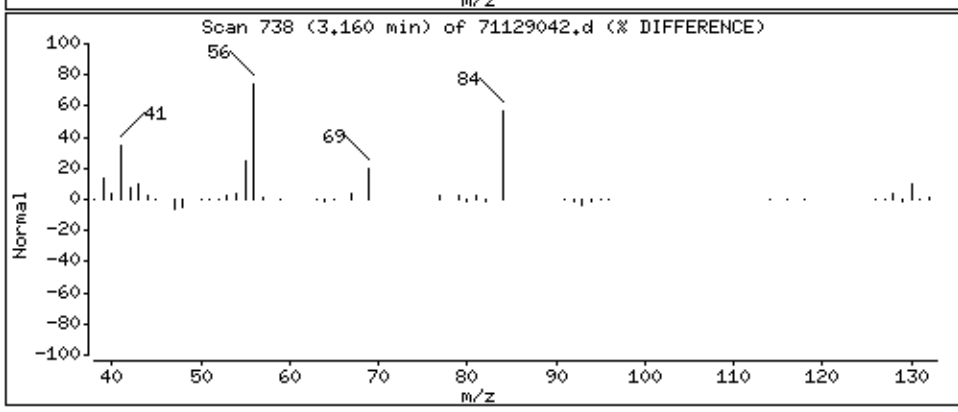












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

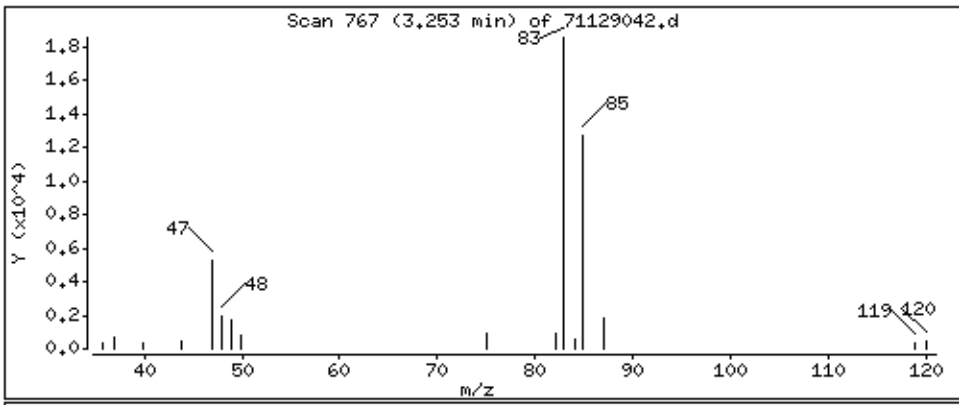
Column phase: RTX-VMS

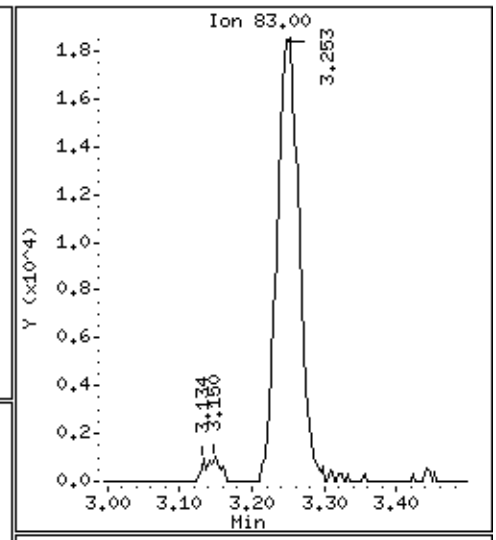
Column diameter: 0.18

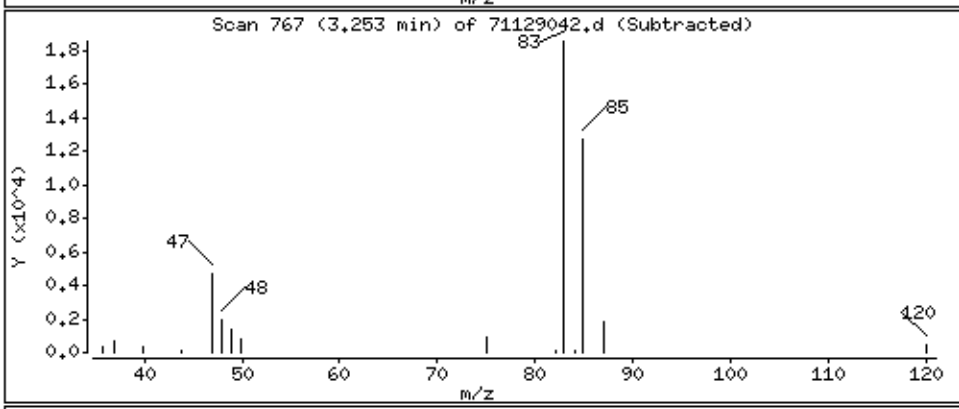
33 Chloroform

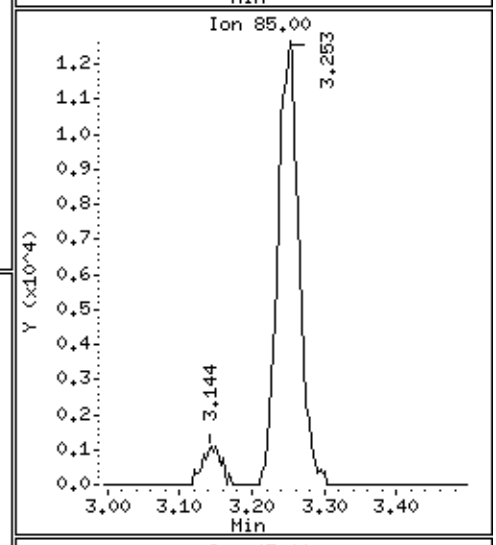
Concentration: 14.1 ug/L

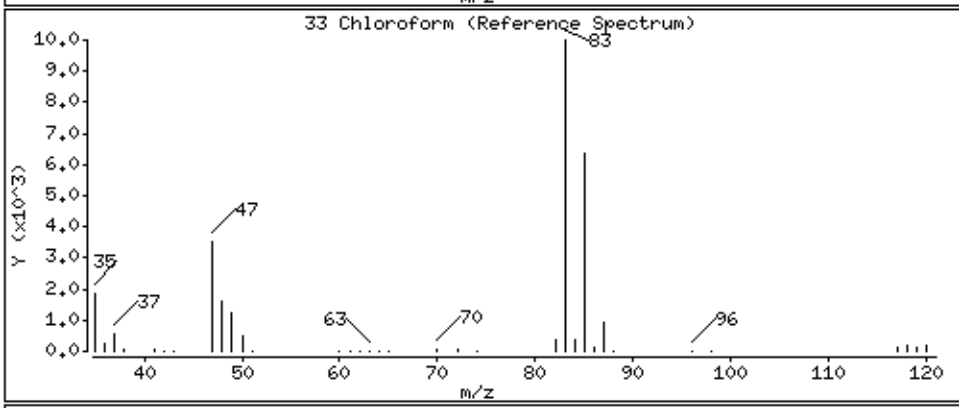
Review Code:

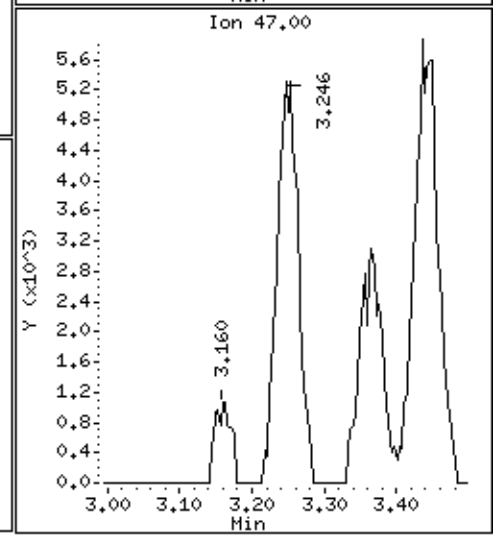


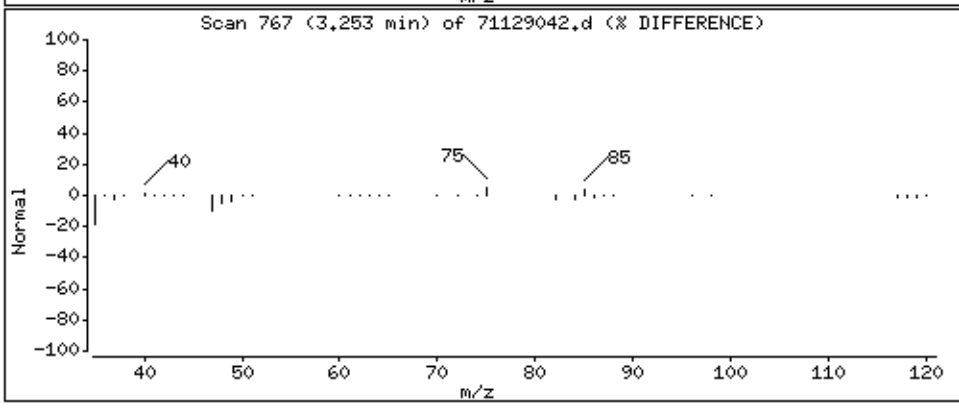












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

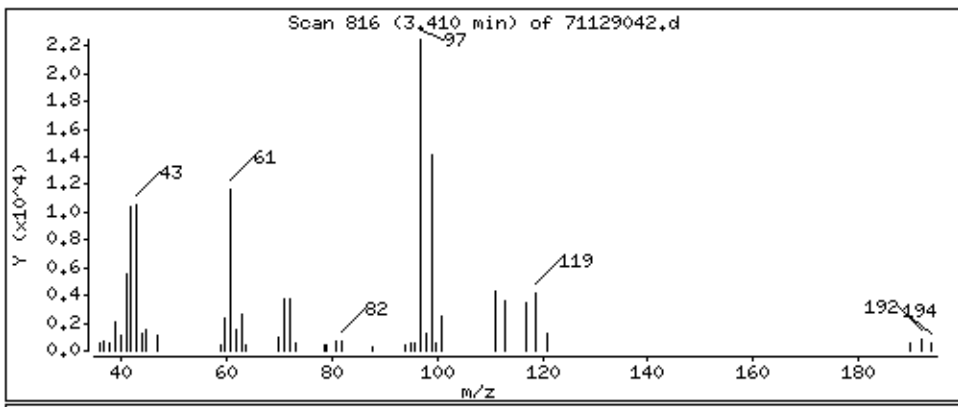
Column phase: RTX-VMS

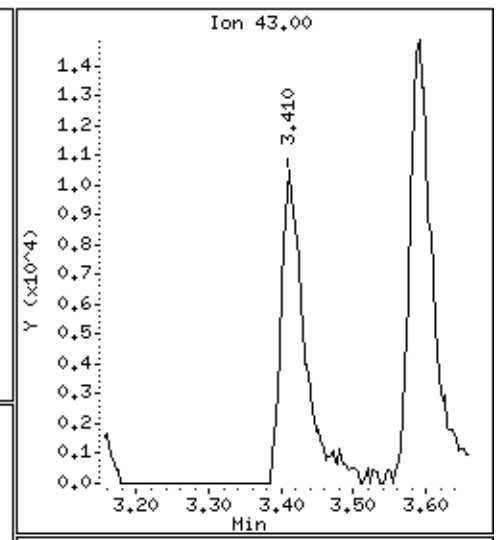
Column diameter: 0.18

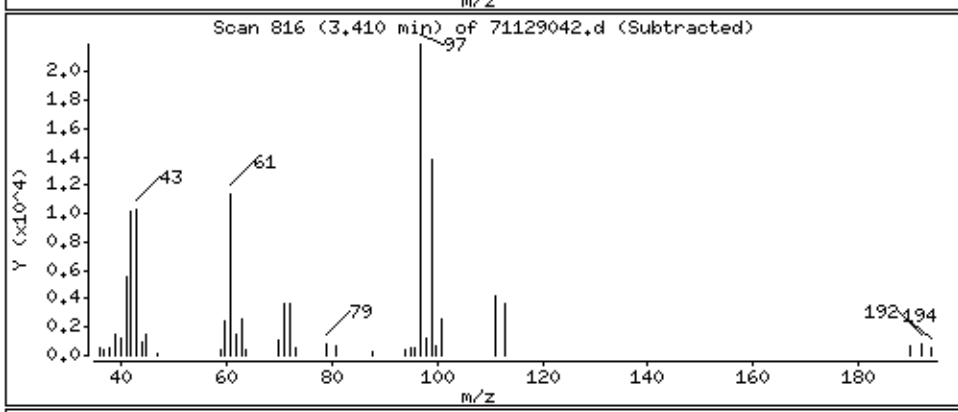
34 Ethyl acetate

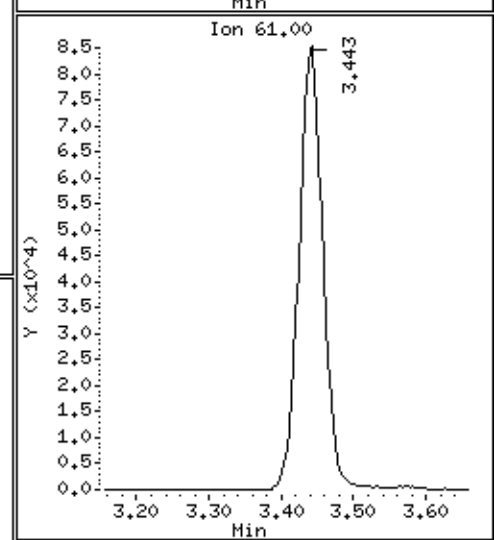
Concentration: 15.7 ug/L

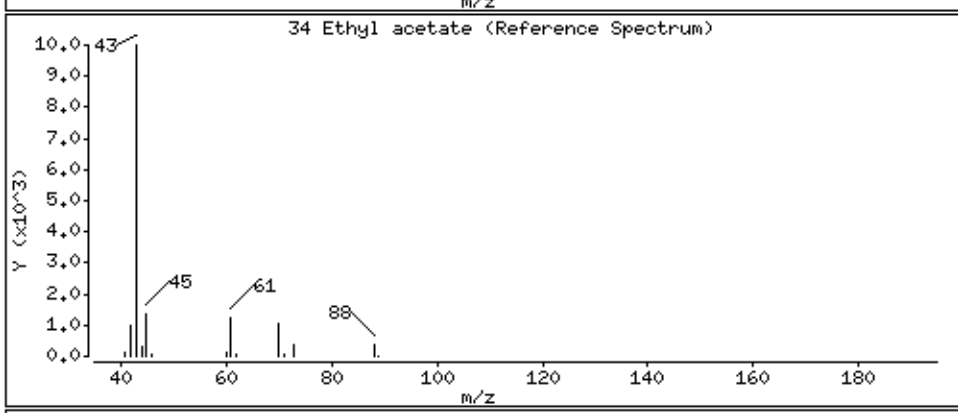
Review Code:

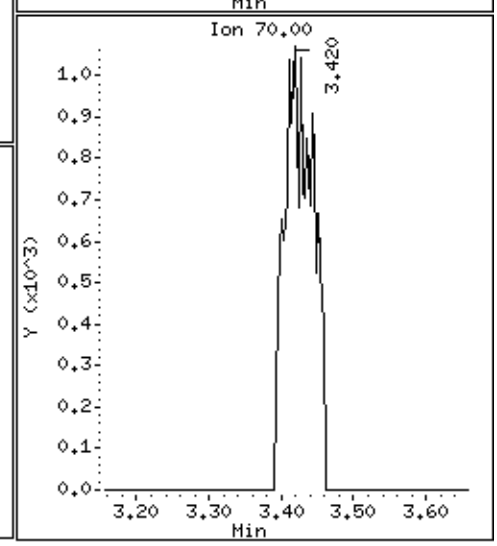


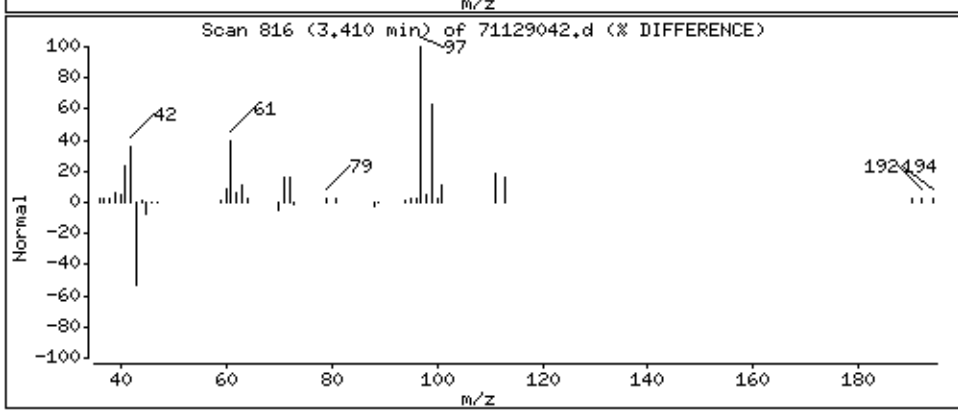












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

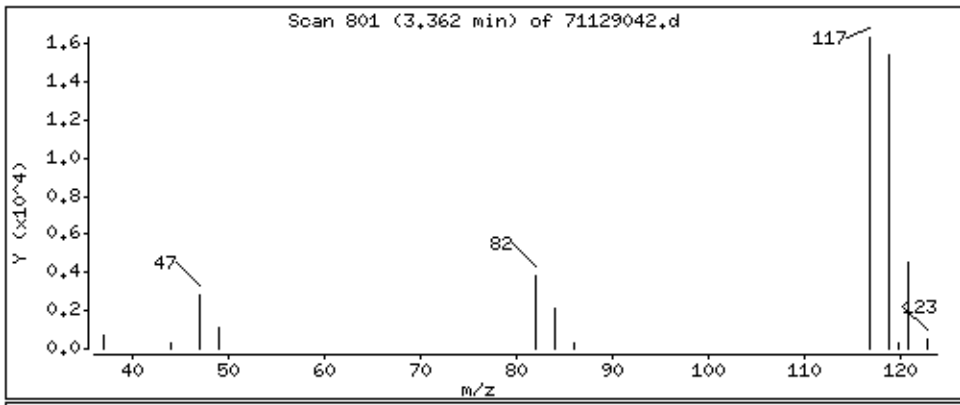
Column phase: RTX-VMS

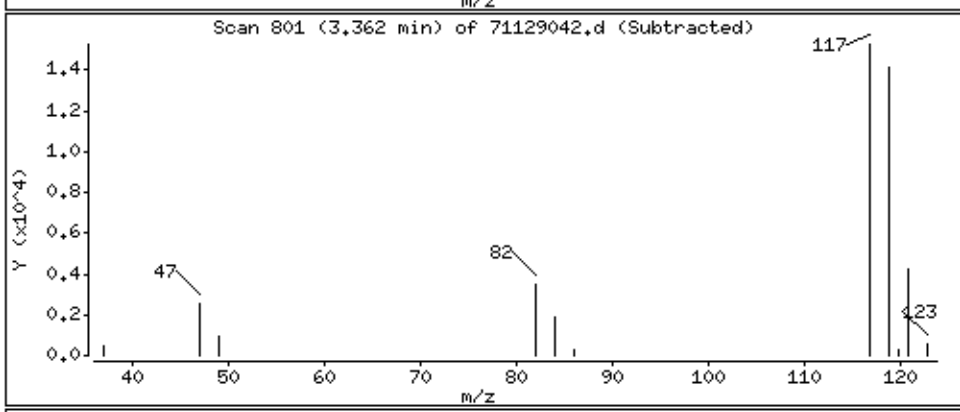
Column diameter: 0.18

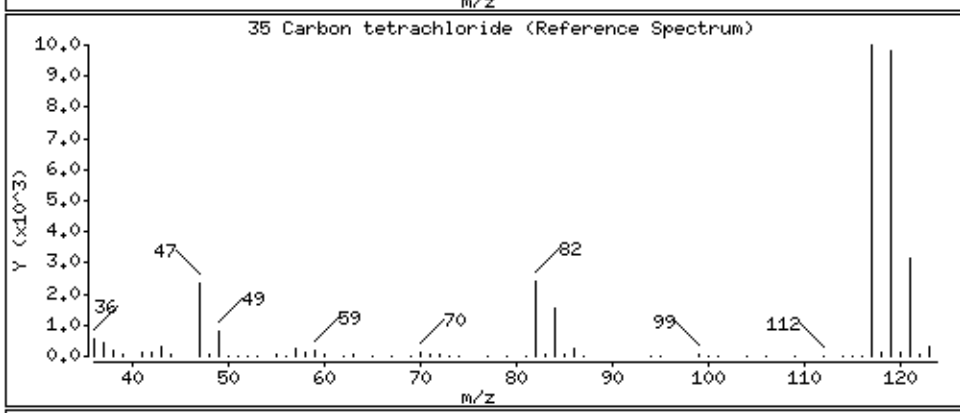
35 Carbon tetrachloride

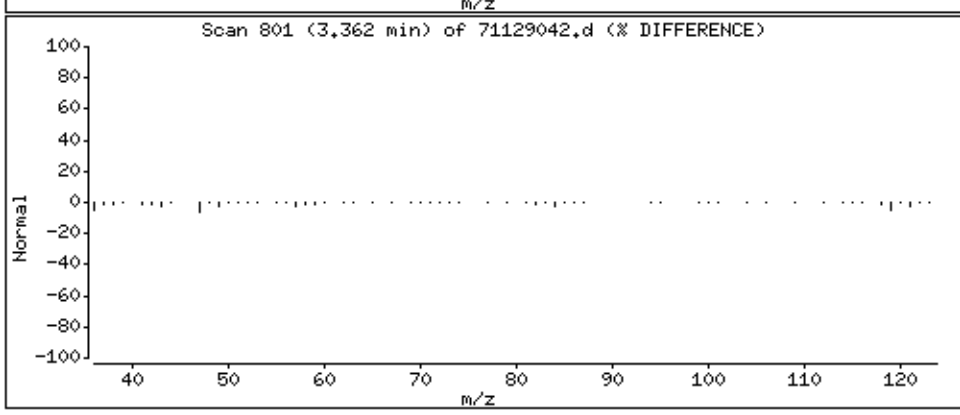
Concentration: 15.5 ug/L

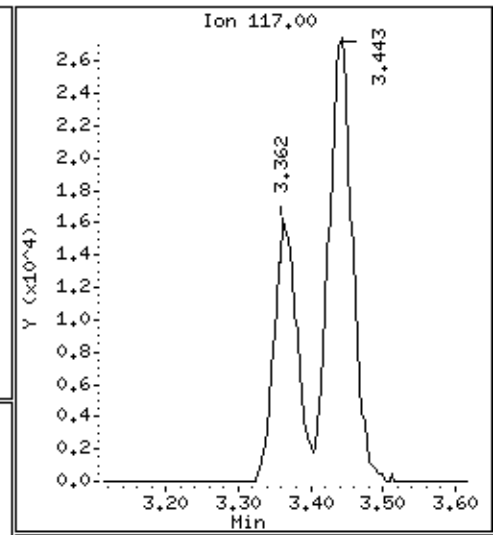
Review Code:

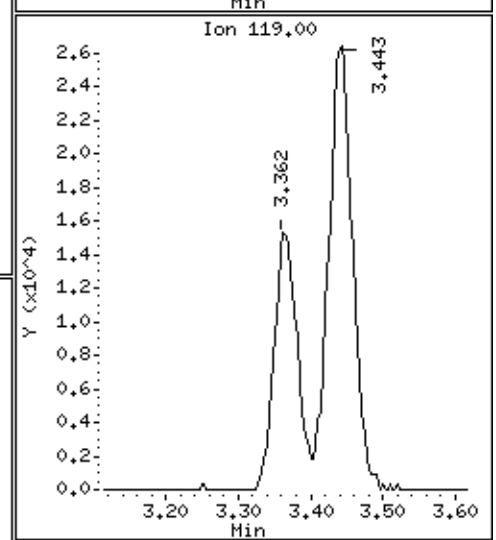


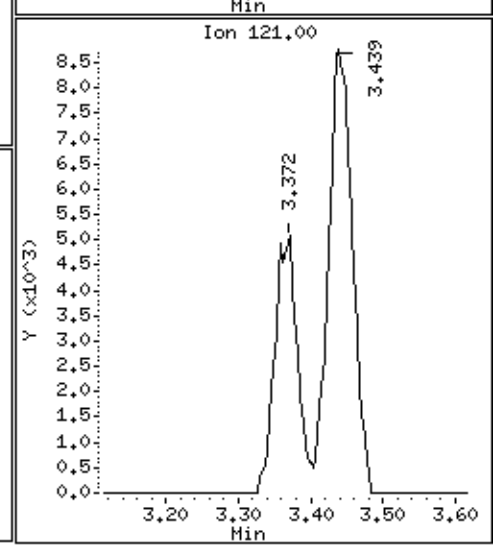












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

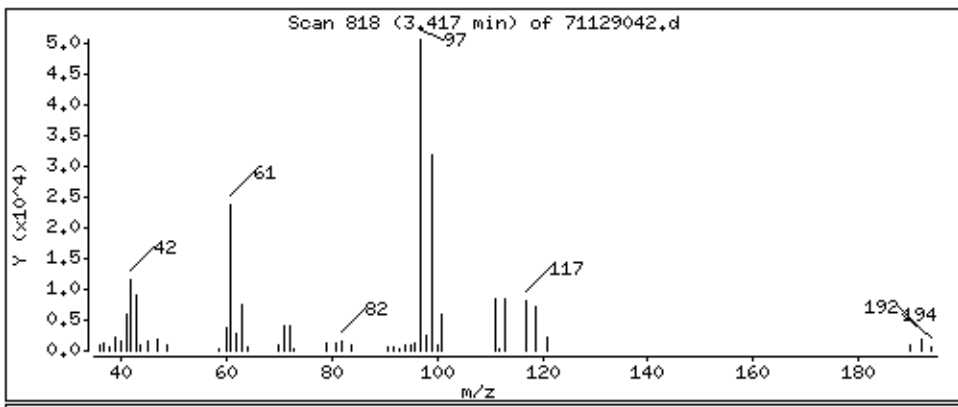
Column phase: RTX-VMS

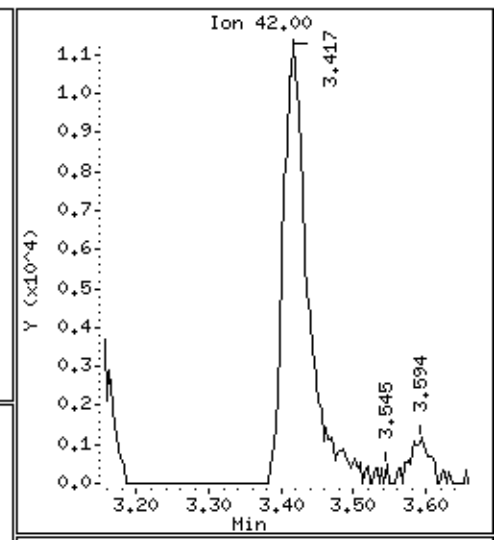
Column diameter: 0.18

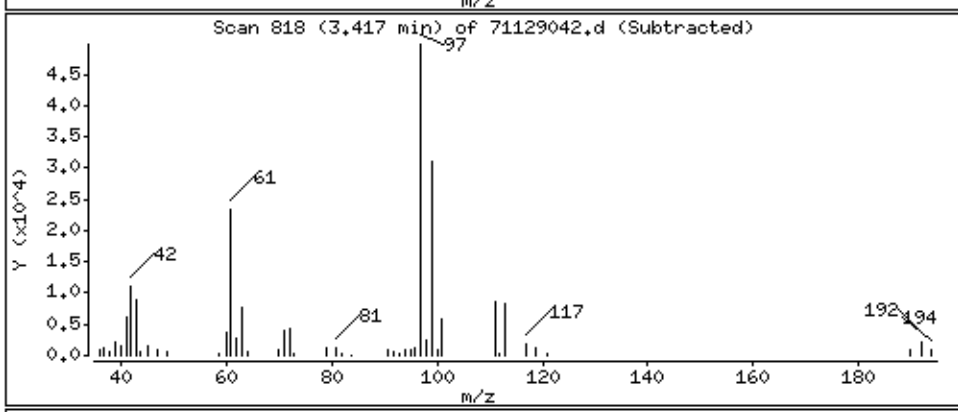
36 Tetrahydrofuran

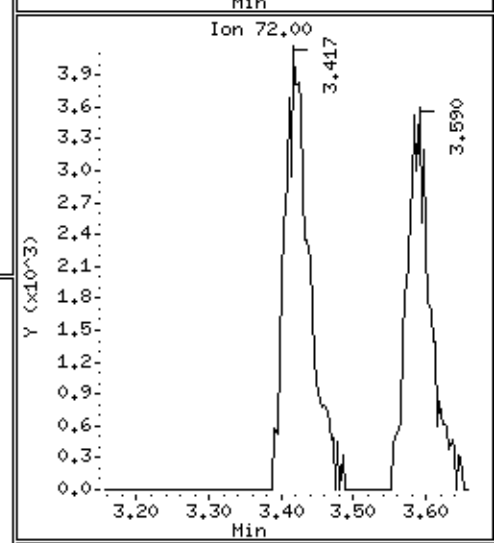
Concentration: 20.5 ug/L

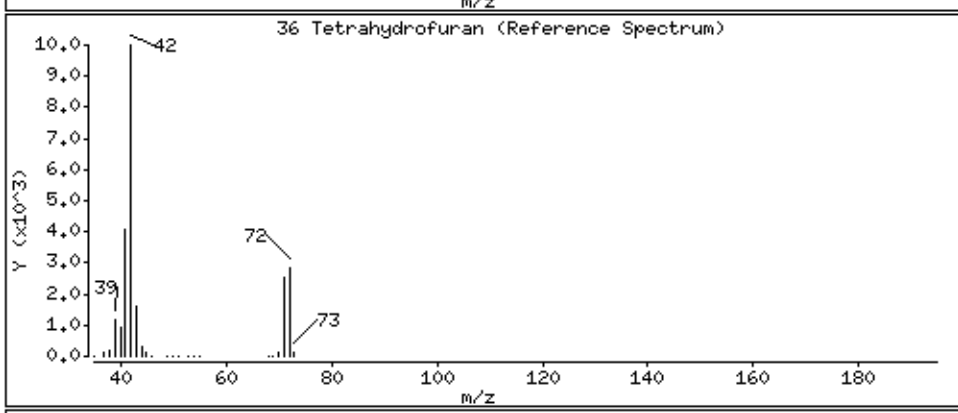
Review Code:

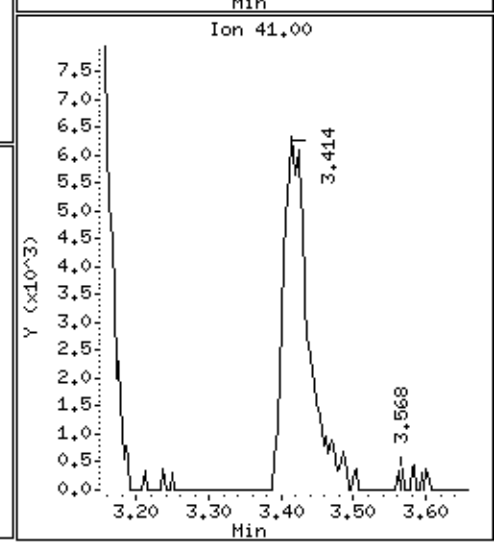


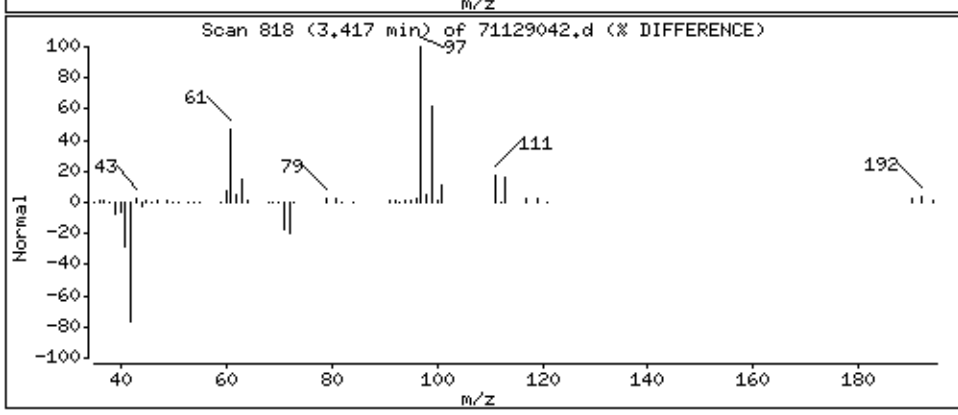












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

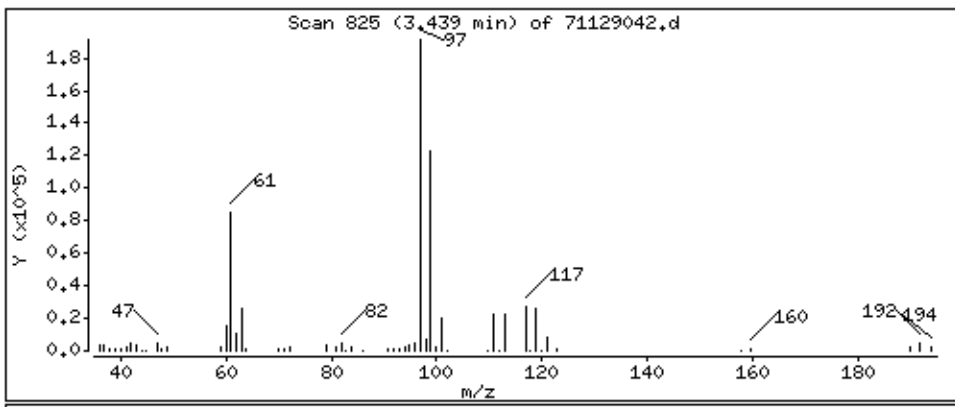
Column phase: RTX-VMS

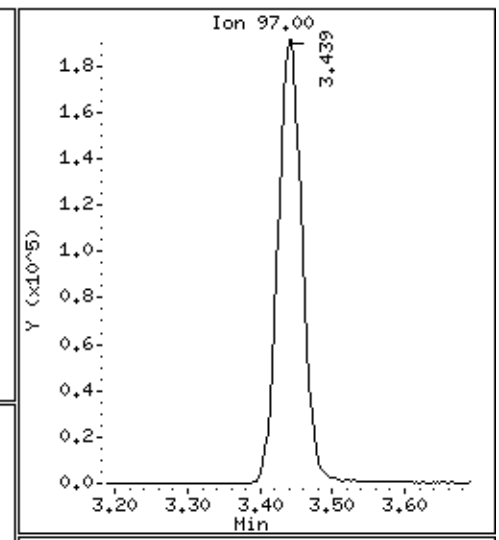
Column diameter: 0.18

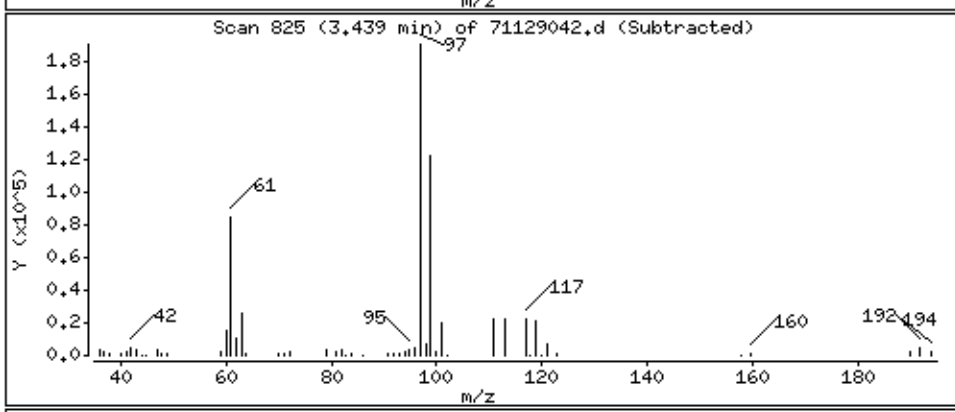
38 1,1,1-Trichloroethane

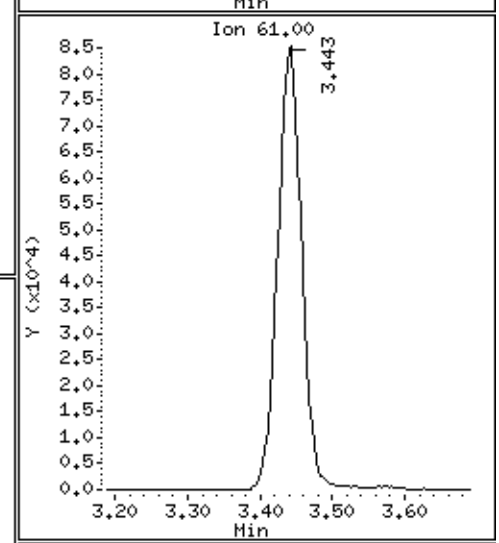
Concentration: 182 ug/L

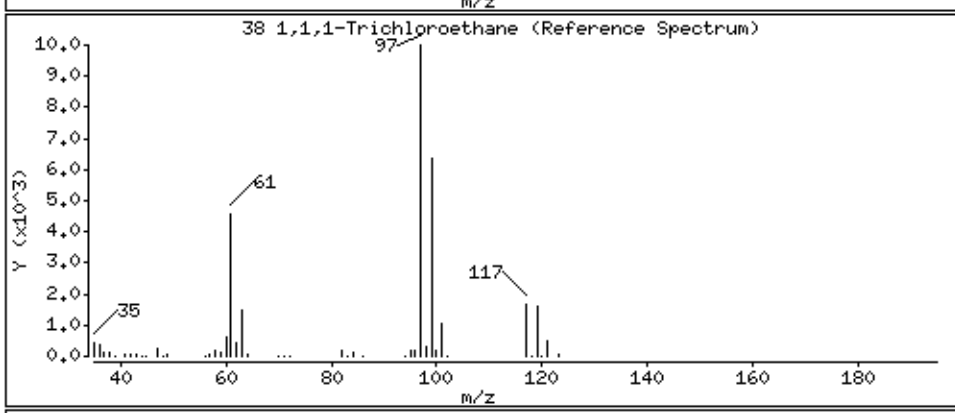
Review Code:

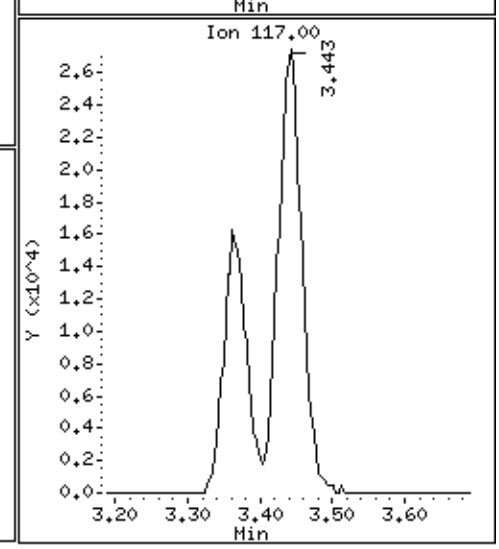


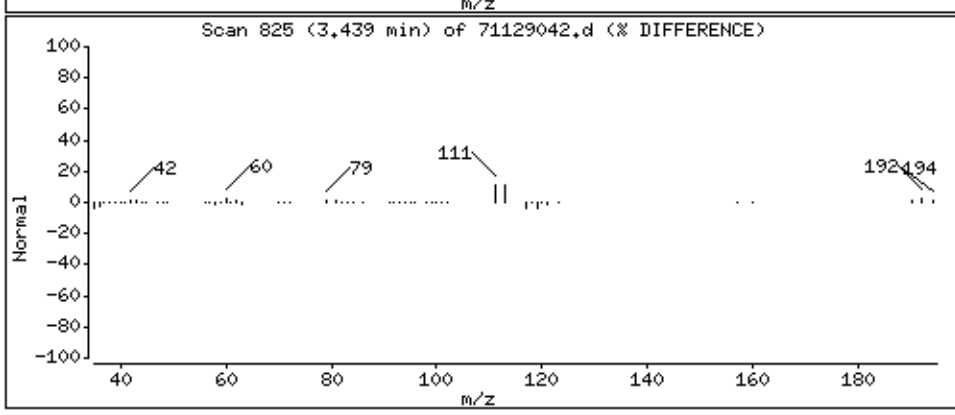












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

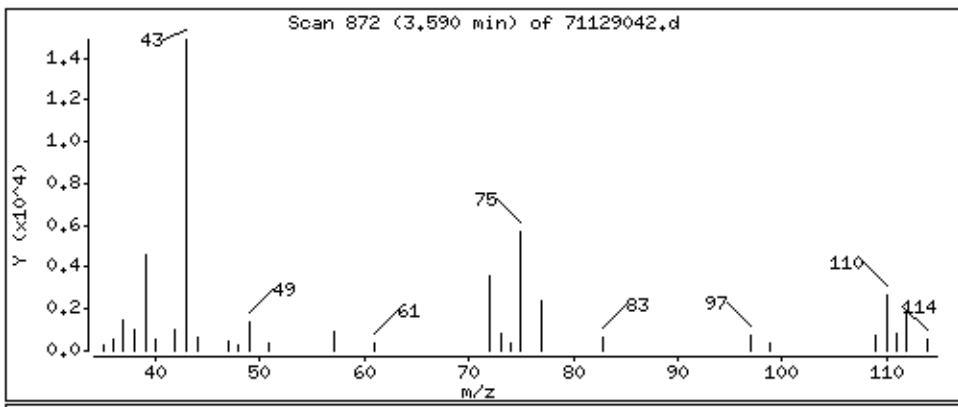
Column phase: RTX-VMS

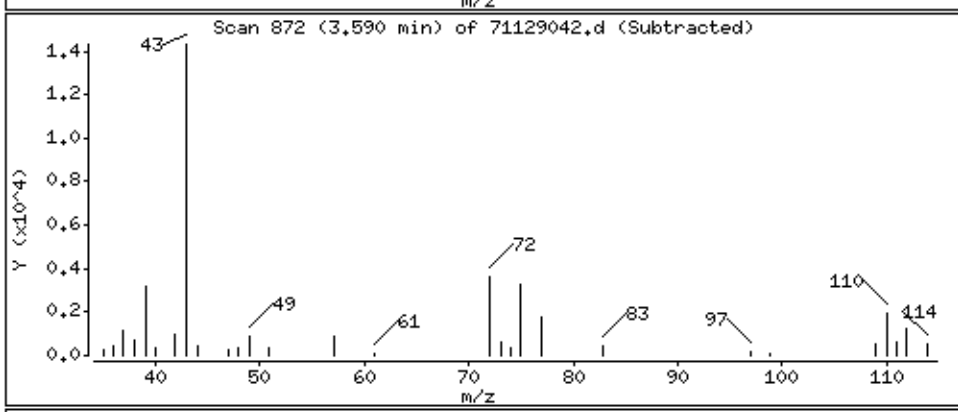
Column diameter: 0.18

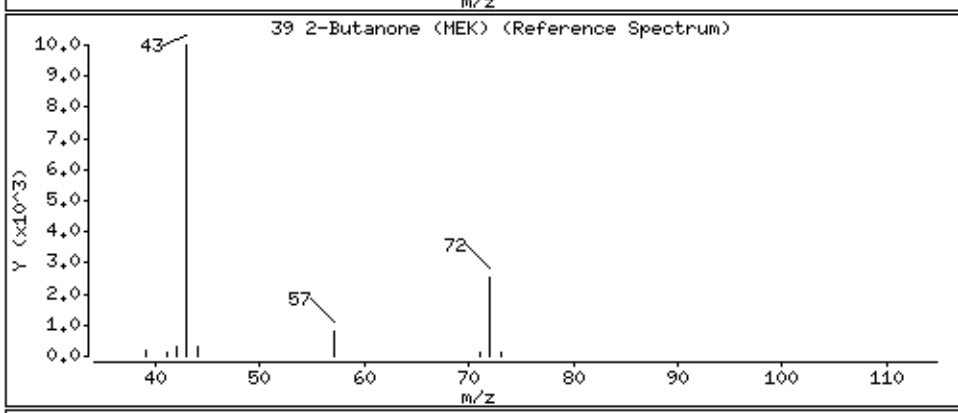
39 2-Butanone (MEK)

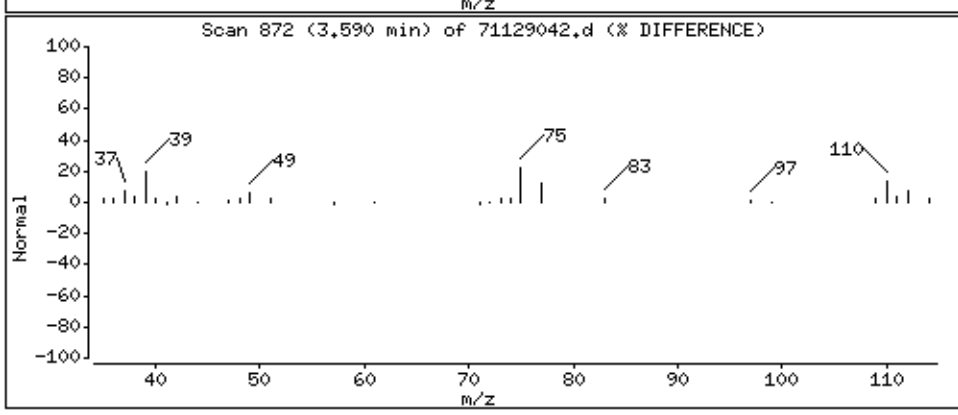
Concentration: 17.1 ug/L

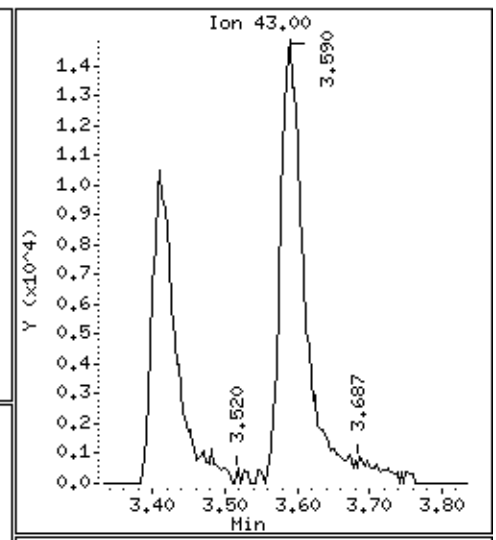
Review Code:

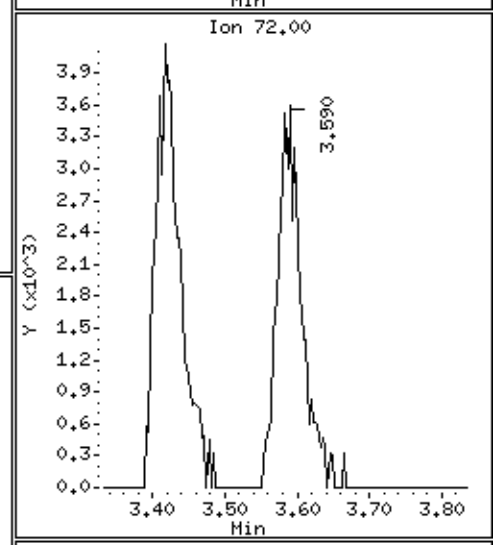


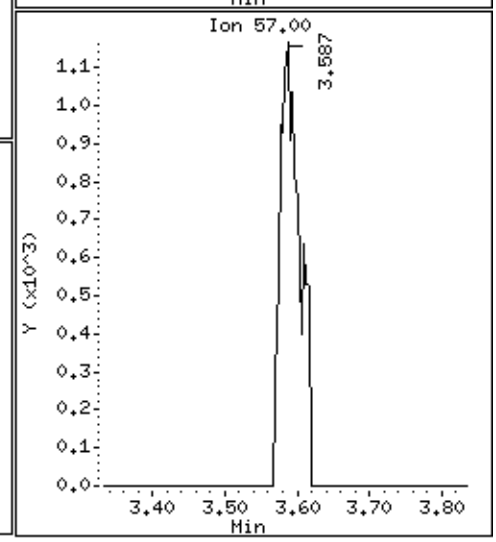












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

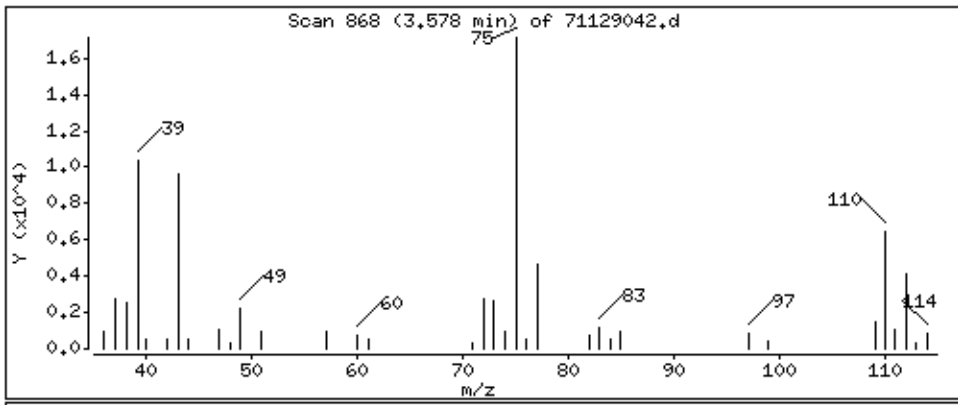
Column phase: RTX-VMS

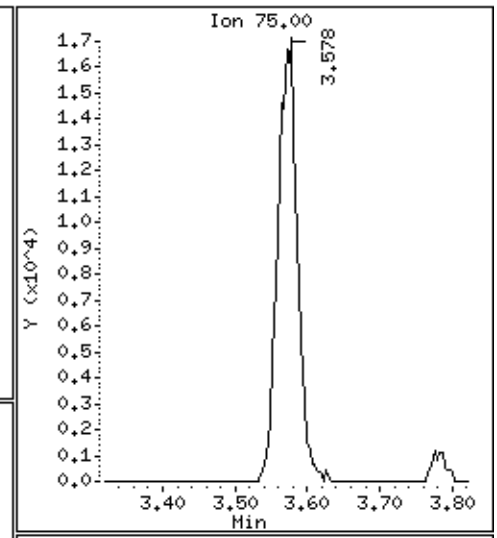
Column diameter: 0.18

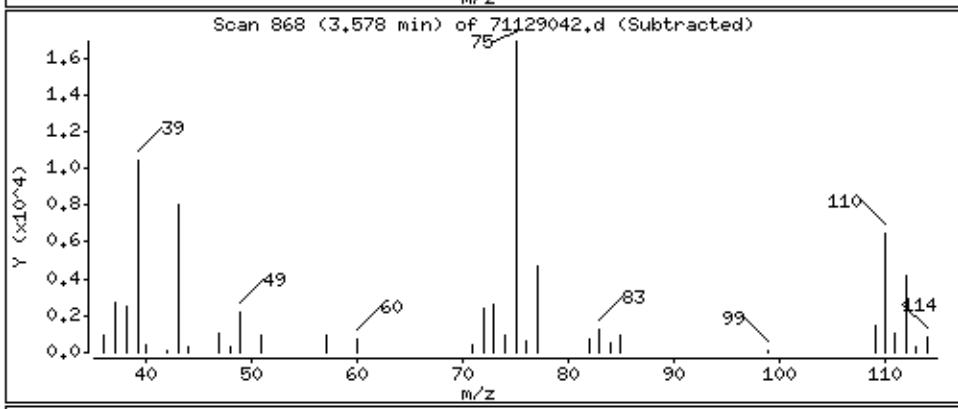
40 1,1-Dichloropropene

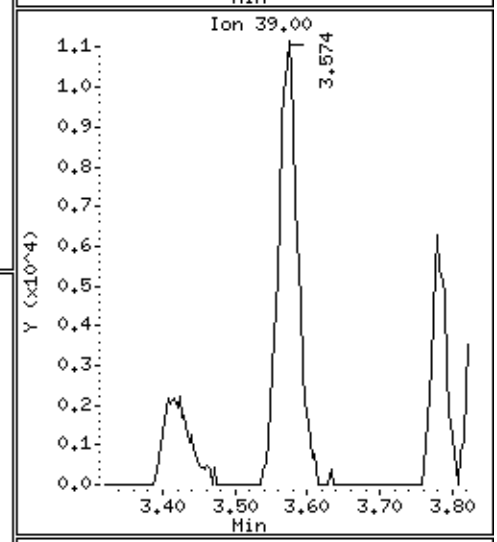
Concentration: 14.4 ug/L

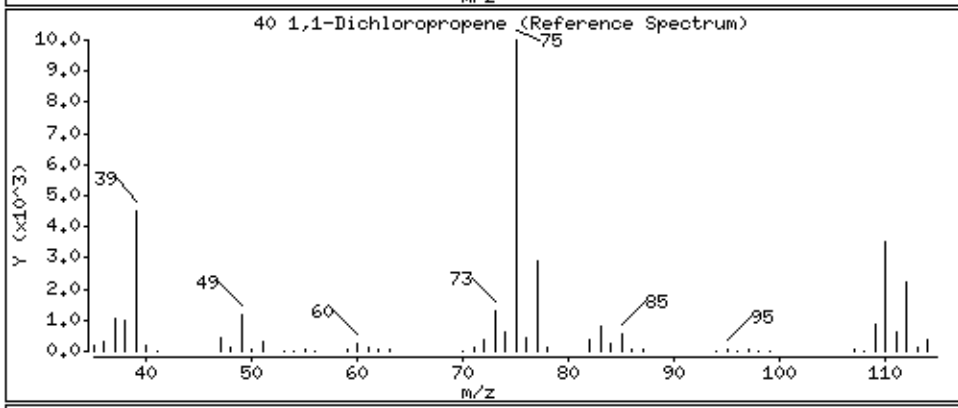
Review Code: LT

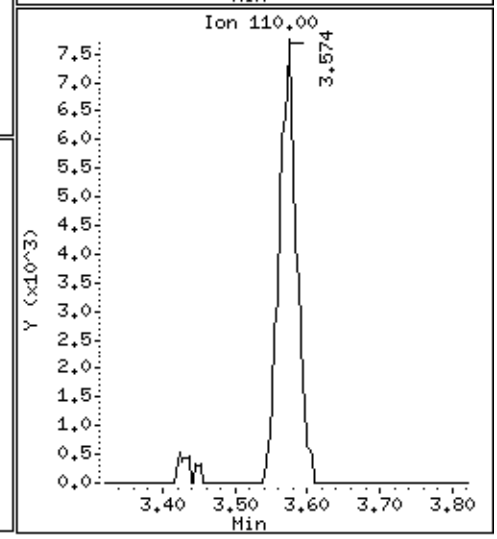


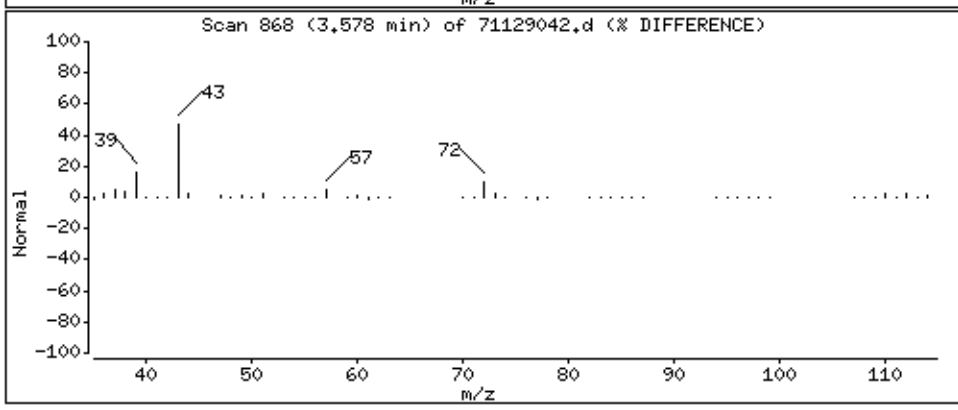












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

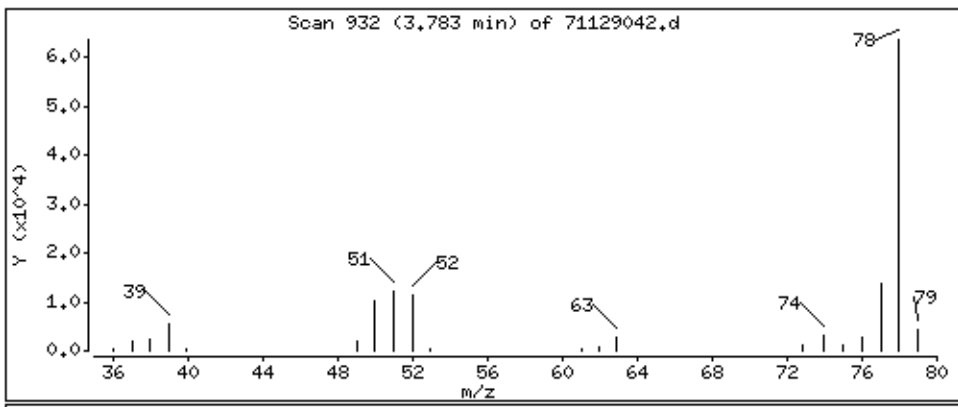
Column phase: RTX-VMS

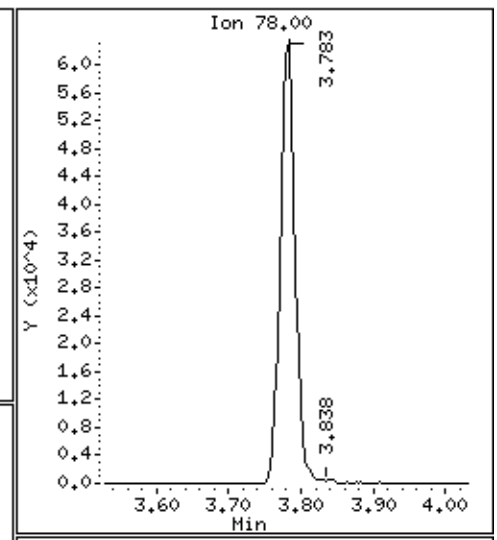
Column diameter: 0.18

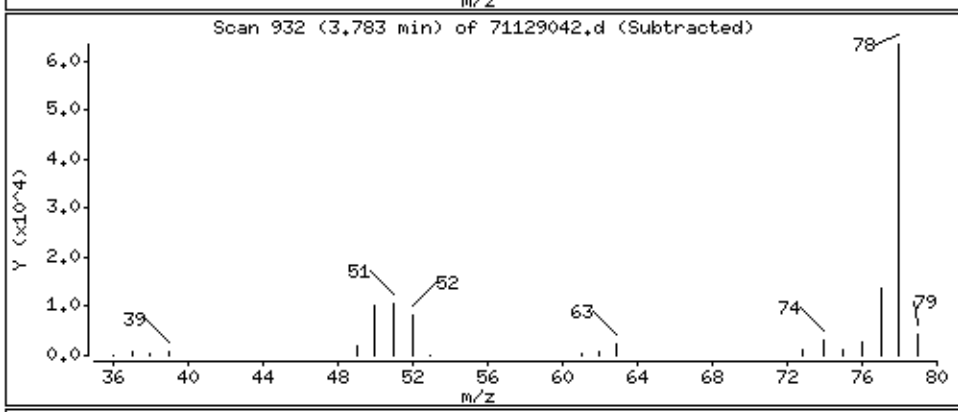
41 Benzene

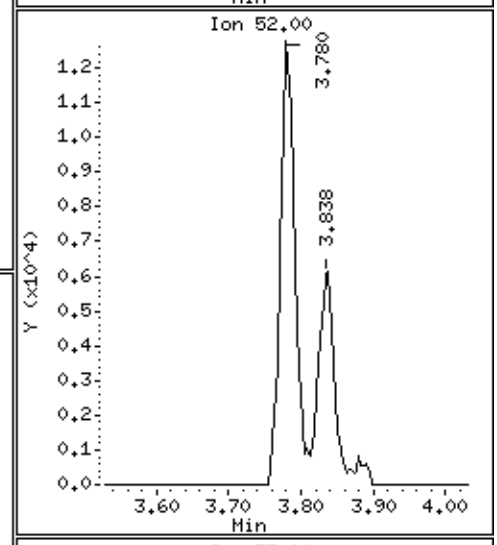
Concentration: 13.6 ug/L

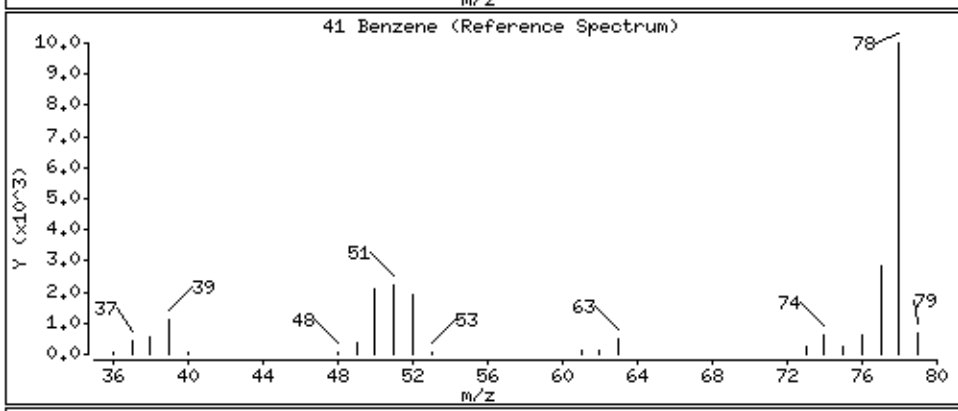
Review Code:

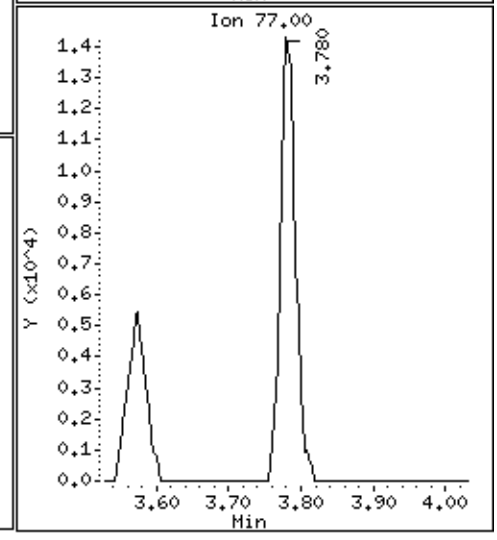


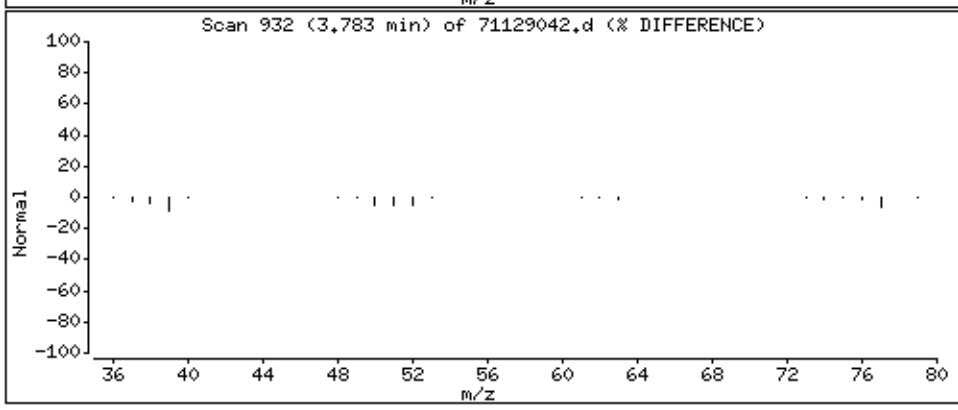












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

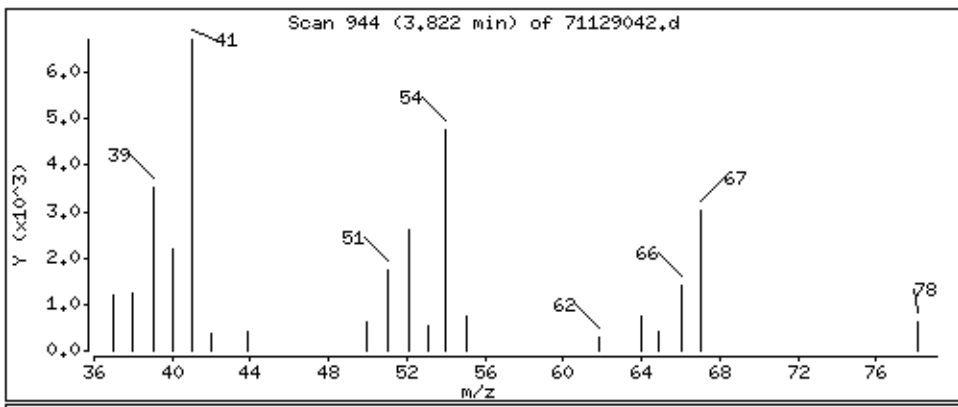
Column phase: RTX-VMS

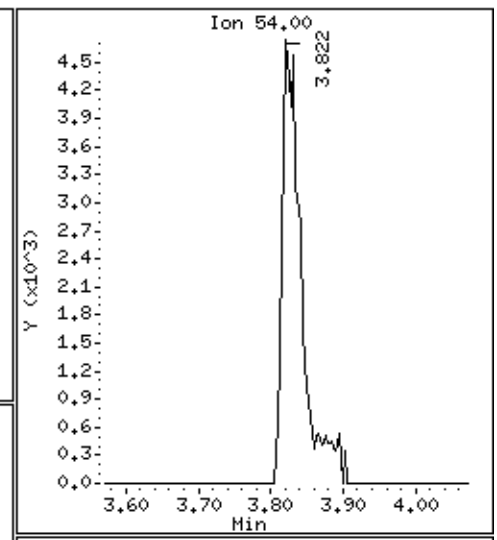
Column diameter: 0.18

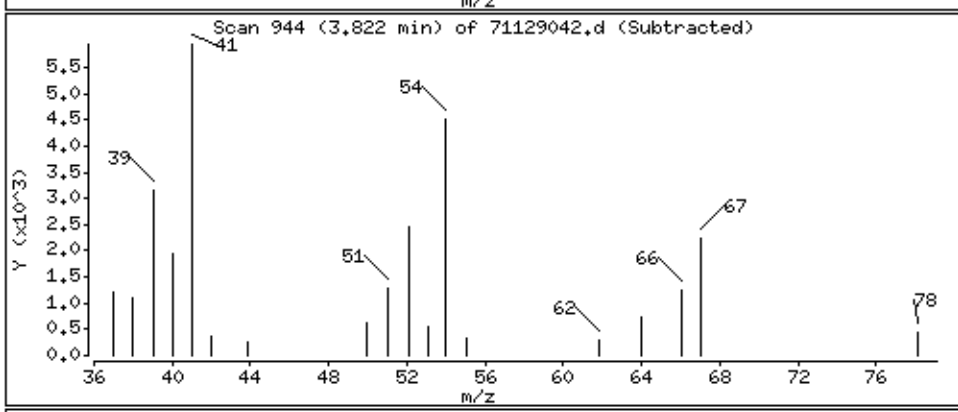
42 Propionitrile

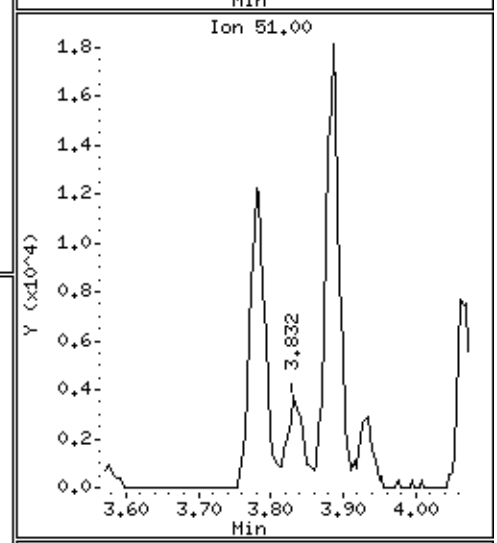
Concentration: 16.3 ug/L

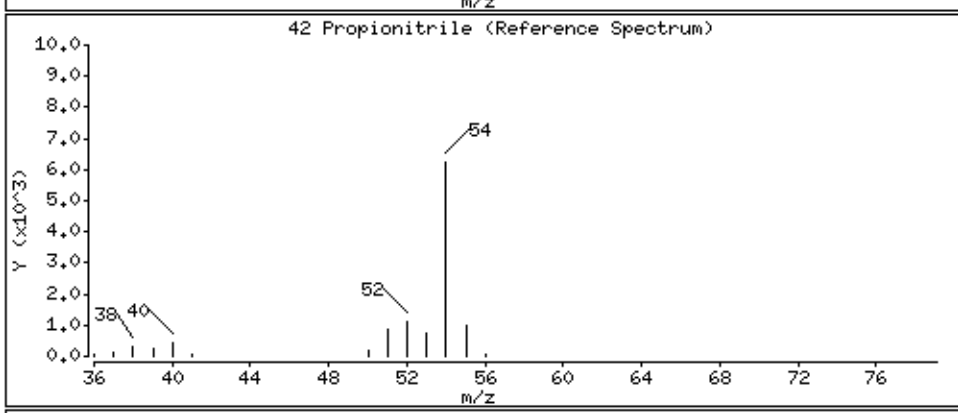
Review Code: LT

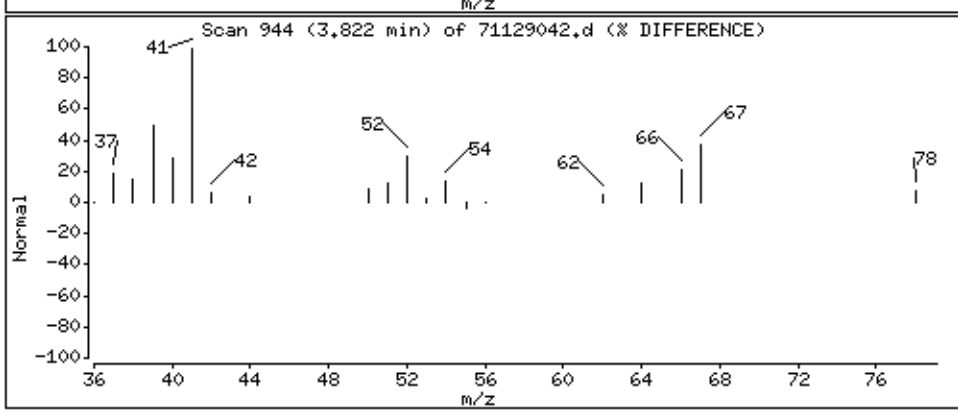


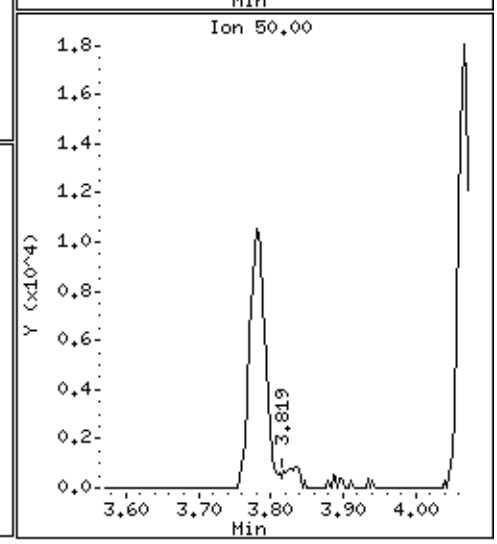












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

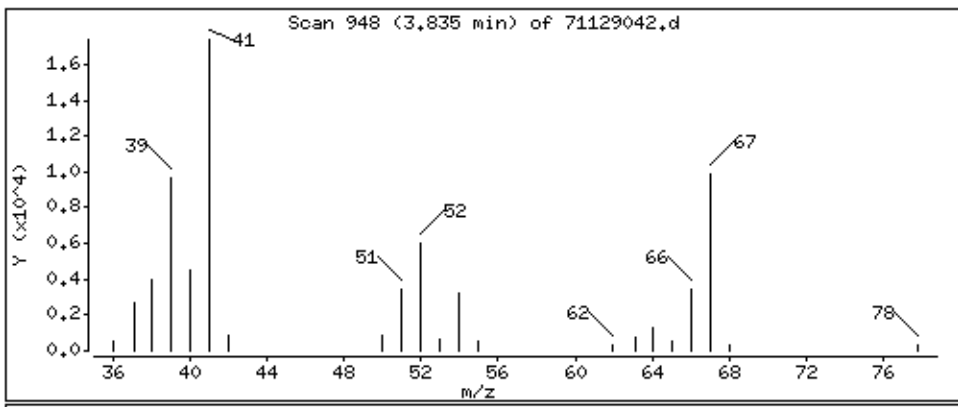
Column phase: RTX-VMS

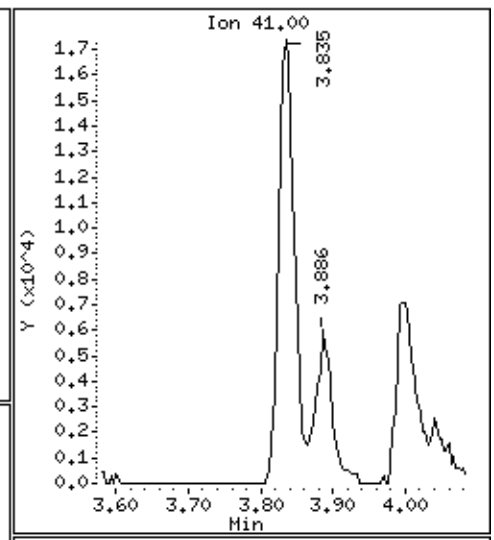
Column diameter: 0.18

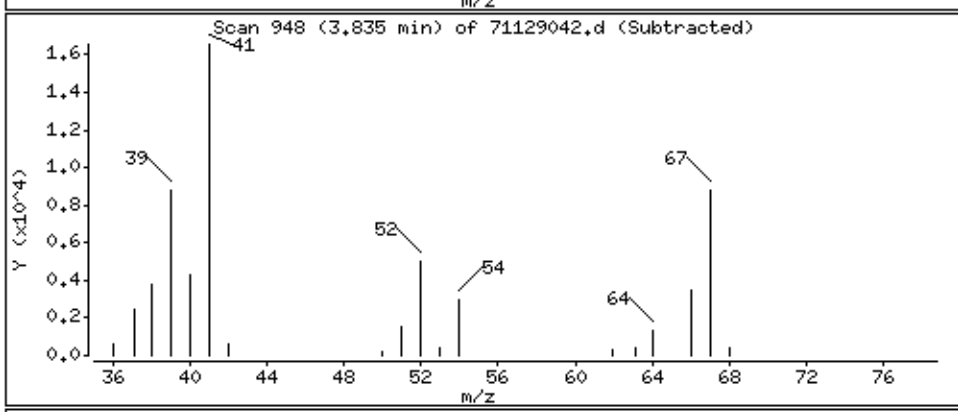
43 Methacrylonitrile

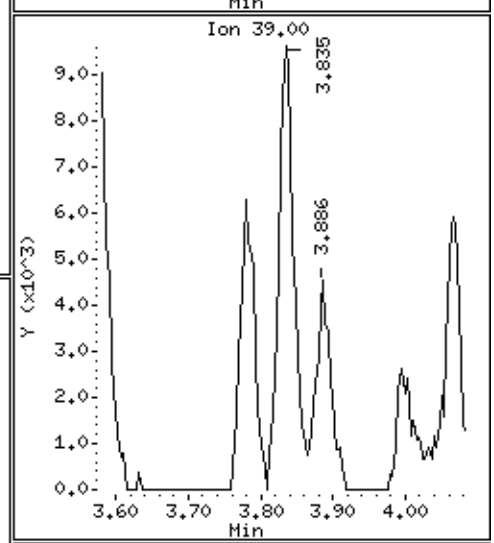
Concentration: 16.6 ug/L

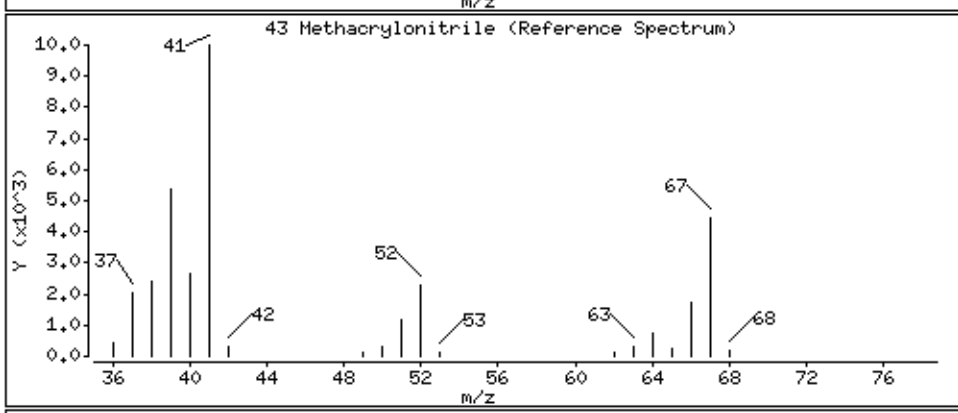
Review Code:

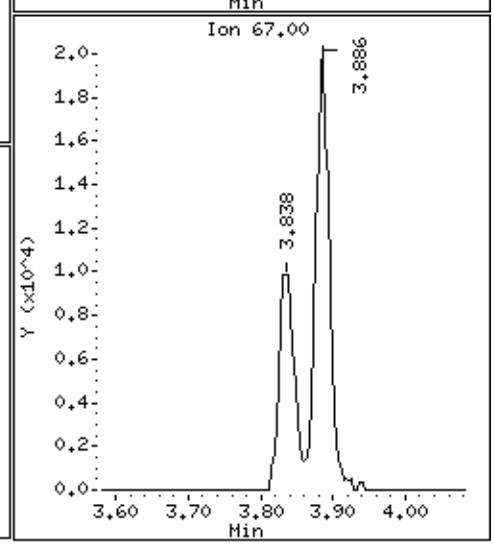


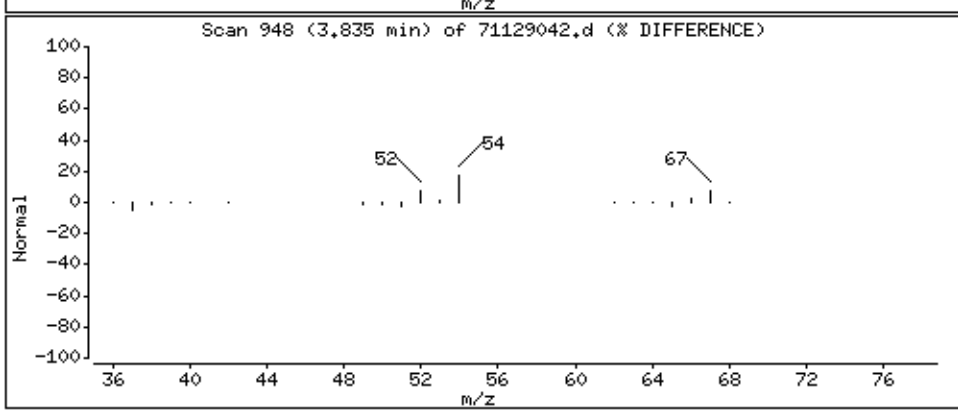












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

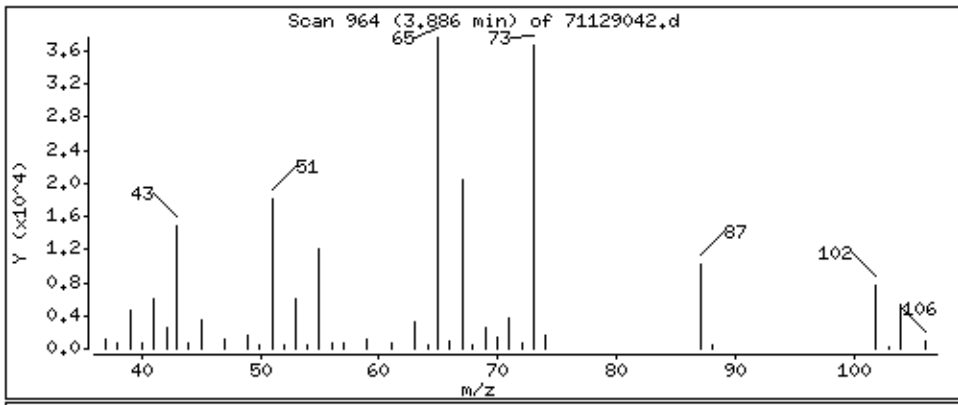
Column phase: RTX-VMS

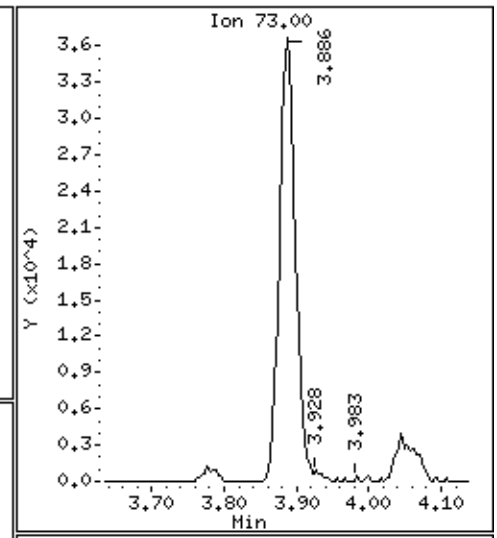
Column diameter: 0.18

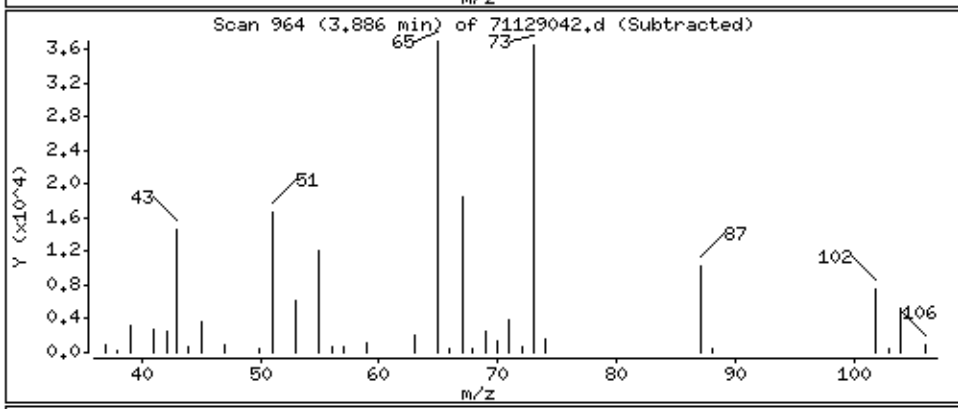
44 tert-Amylmethyl ether

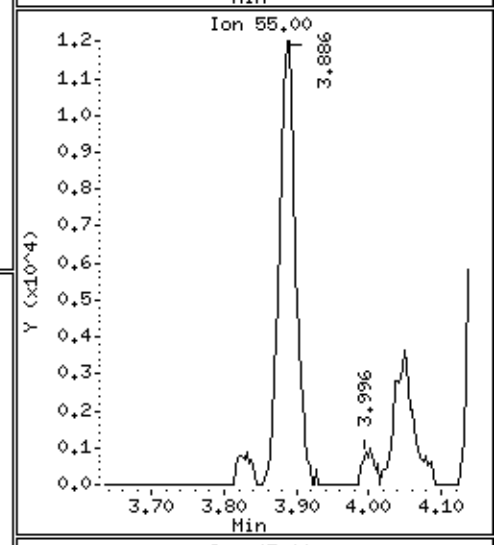
Concentration: 13.4 ug/L

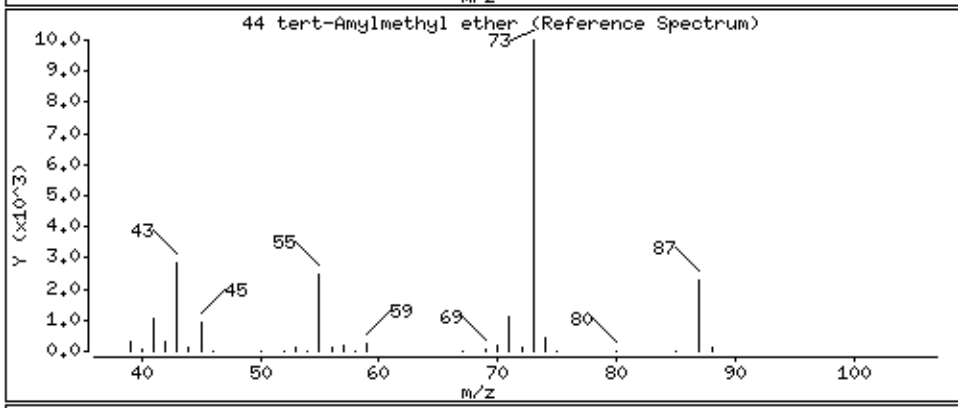
Review Code:

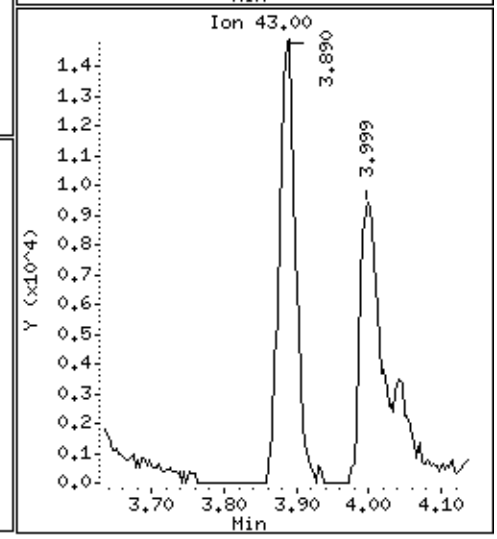


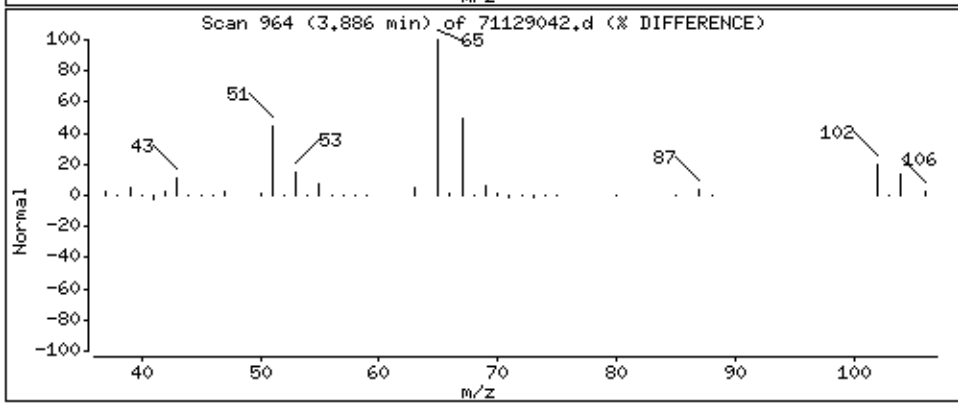












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

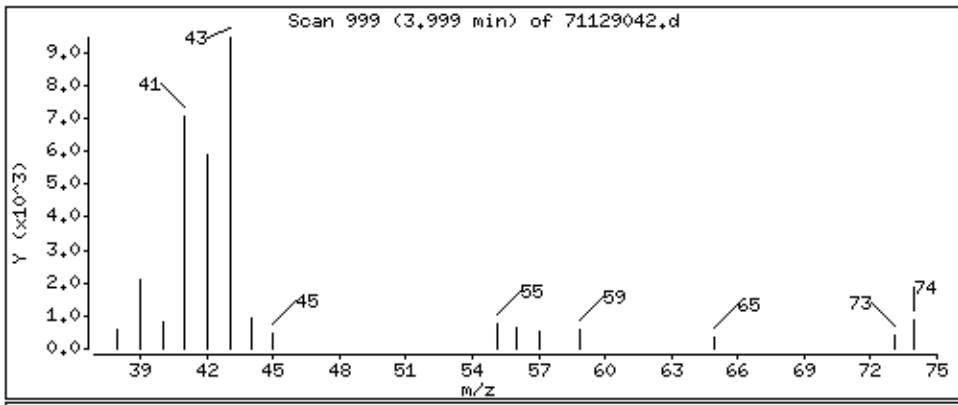
Column phase: RTX-VMS

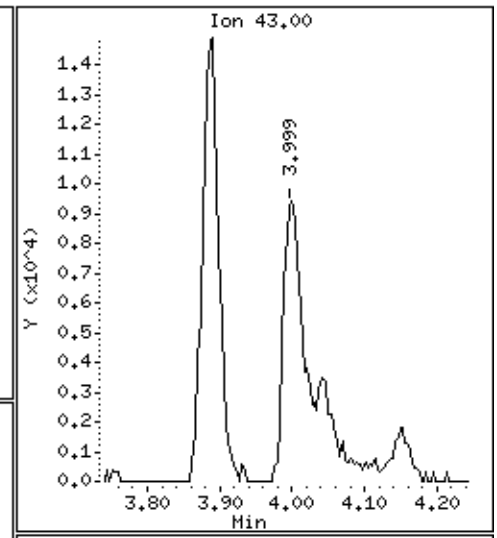
Column diameter: 0.18

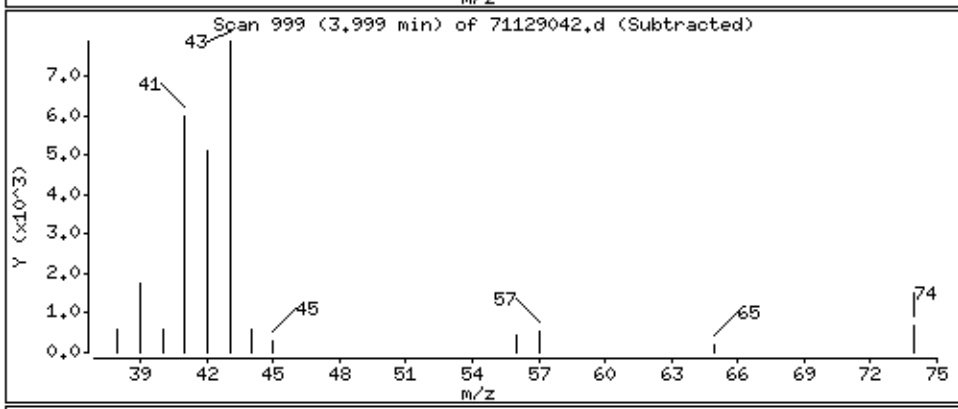
45 Isobutanol

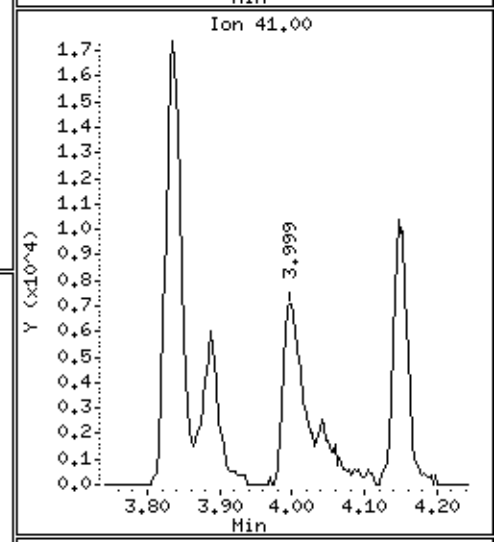
Concentration: 86.2 ug/L

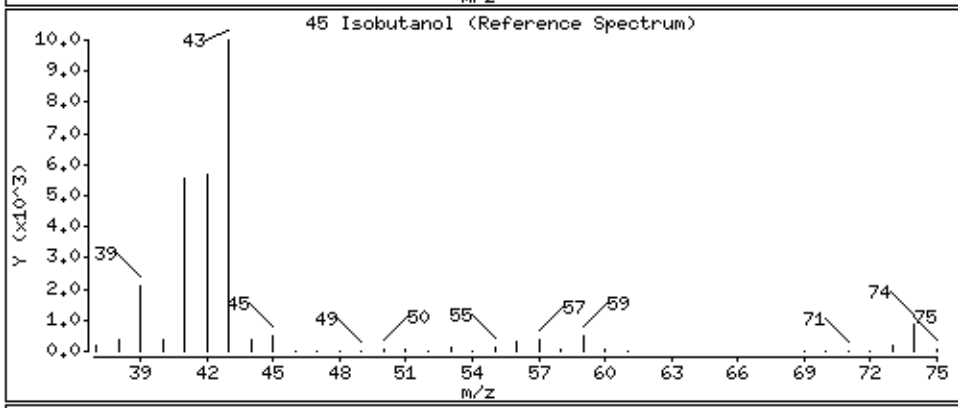
Review Code: GT

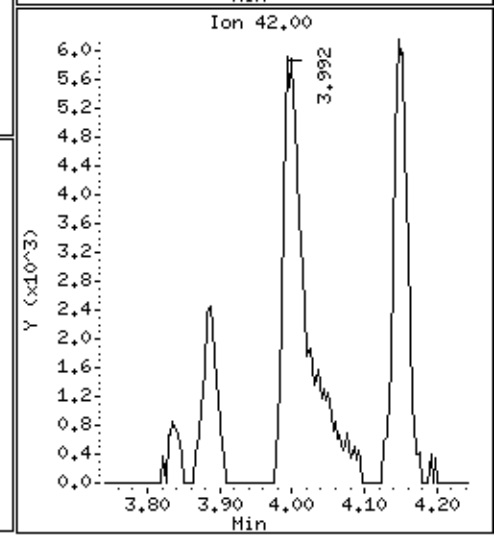


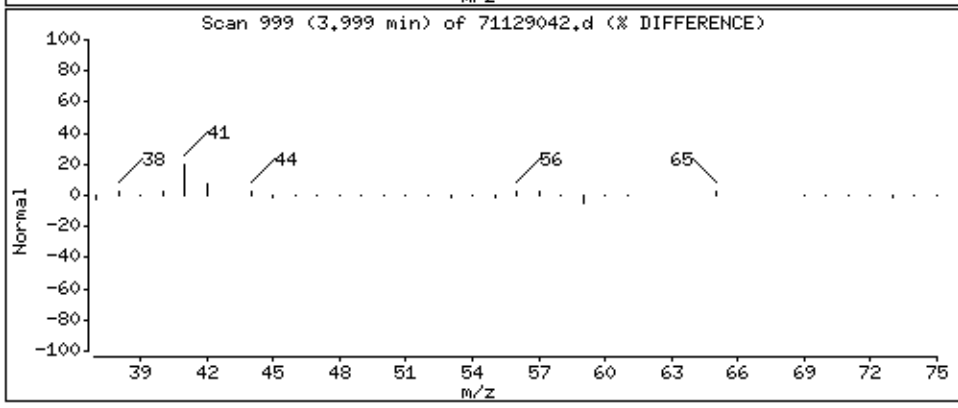












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

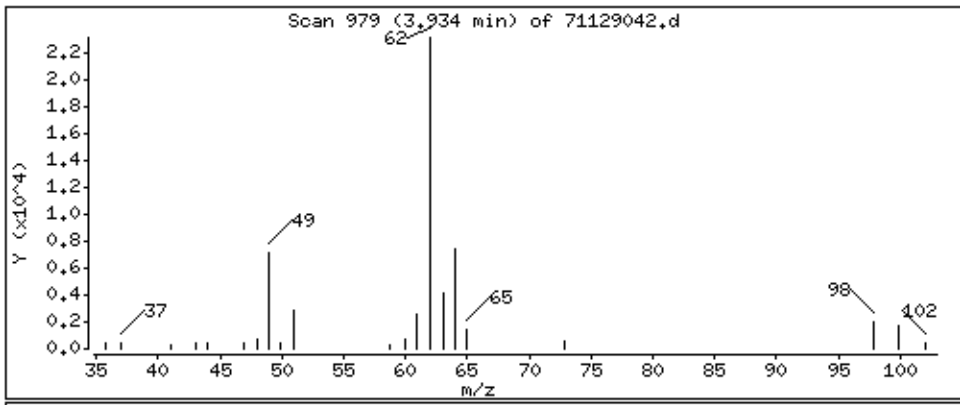
Column phase: RTX-VMS

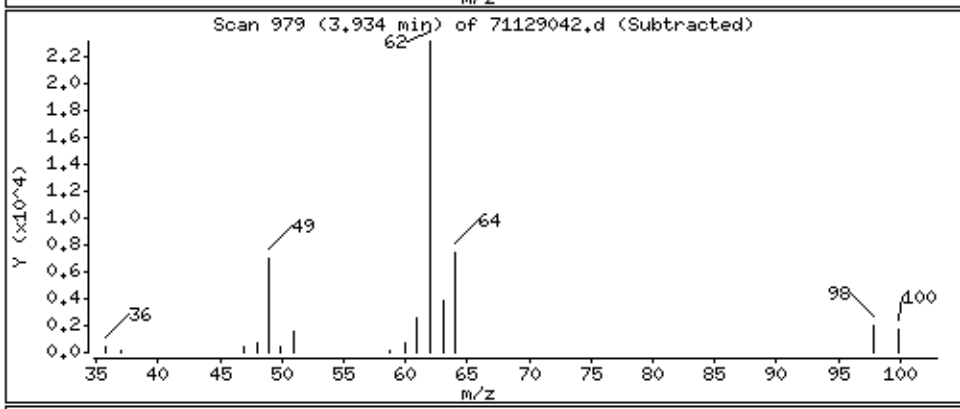
Column diameter: 0.18

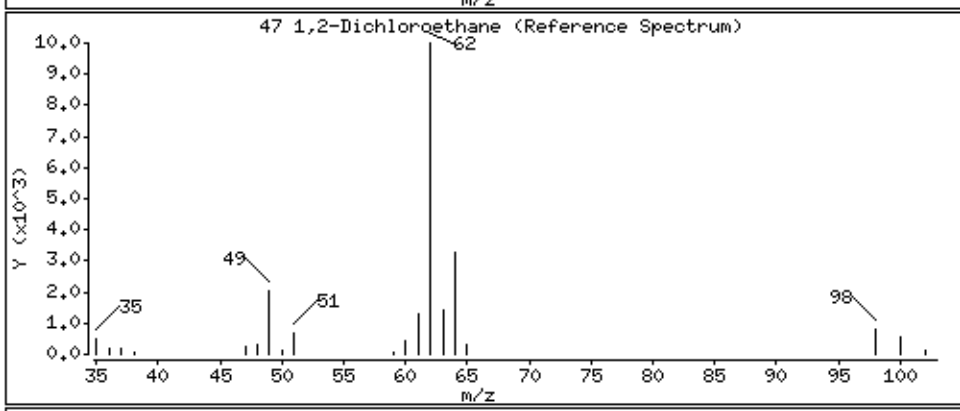
47 1,2-Dichloroethane

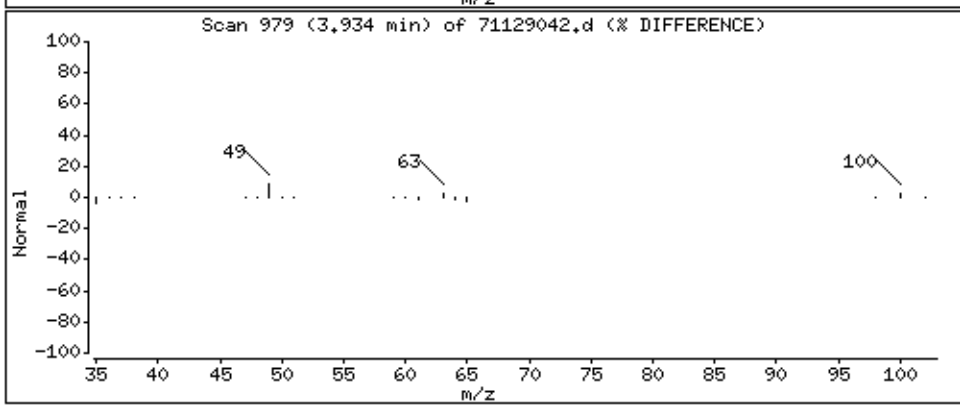
Concentration: 15.6 ug/L

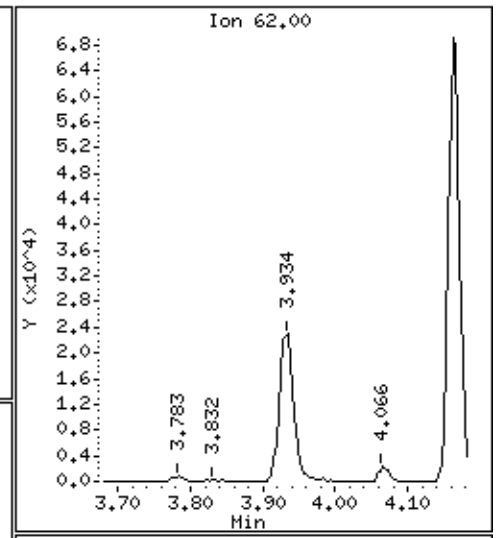
Review Code:

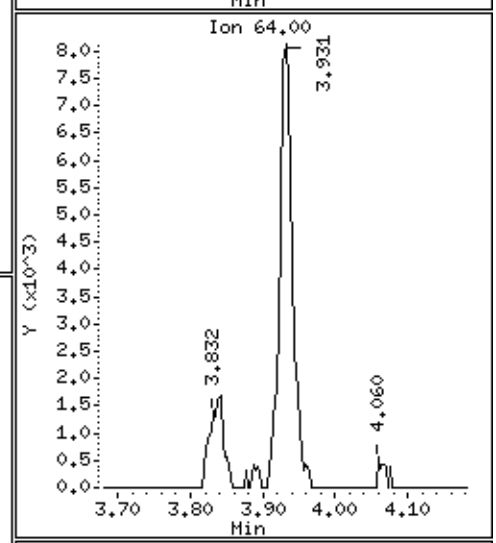


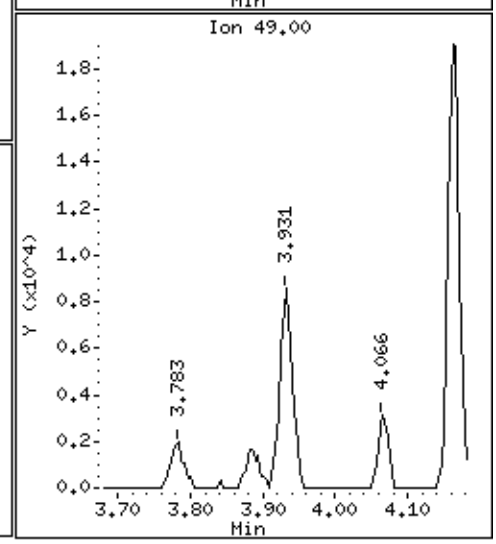












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

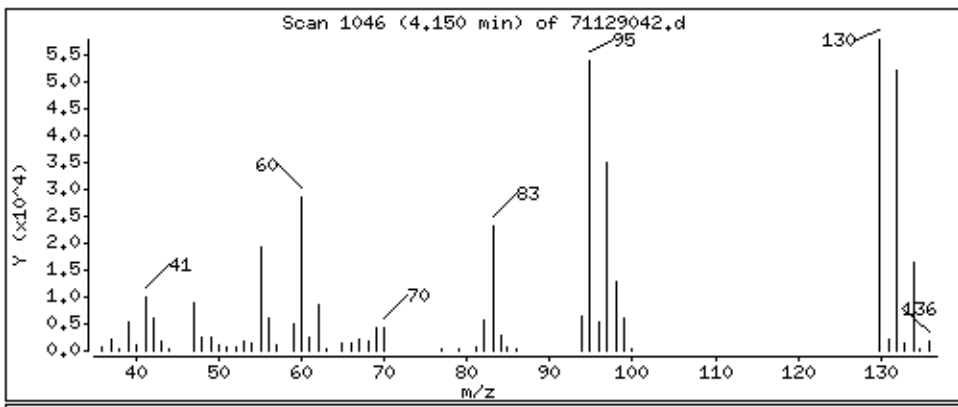
Column phase: RTX-VMS

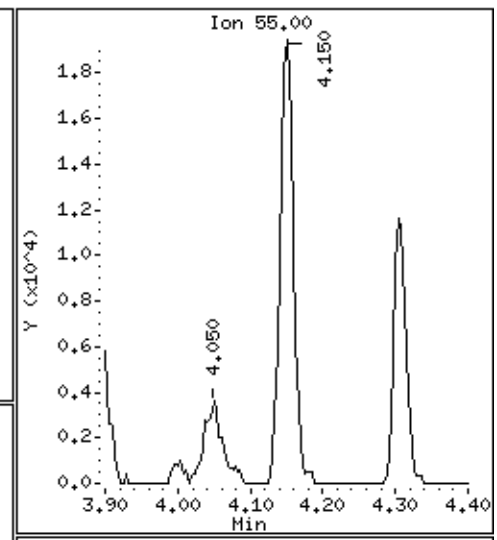
Column diameter: 0.18

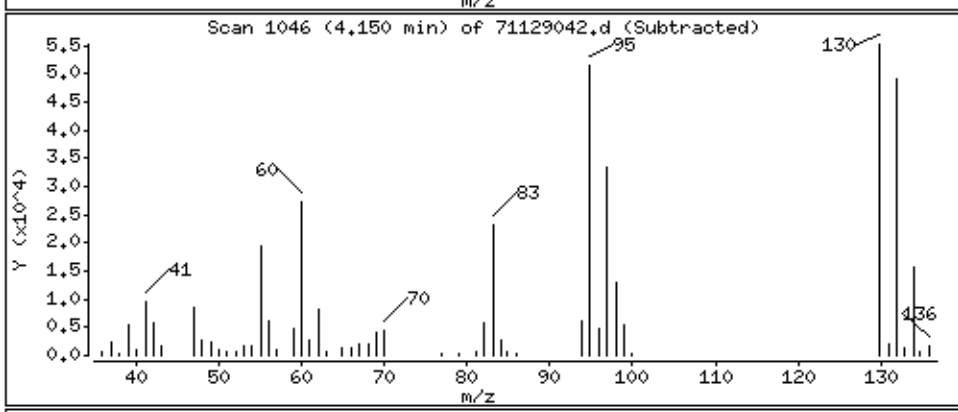
49 Methylcyclohexane

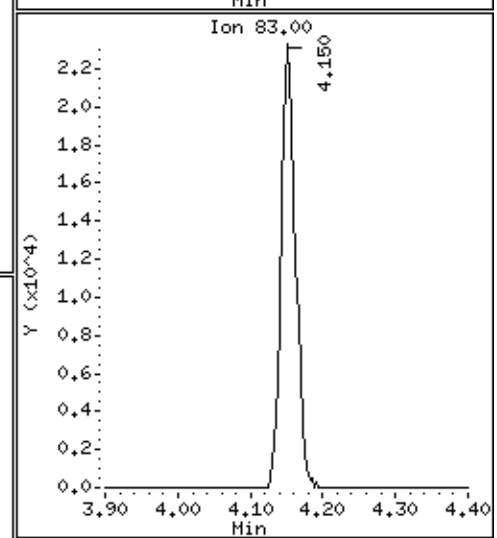
Concentration: 16.0 ug/L

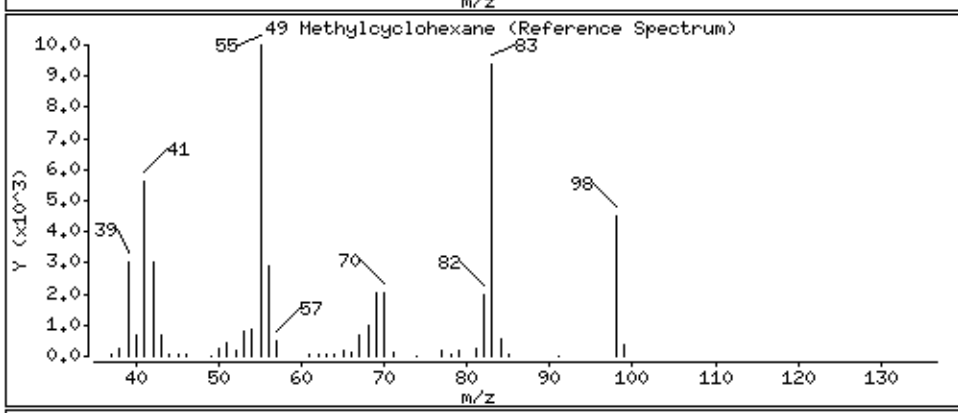
Review Code:

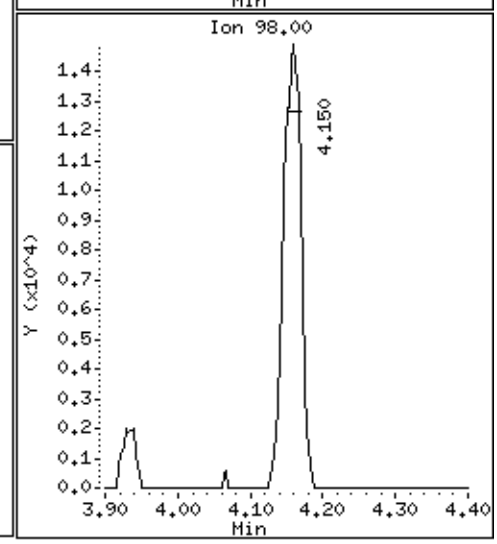


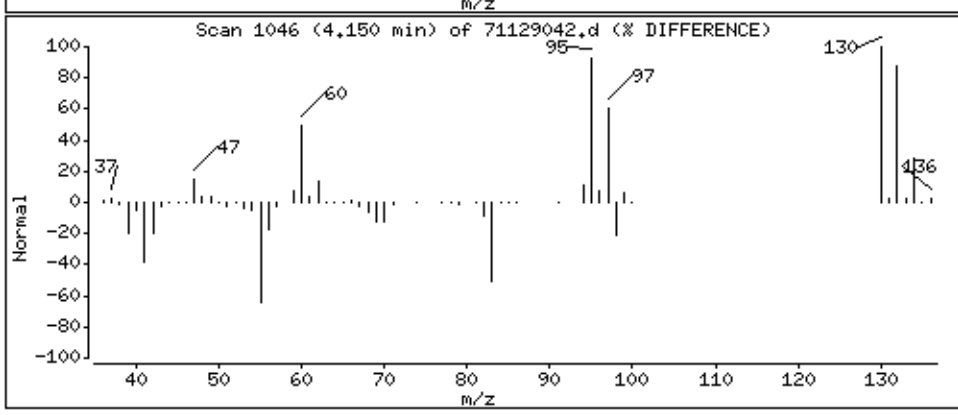












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

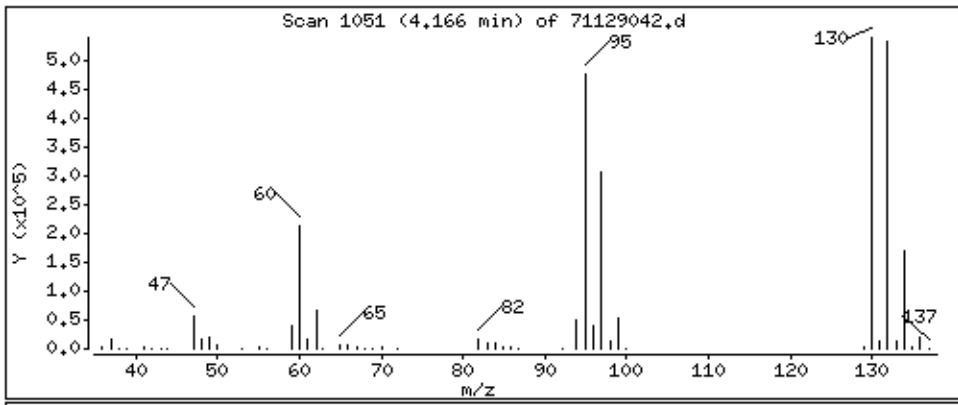
Column phase: RTX-VMS

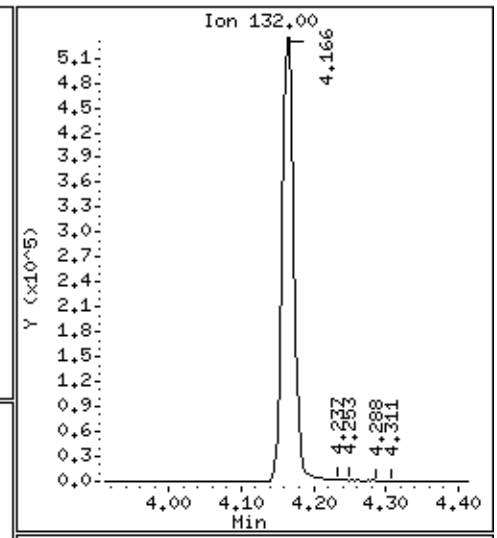
Column diameter: 0.18

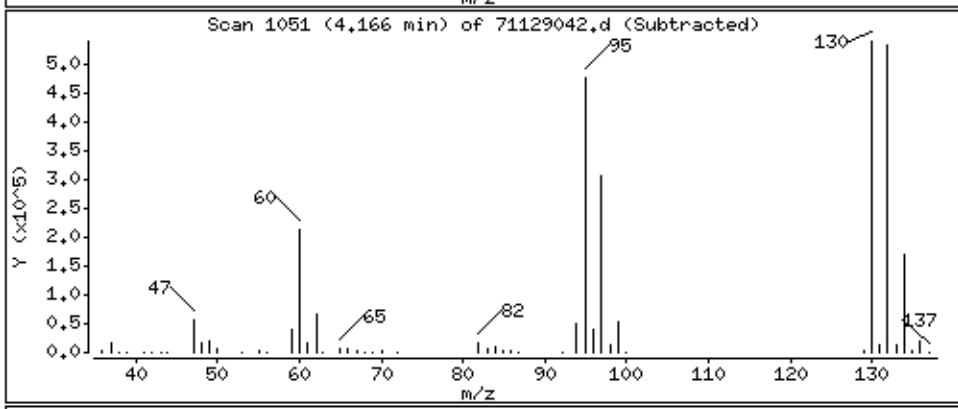
50 Trichloroethene

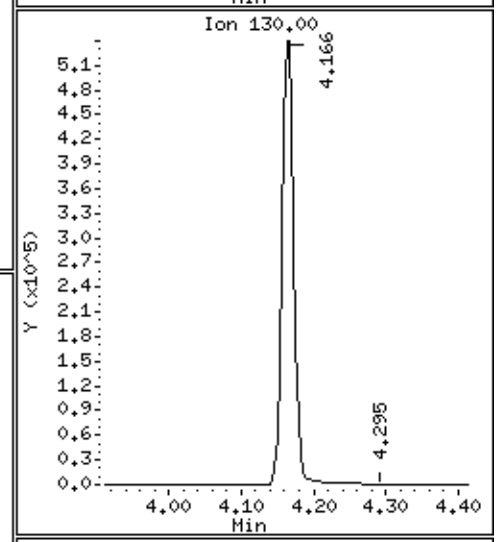
Concentration: 323 ug/L

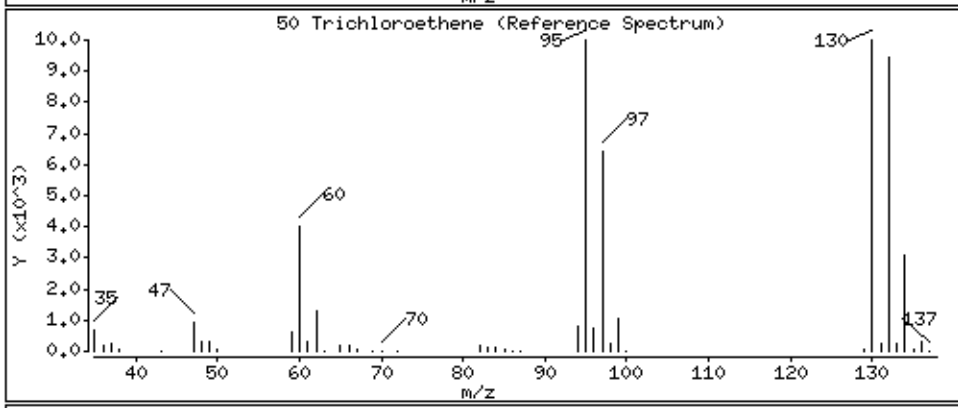
Review Code:

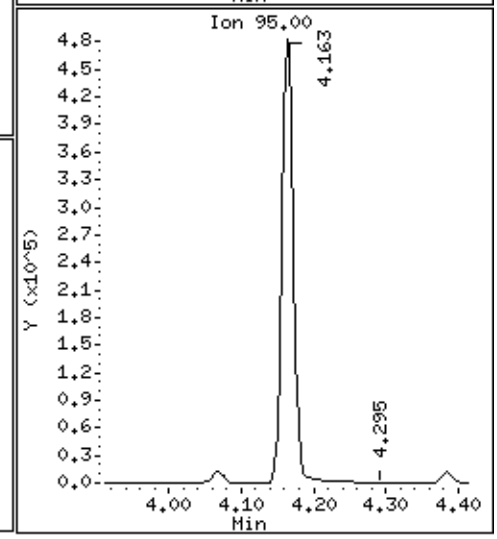


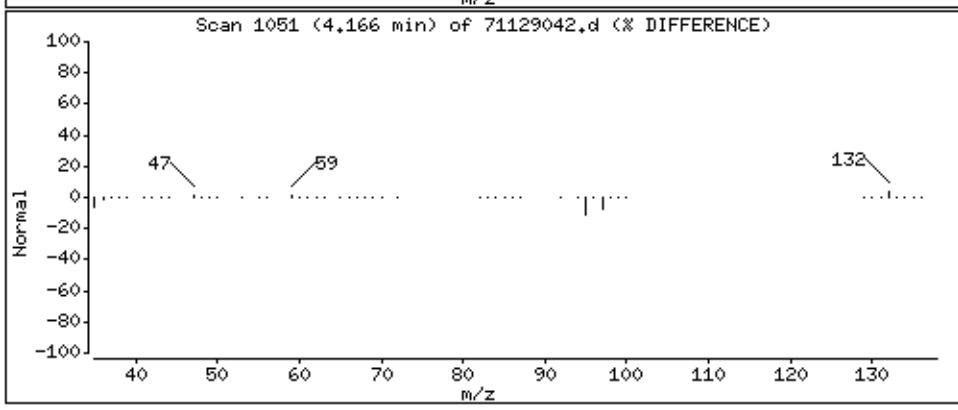












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

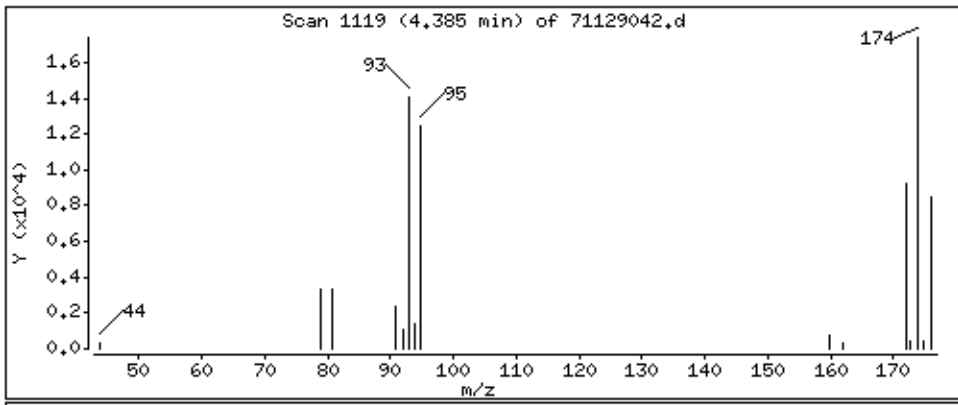
Column phase: RTX-VMS

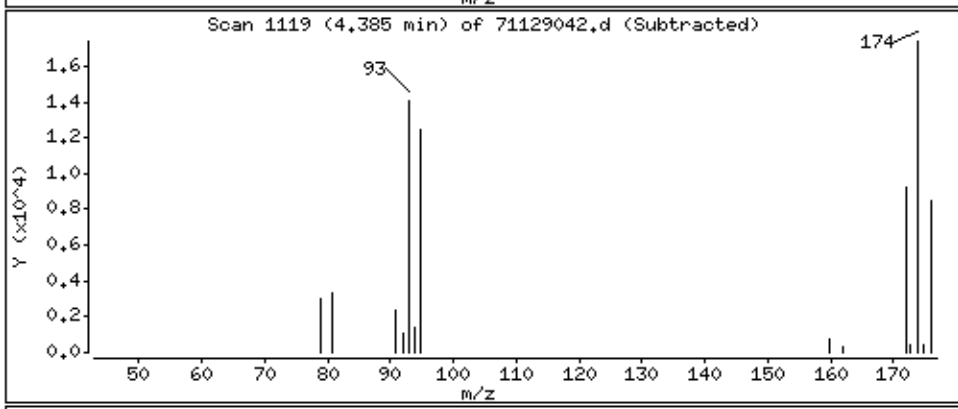
Column diameter: 0.18

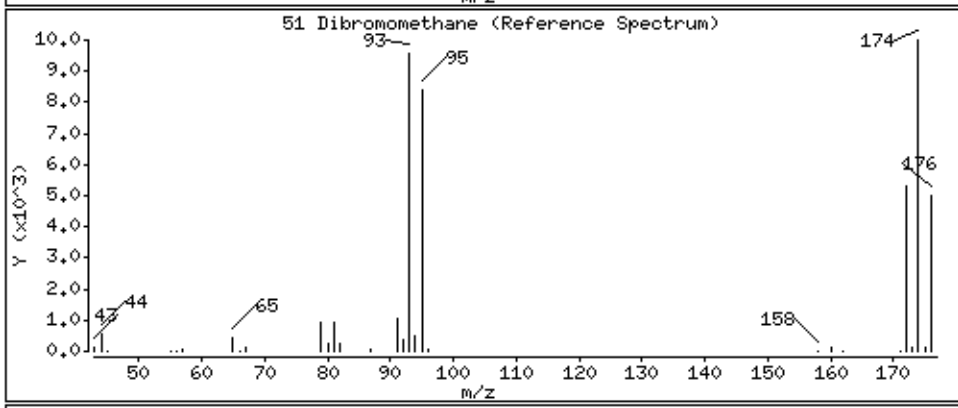
51 Dibromomethane

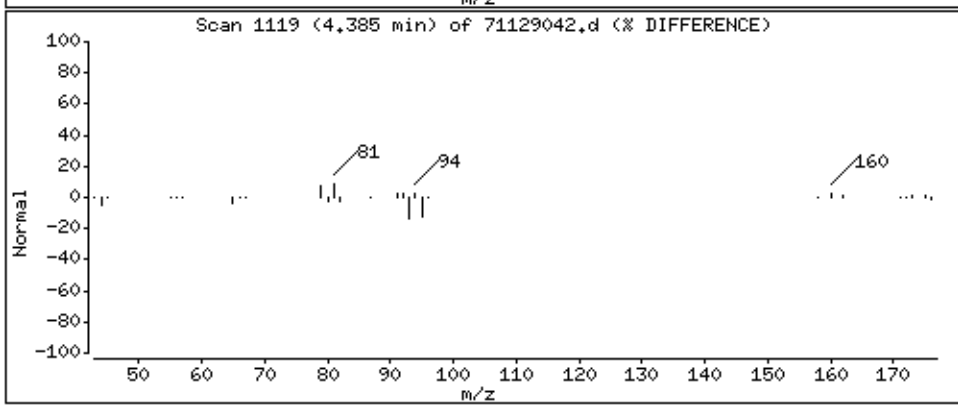
Concentration: 13.3 ug/L

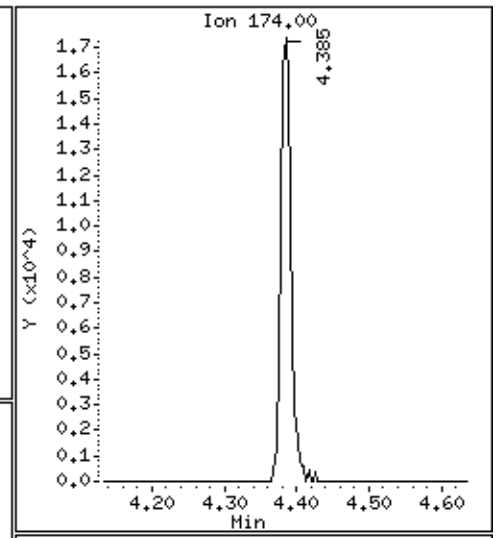
Review Code:

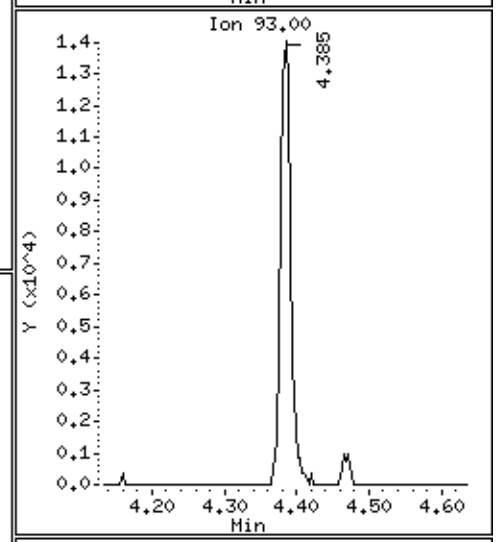


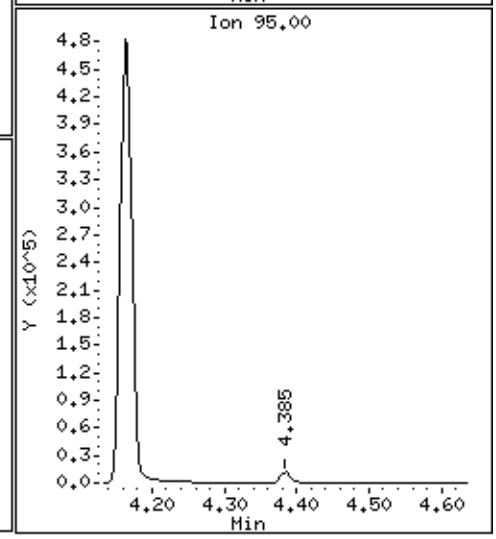












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

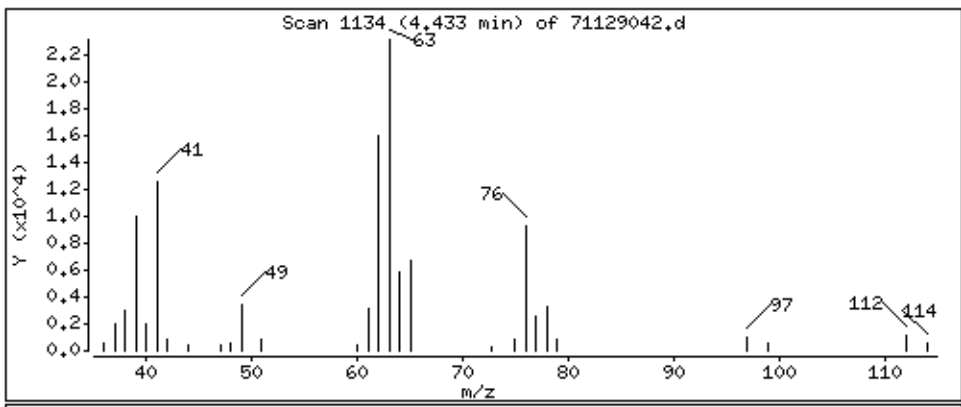
Column phase: RTX-VMS

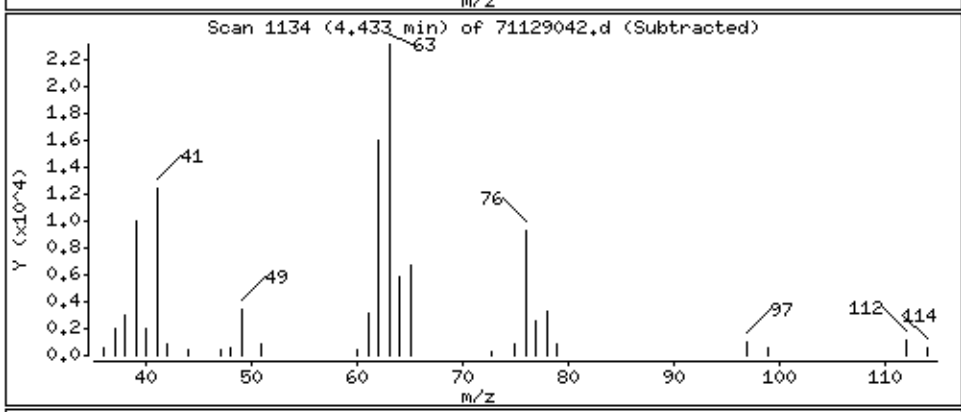
Column diameter: 0.18

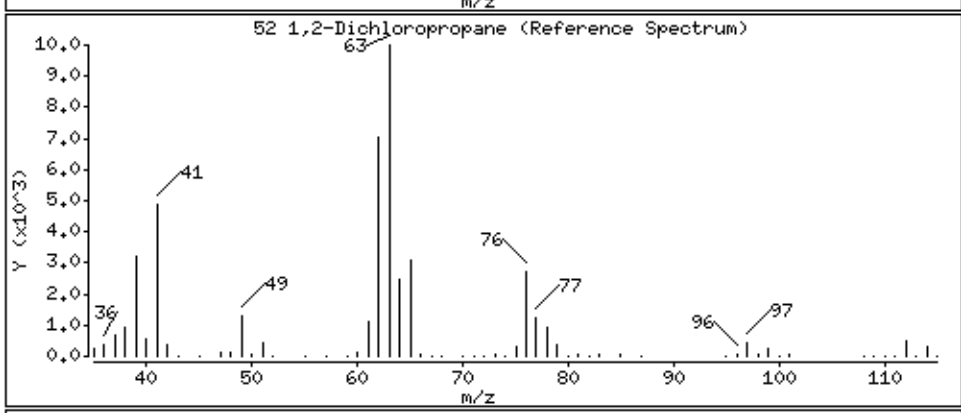
52 1,2-Dichloropropane

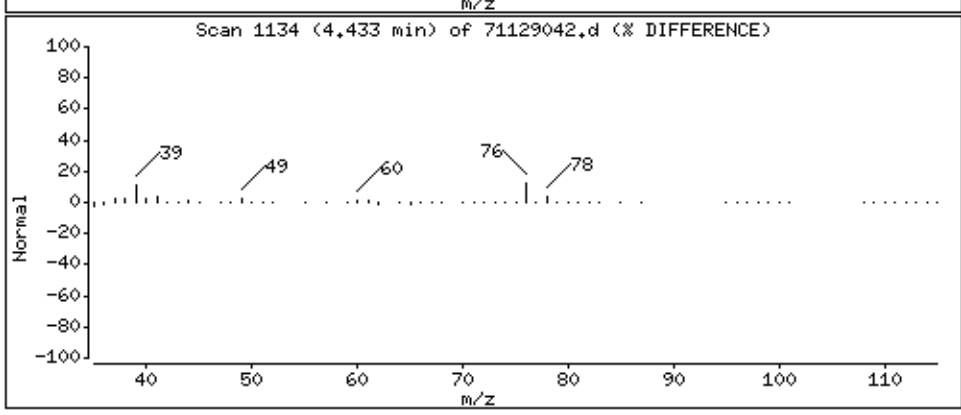
Concentration: 15.2 ug/L

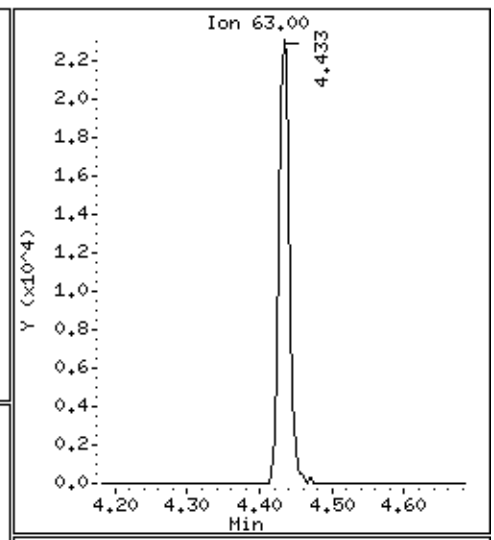
Review Code:

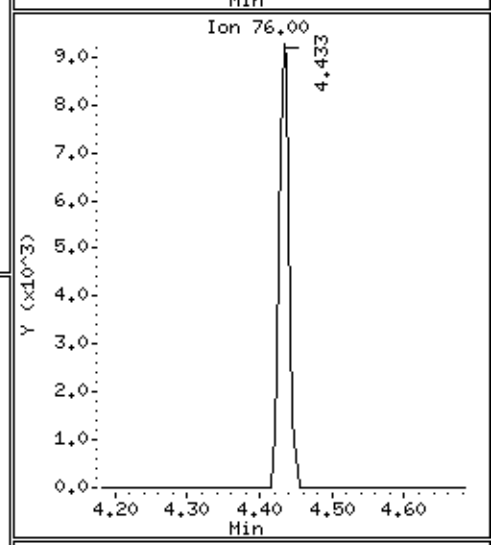


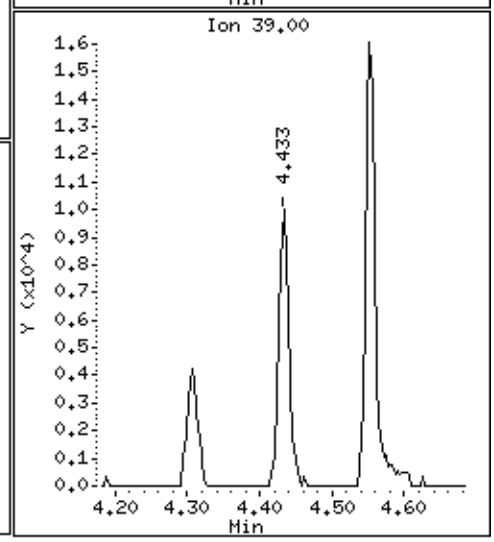












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

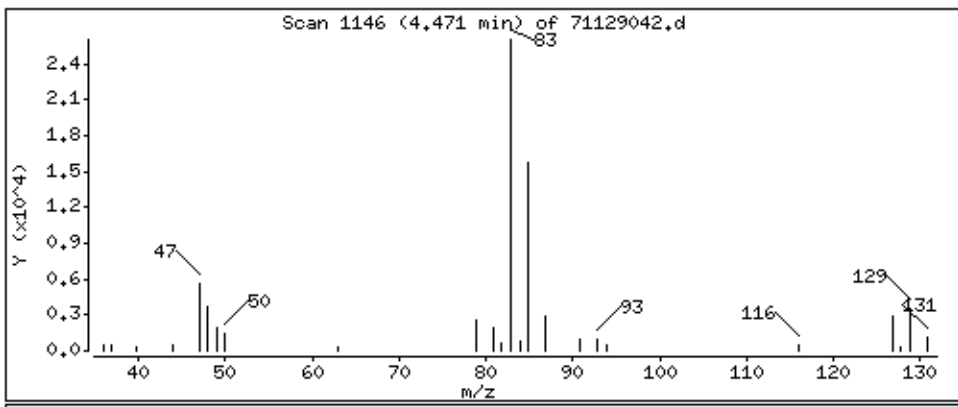
Column phase: RTX-VMS

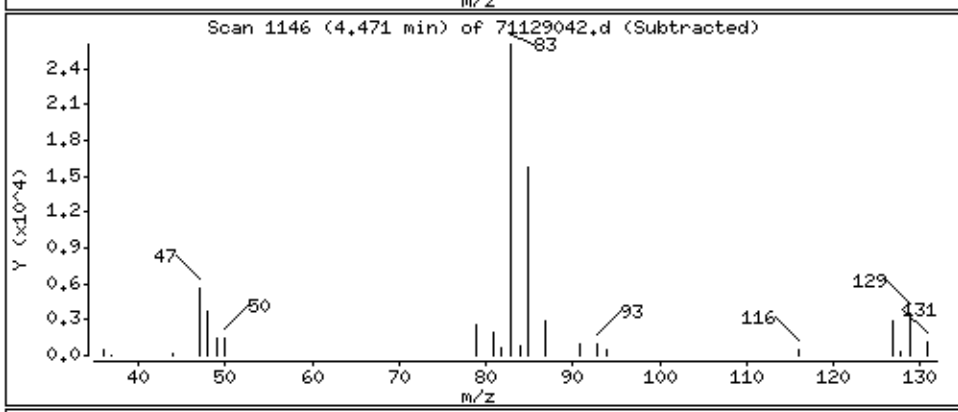
Column diameter: 0.18

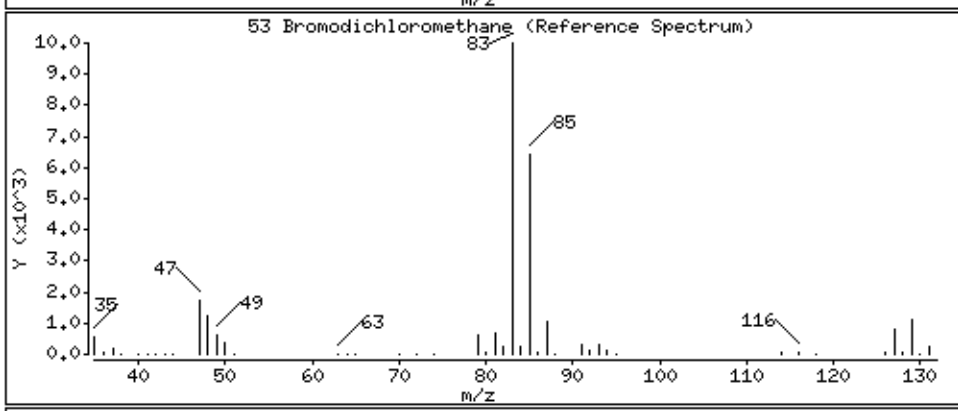
53 Bromodichloromethane

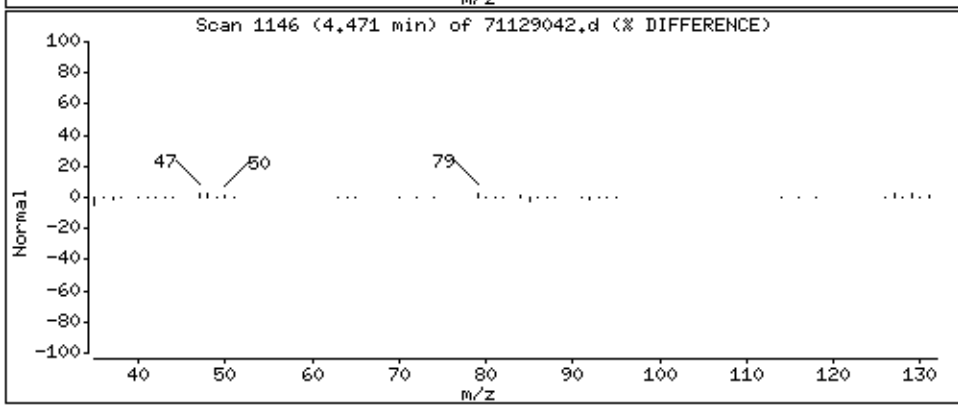
Concentration: 14.6 ug/L

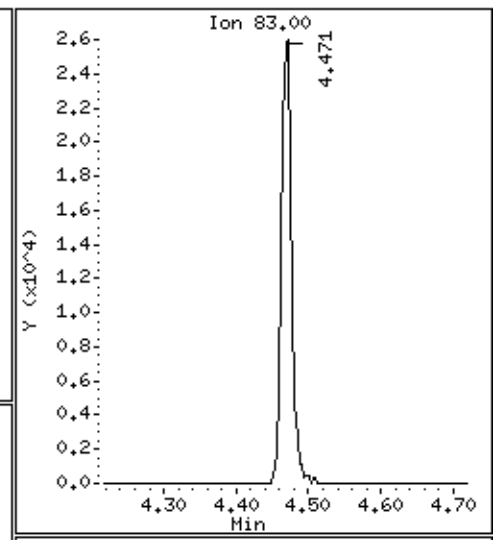
Review Code:

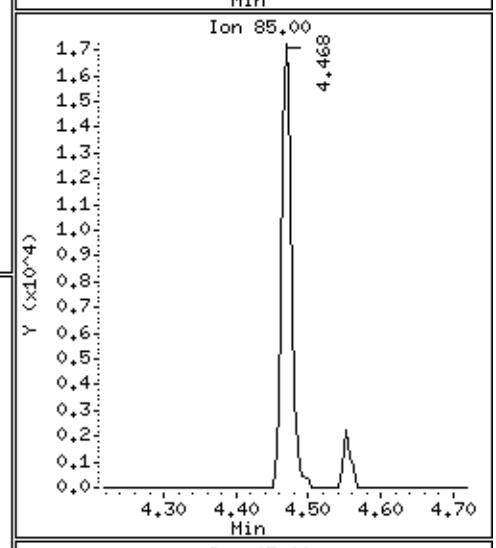


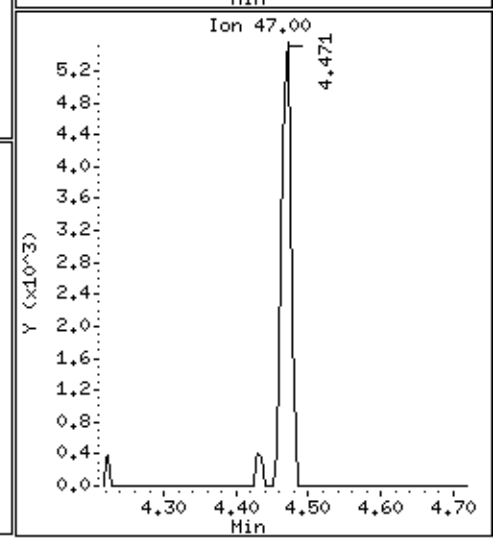












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

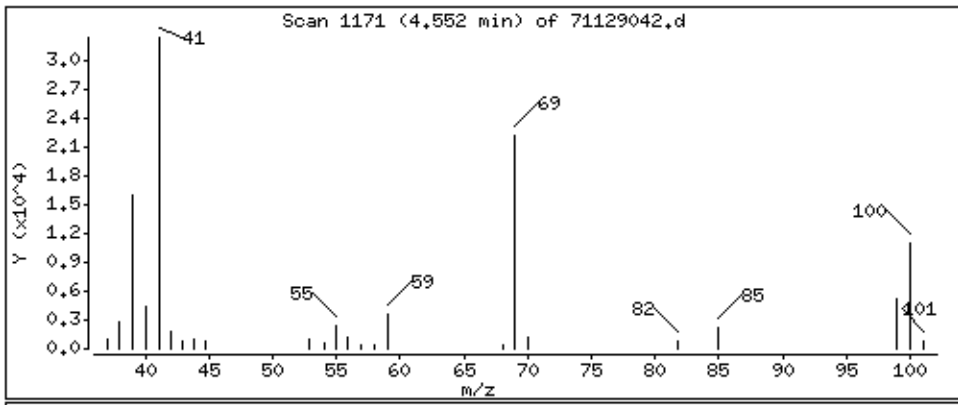
Column phase: RTX-VMS

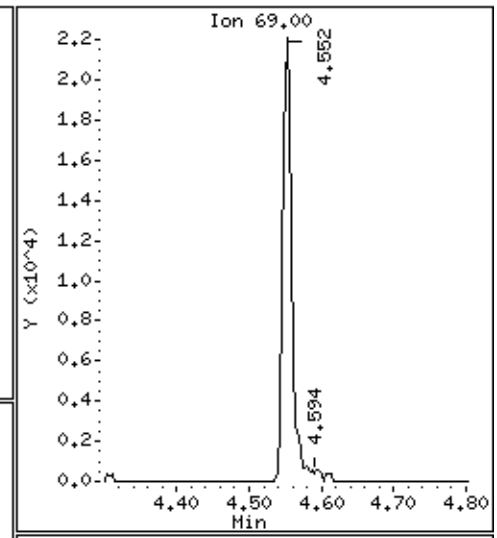
Column diameter: 0.18

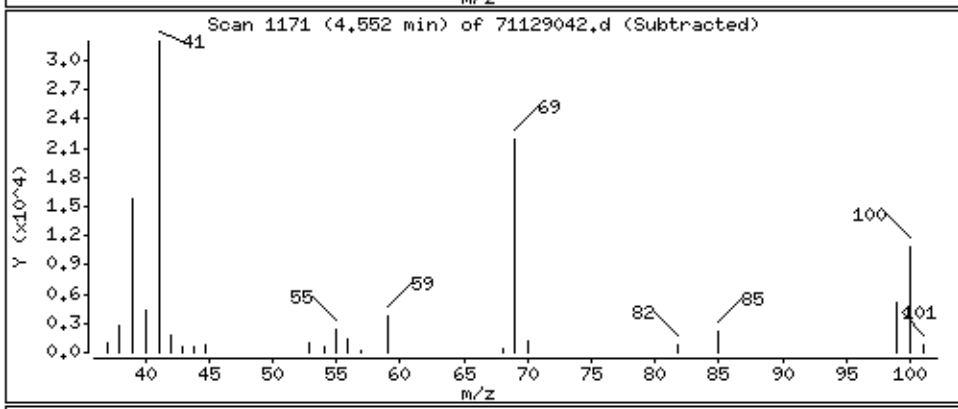
54 Methyl methacrylate

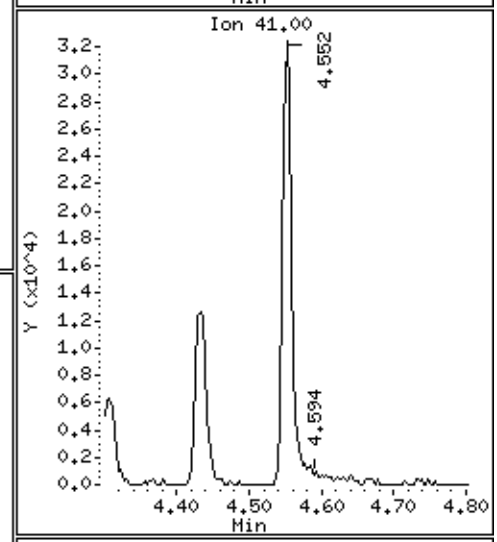
Concentration: 14.1 ug/L

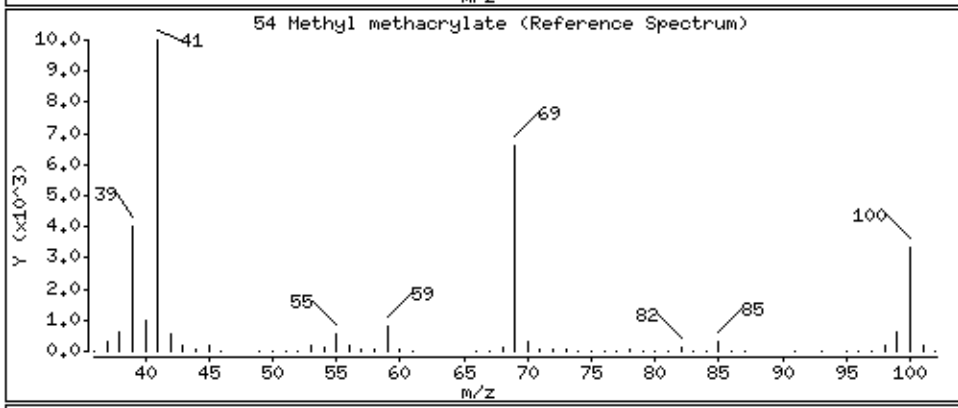
Review Code:

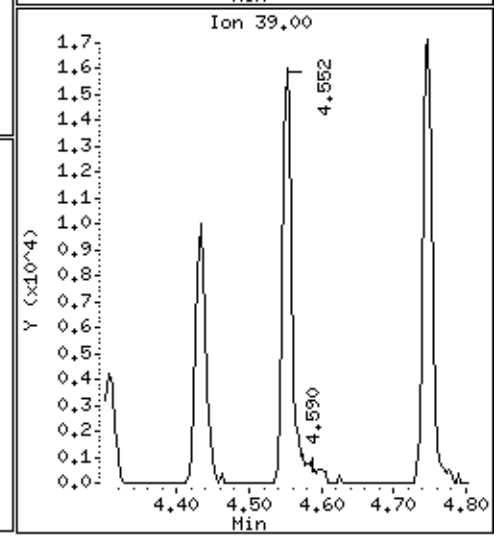


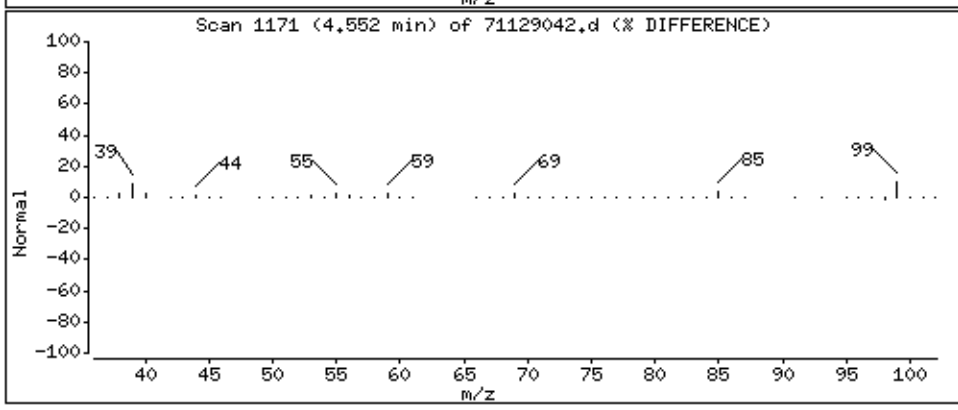












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

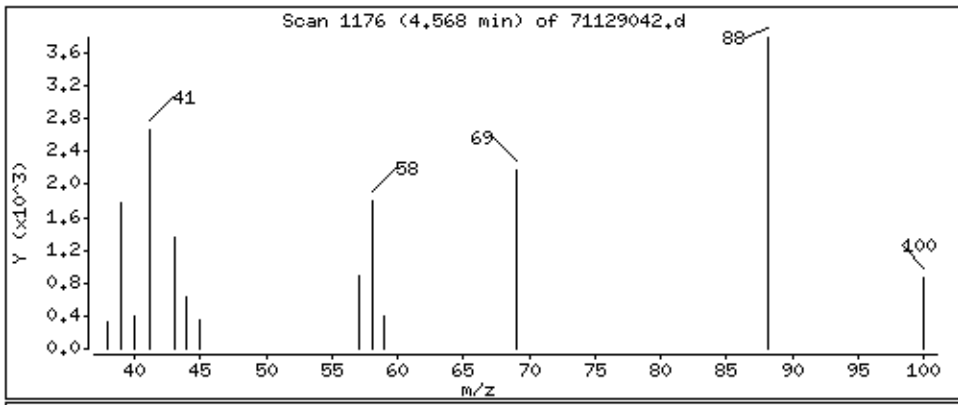
Column phase: RTX-VMS

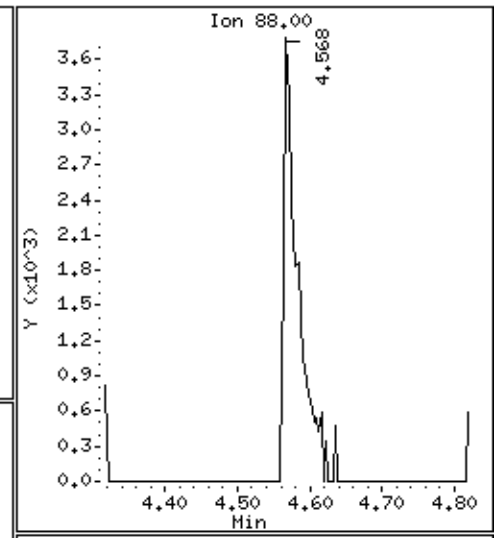
Column diameter: 0.18

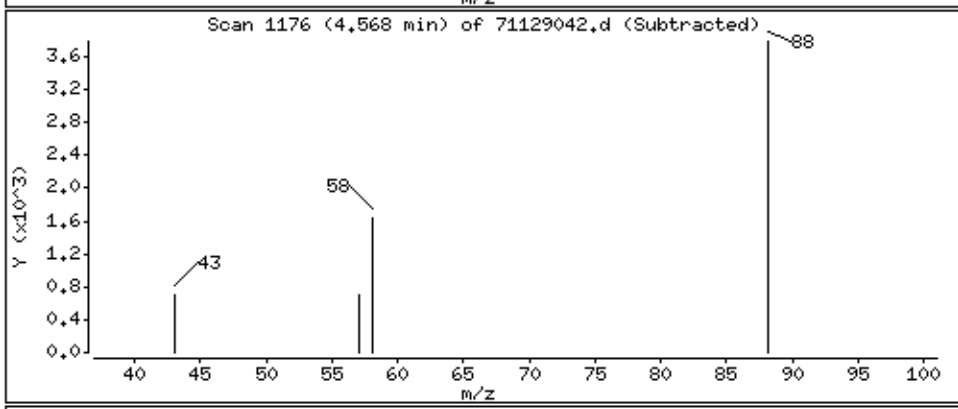
55 1,4-Dioxane (p-Dioxane)

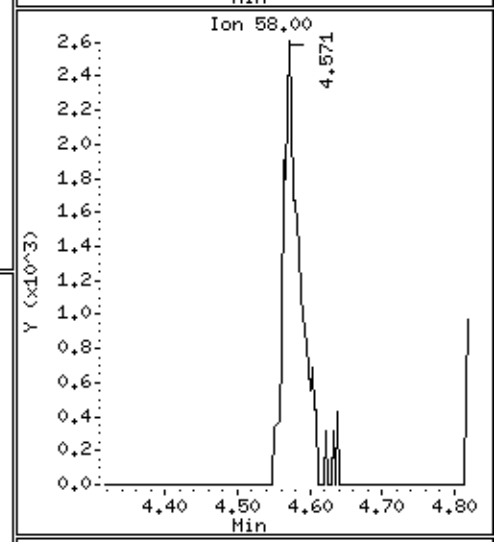
Concentration: 174 ug/L

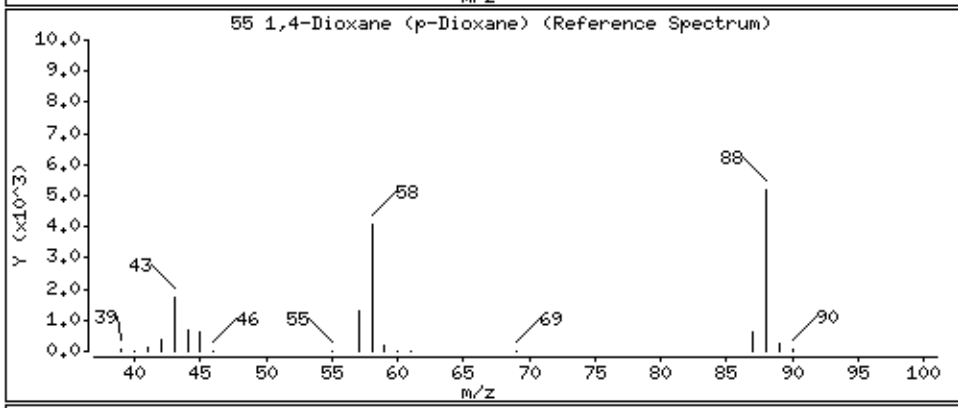
Review Code:

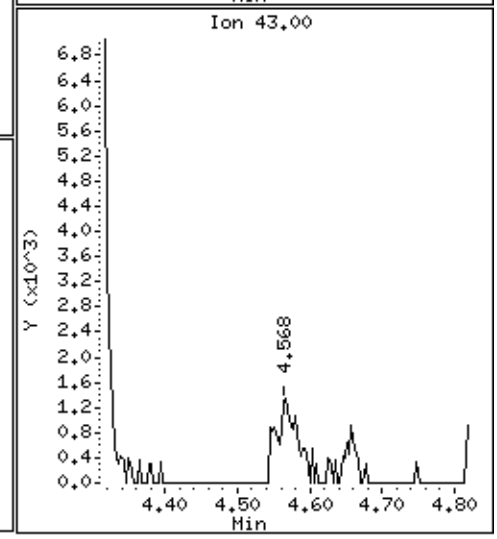


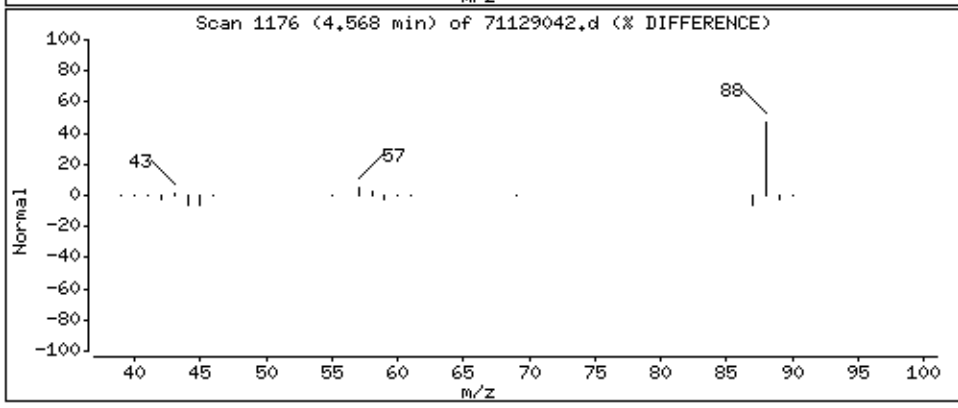












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

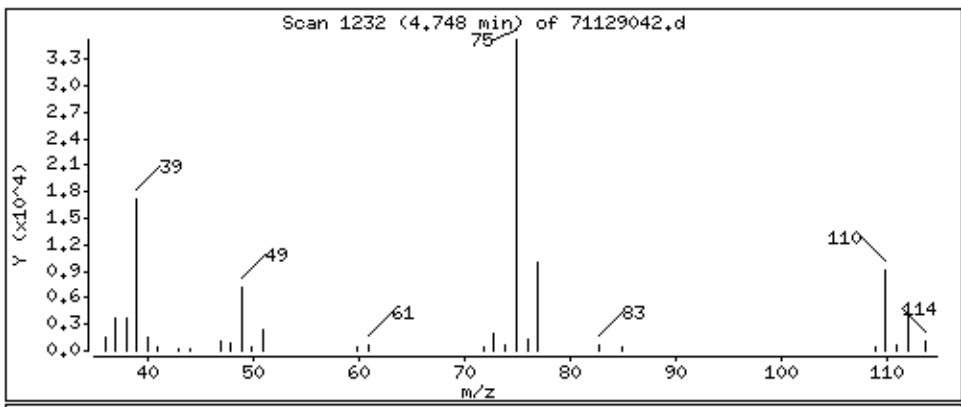
Column phase: RTX-VMS

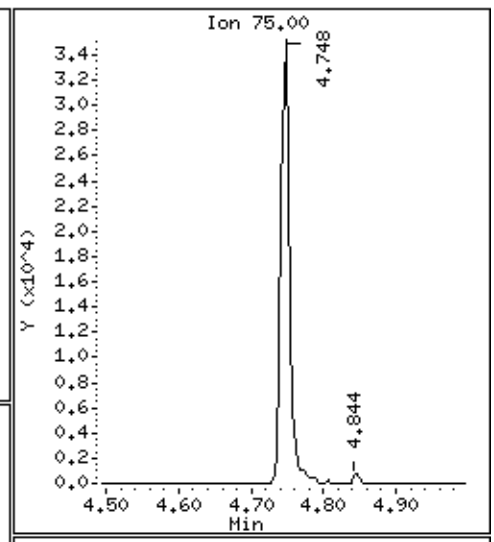
Column diameter: 0.18

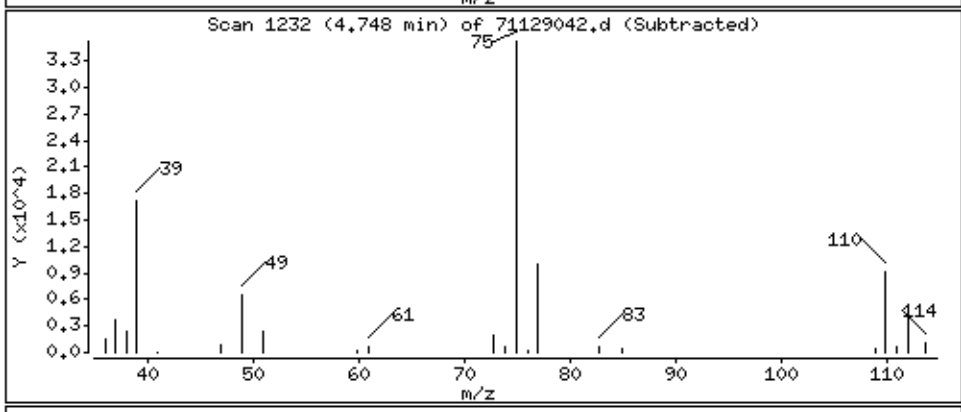
57 cis-1,3-Dichloropropene

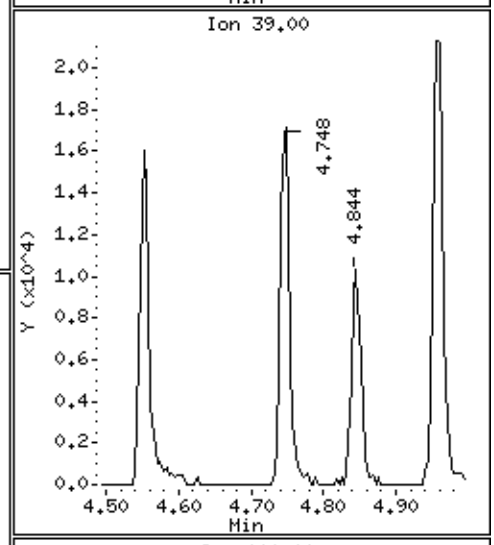
Concentration: 13.8 ug/L

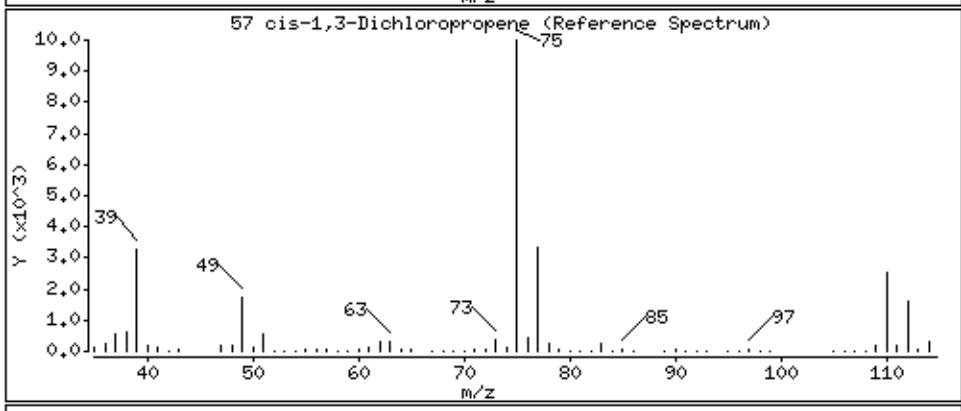
Review Code:

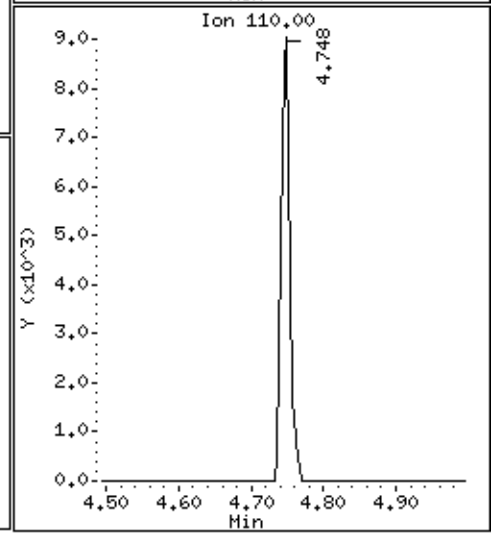


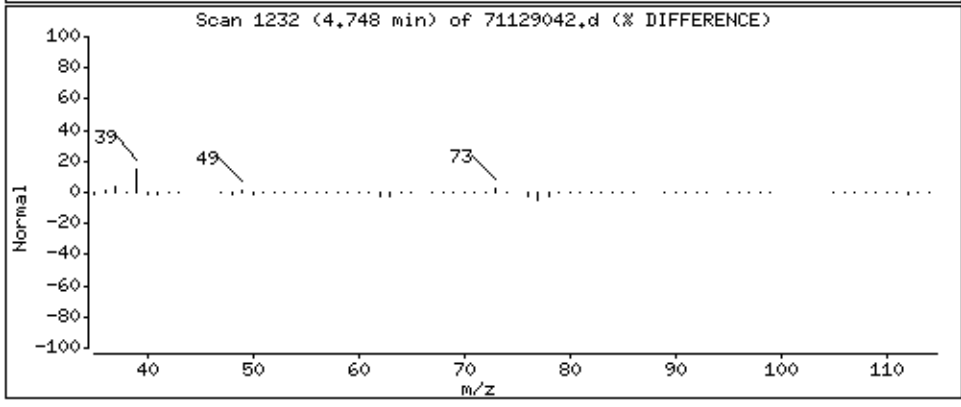












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

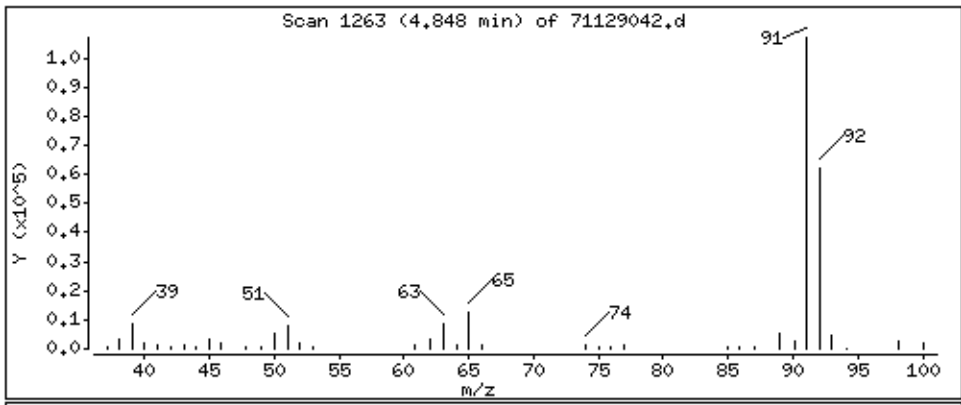
Column phase: RTX-VMS

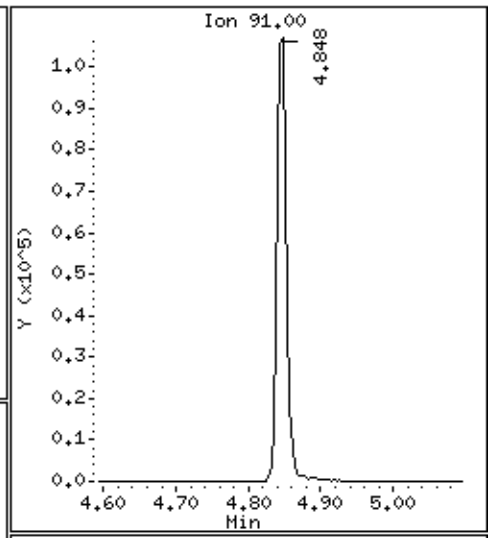
Column diameter: 0.18

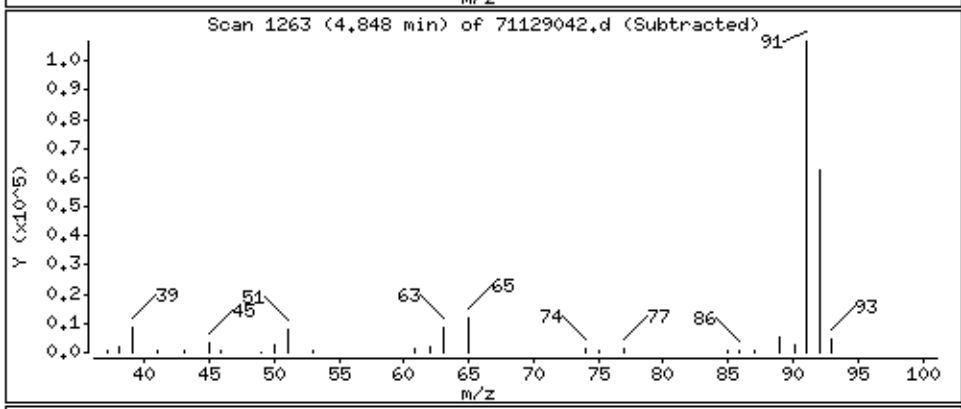
59 Toluene

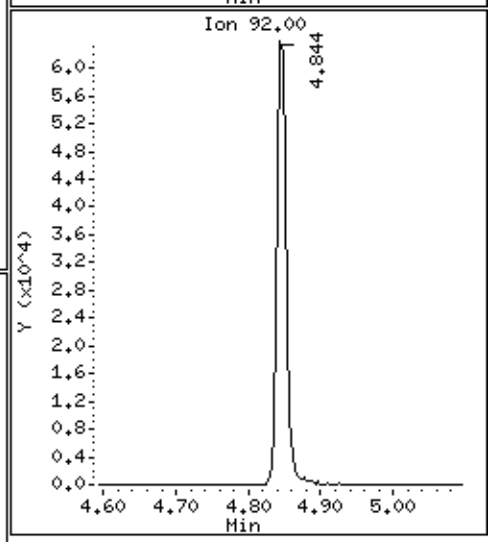
Concentration: 14.1 ug/L

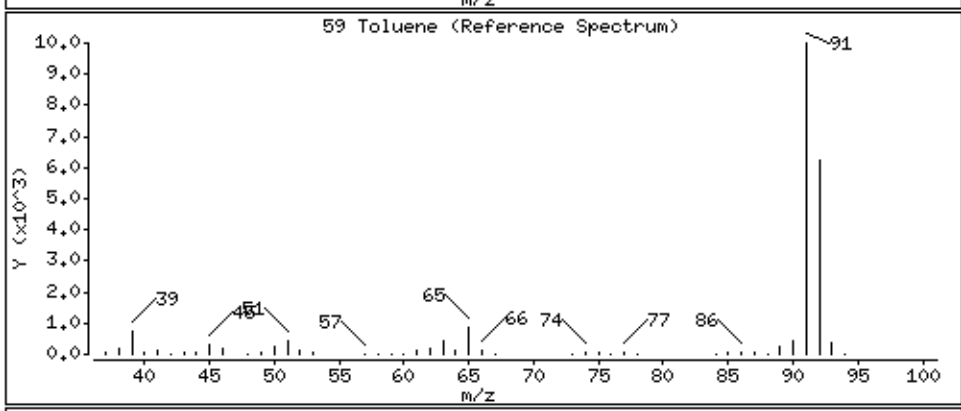
Review Code:

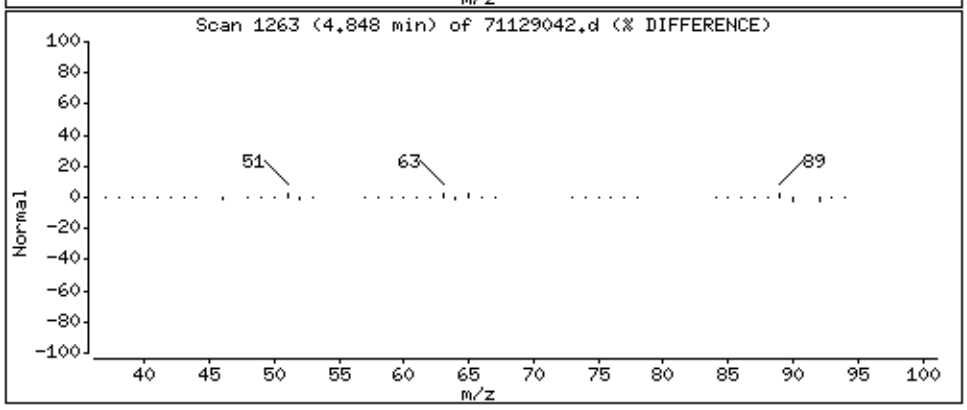












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

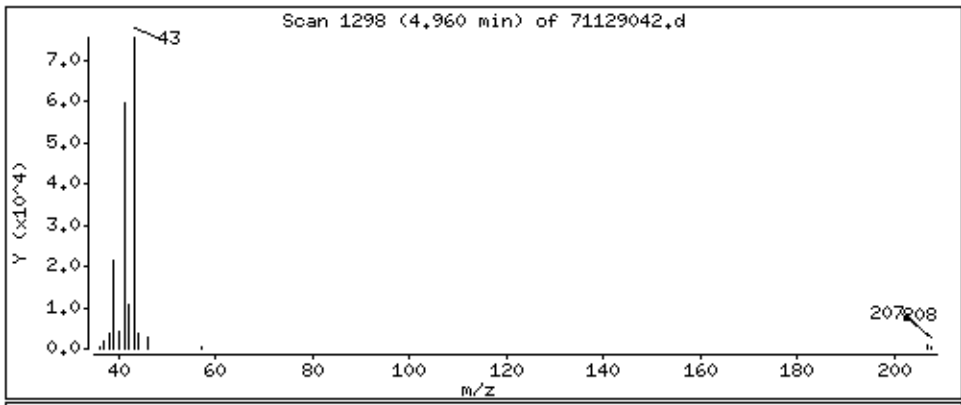
Column phase: RTX-VMS

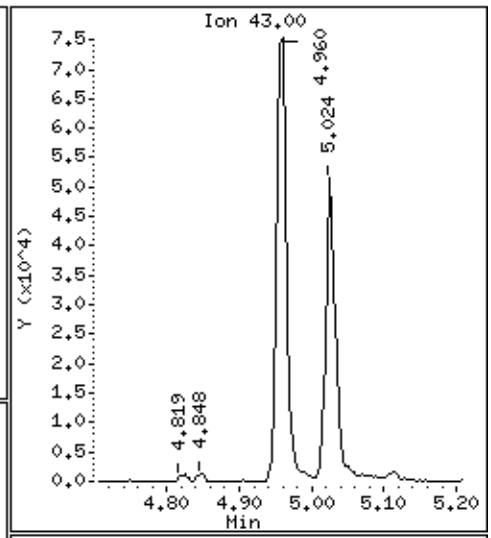
Column diameter: 0.18

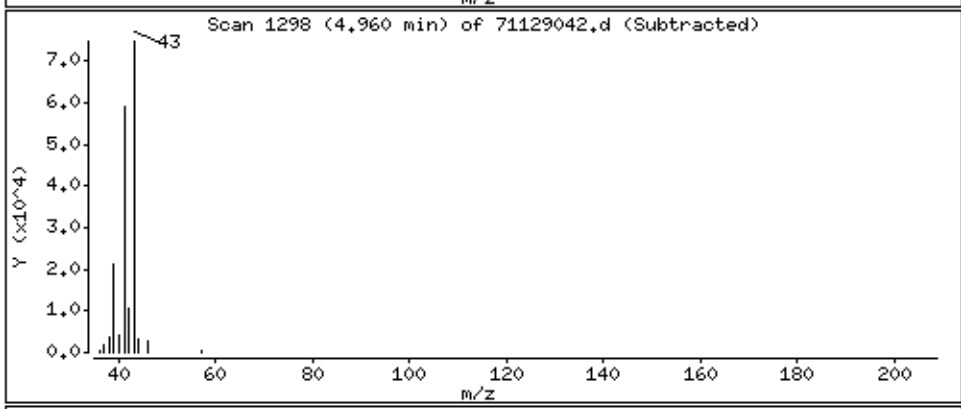
60 2-Nitropropane

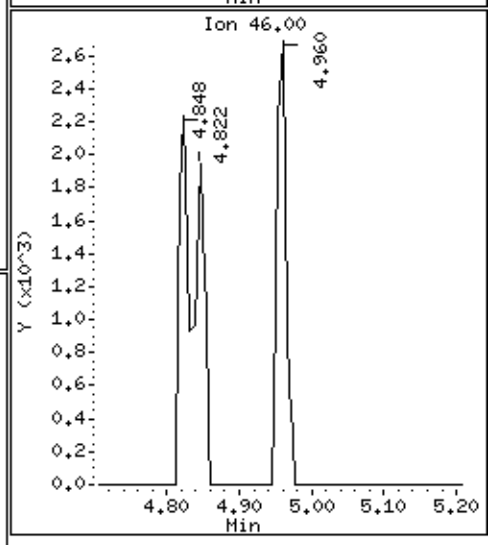
Concentration: 84.1 ug/L

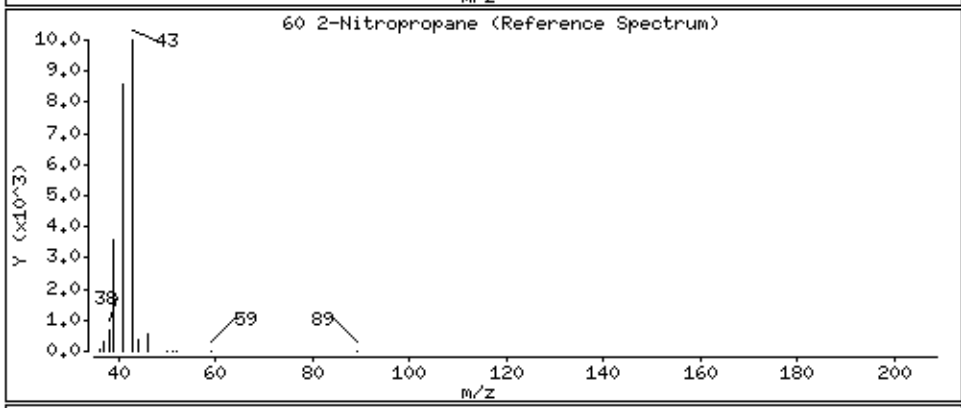
Review Code:

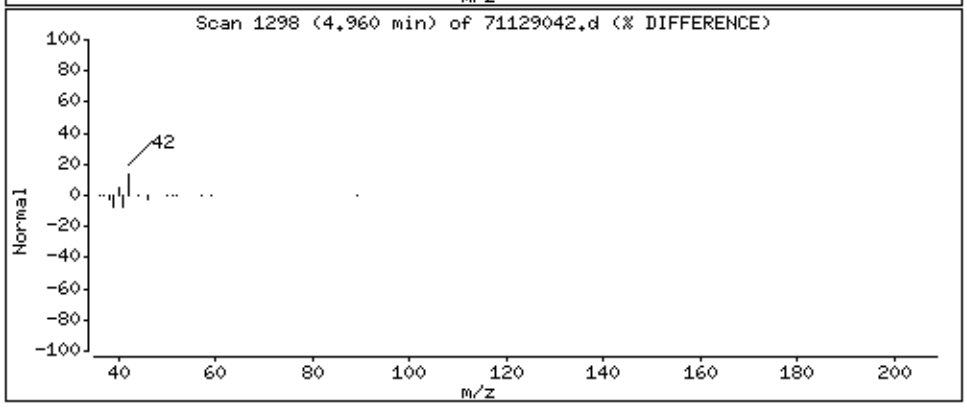












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

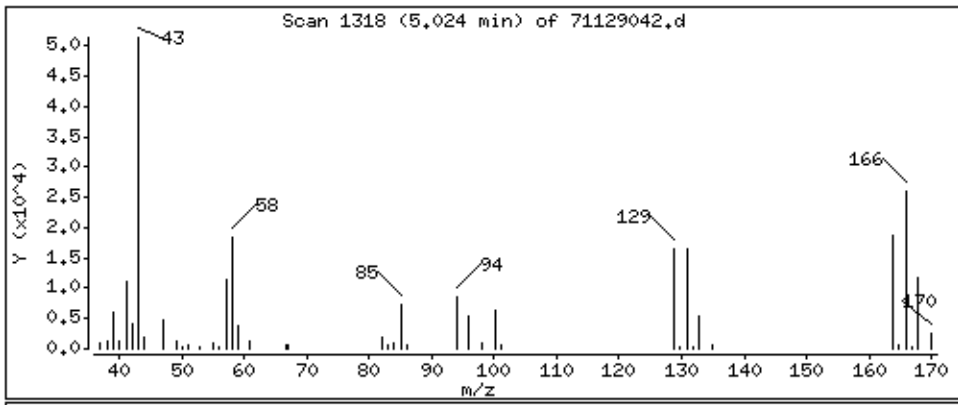
Column phase: RTX-VMS

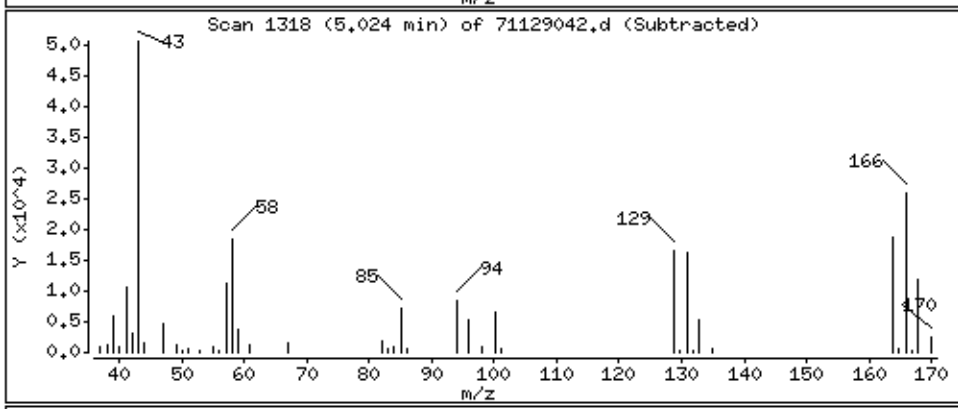
Column diameter: 0.18

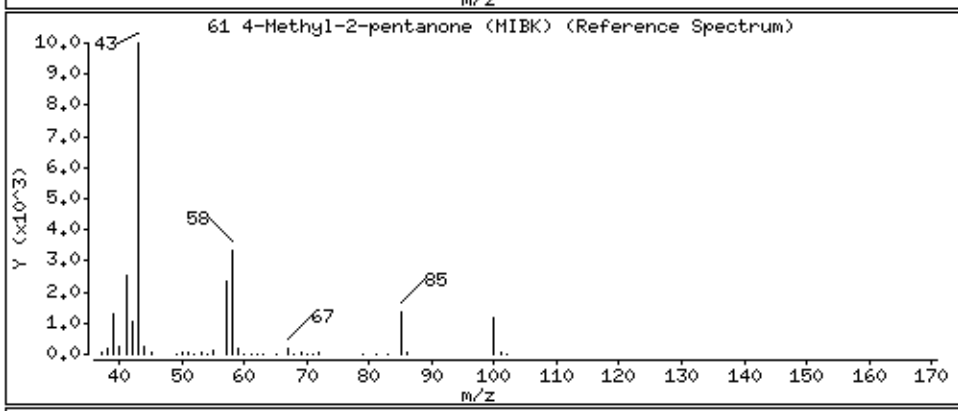
61 4-Methyl-2-pentanone (MIBK)

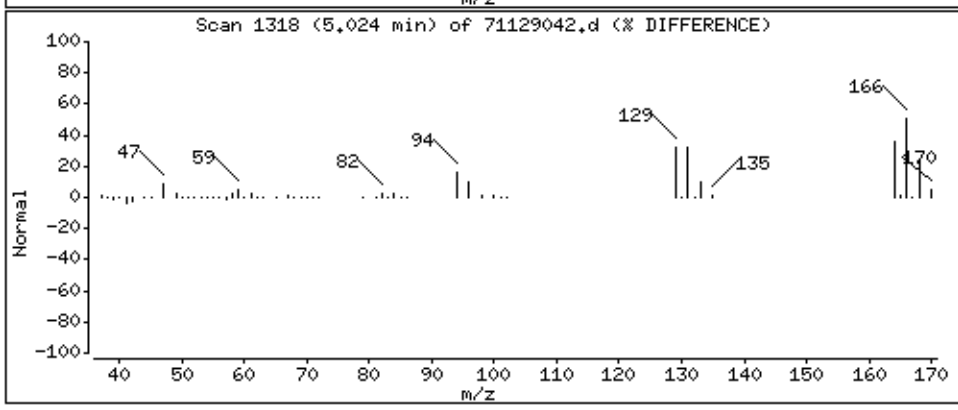
Concentration: 17.6 ug/L

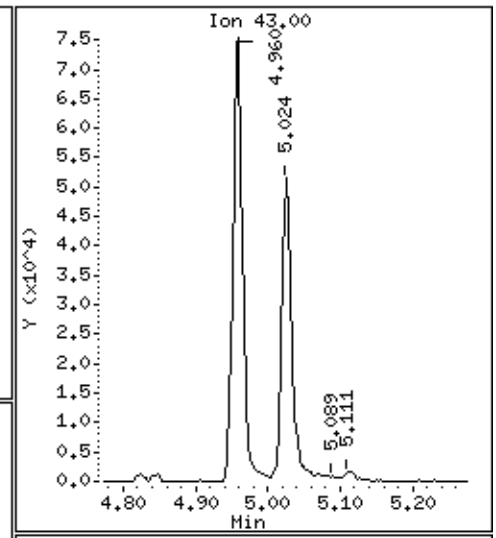
Review Code:

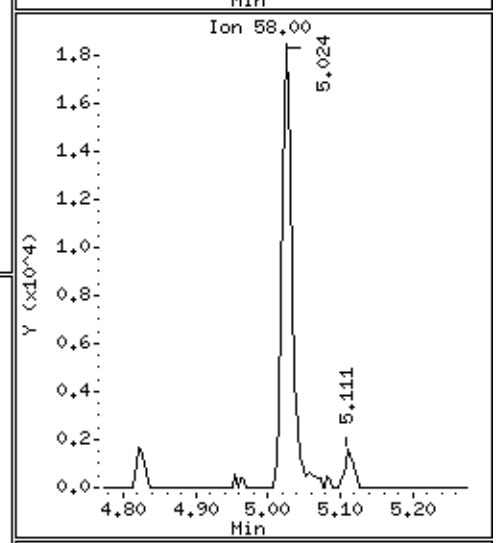


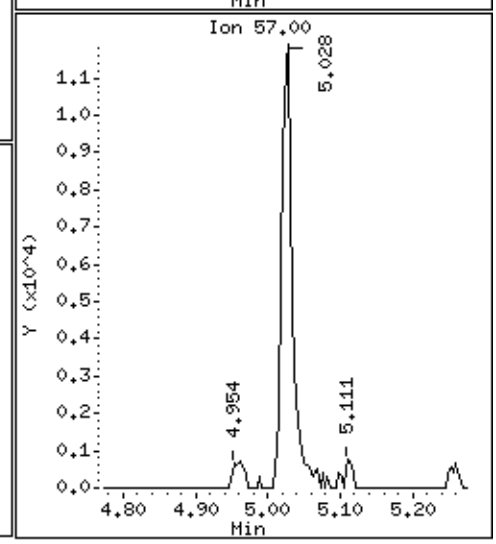












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

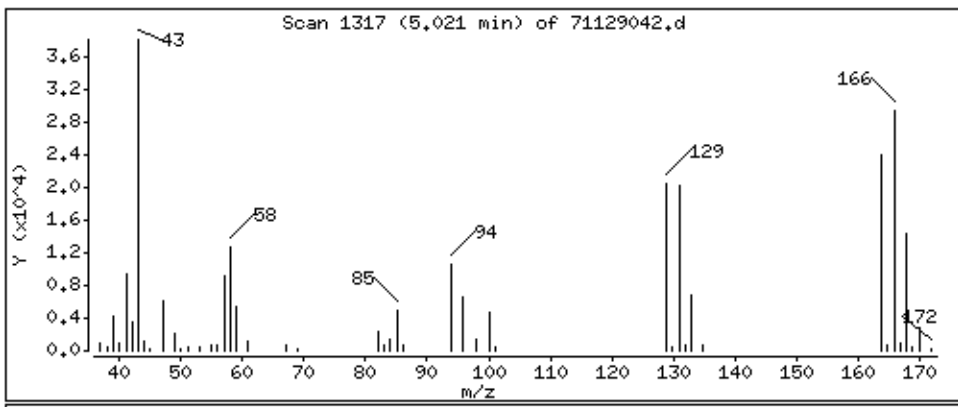
Column phase: RTX-VMS

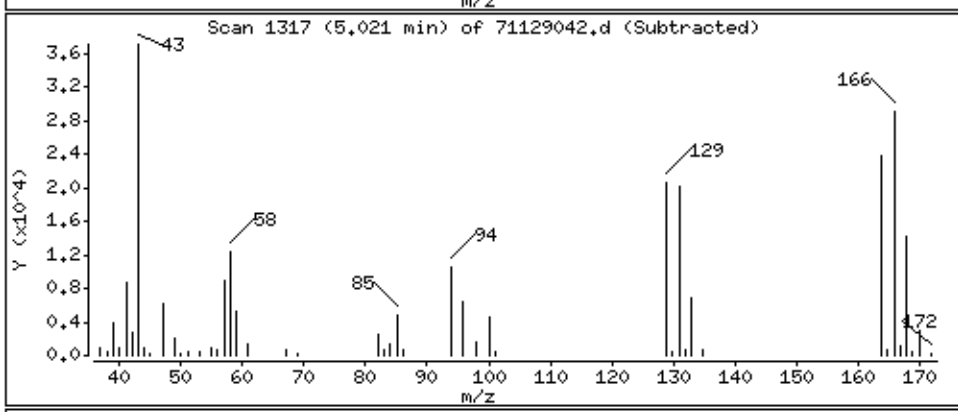
Column diameter: 0.18

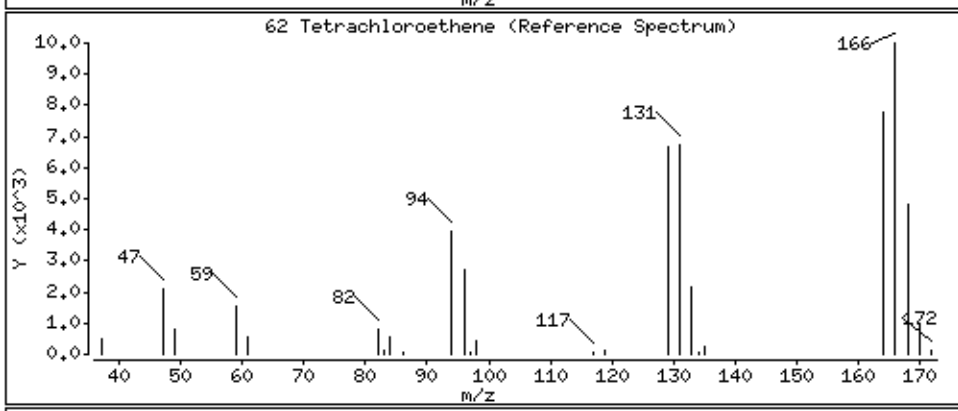
62 Tetrachloroethene

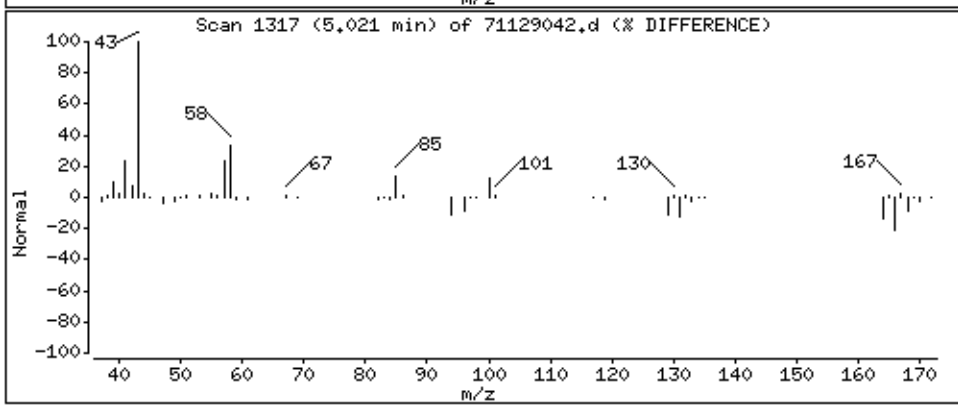
Concentration: 14.6 ug/L

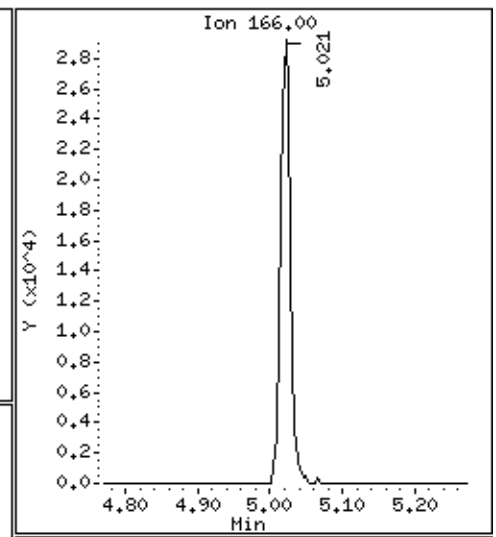
Review Code:

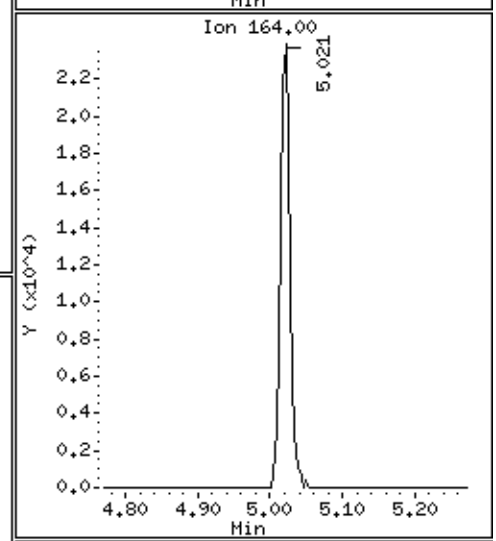


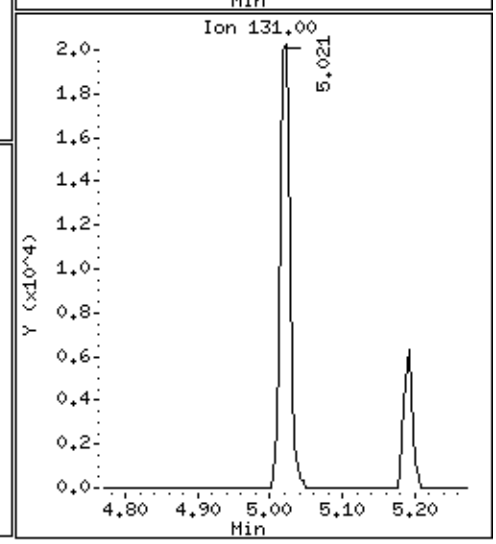












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

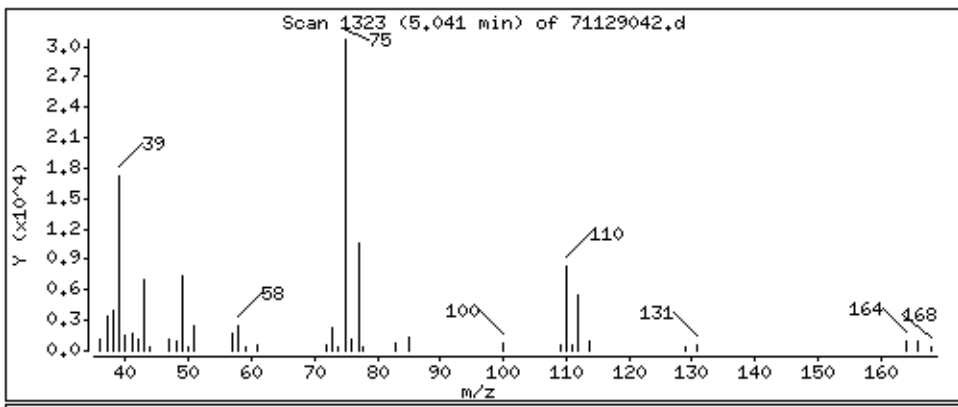
Column phase: RTX-VMS

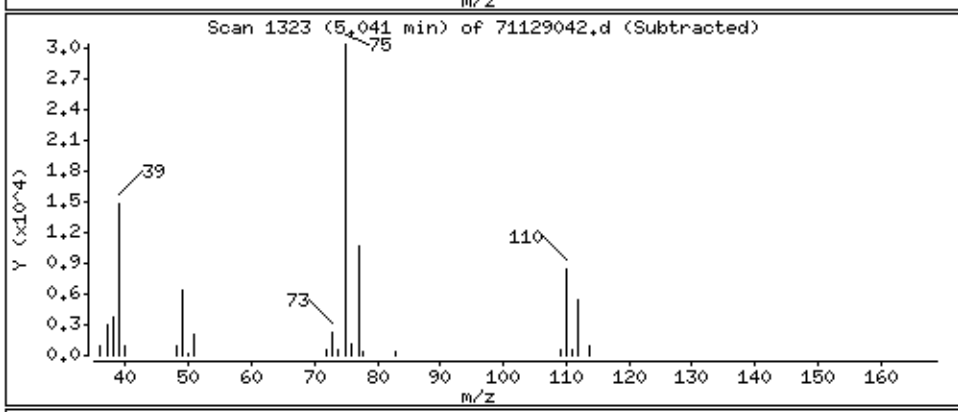
Column diameter: 0.18

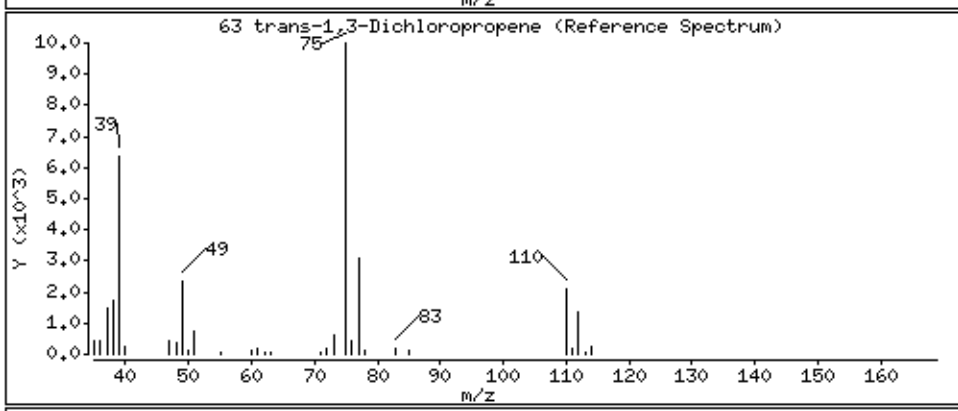
63 trans-1,3-Dichloropropene

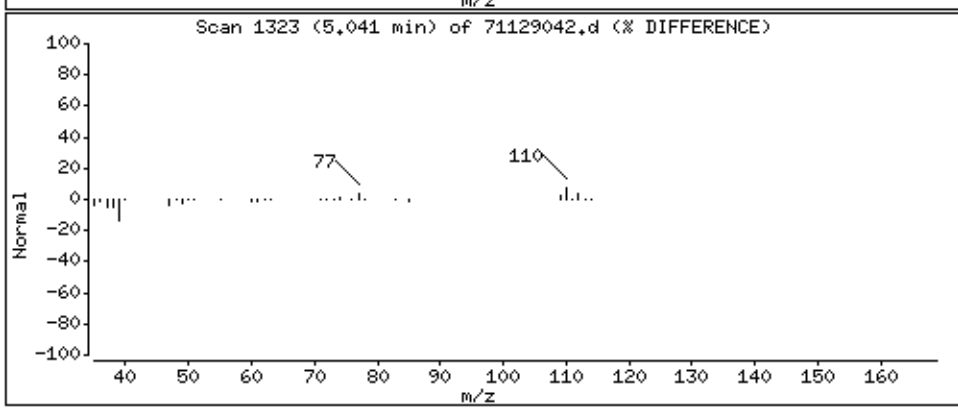
Concentration: 13.4 ug/L

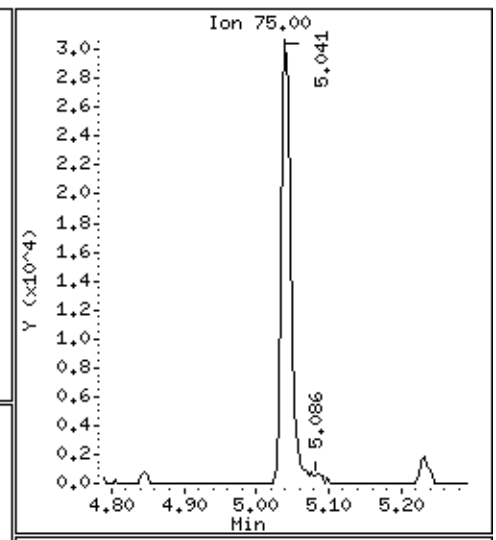
Review Code:

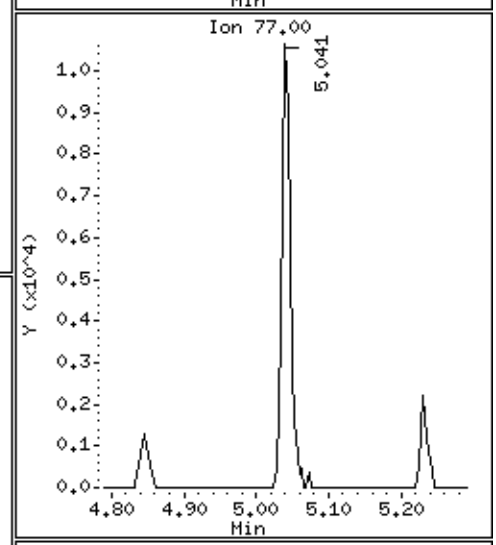


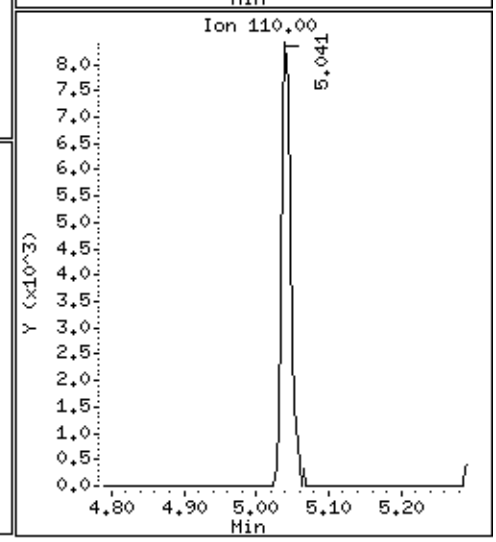












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

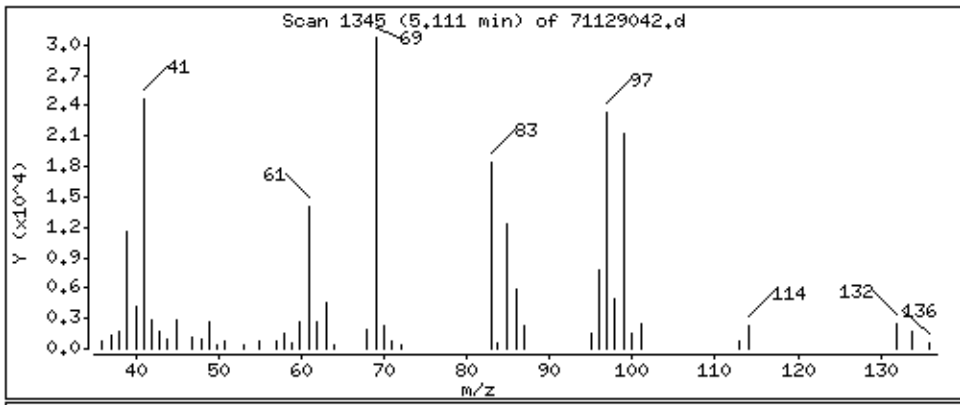
Column phase: RTX-VMS

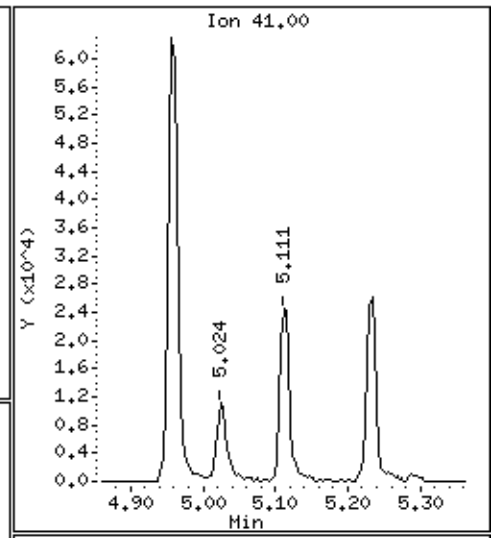
Column diameter: 0.18

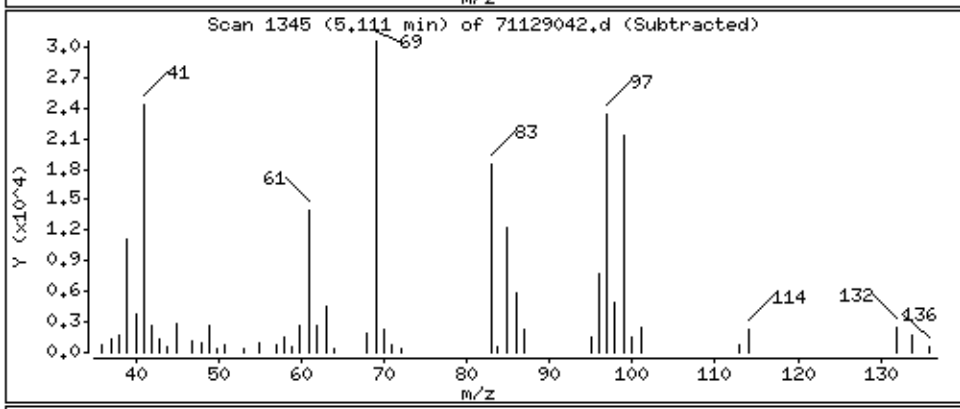
64 Ethyl methacrylate

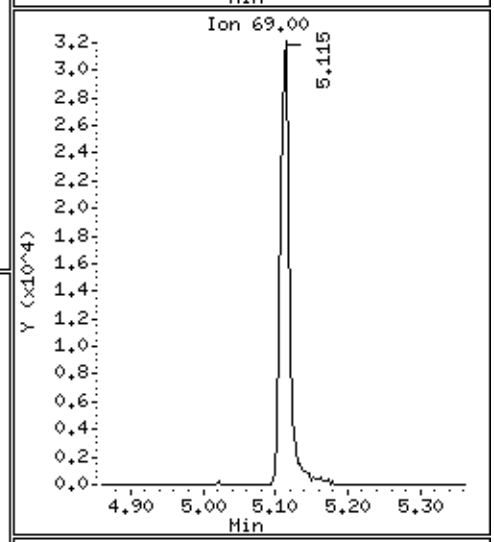
Concentration: 16.7 ug/L

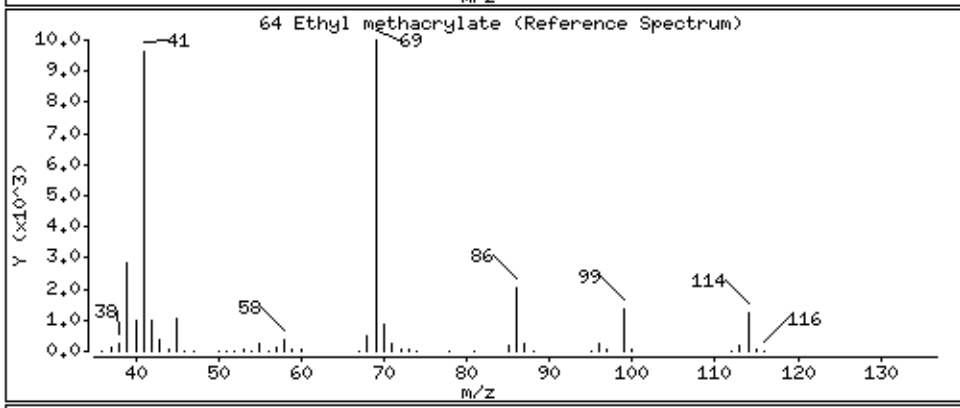
Review Code:

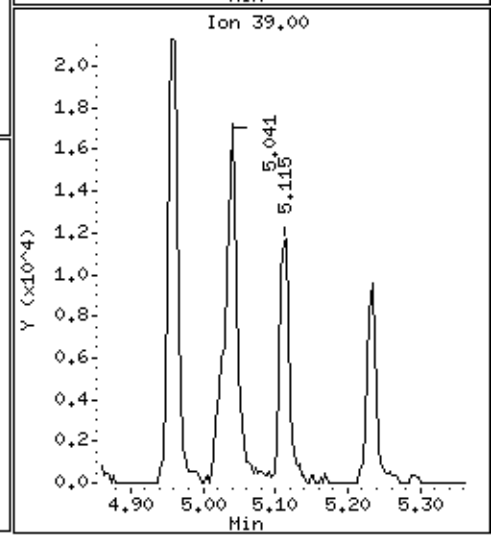


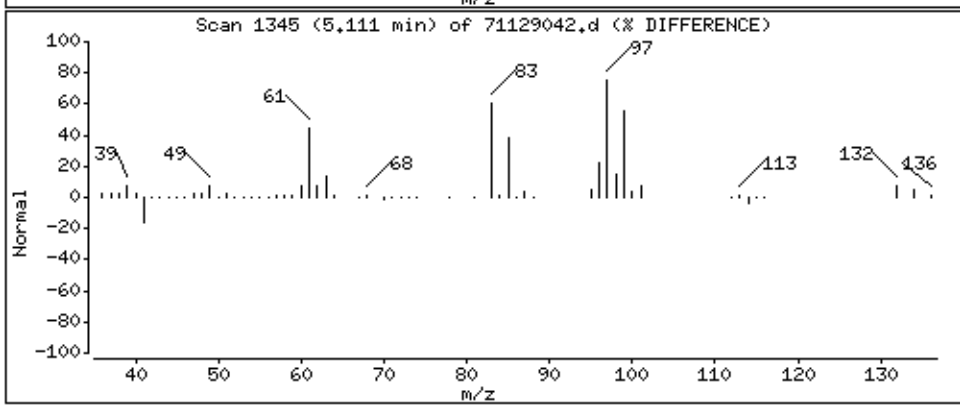












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

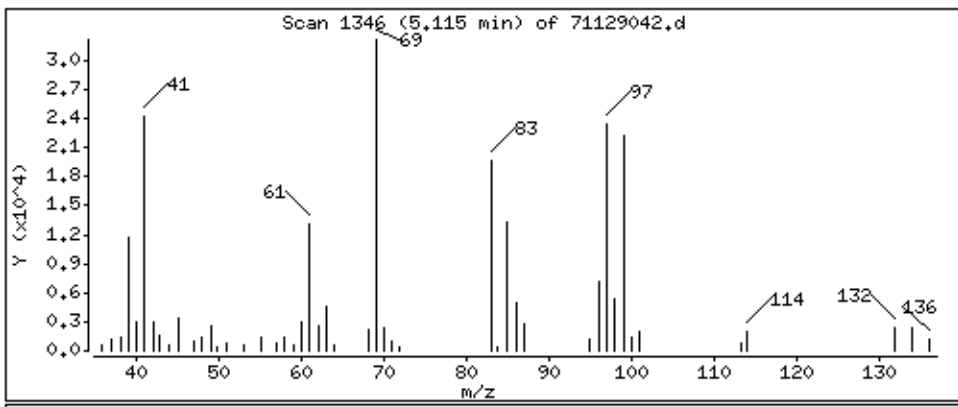
Column phase: RTX-VMS

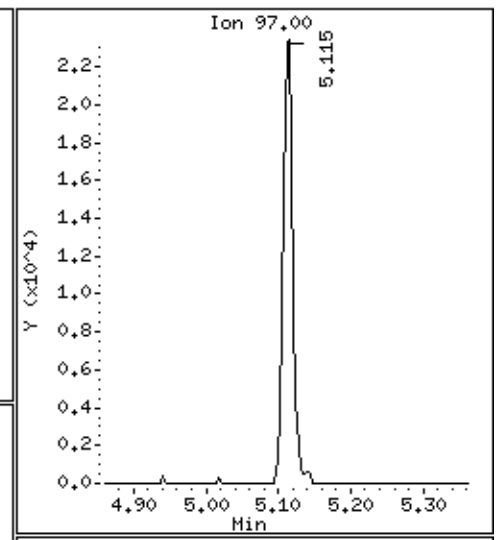
Column diameter: 0.18

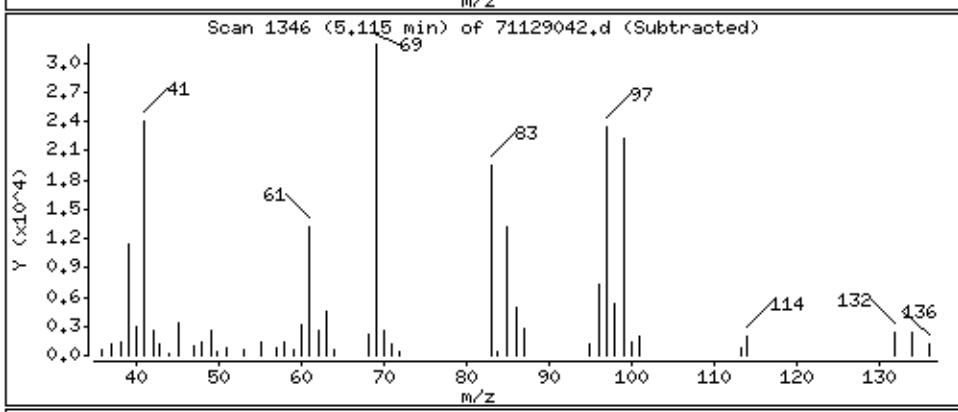
65 1,1,2-Trichloroethane

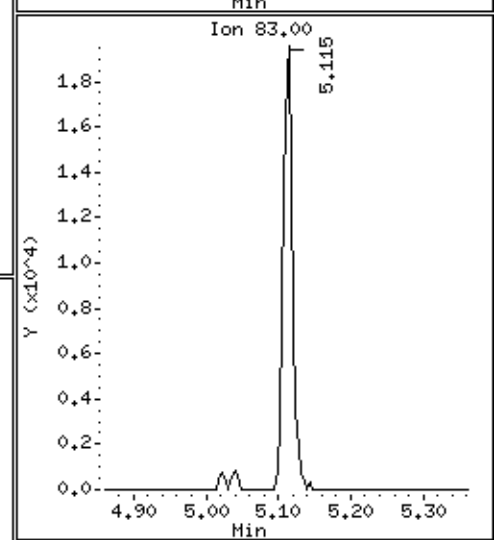
Concentration: 14.2 ug/L

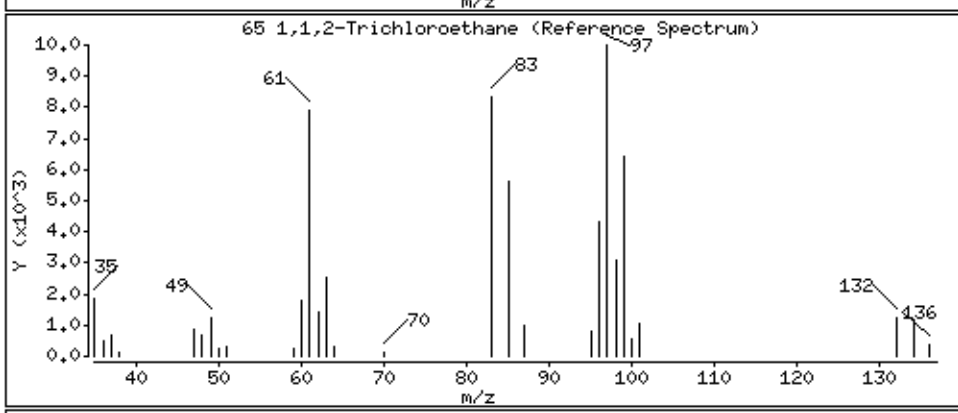
Review Code:

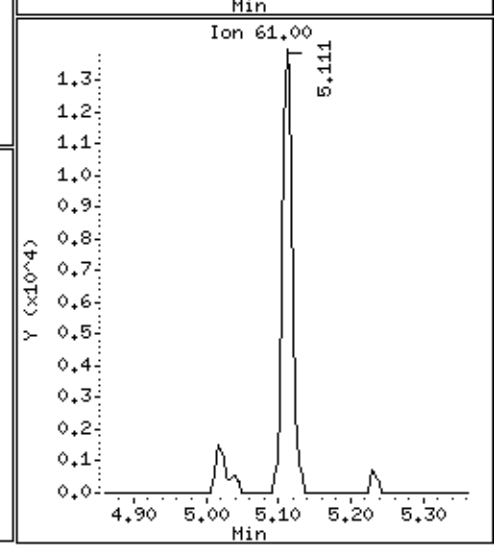


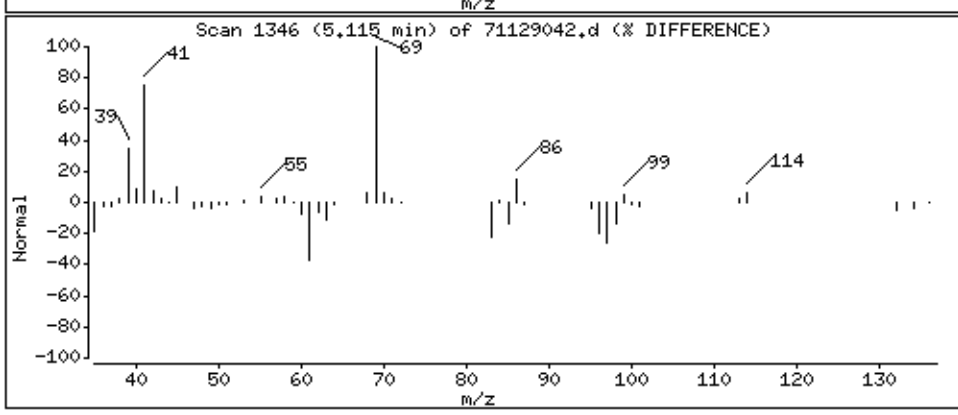












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

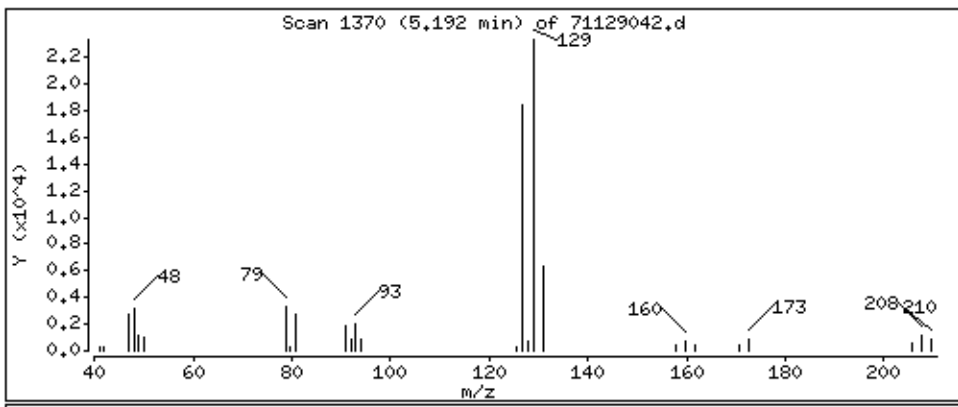
Column phase: RTX-VMS

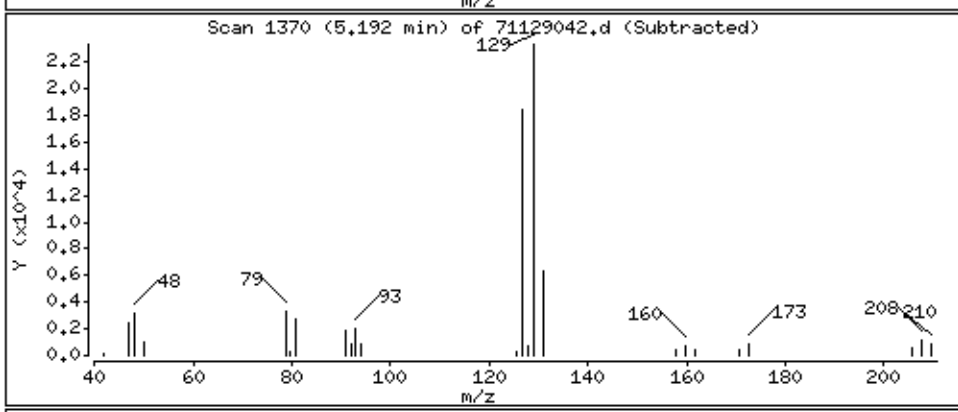
Column diameter: 0.18

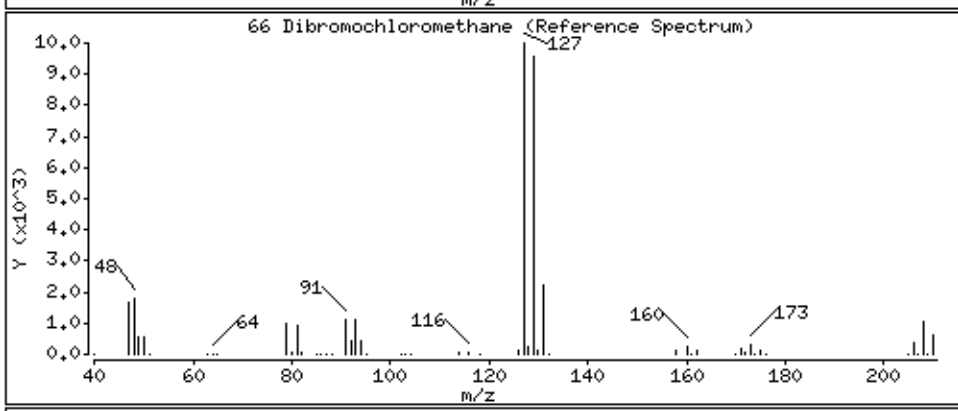
66 Dibromochloromethane

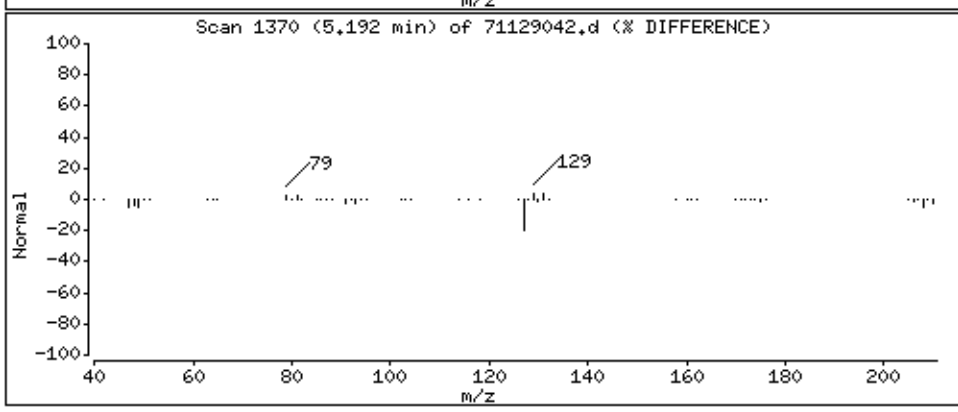
Concentration: 13.1 ug/L

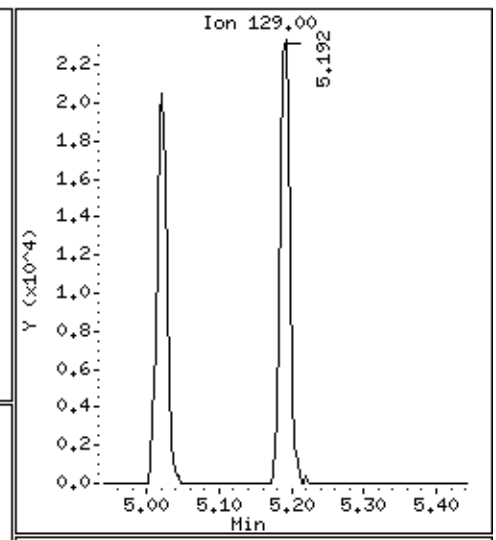
Review Code:

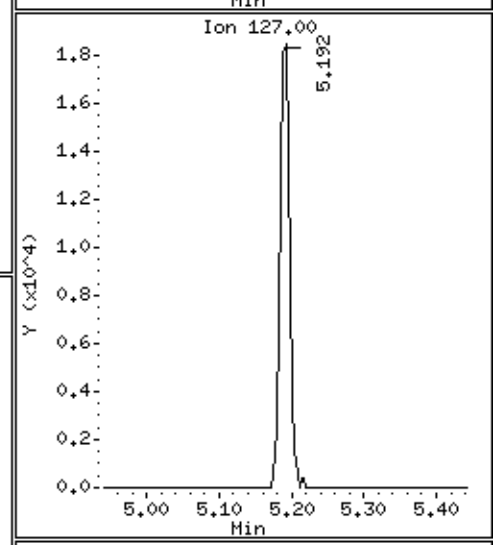


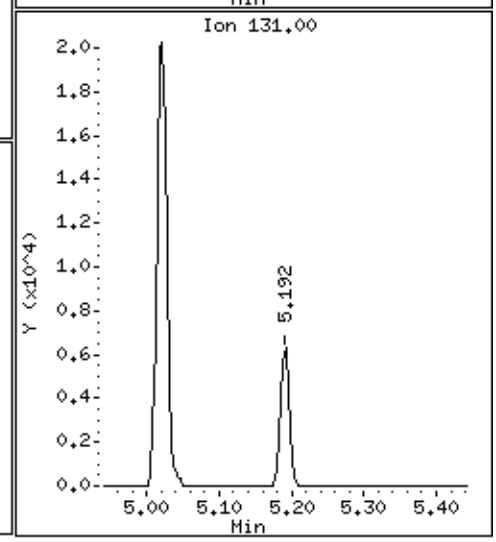












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

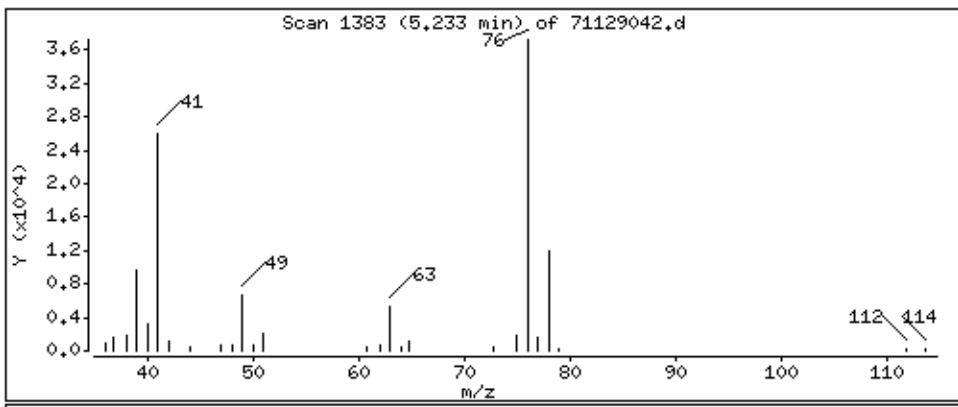
Column phase: RTX-VMS

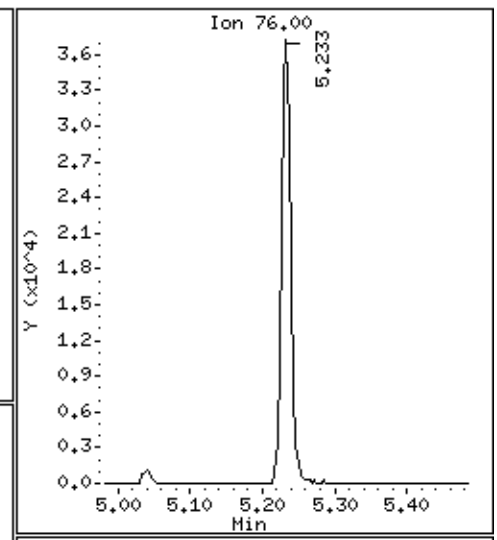
Column diameter: 0.18

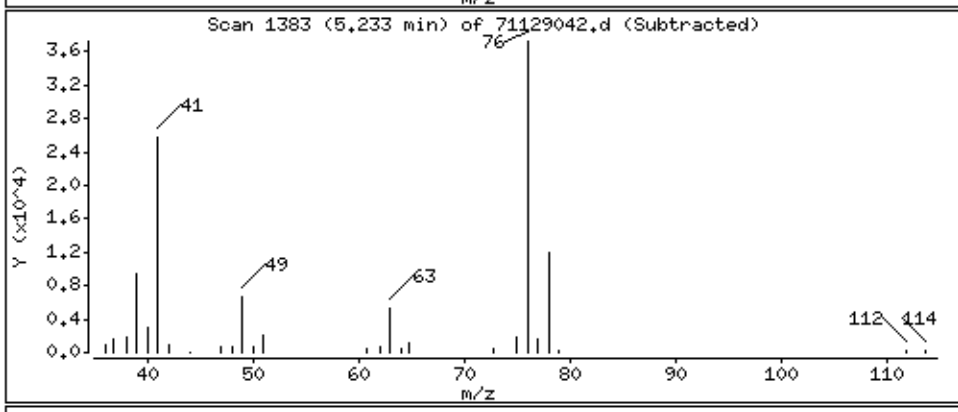
67 1,3-Dichloropropane

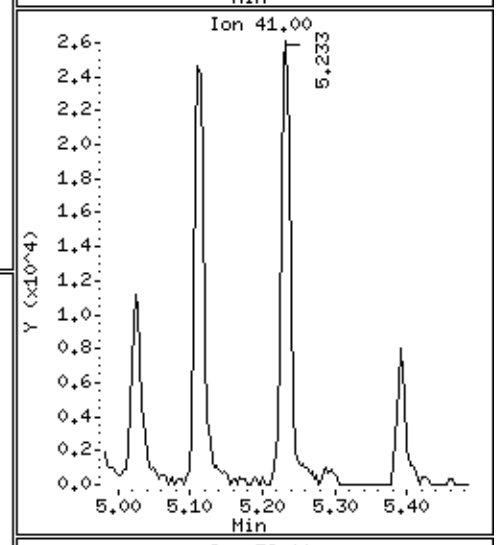
Concentration: 12.7 ug/L

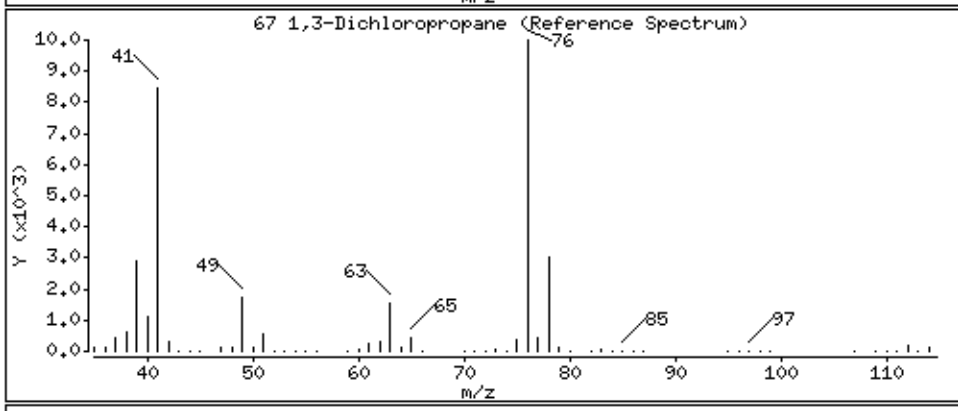
Review Code:

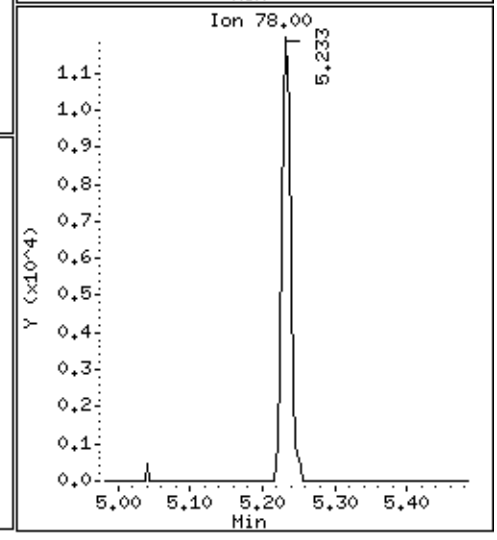


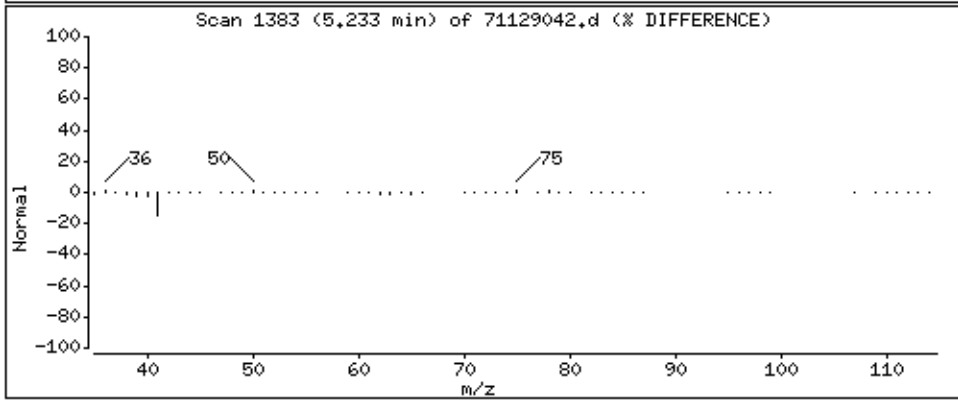












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

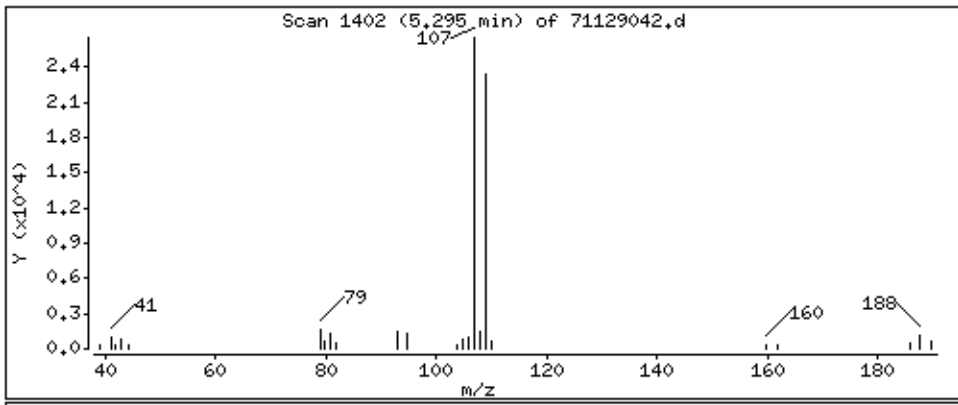
Column phase: RTX-VMS

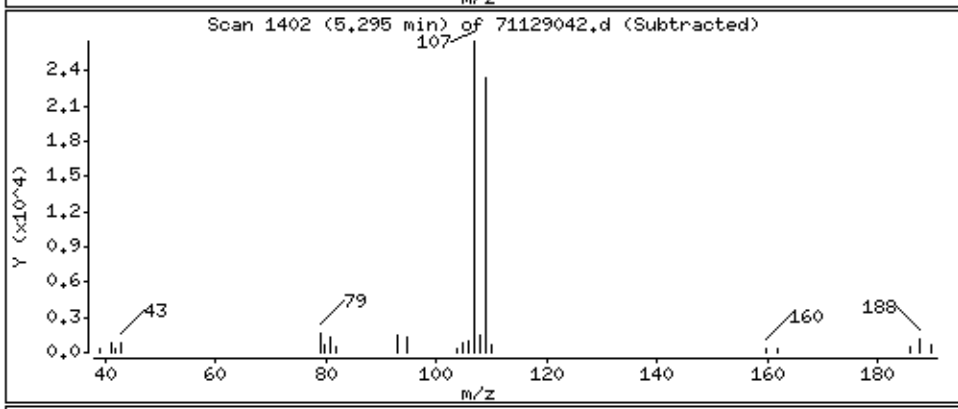
Column diameter: 0.18

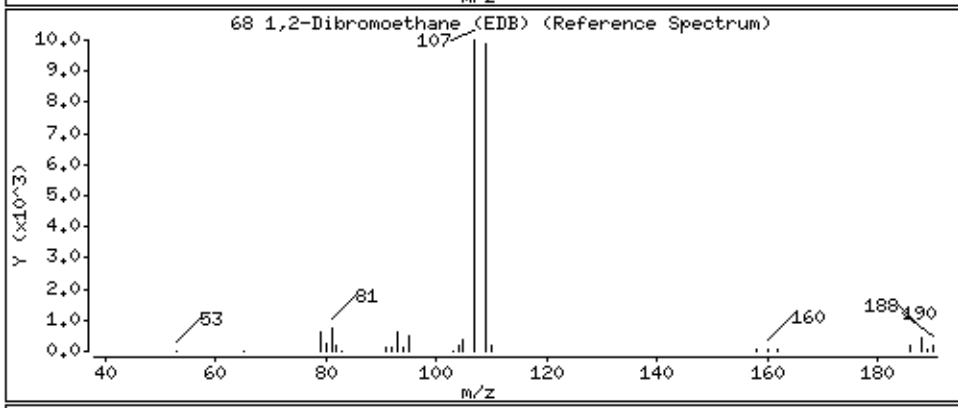
68 1,2-Dibromoethane (EDB)

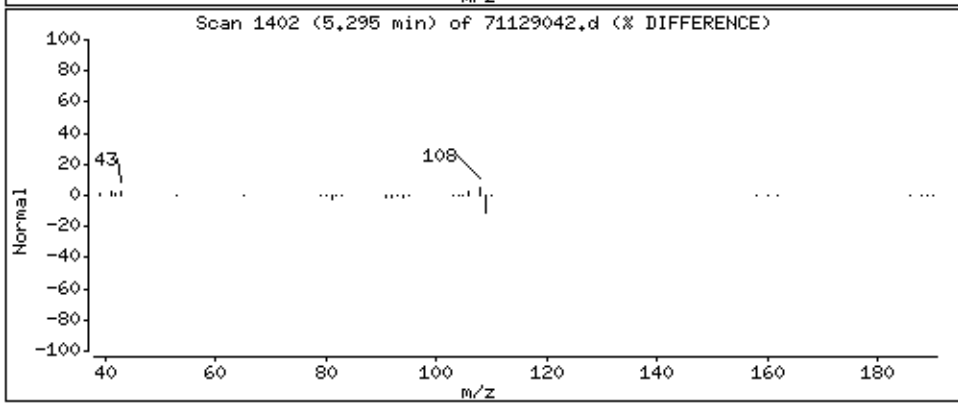
Concentration: 13.5 ug/L

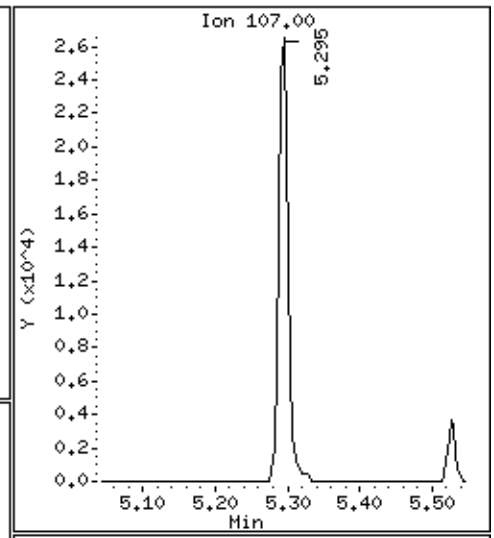
Review Code:

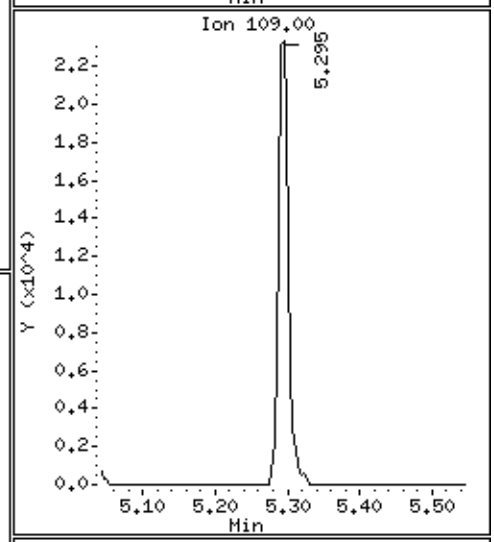


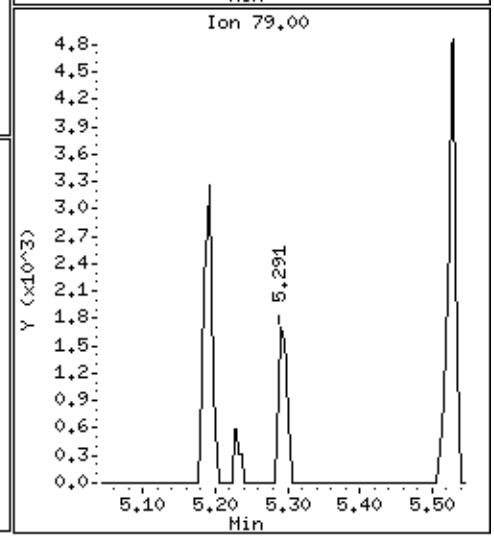












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

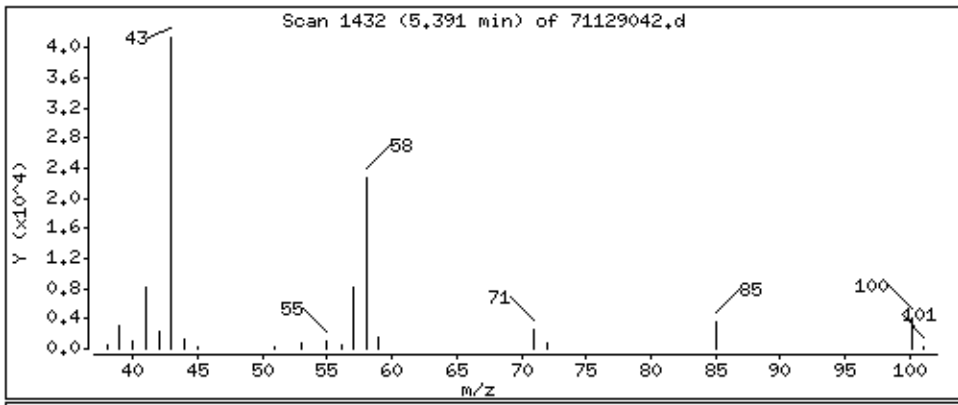
Column phase: RTX-VMS

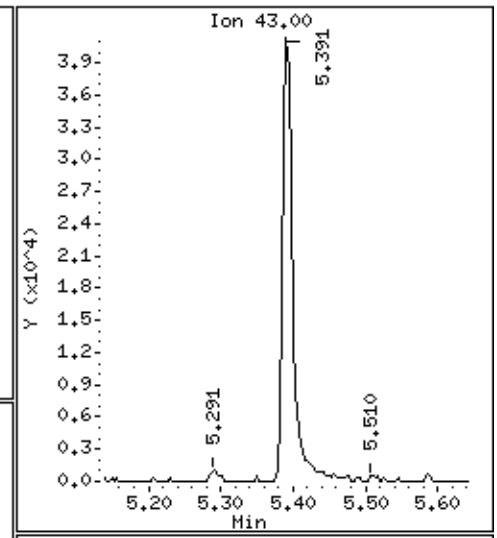
Column diameter: 0.18

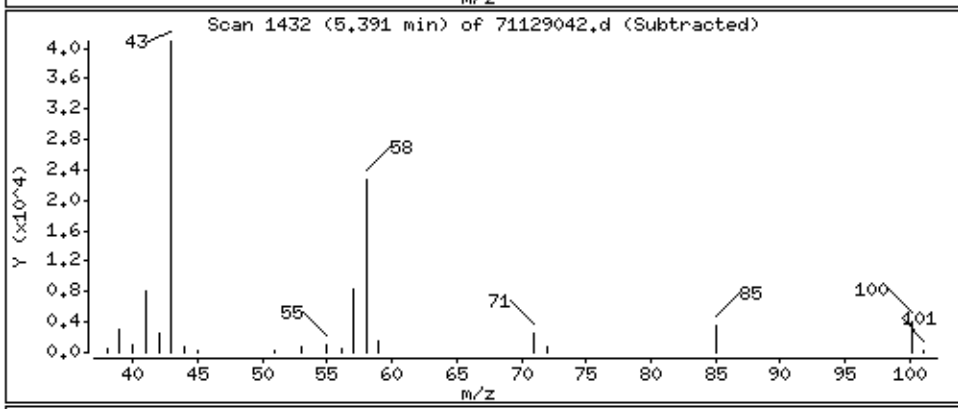
69 2-Hexanone

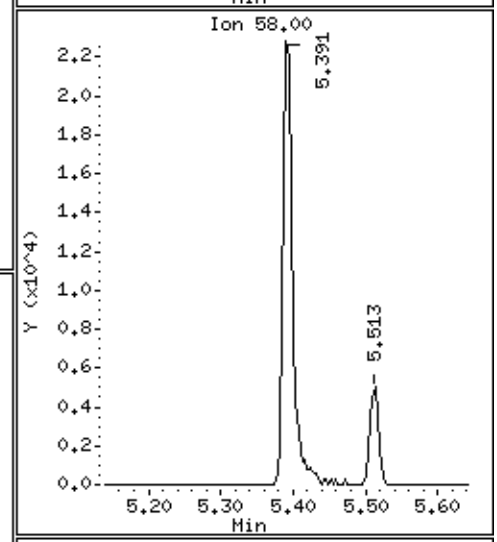
Concentration: 15.5 ug/L

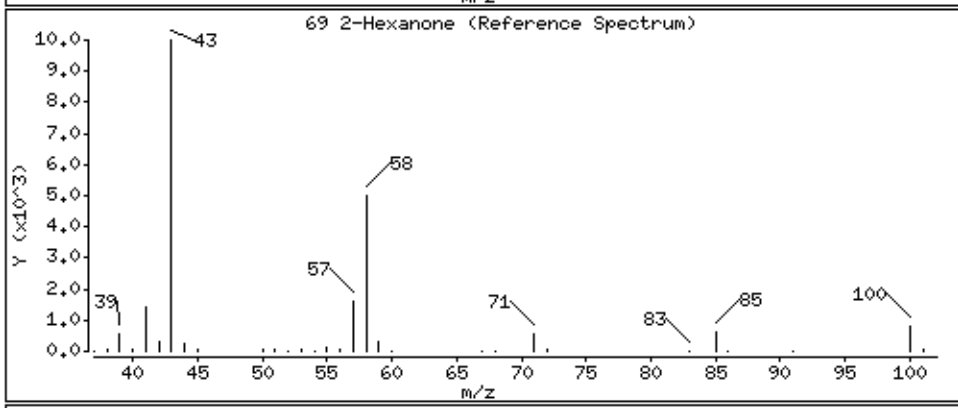
Review Code:

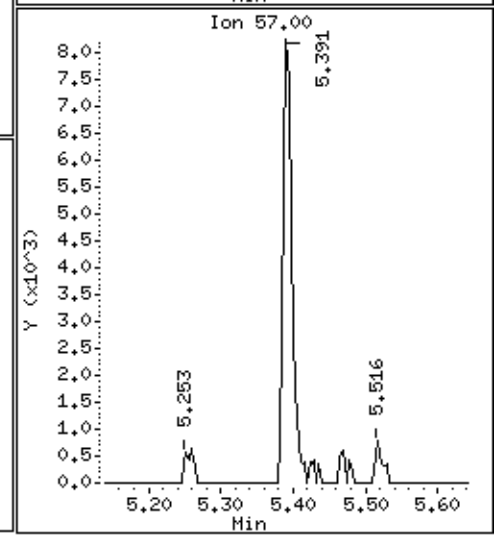


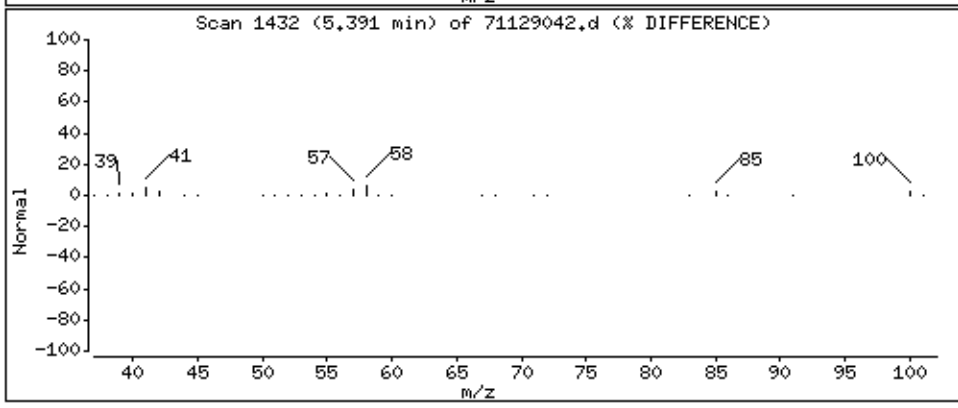












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

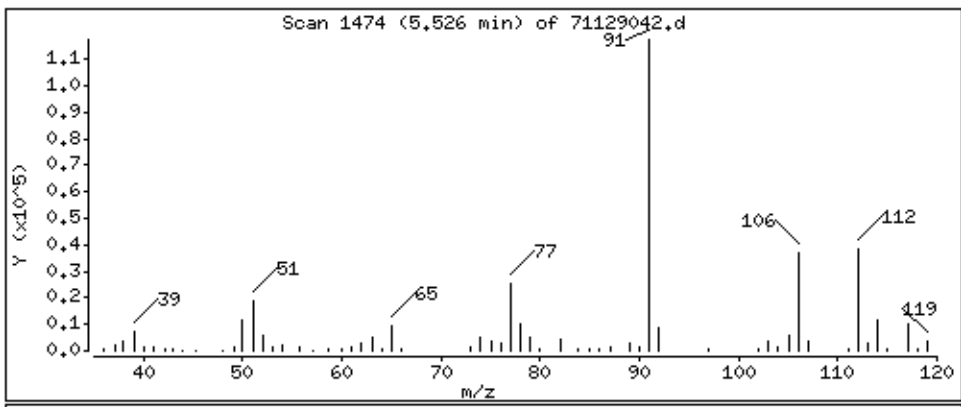
Column phase: RTX-VMS

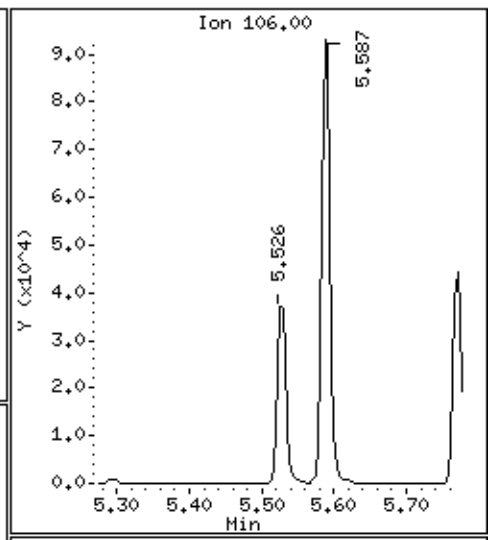
Column diameter: 0.18

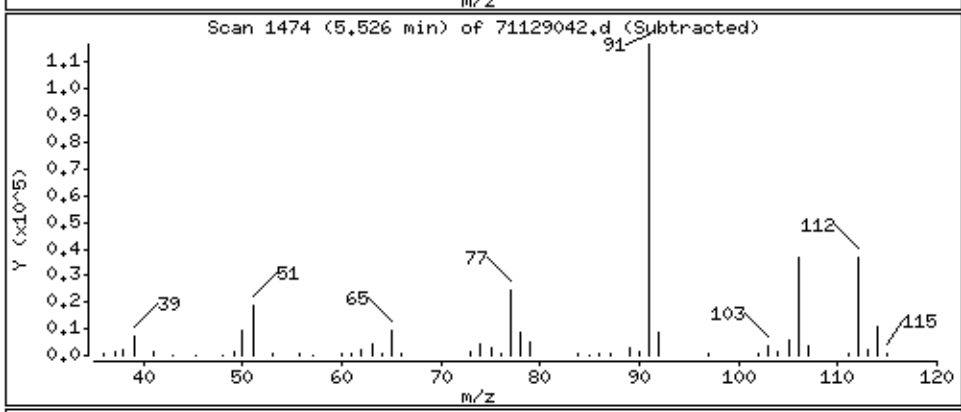
71 Ethylbenzene

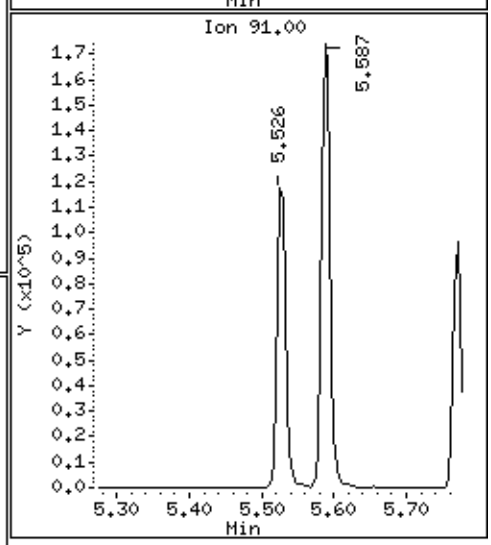
Concentration: 14.4 ug/L

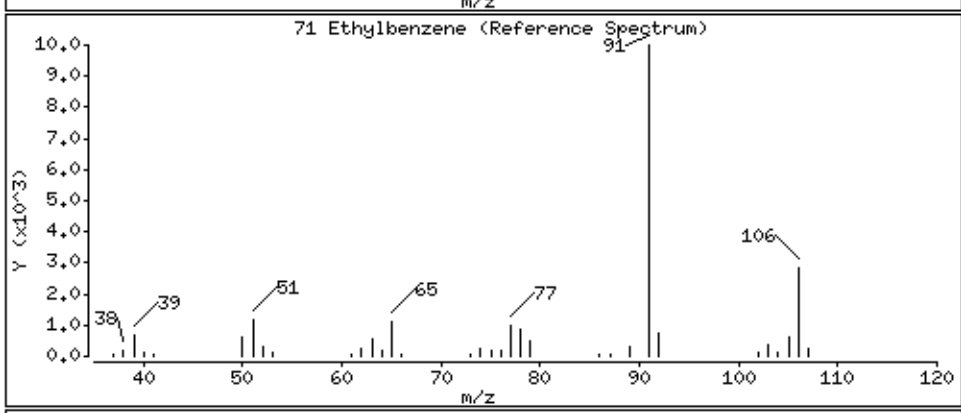
Review Code:

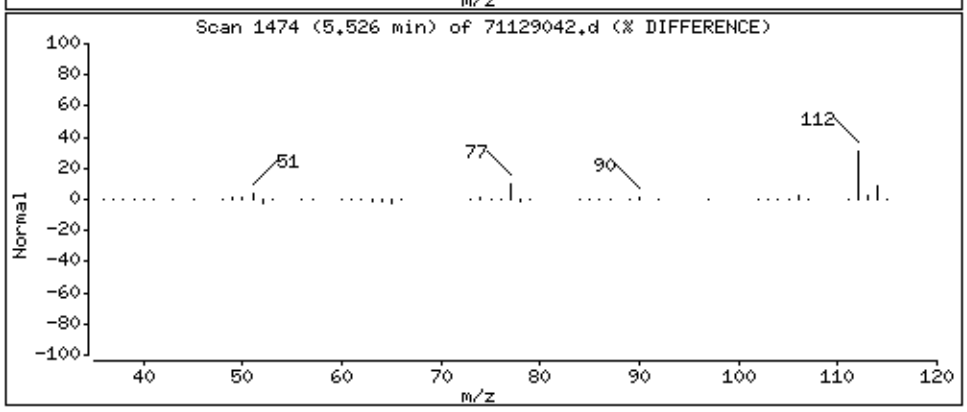












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

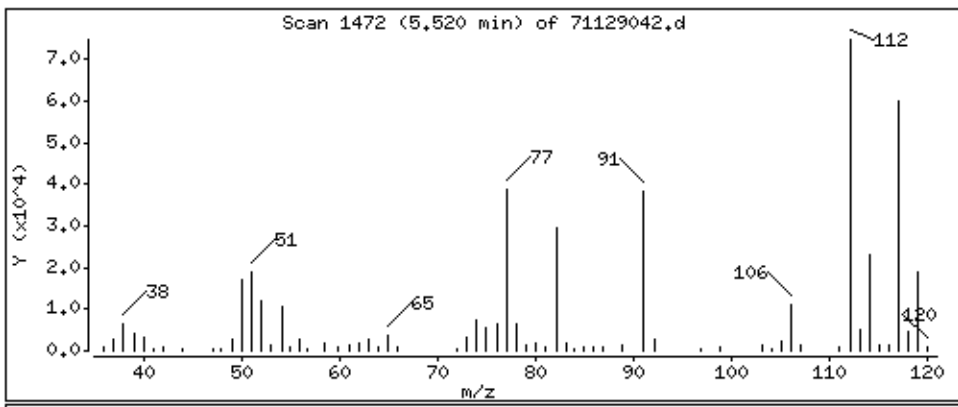
Column phase: RTX-VMS

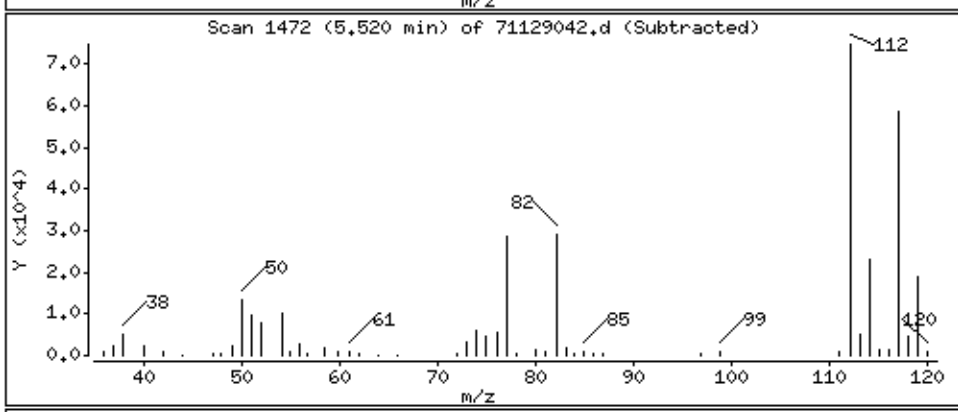
Column diameter: 0.18

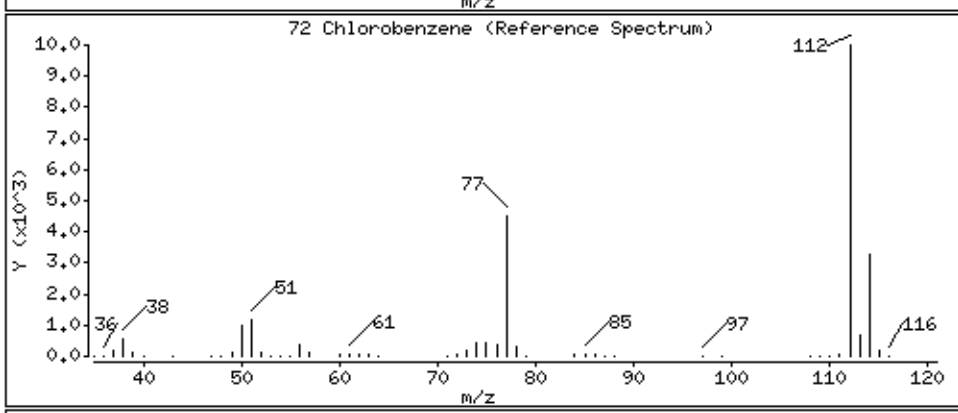
72 Chlorobenzene

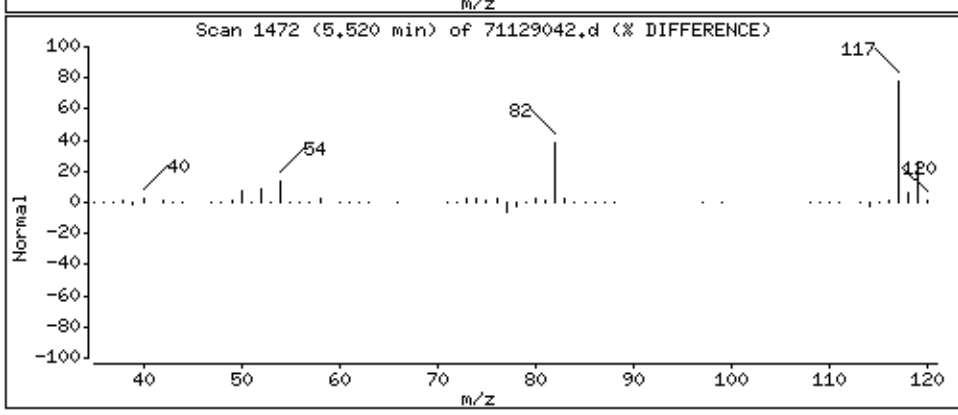
Concentration: 14.8 ug/L

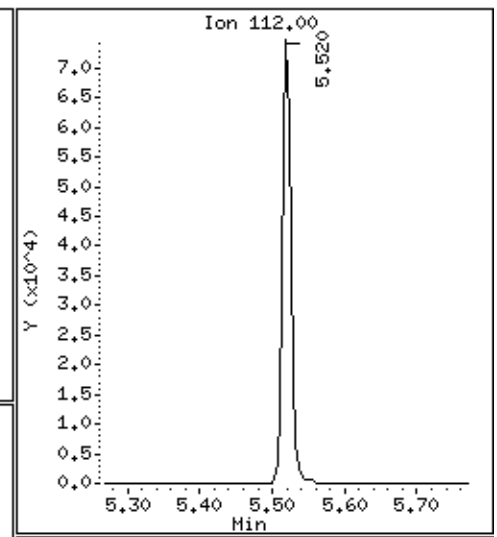
Review Code:

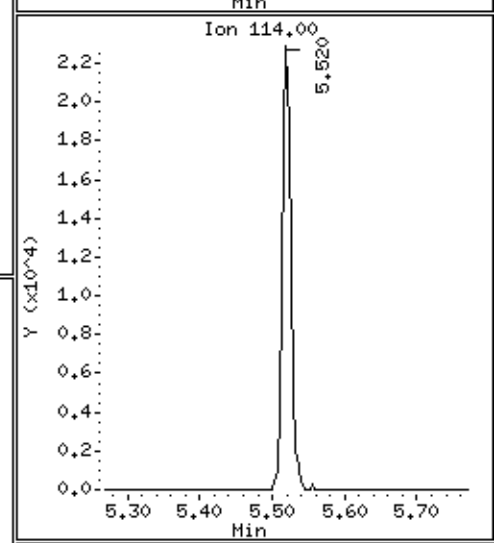


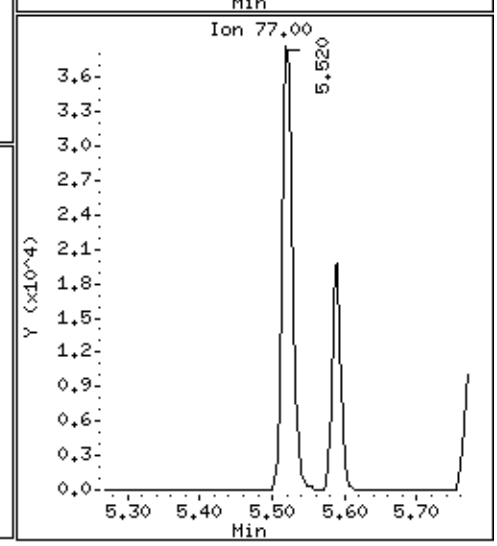












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

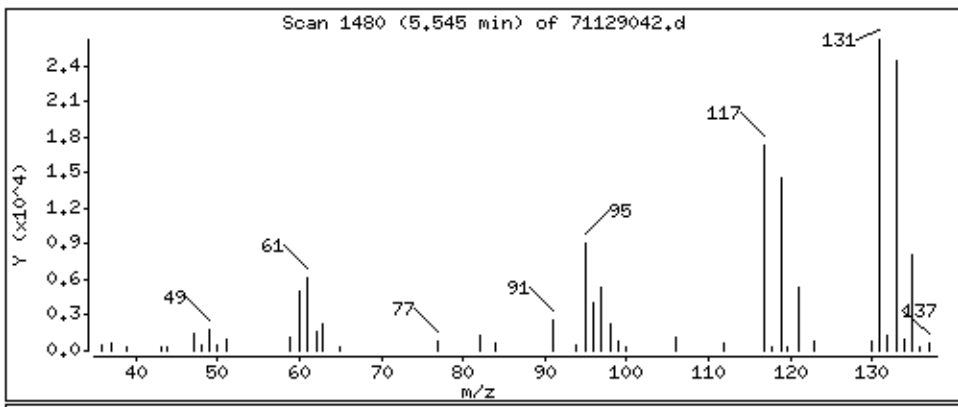
Column phase: RTX-VMS

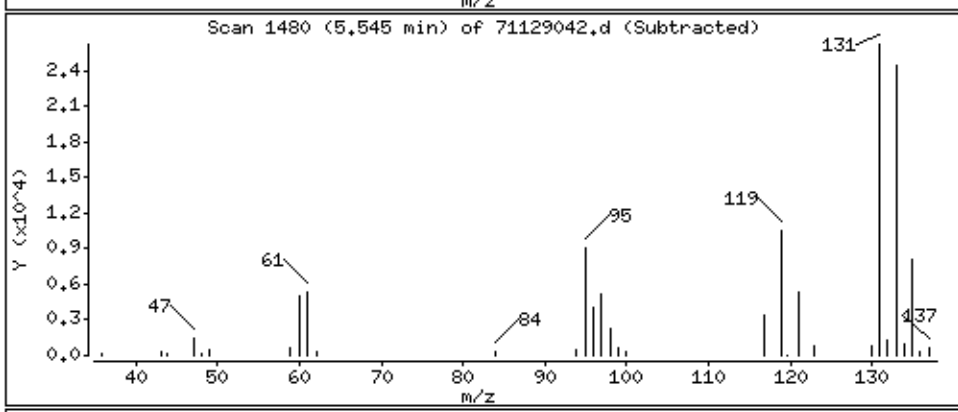
Column diameter: 0.18

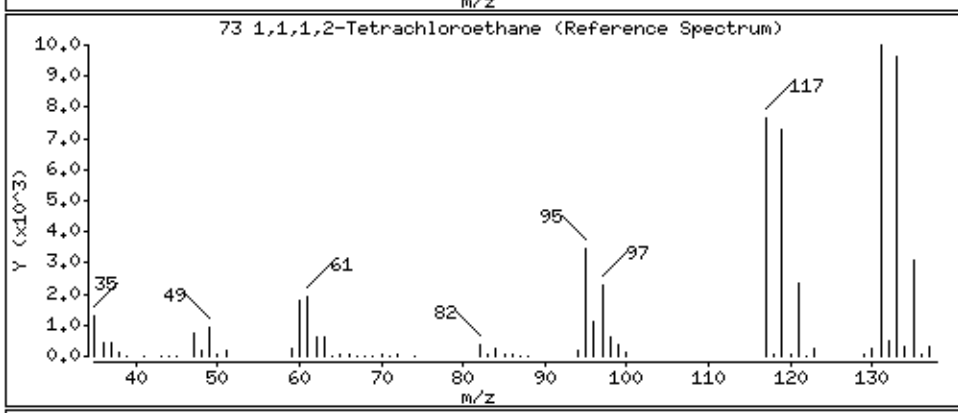
73 1,1,1,2-Tetrachloroethane

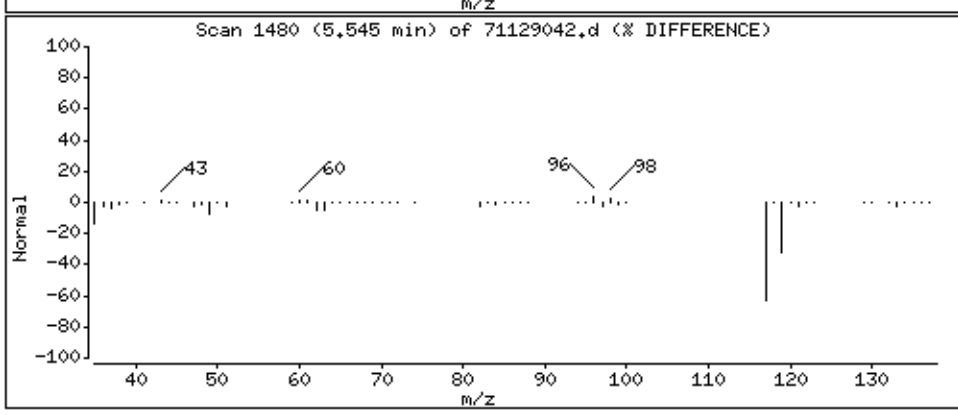
Concentration: 14.8 ug/L

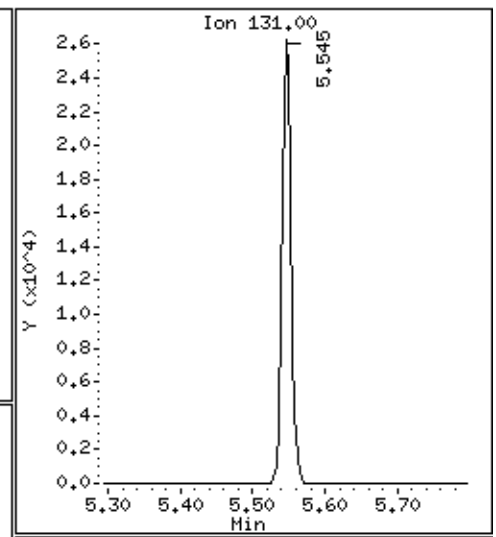
Review Code:

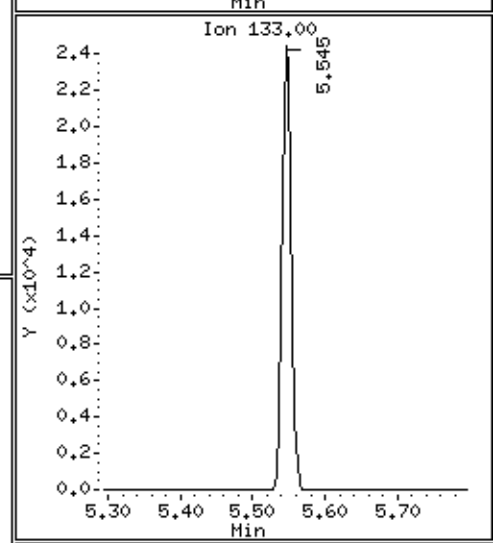


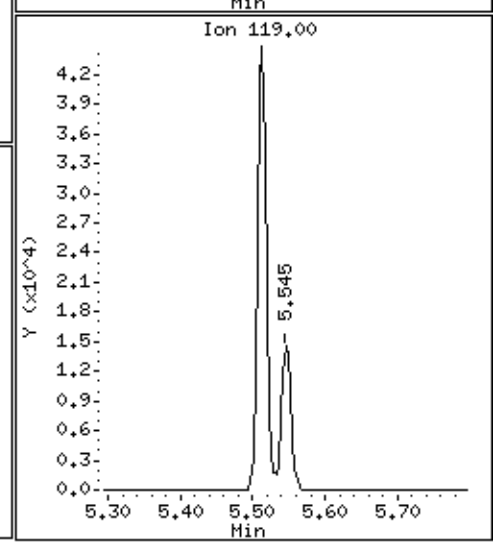












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

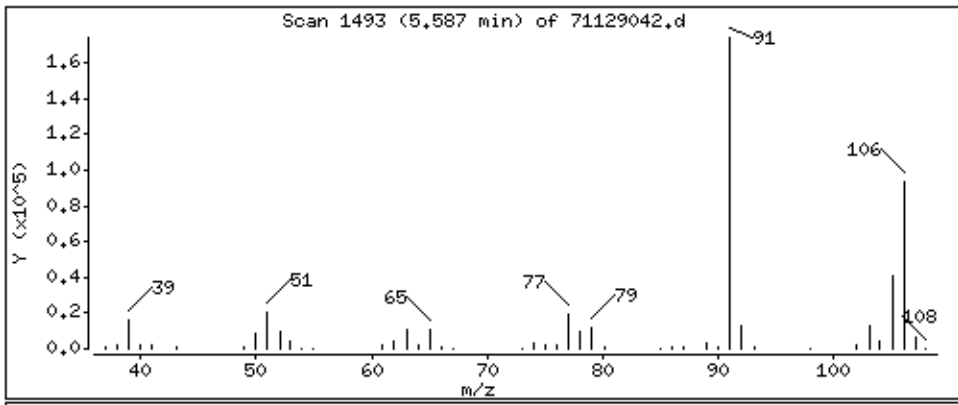
Column phase: RTX-VMS

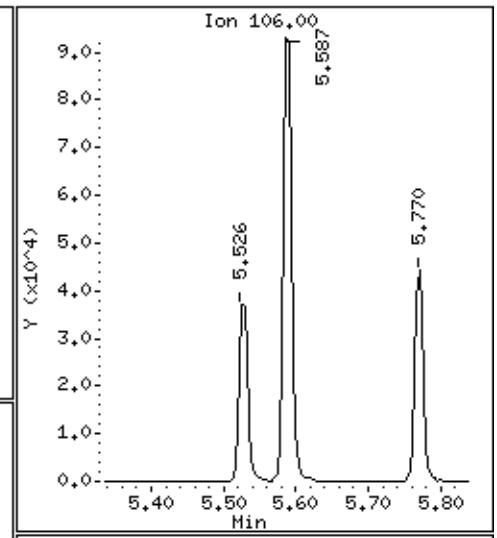
Column diameter: 0.18

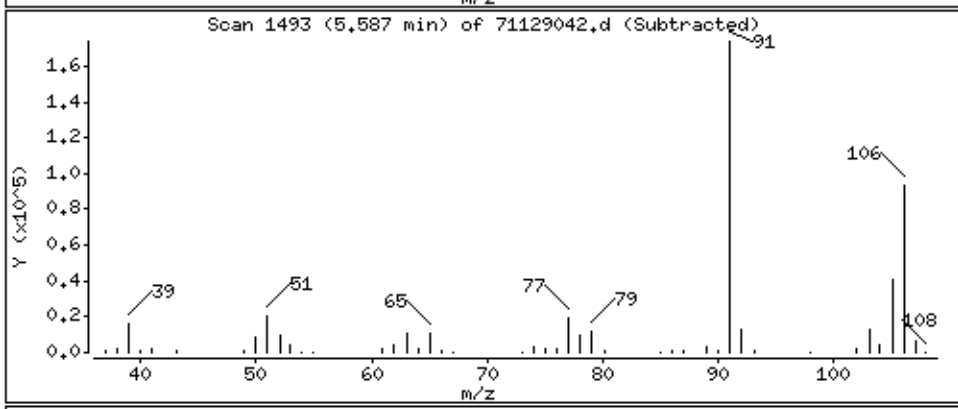
74 m&p-Xylene

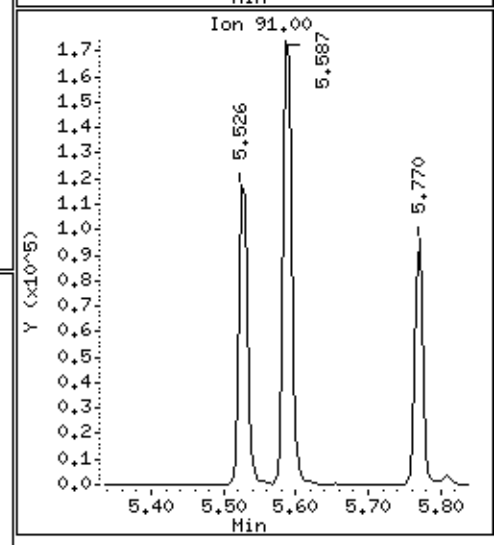
Concentration: 28.4 ug/L

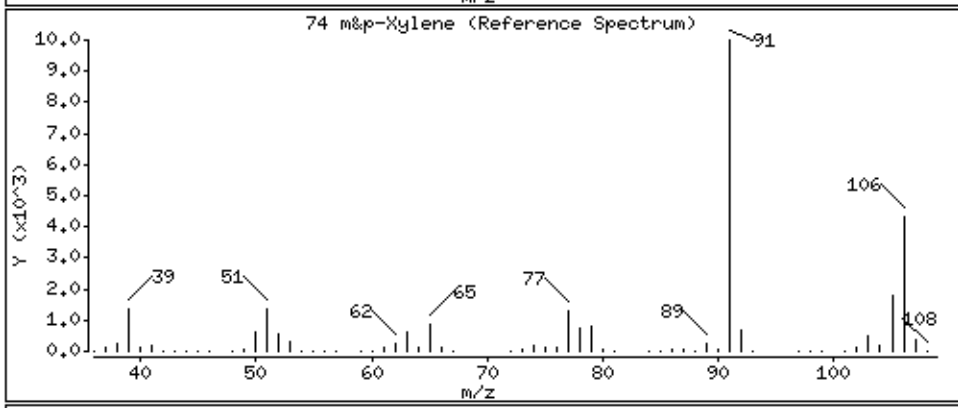
Review Code:

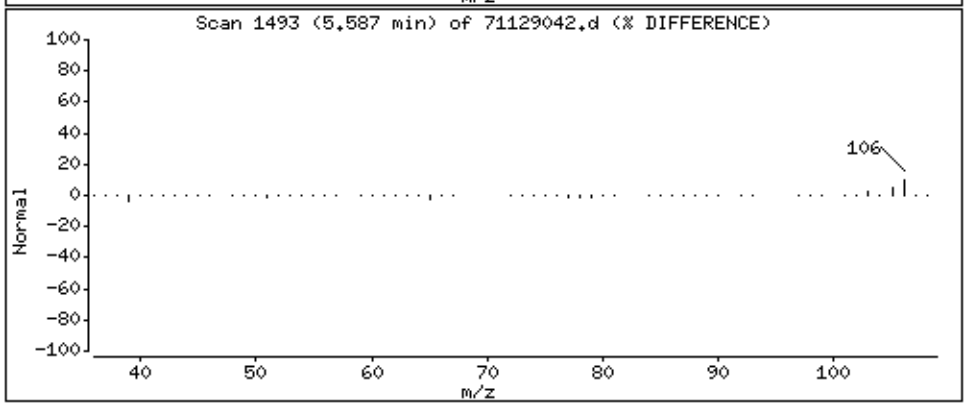












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

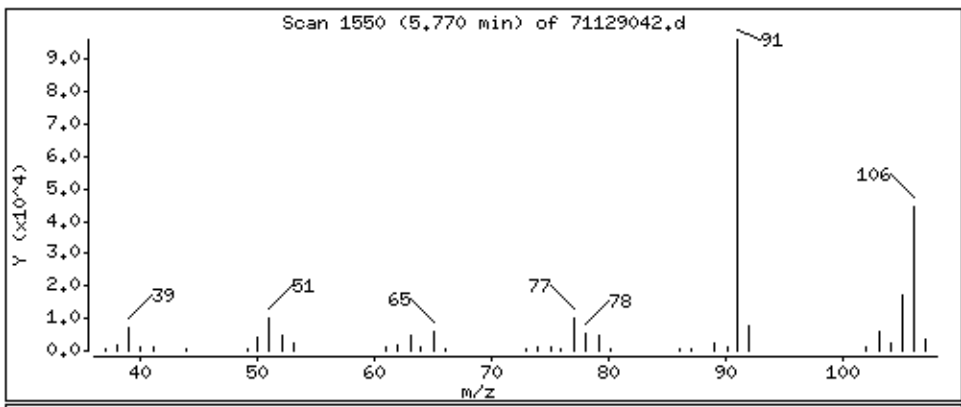
Column phase: RTX-VMS

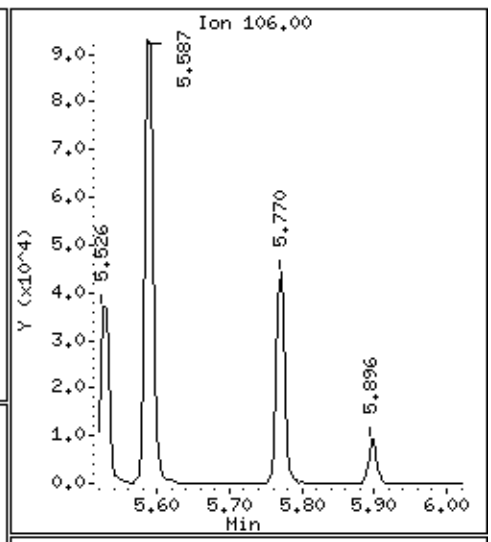
Column diameter: 0.18

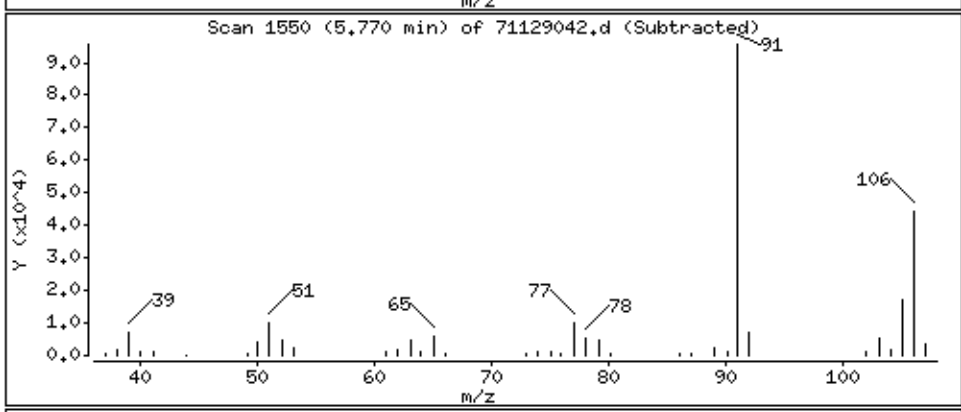
75 o-Xylene

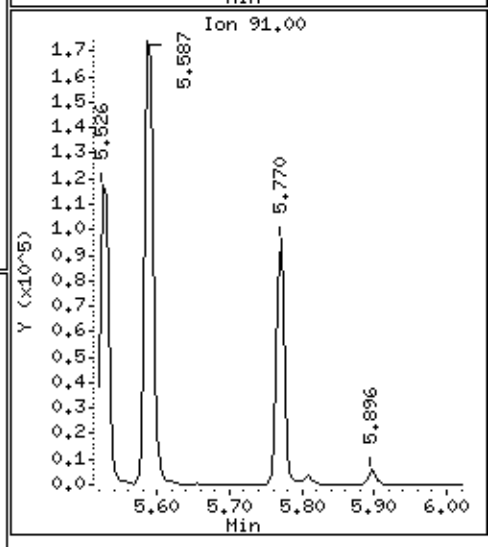
Concentration: 14.0 ug/L

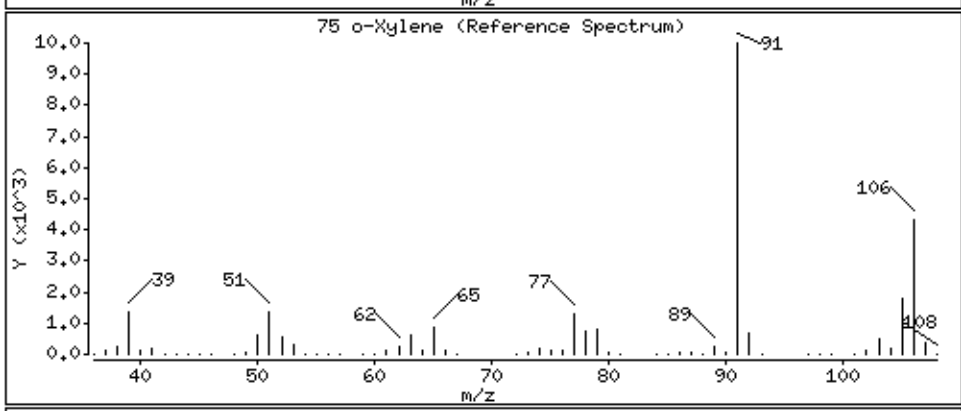
Review Code:

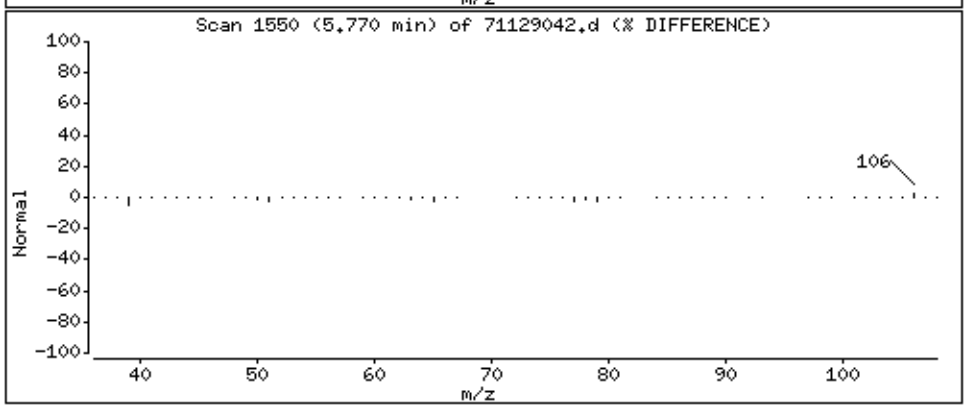












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

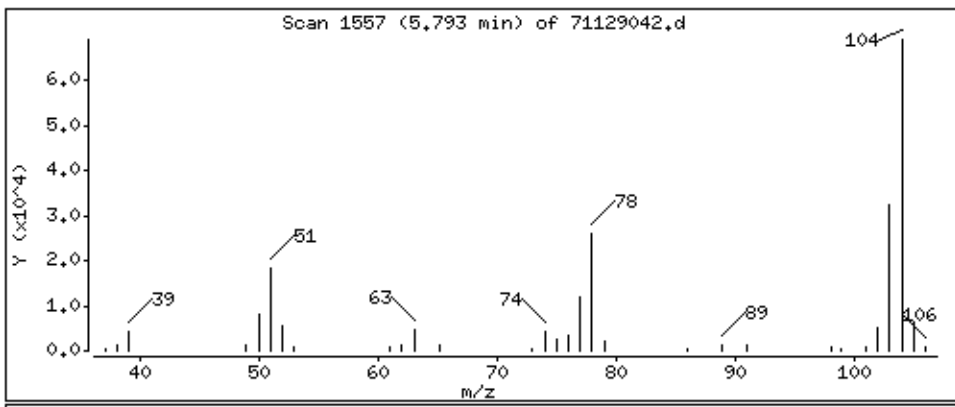
Column phase: RTX-VMS

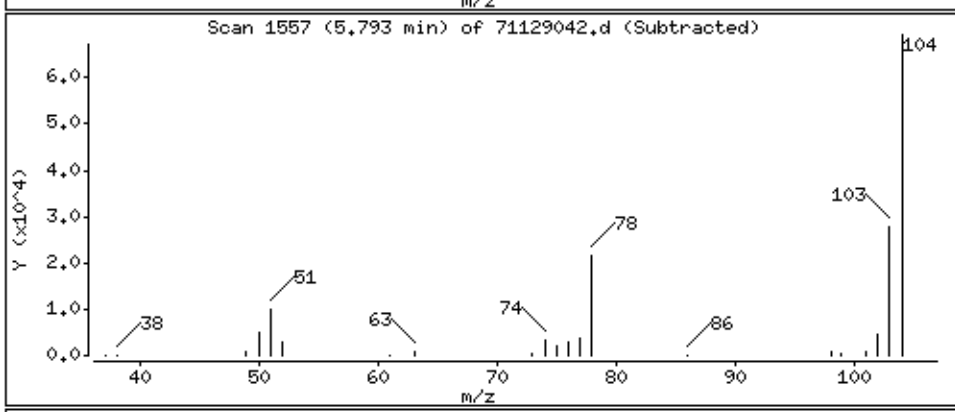
Column diameter: 0.18

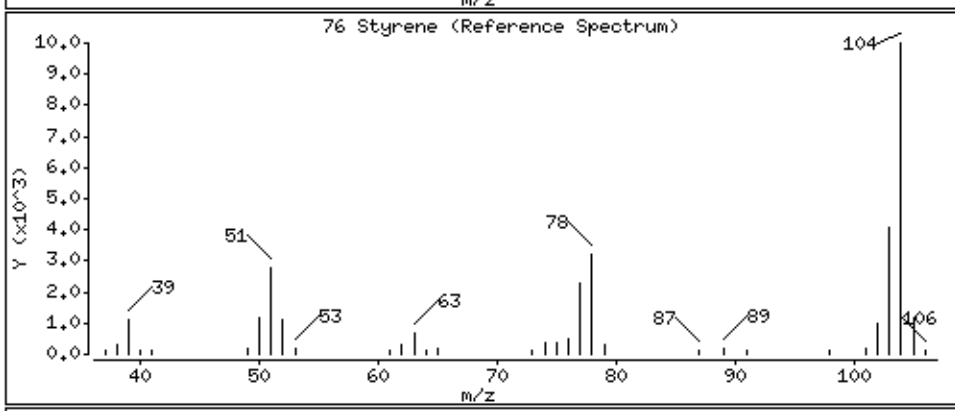
76 Styrene

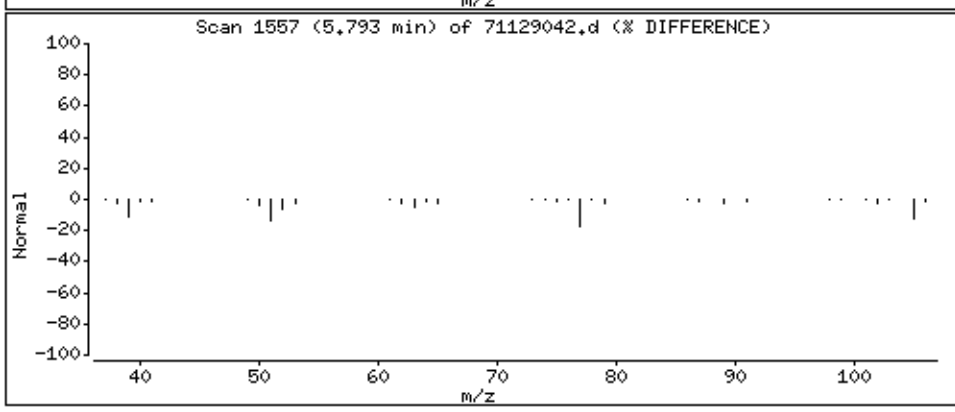
Concentration: 14.8 ug/L

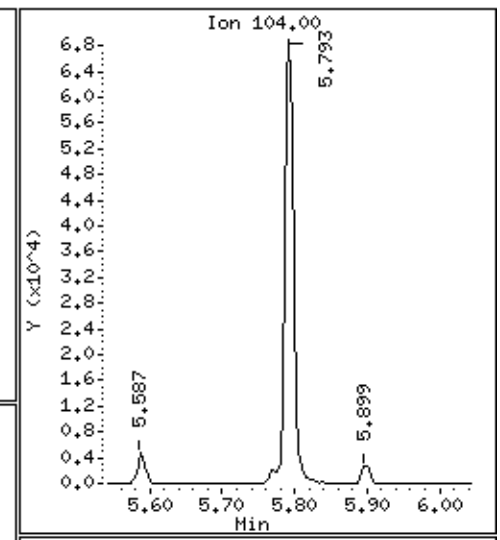
Review Code:

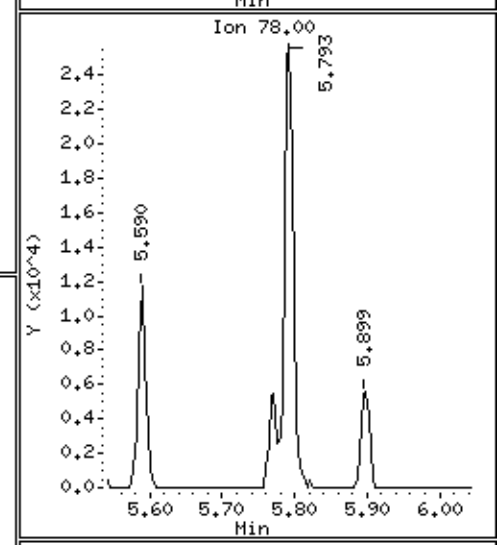


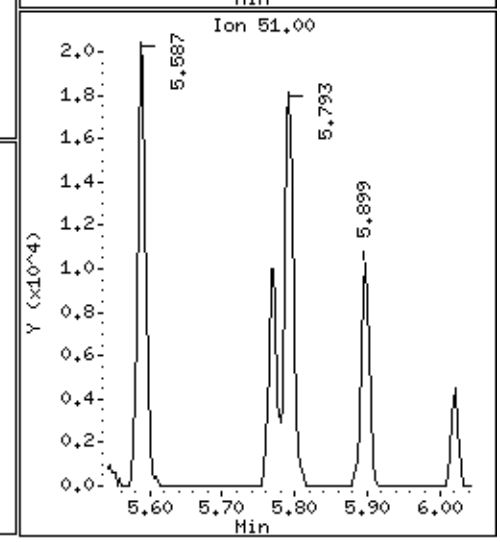












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

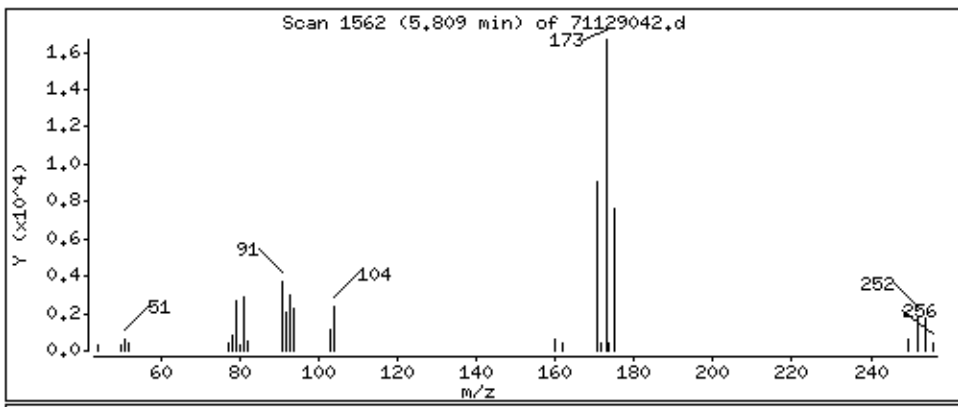
Column phase: RTX-VMS

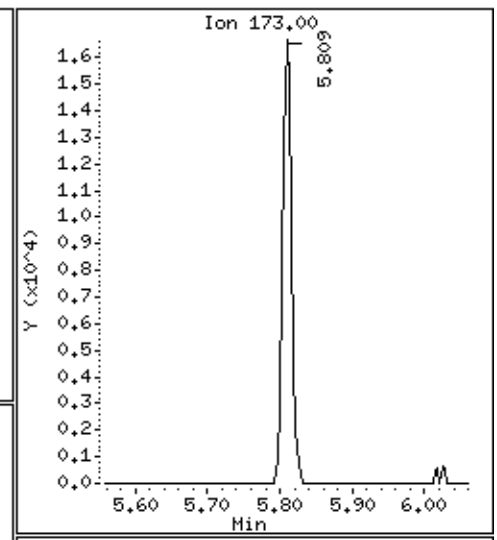
Column diameter: 0.18

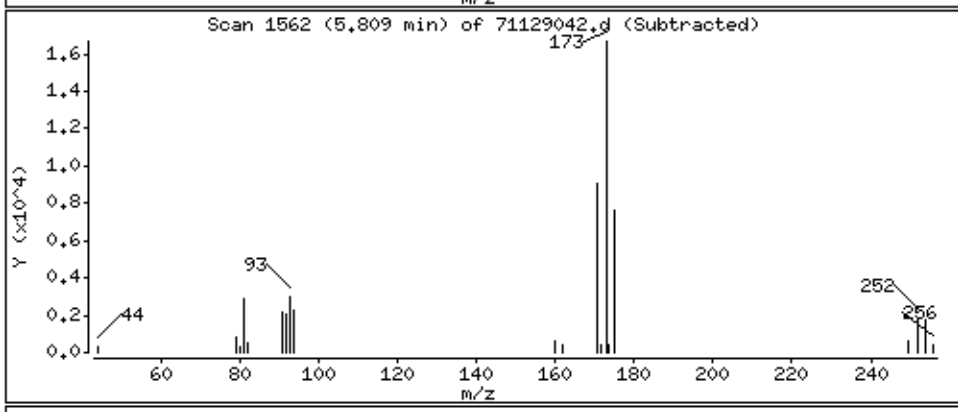
77 Bromoform

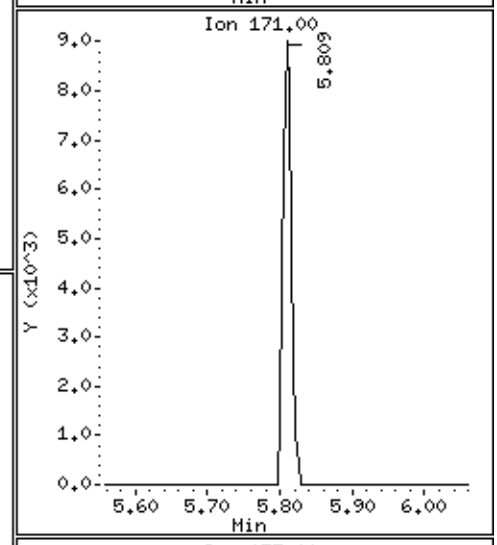
Concentration: 10.8 ug/L

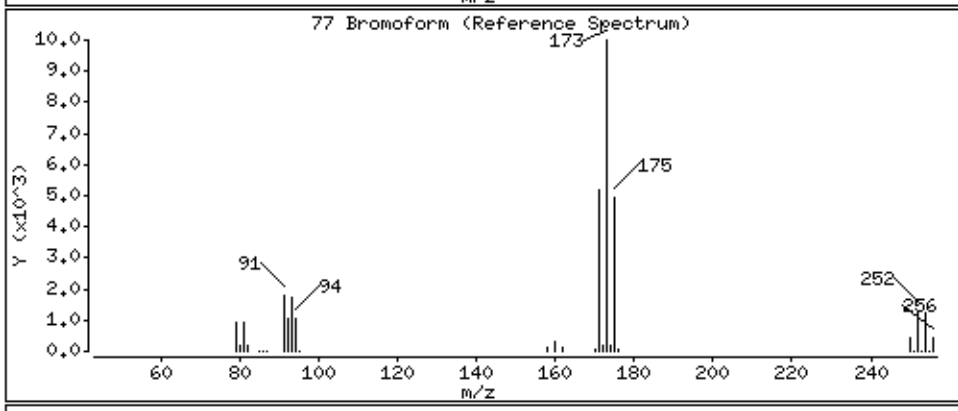
Review Code:

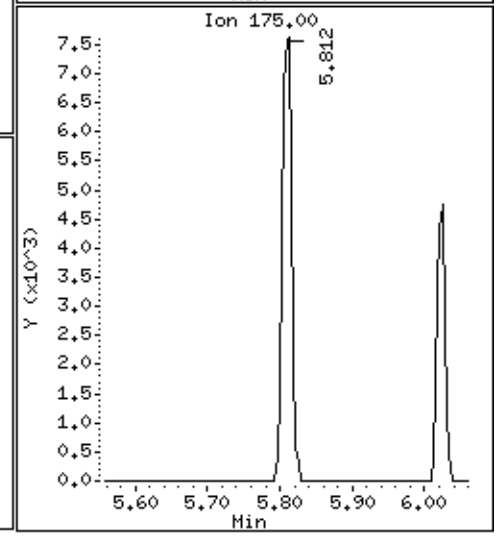


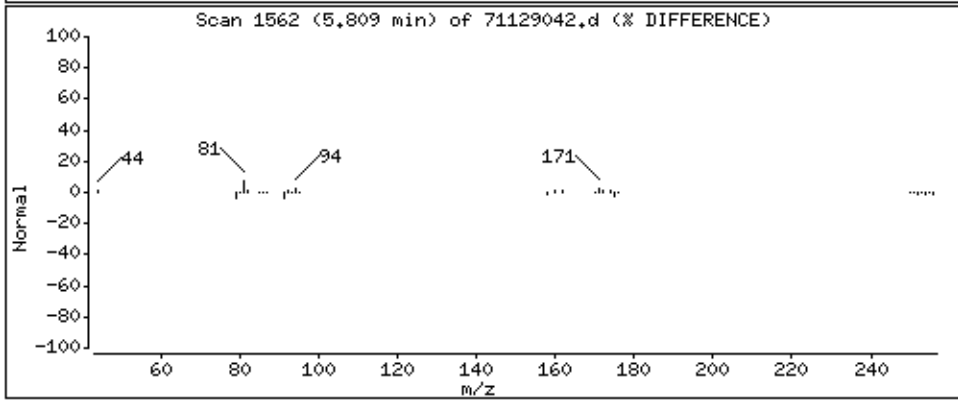












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

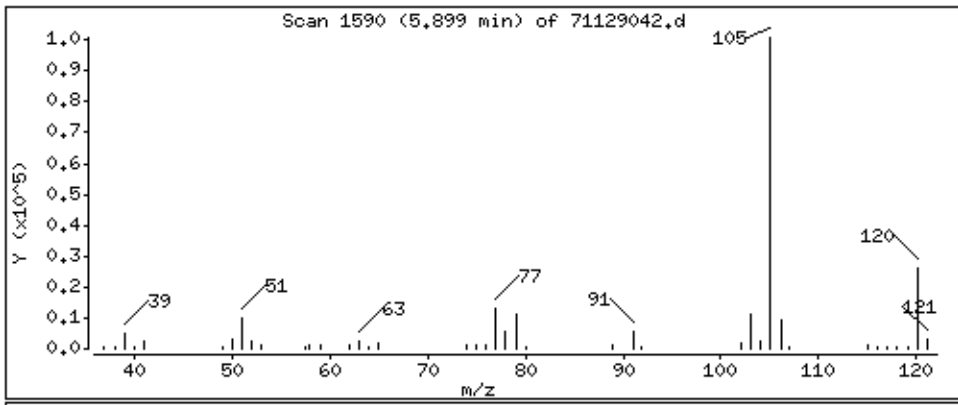
Column phase: RTX-VMS

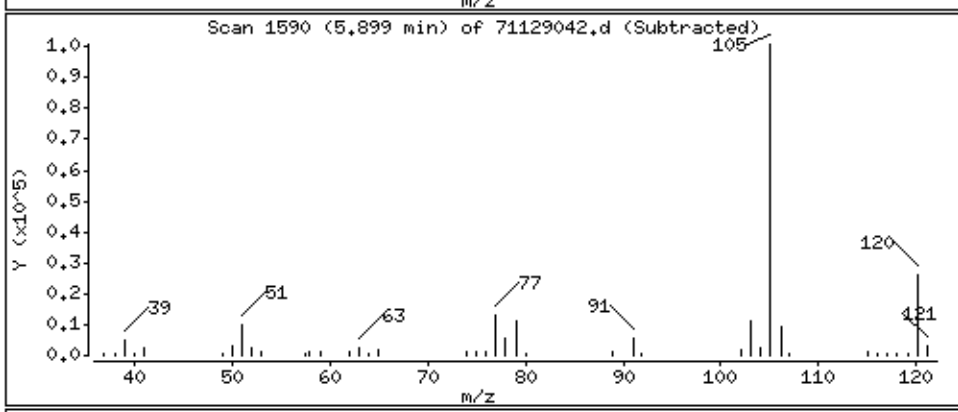
Column diameter: 0.18

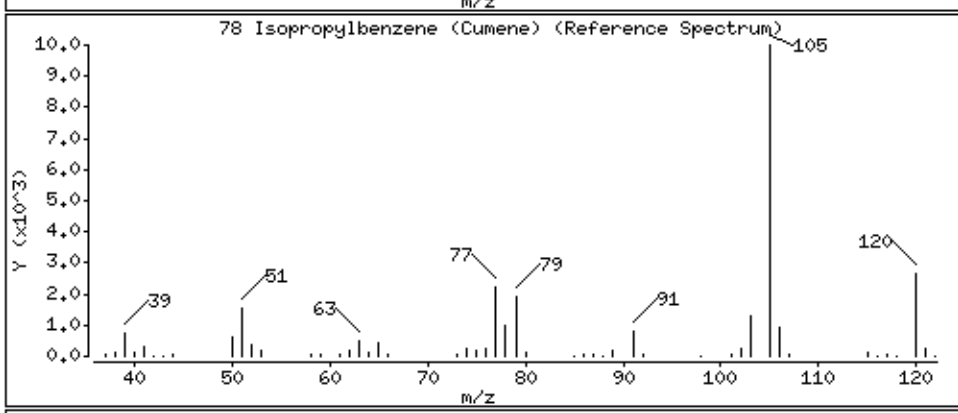
78 Isopropylbenzene (Cumene)

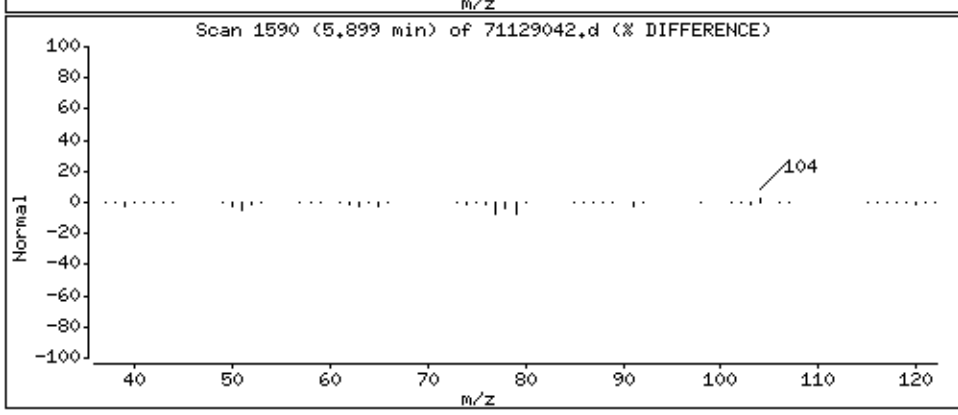
Concentration: 15.5 ug/L

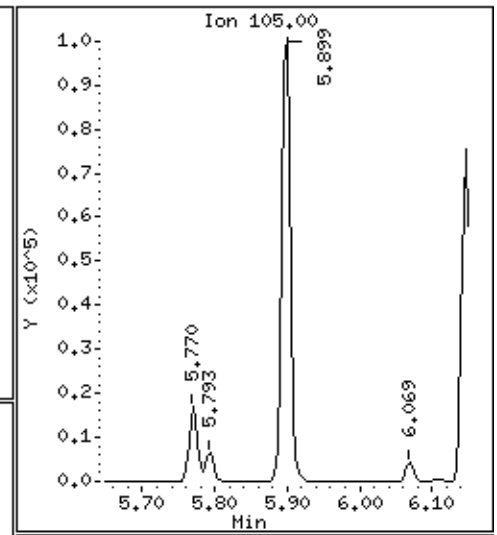
Review Code:

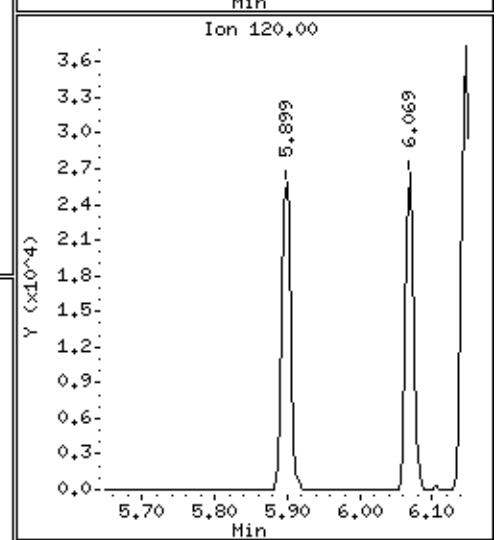


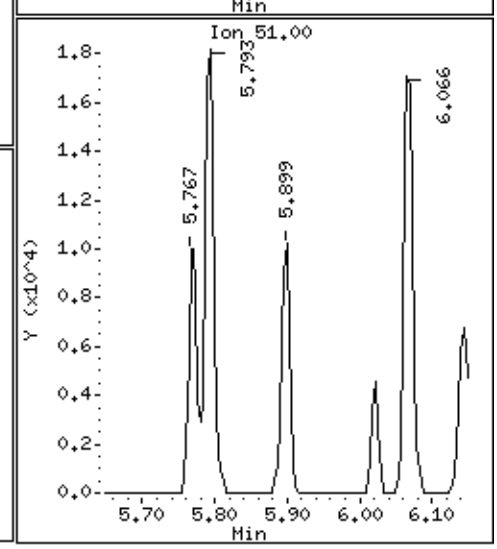












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

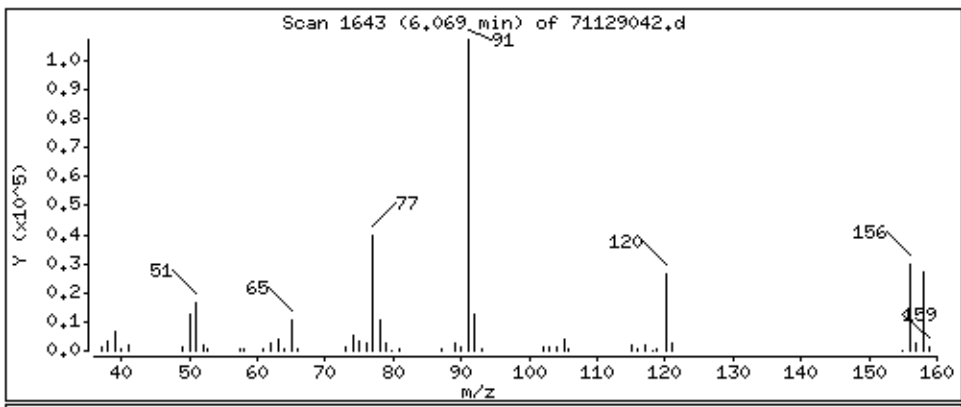
Column phase: RTX-VMS

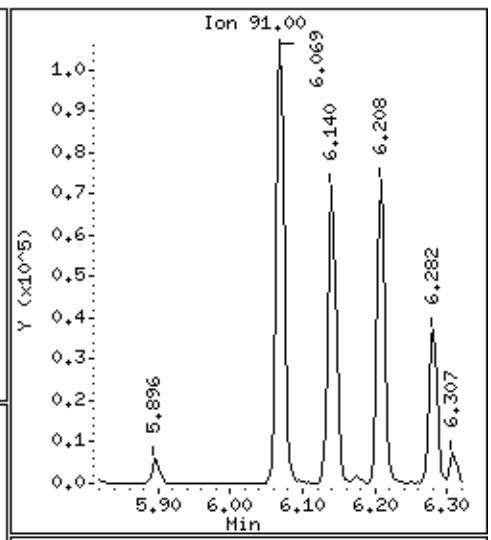
Column diameter: 0.18

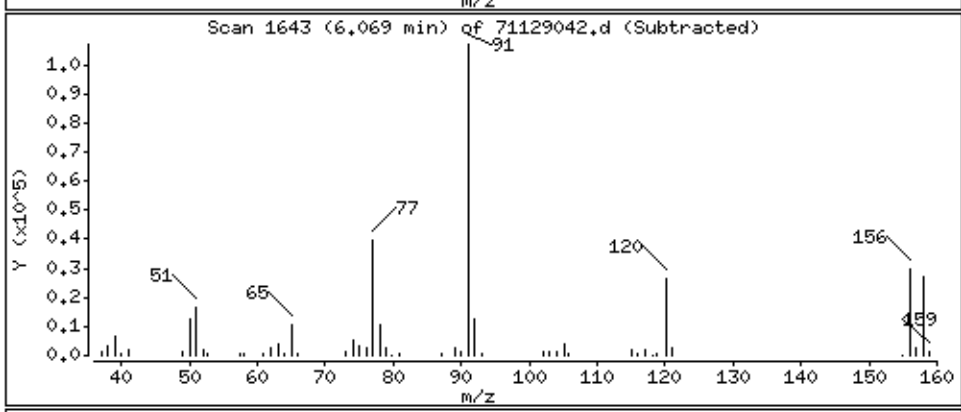
80 n-Propylbenzene

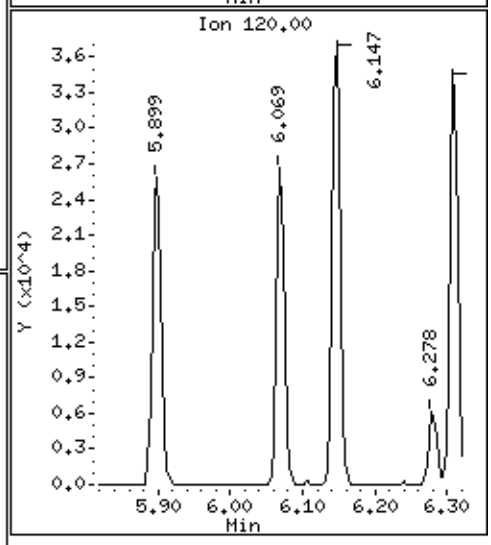
Concentration: 14.0 ug/L

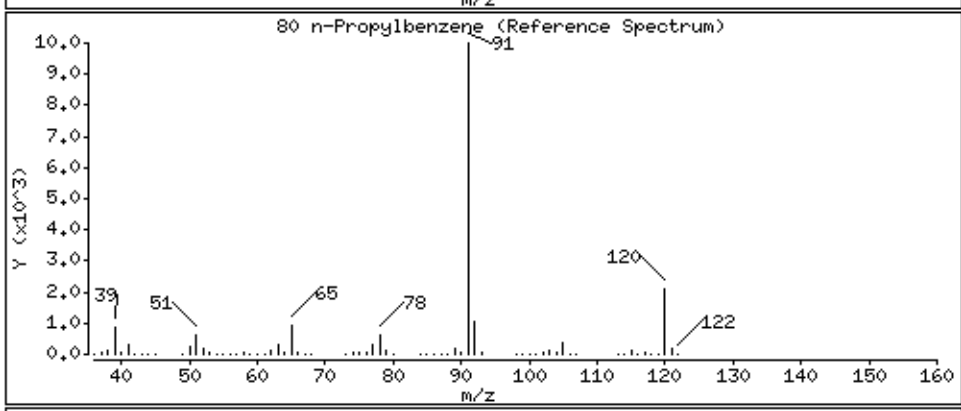
Review Code:

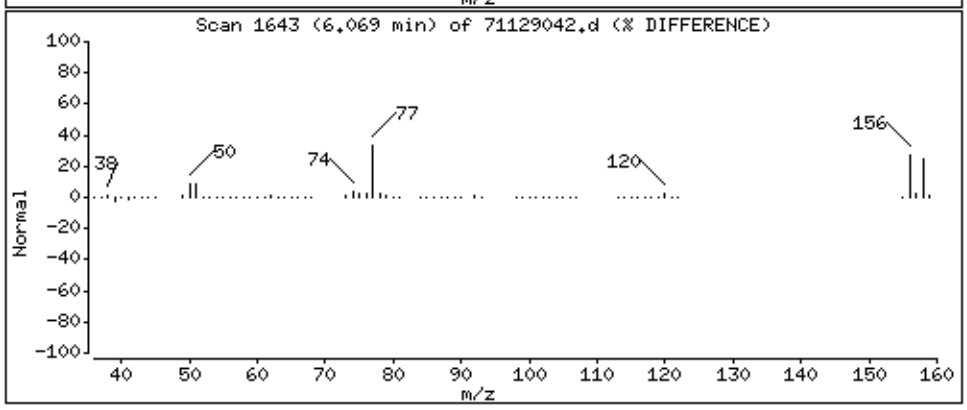












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

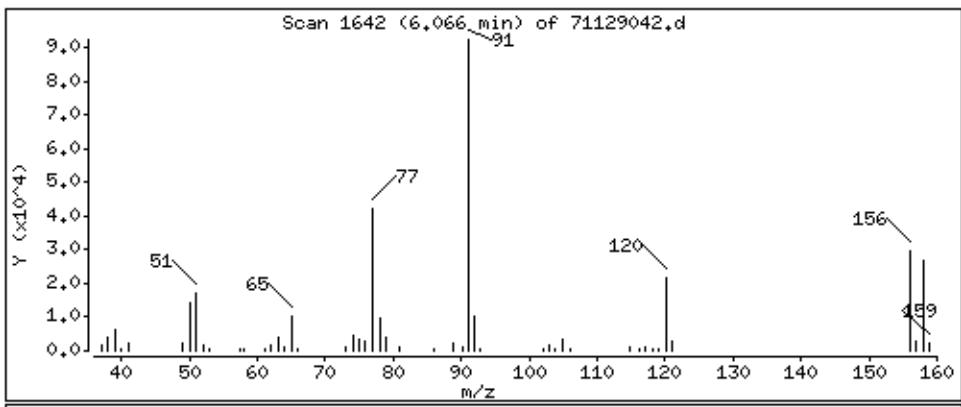
Column phase: RTX-VMS

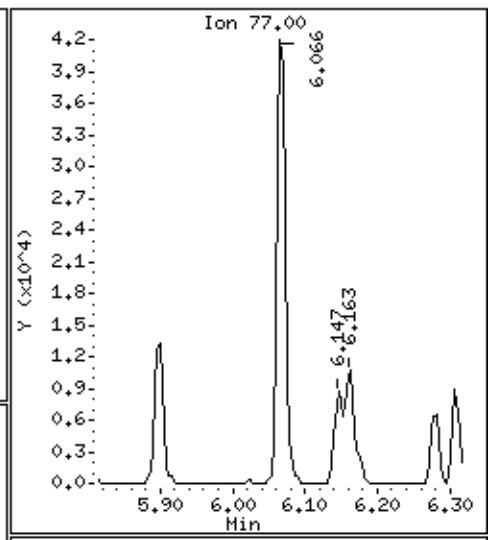
Column diameter: 0.18

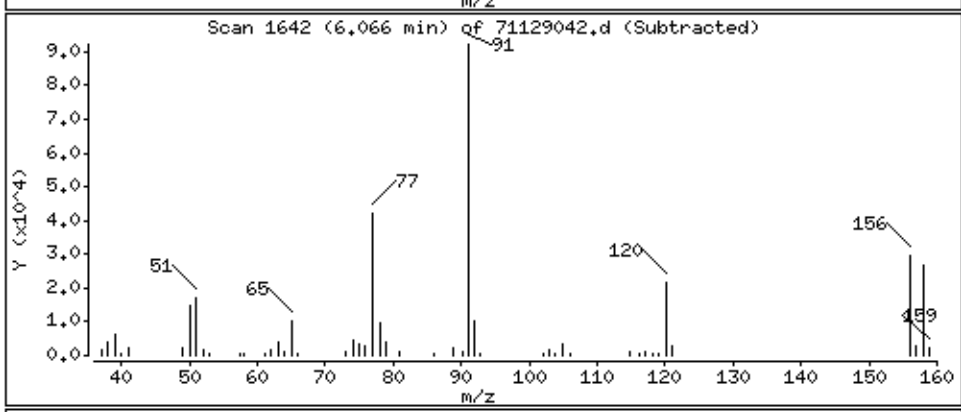
81 Bromobenzene

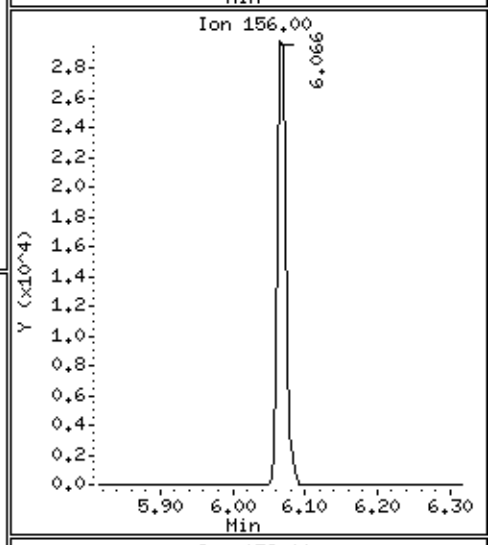
Concentration: 12.9 ug/L

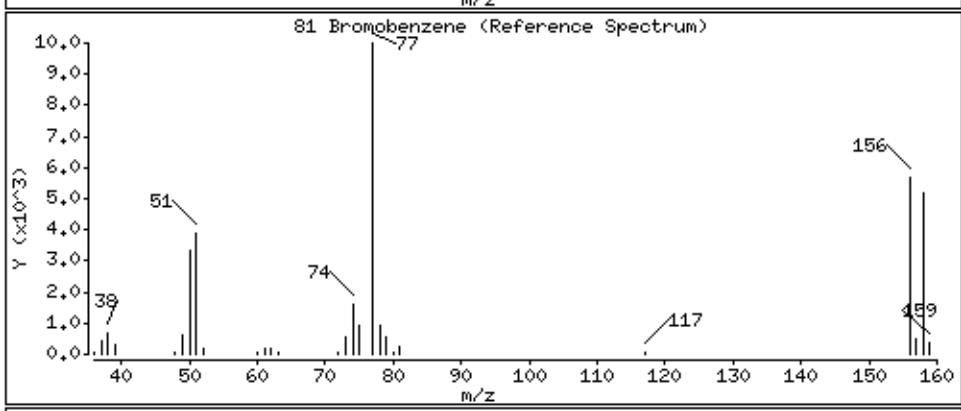
Review Code:

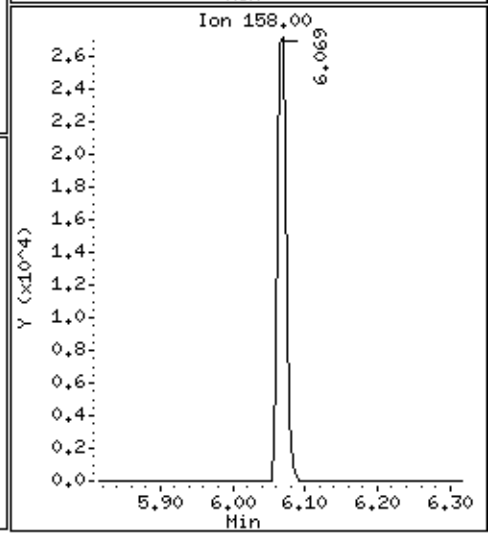


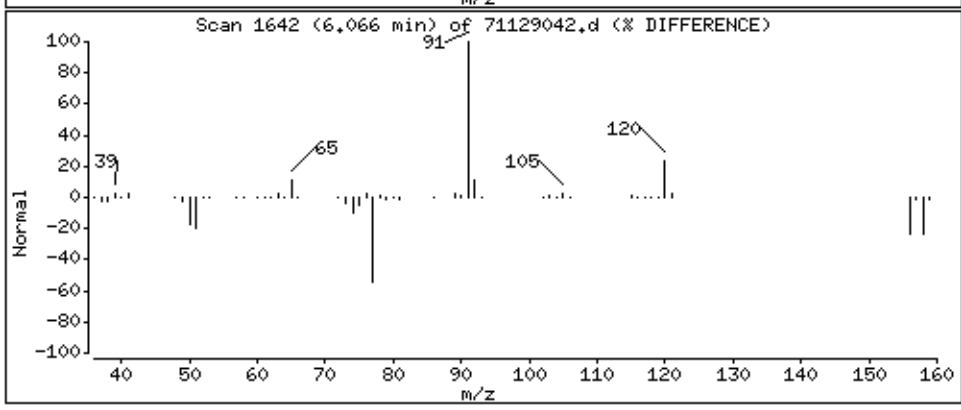












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

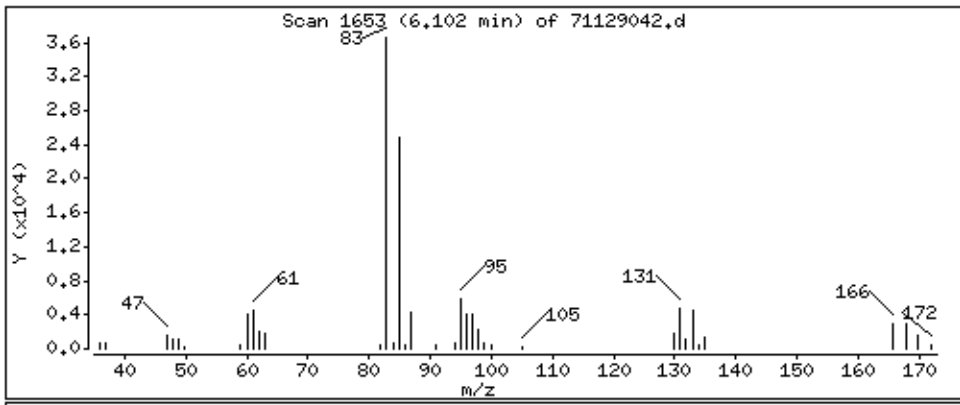
Column phase: RTX-VMS

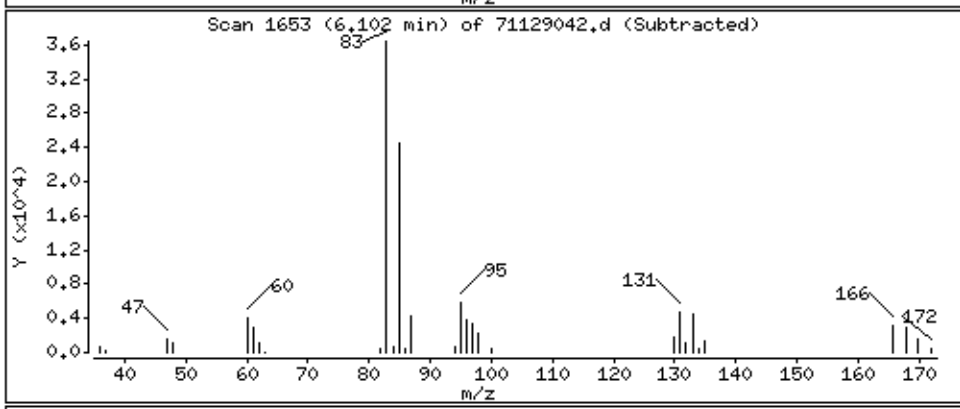
Column diameter: 0.18

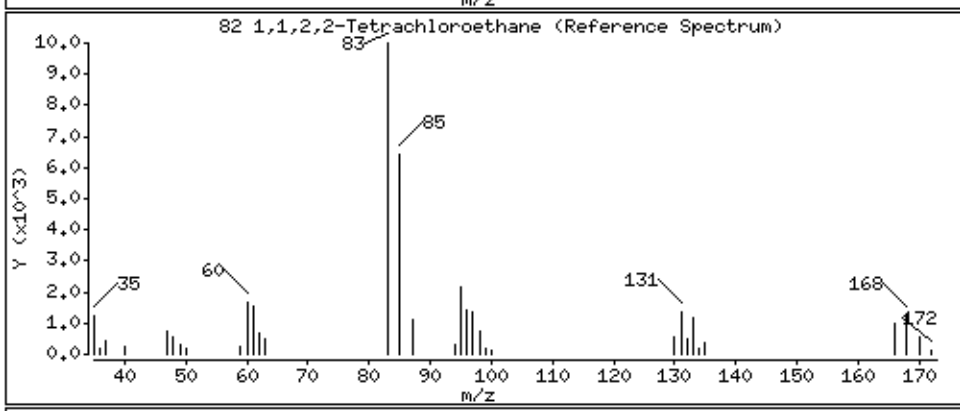
82 1,1,2,2-Tetrachloroethane

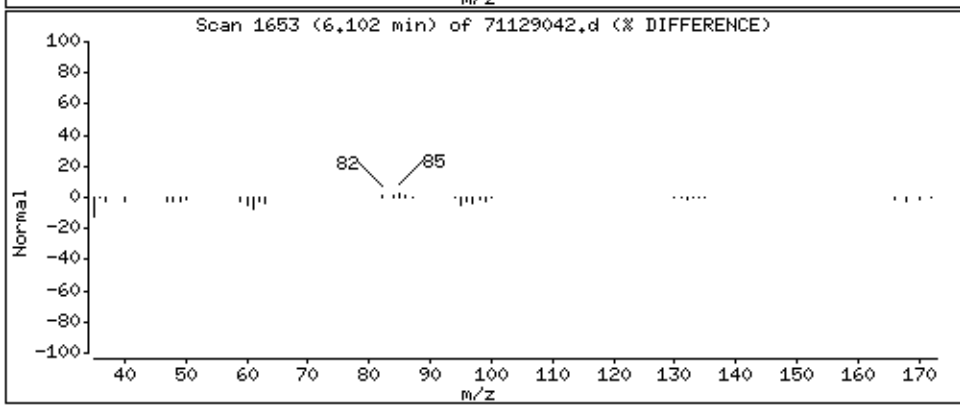
Concentration: 13.0 ug/L

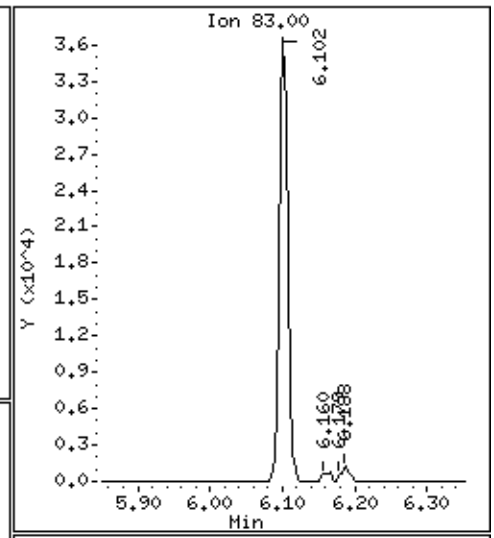
Review Code:

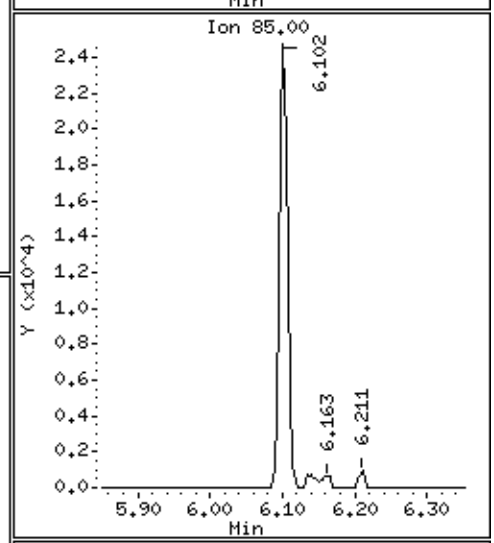


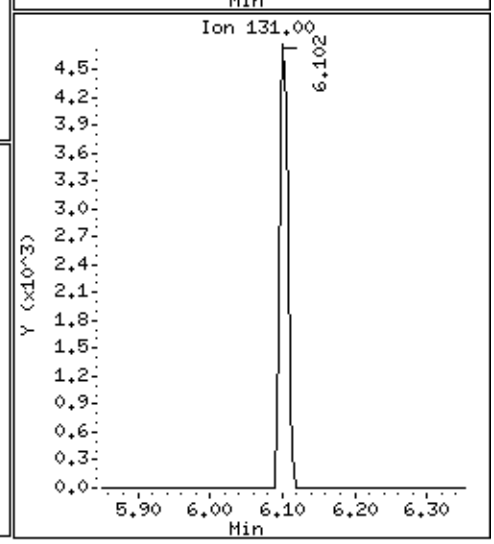












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

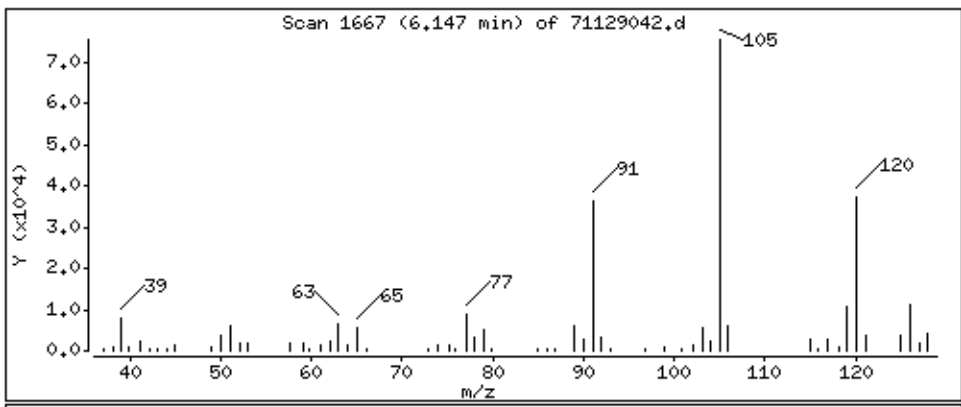
Column phase: RTX-VMS

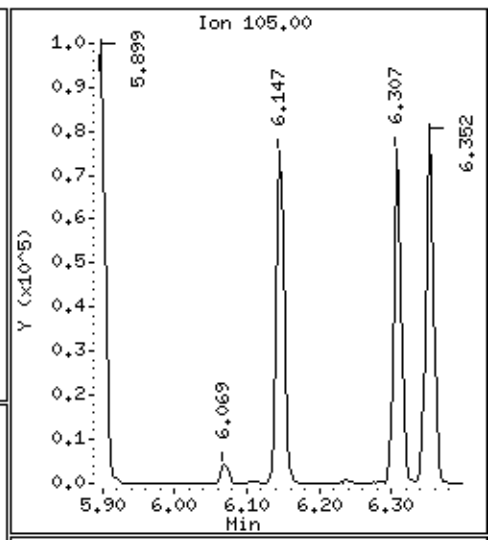
Column diameter: 0.18

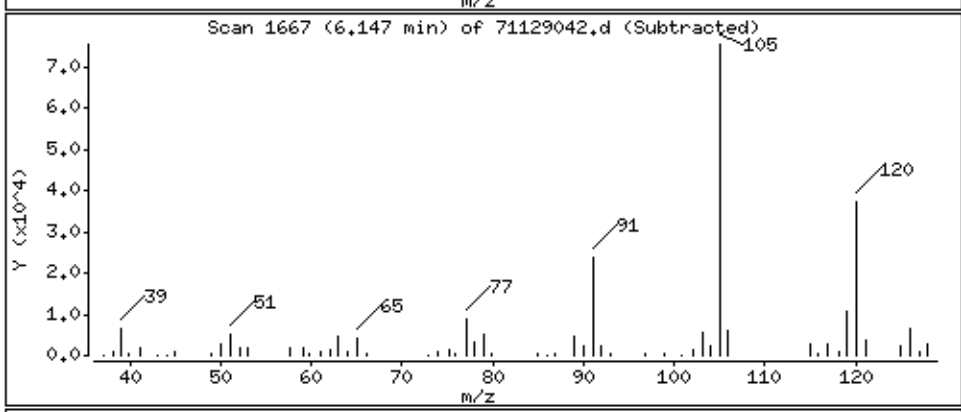
83 1,3,5-Trimethylbenzene

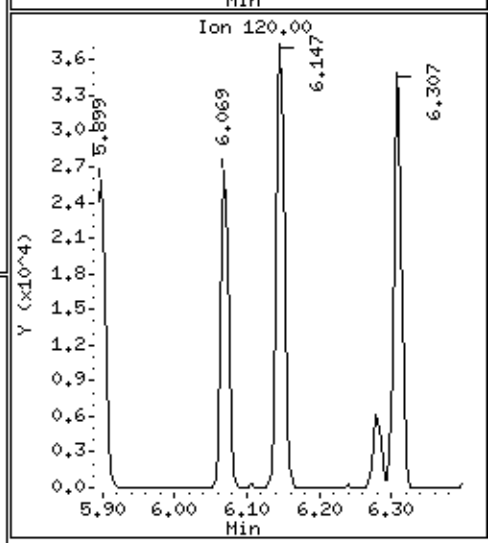
Concentration: 13.8 ug/L

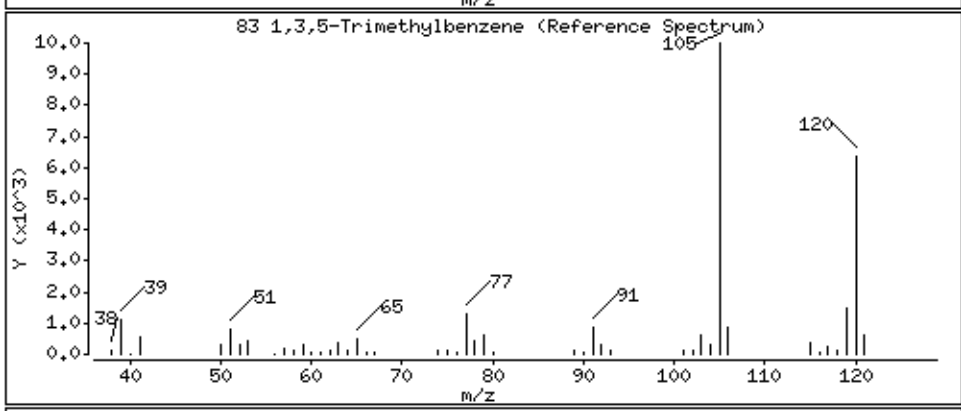
Review Code:

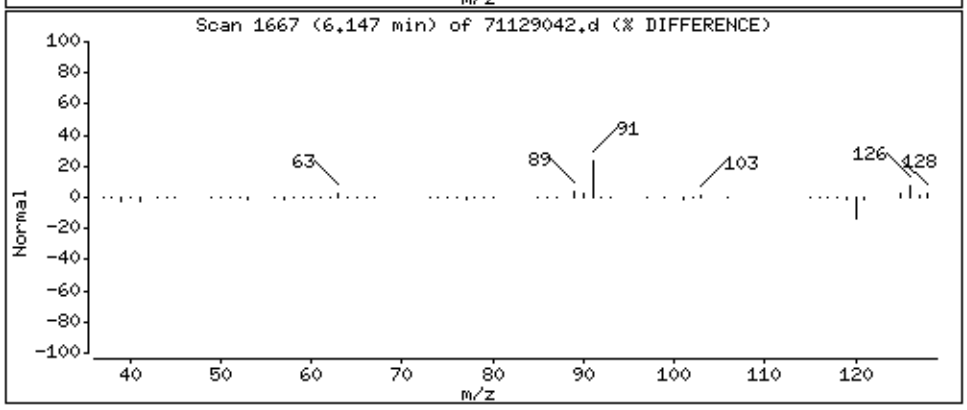












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

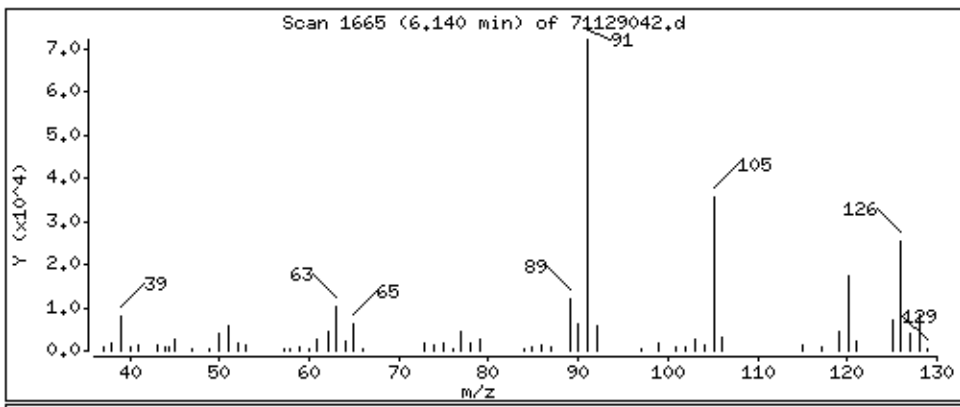
Column phase: RTX-VMS

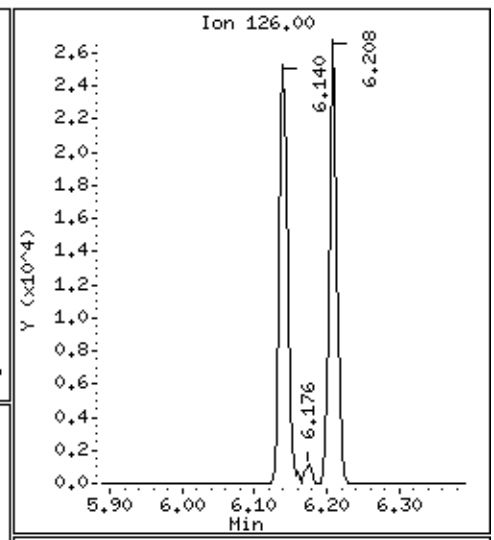
Column diameter: 0.18

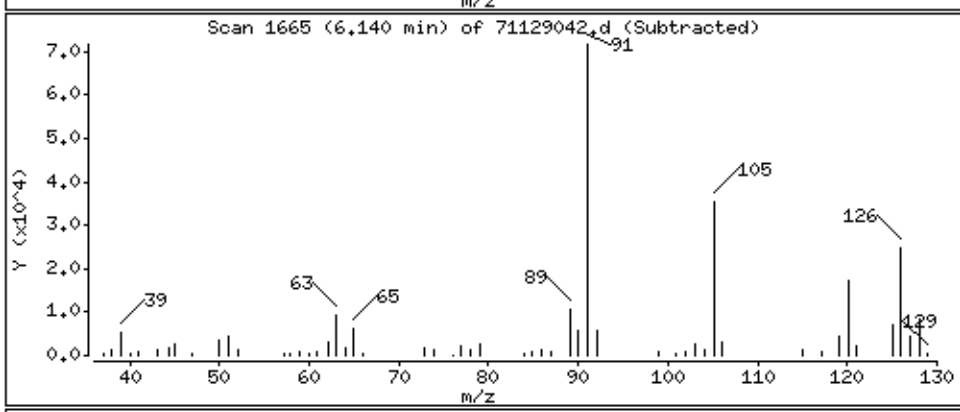
84 2-Chlorotoluene

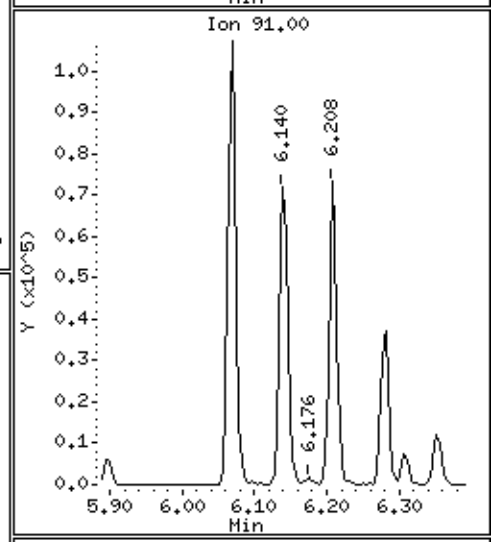
Concentration: 14.4 ug/L

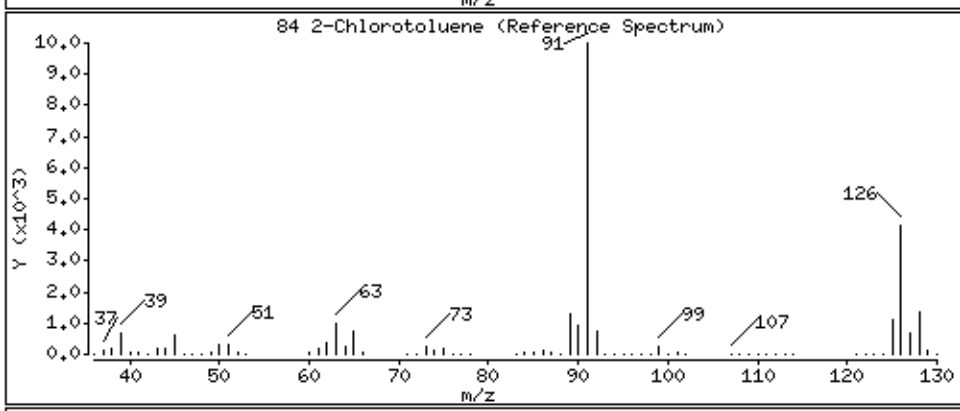
Review Code:

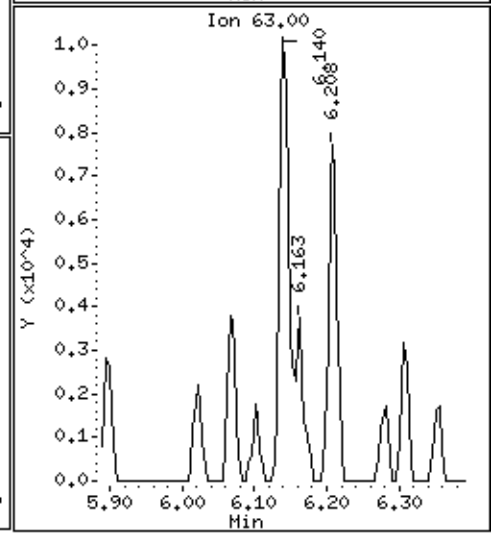


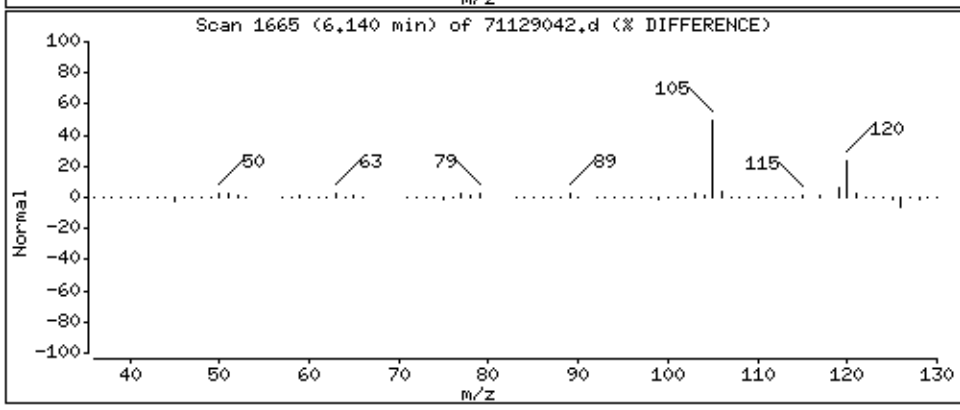












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

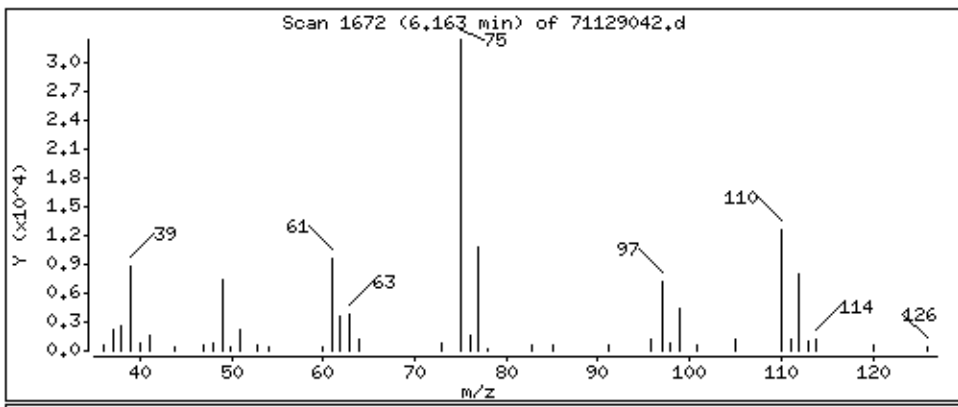
Column phase: RTX-VMS

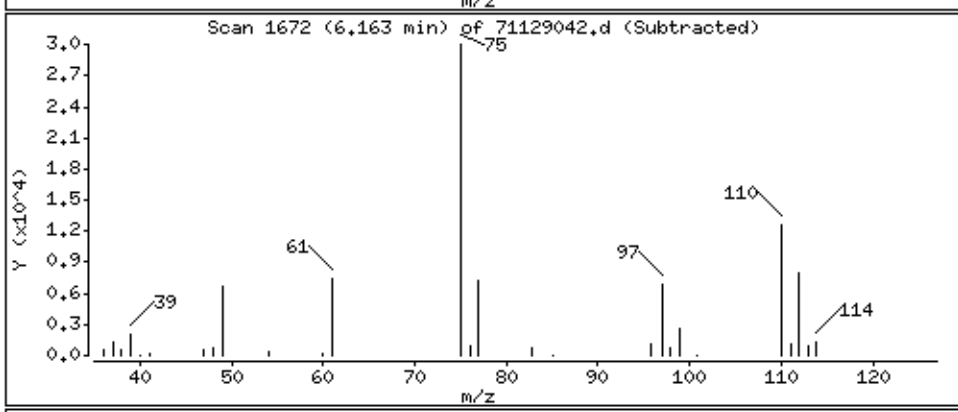
Column diameter: 0.18

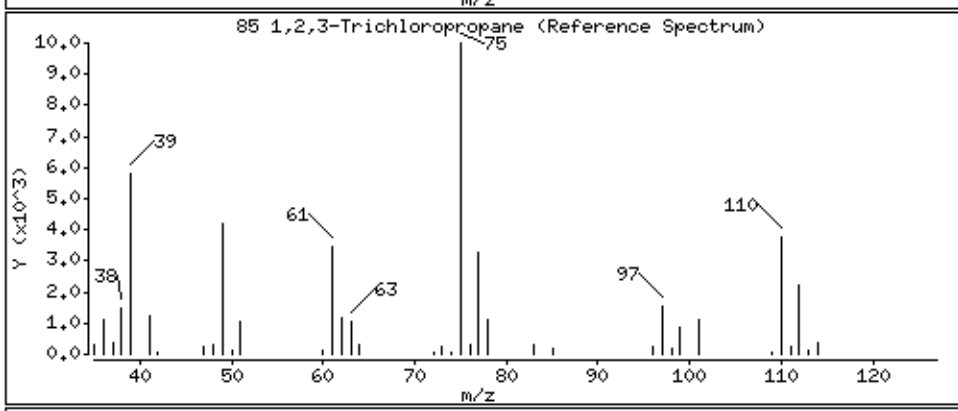
85 1,2,3-Trichloropropane

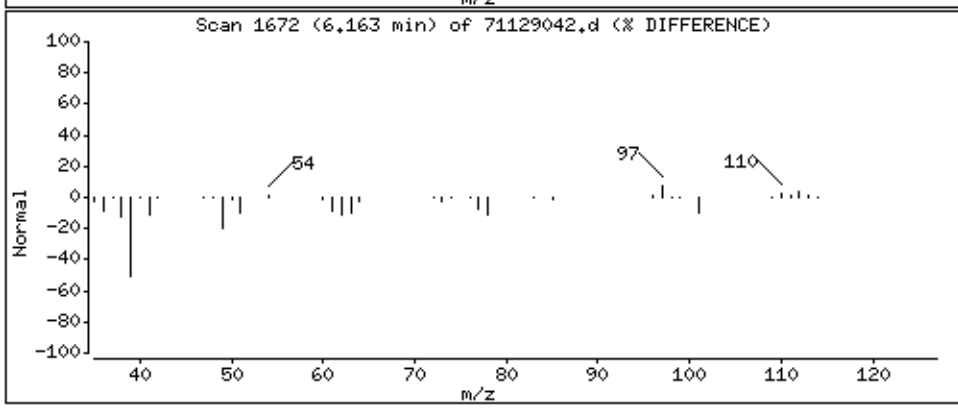
Concentration: 13.4 ug/L

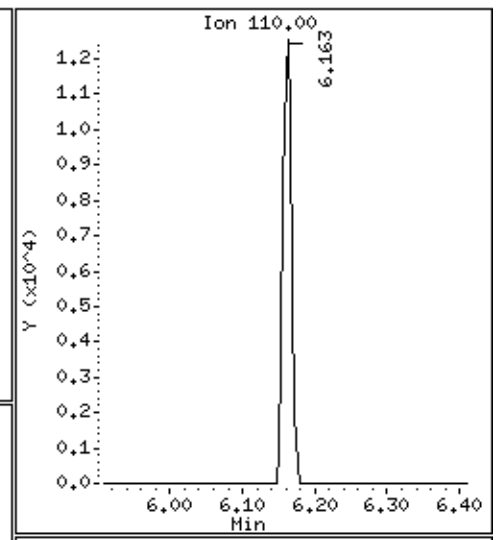
Review Code:

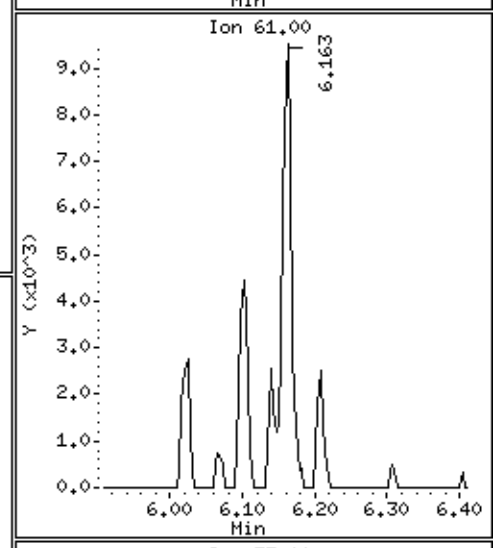


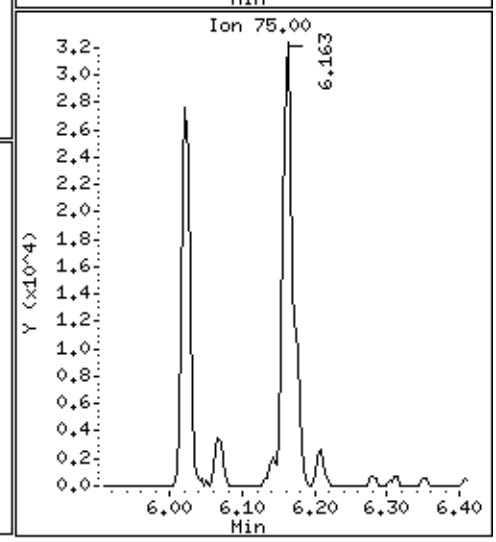












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

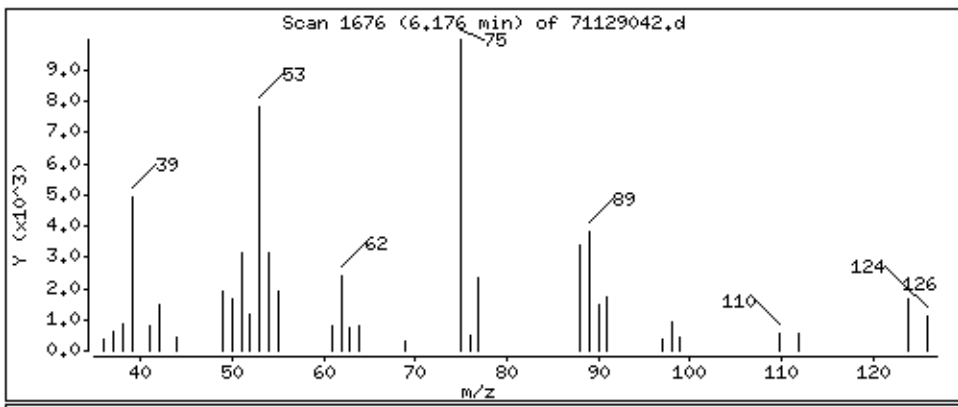
Column phase: RTX-VMS

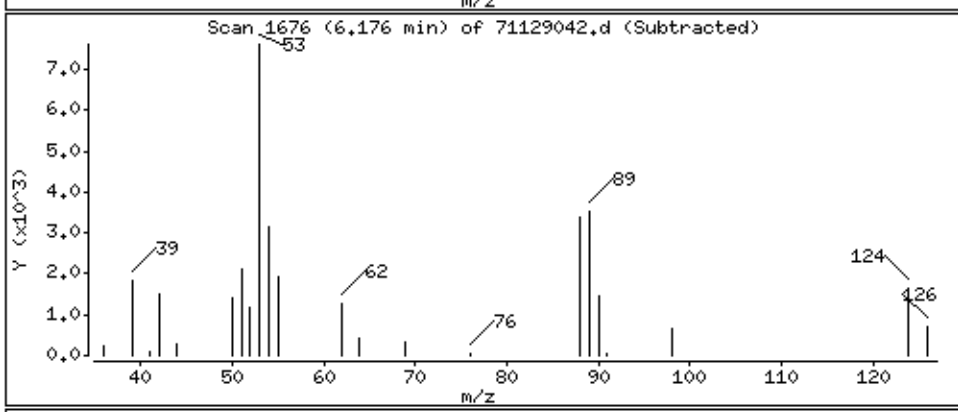
Column diameter: 0.18

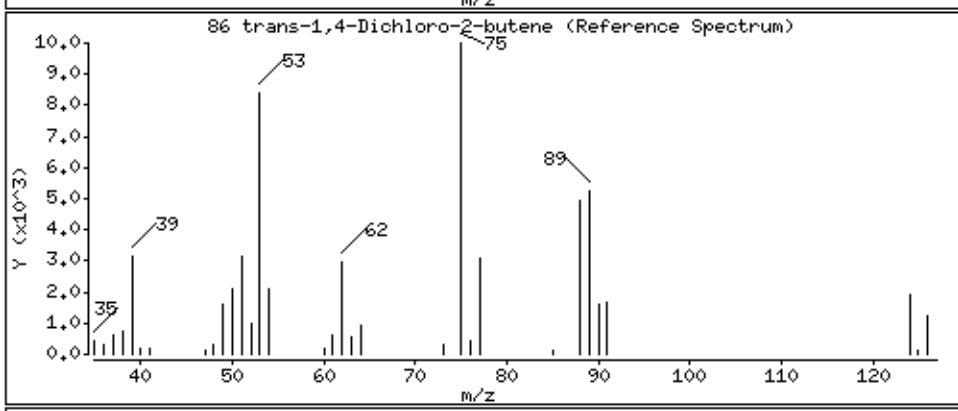
86 trans-1,4-Dichloro-2-butene

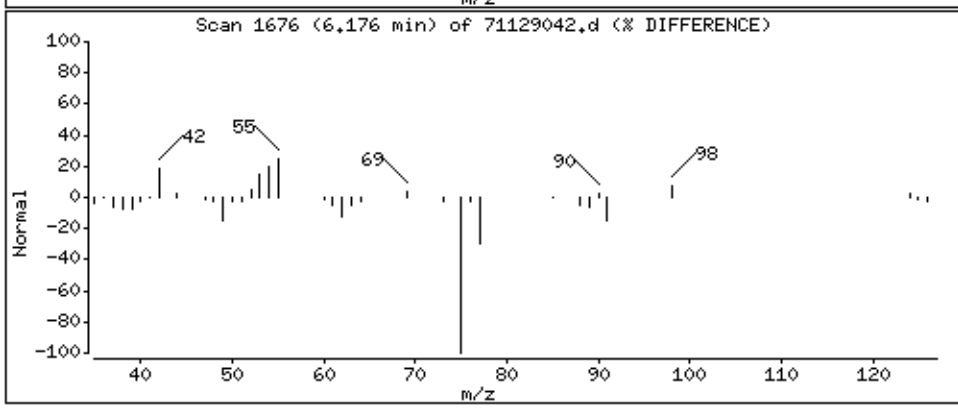
Concentration: 8.88 ug/L

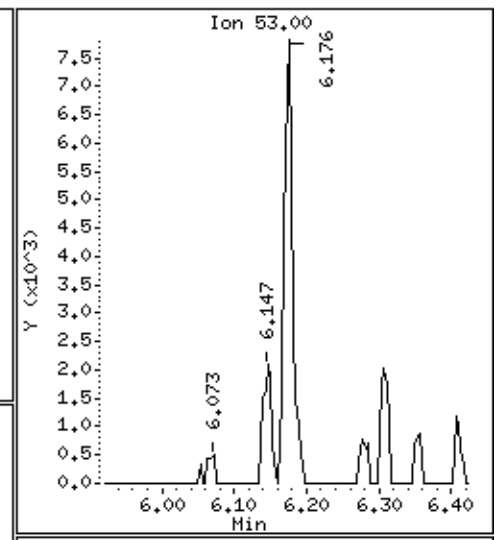
Review Code:

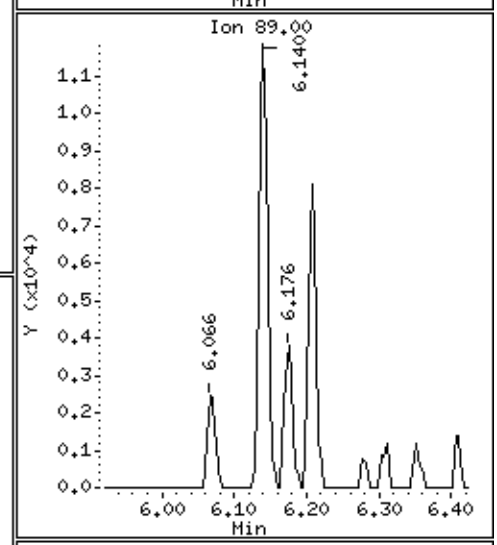


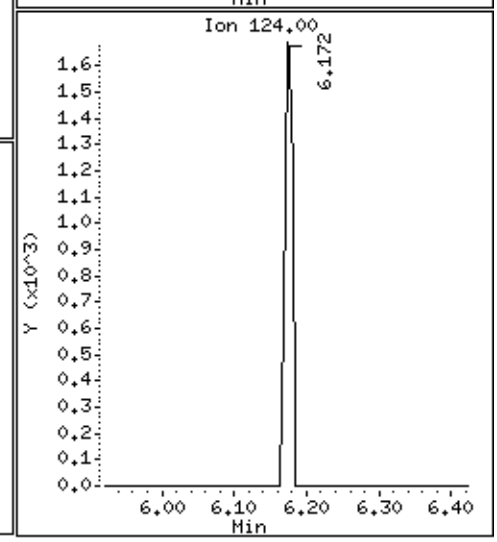












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

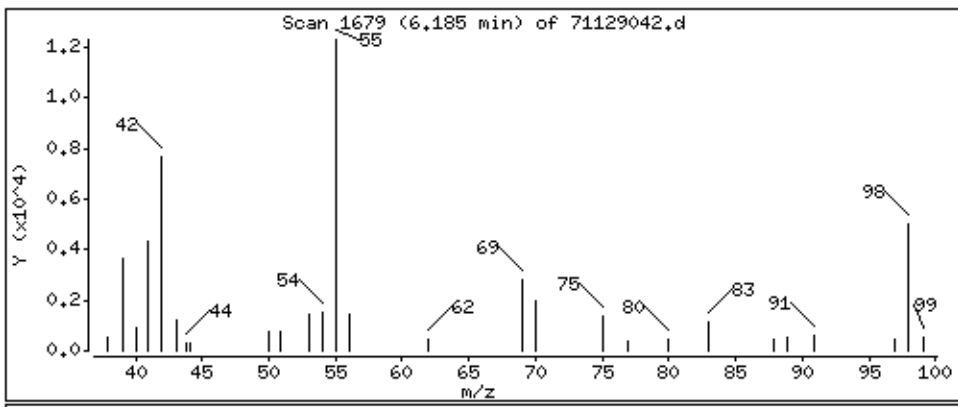
Column phase: RTX-VMS

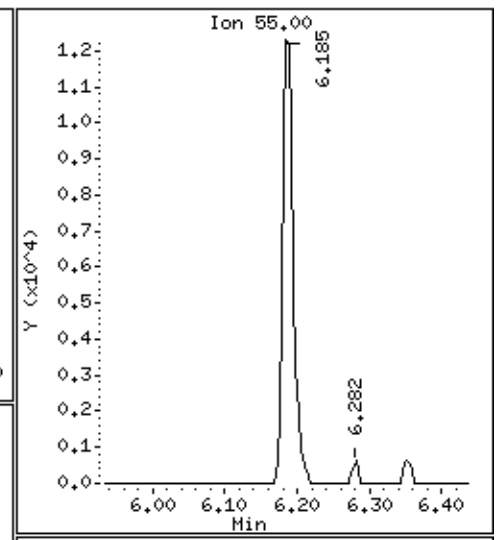
Column diameter: 0.18

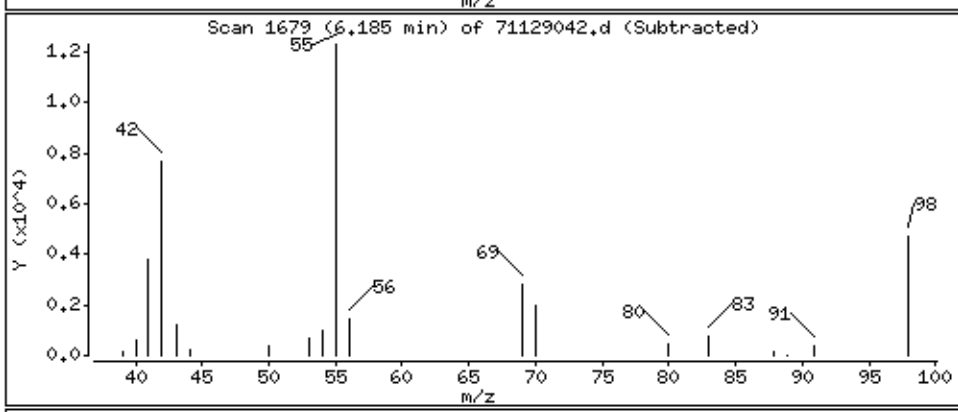
87 Cyclohexanone

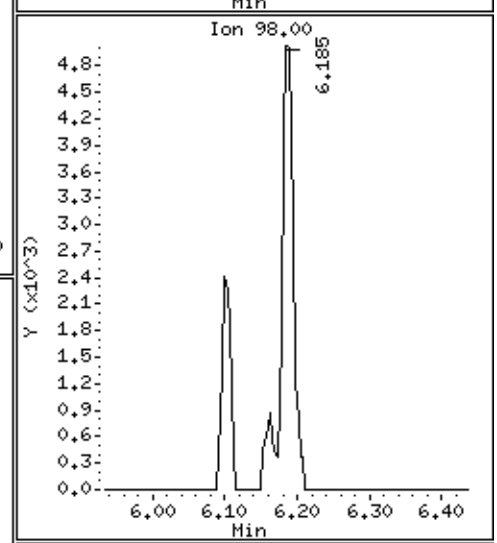
Concentration: 57.2 ug/L

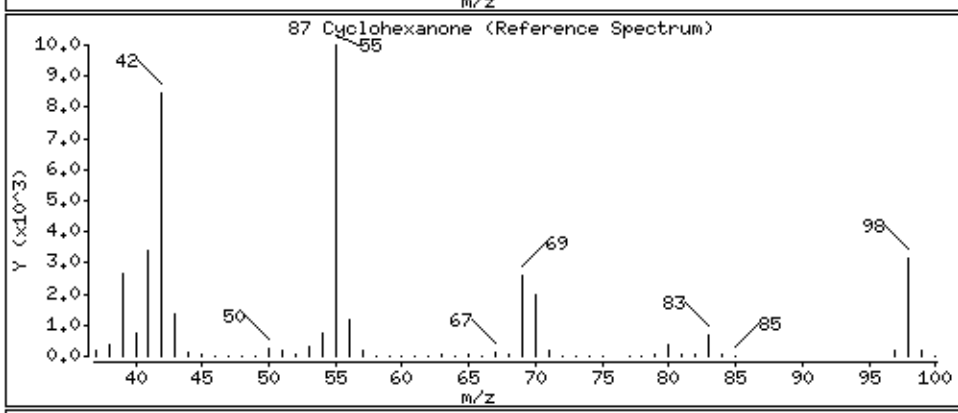
Review Code:

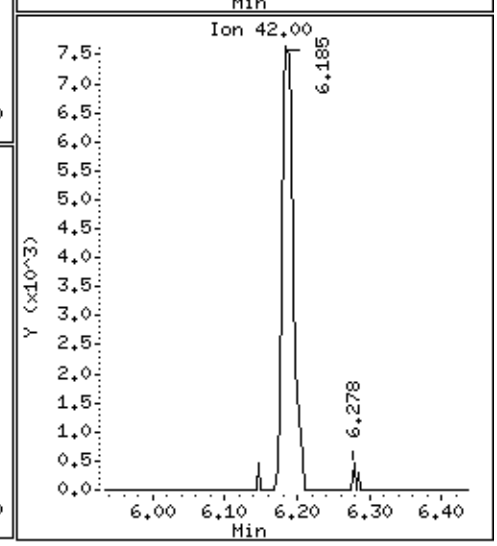


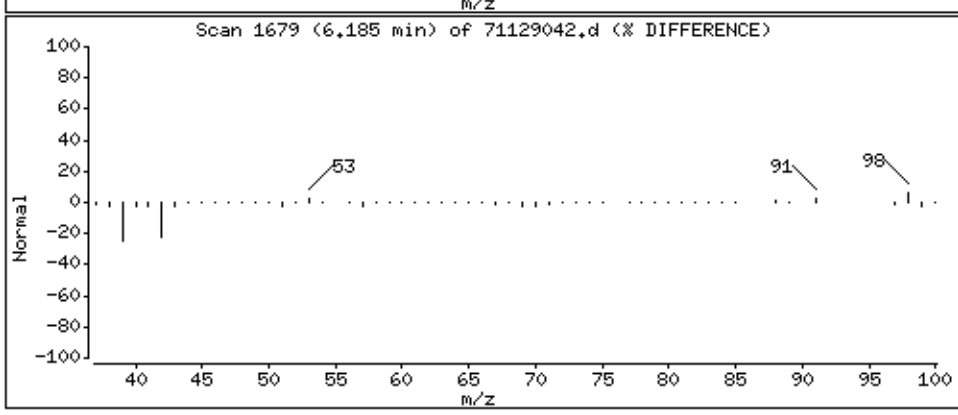












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

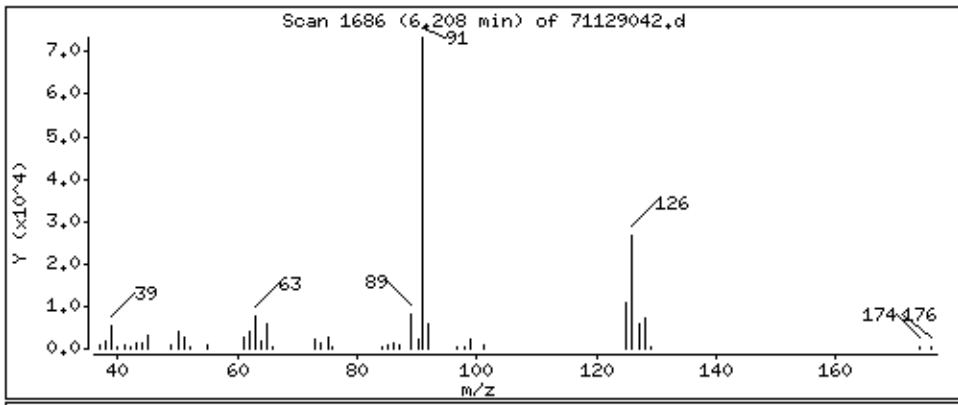
Column phase: RTX-VMS

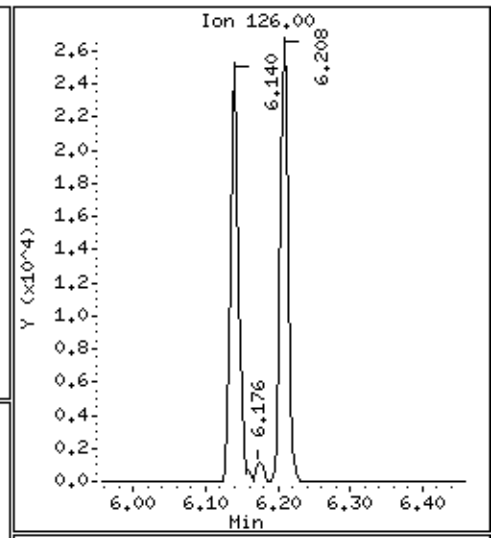
Column diameter: 0.18

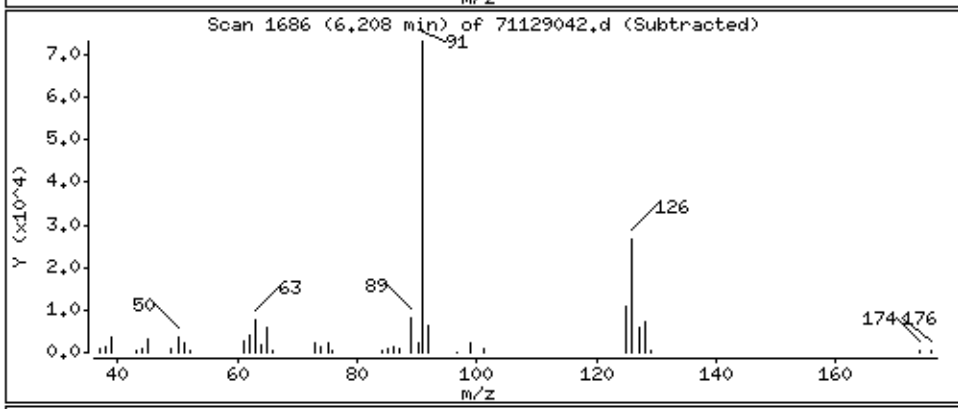
88 4-Chlorotoluene

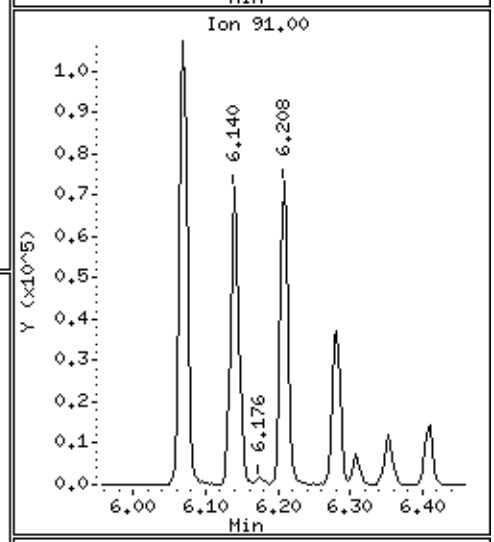
Concentration: 13.5 ug/L

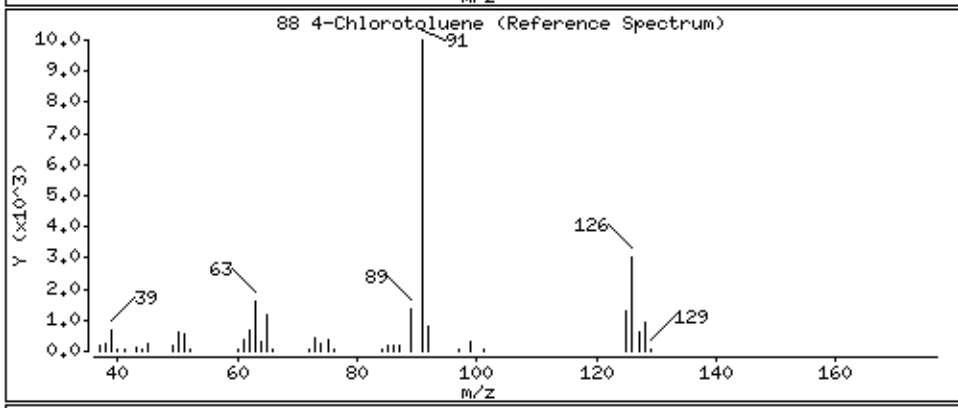
Review Code:

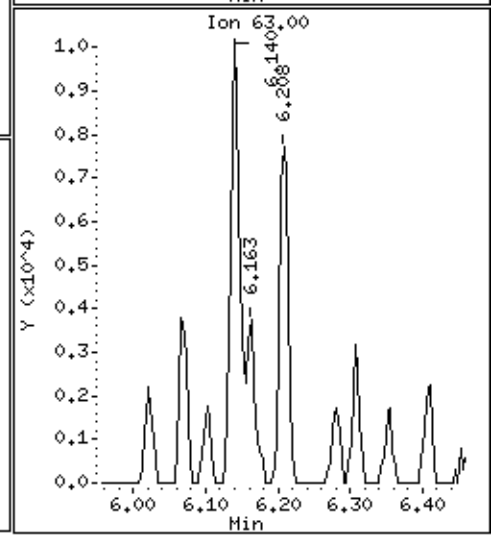


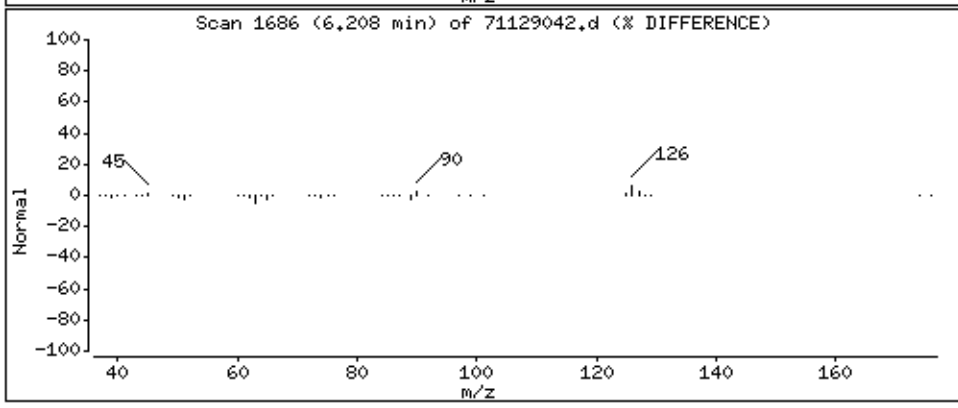












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

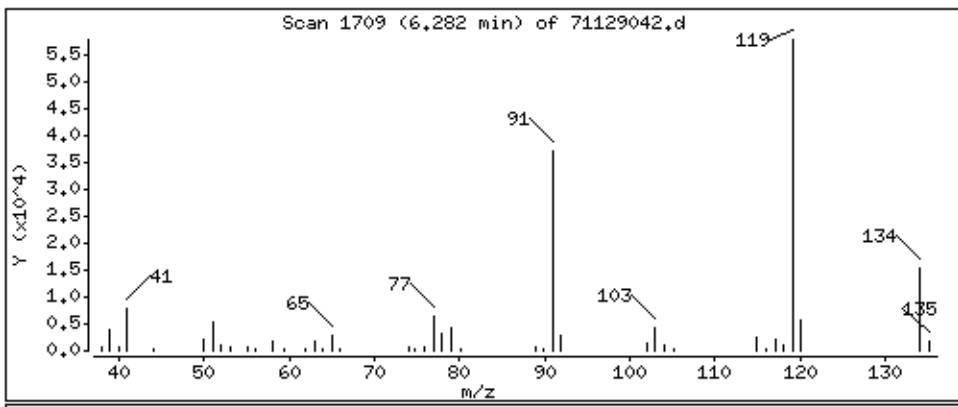
Column phase: RTX-VMS

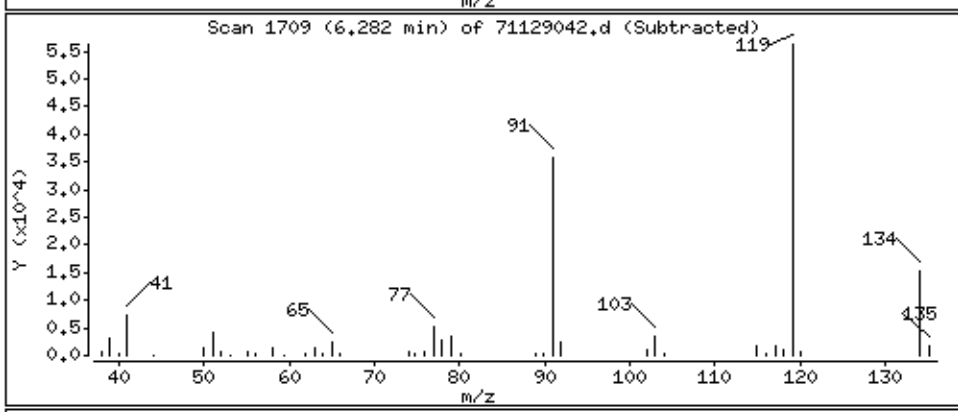
Column diameter: 0.18

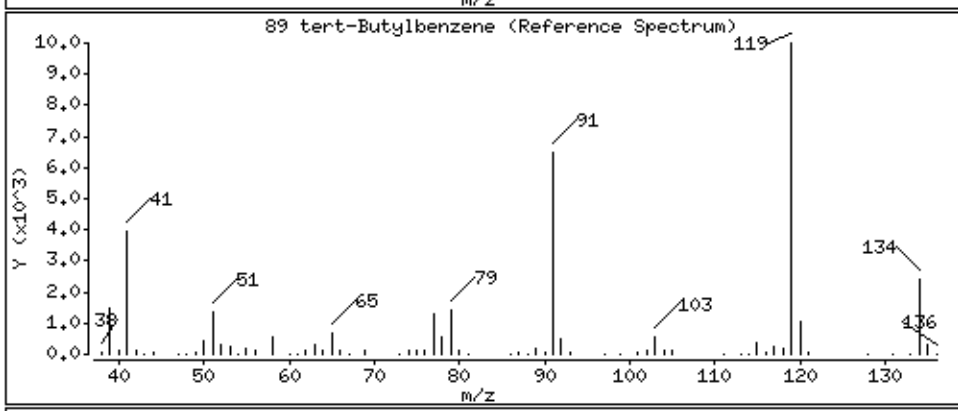
89 tert-Butylbenzene

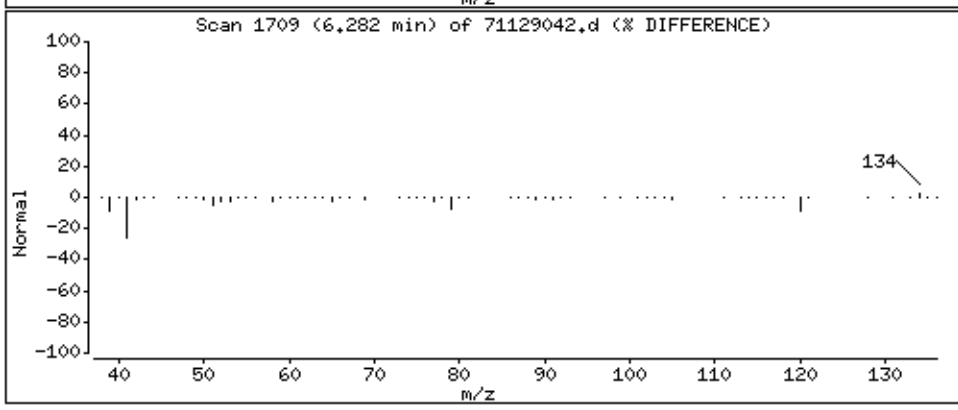
Concentration: 14.2 ug/L

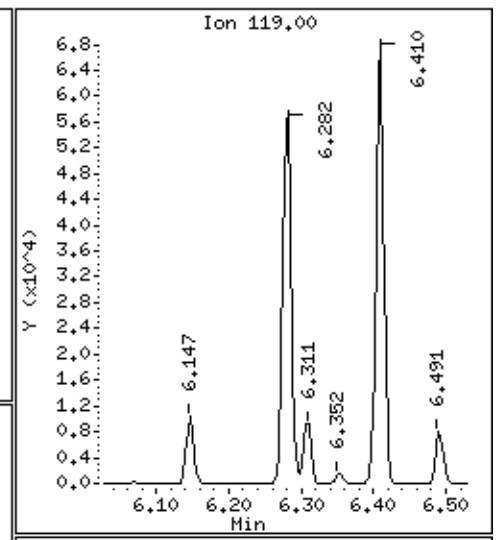
Review Code:

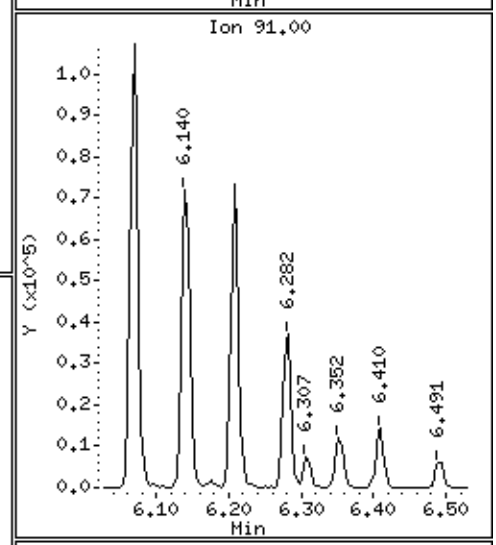


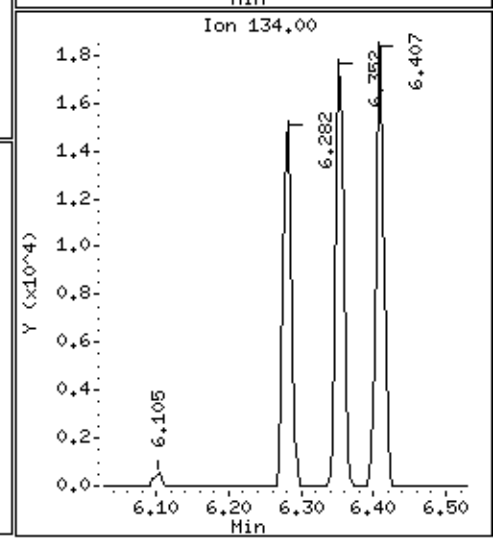












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

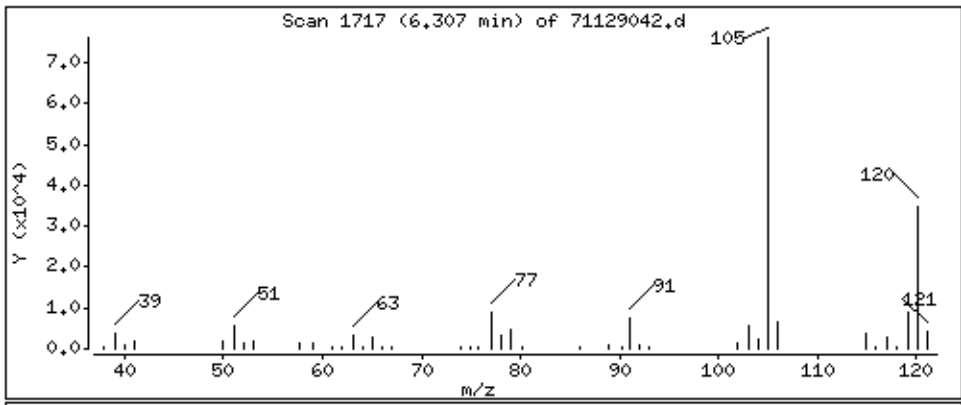
Column phase: RTX-VMS

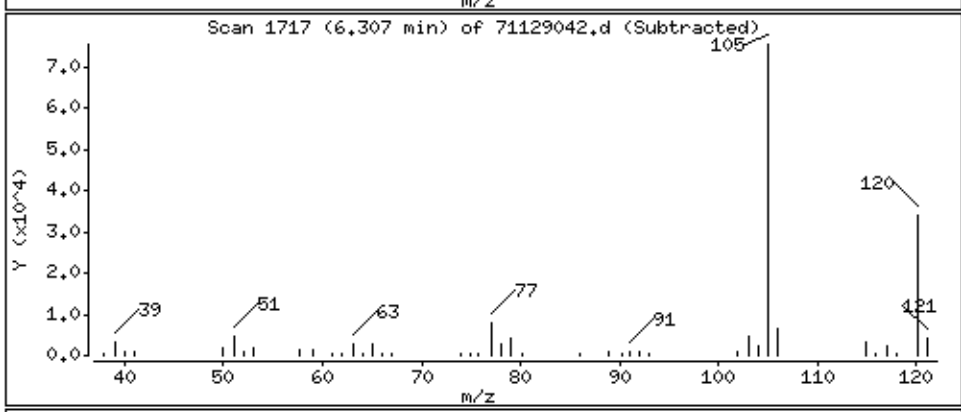
Column diameter: 0.18

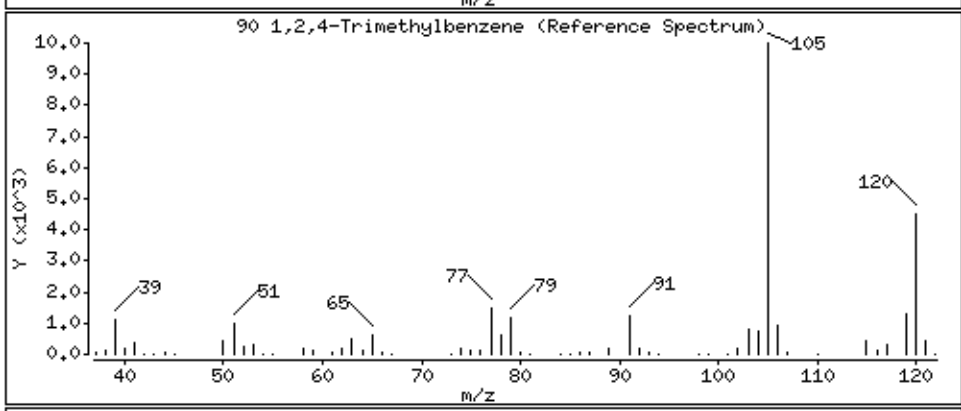
90 1,2,4-Trimethylbenzene

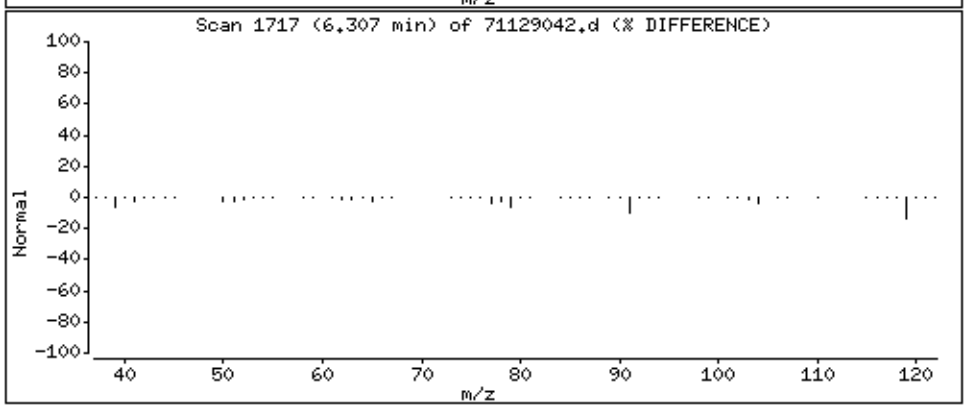
Concentration: 13.6 ug/L

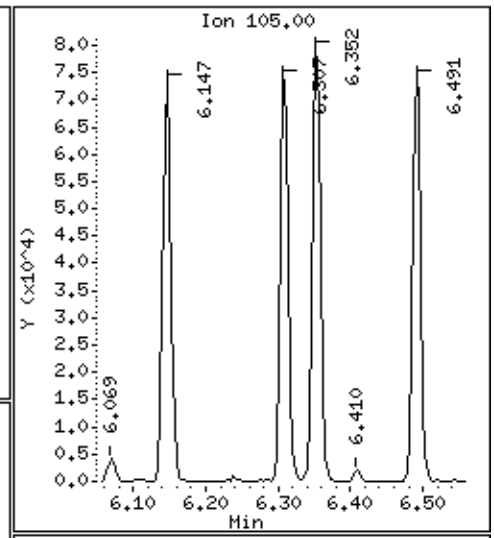
Review Code:

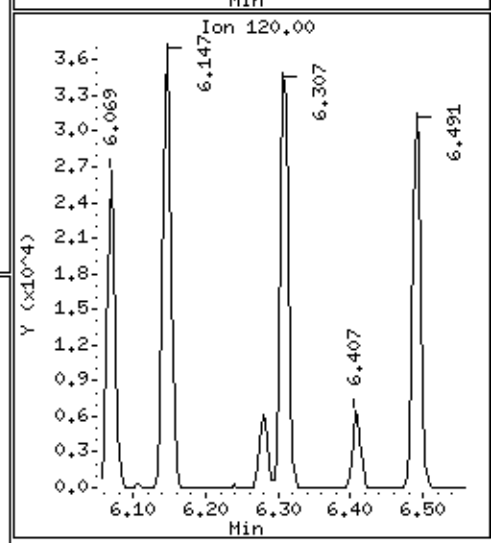












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

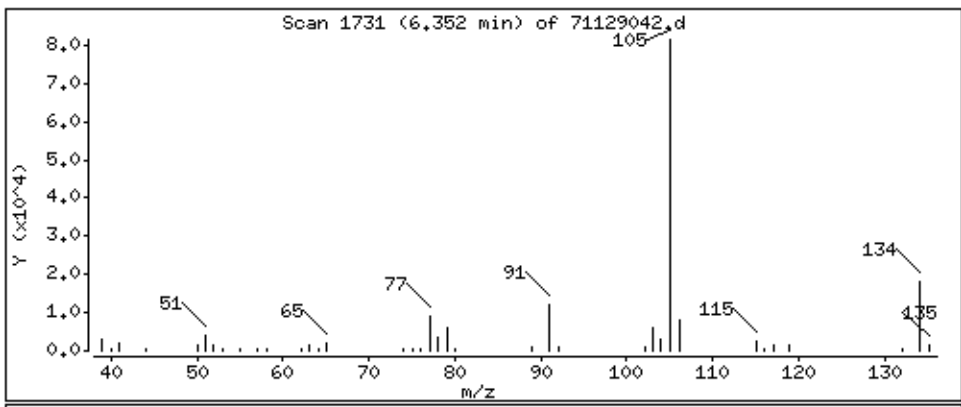
Column phase: RTX-VMS

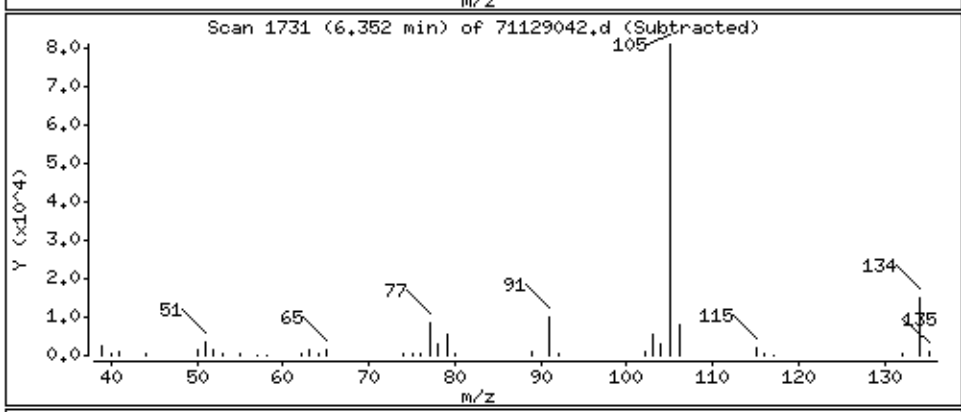
Column diameter: 0.18

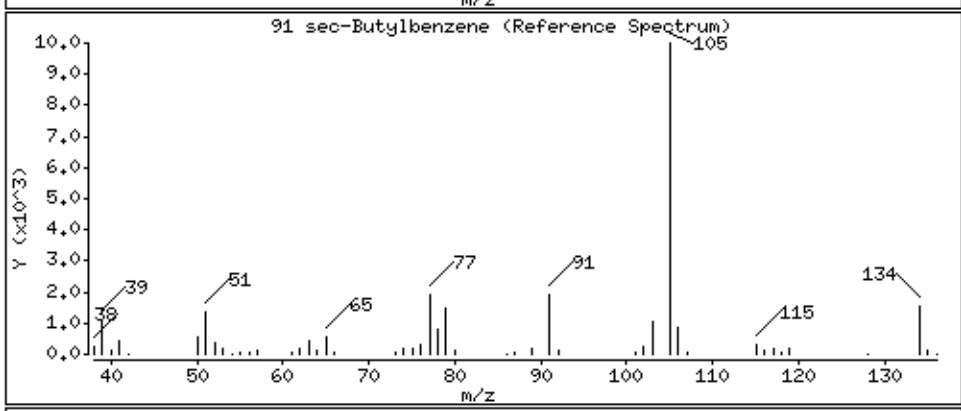
91 sec-Butylbenzene

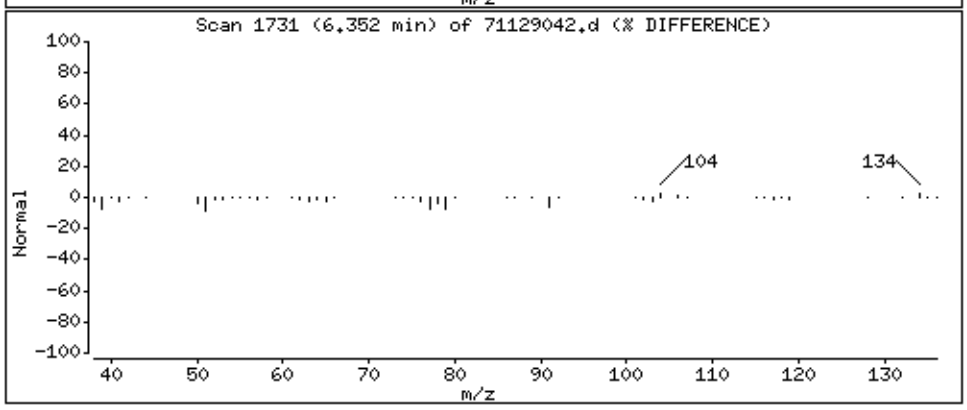
Concentration: 13.7 ug/L

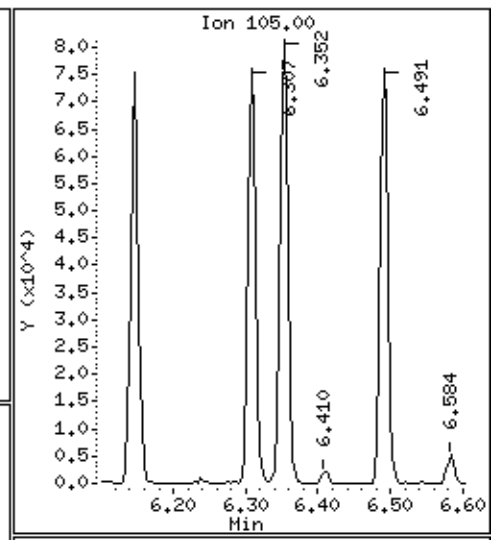
Review Code:

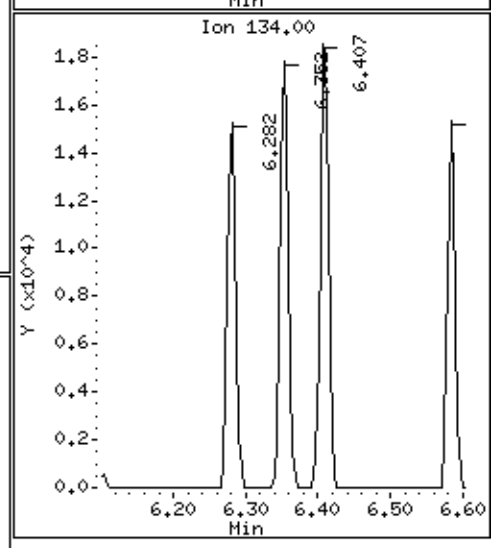












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

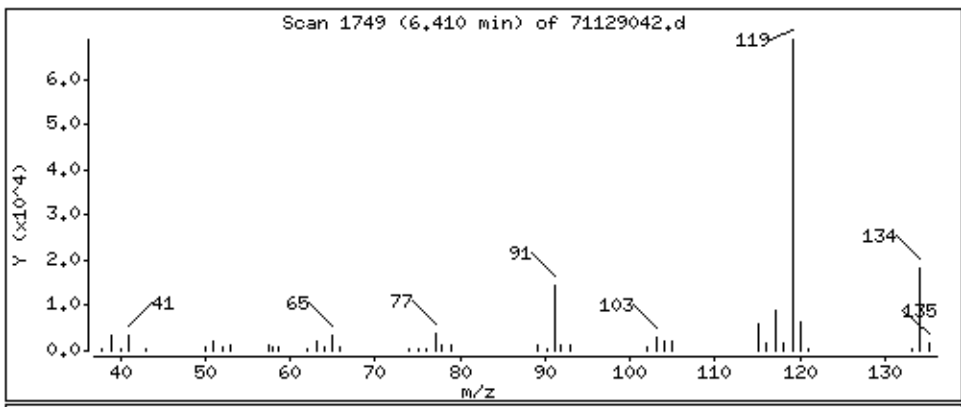
Column phase: RTX-VMS

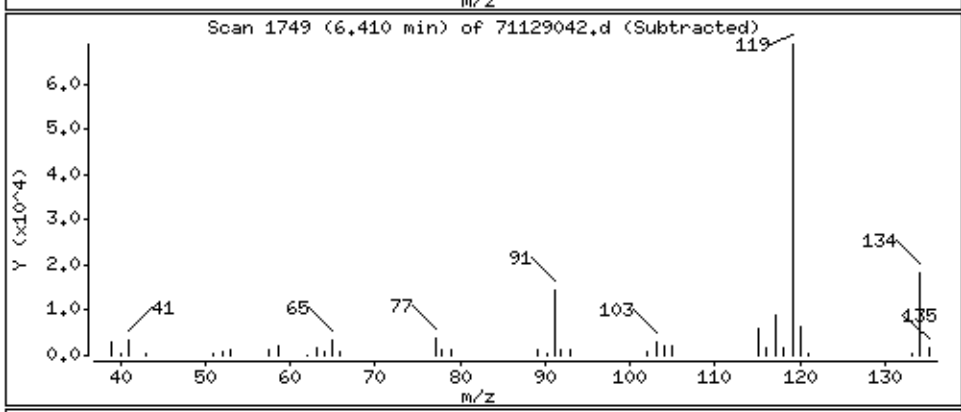
Column diameter: 0.18

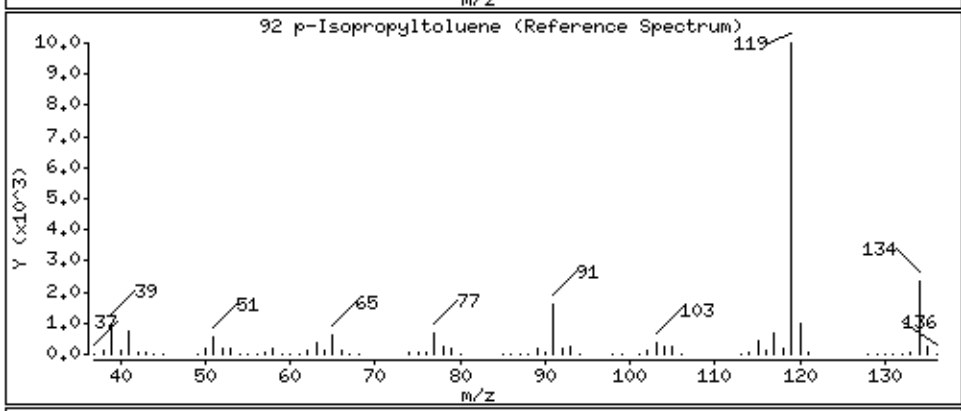
92 p-Isopropyltoluene

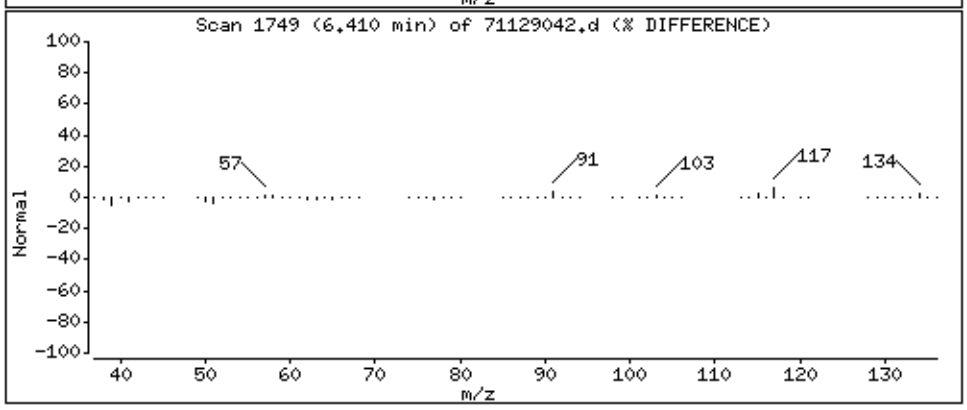
Concentration: 13.7 ug/L

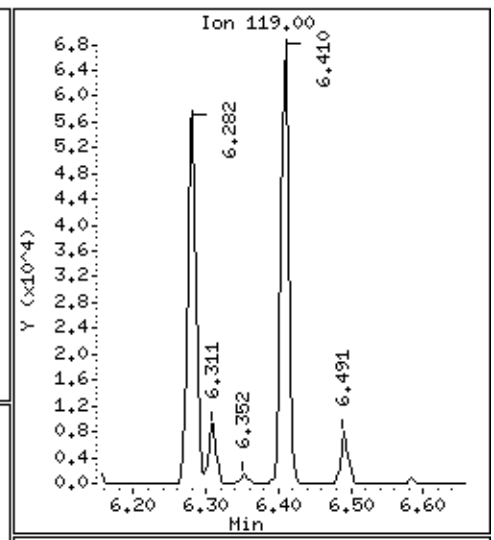
Review Code:

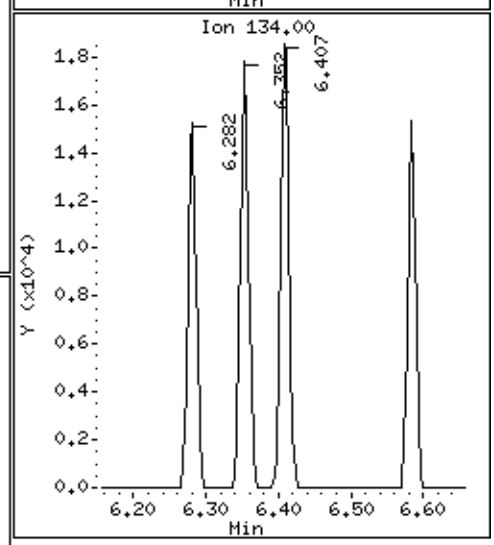












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

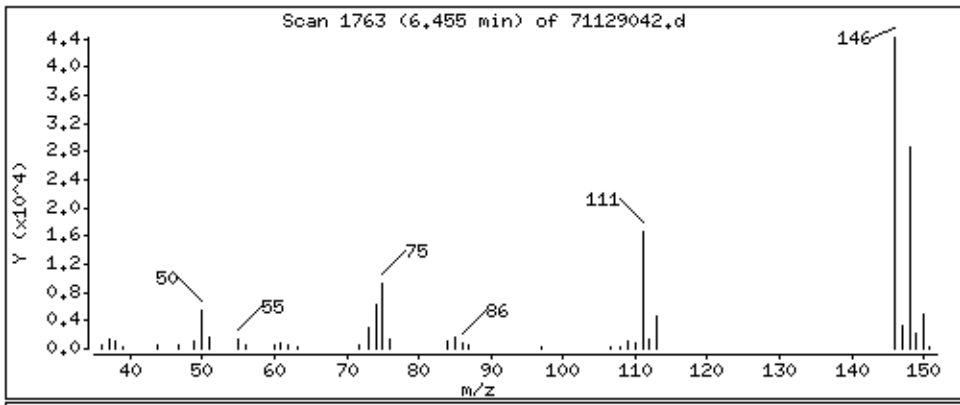
Column phase: RTX-VMS

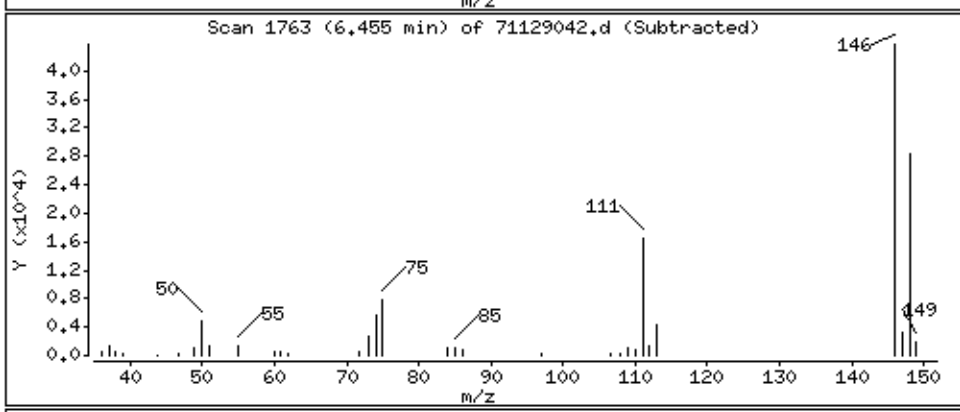
Column diameter: 0.18

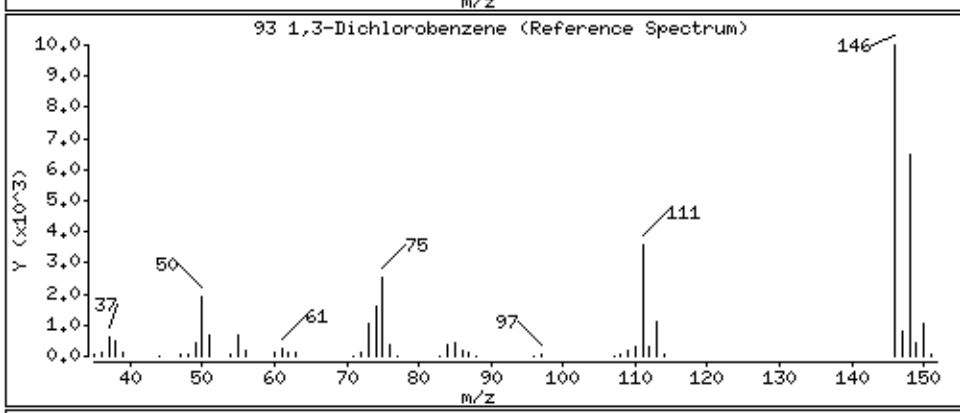
93 1,3-Dichlorobenzene

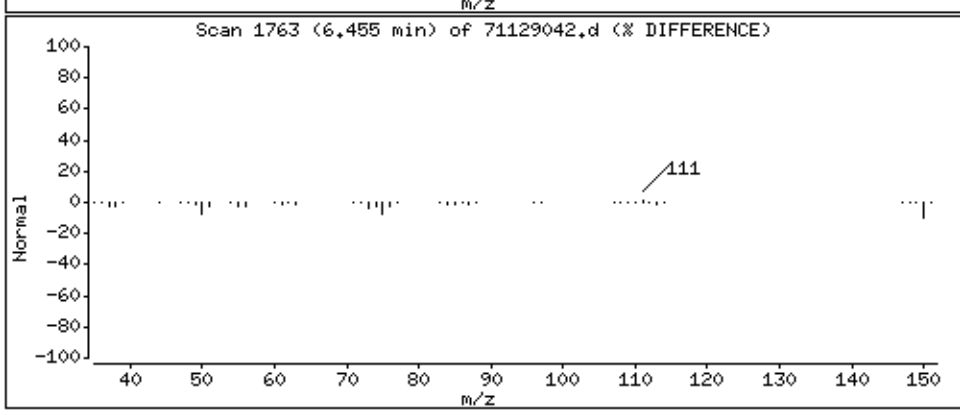
Concentration: 13.6 ug/L

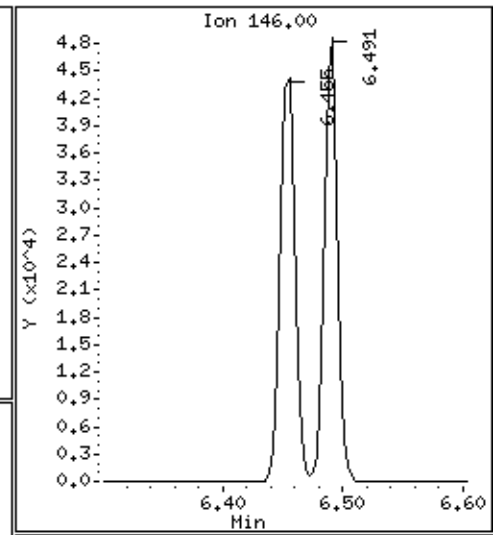
Review Code:

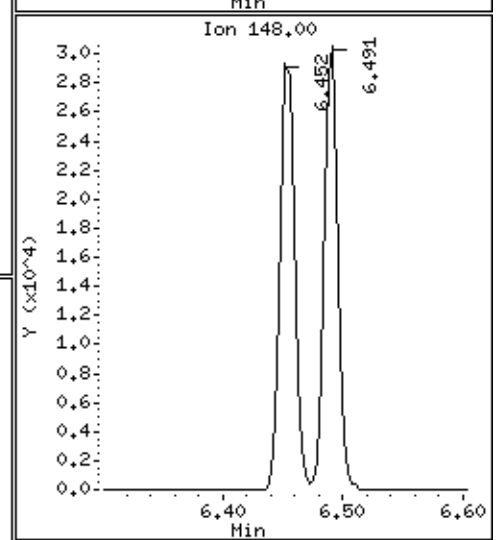


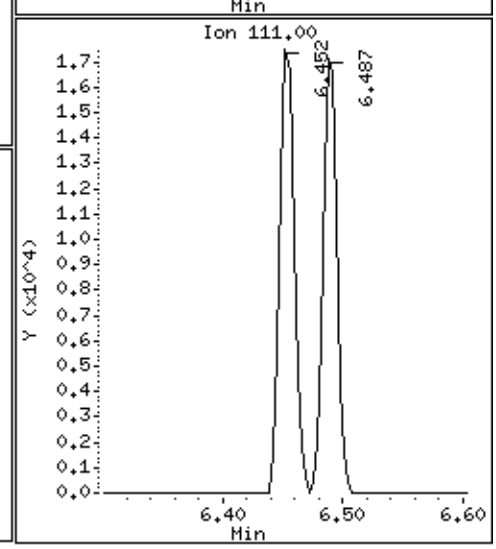












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

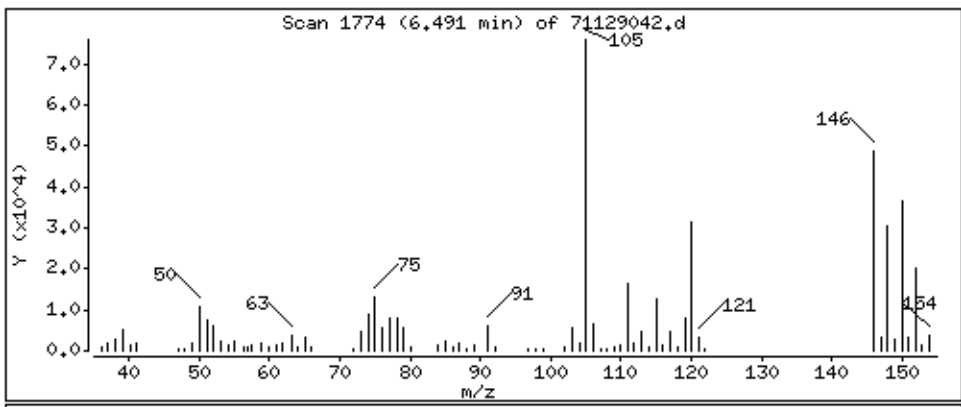
Column phase: RTX-VMS

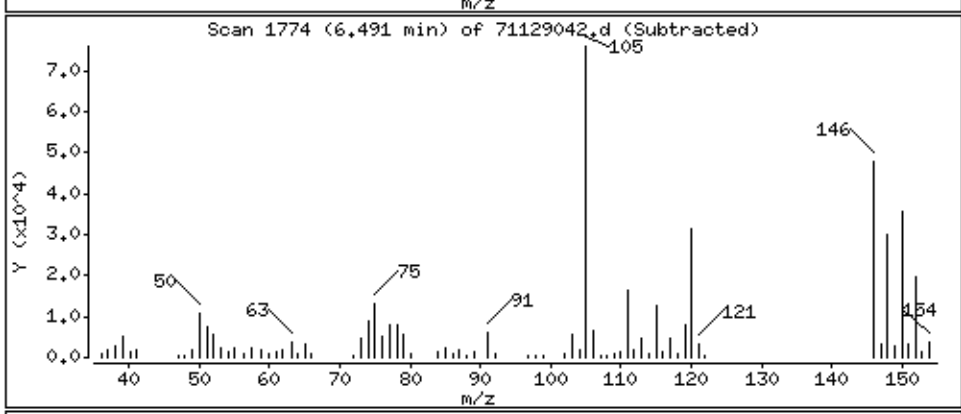
Column diameter: 0.18

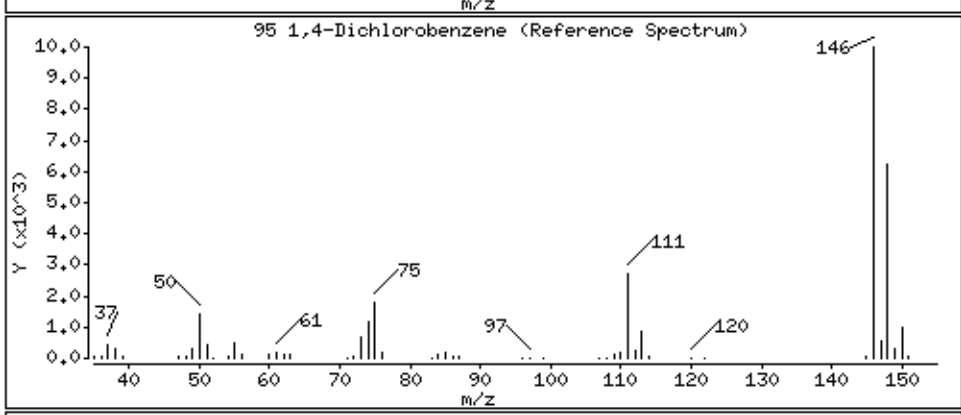
95 1,4-Dichlorobenzene

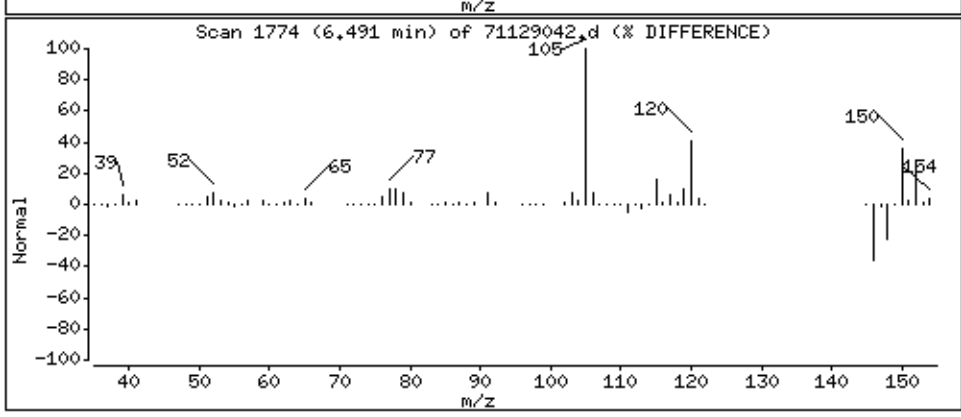
Concentration: 13.4 ug/L

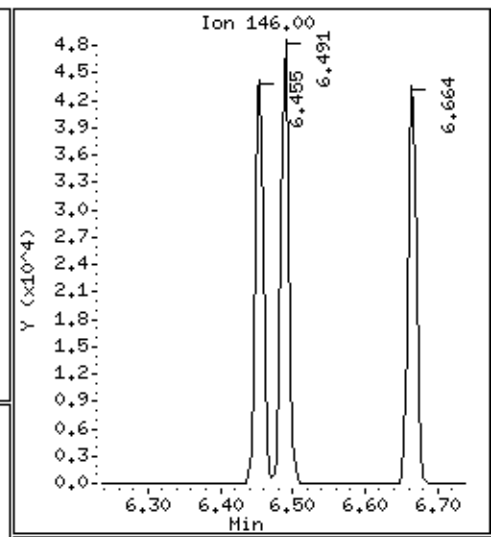
Review Code:

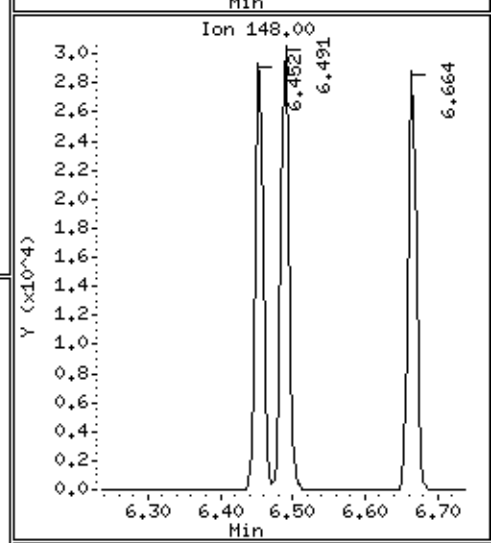


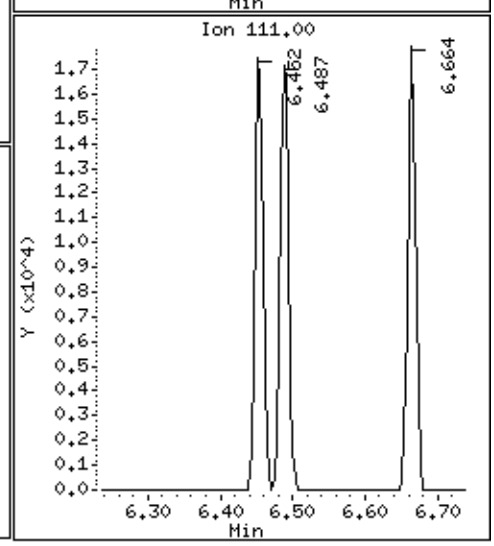












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

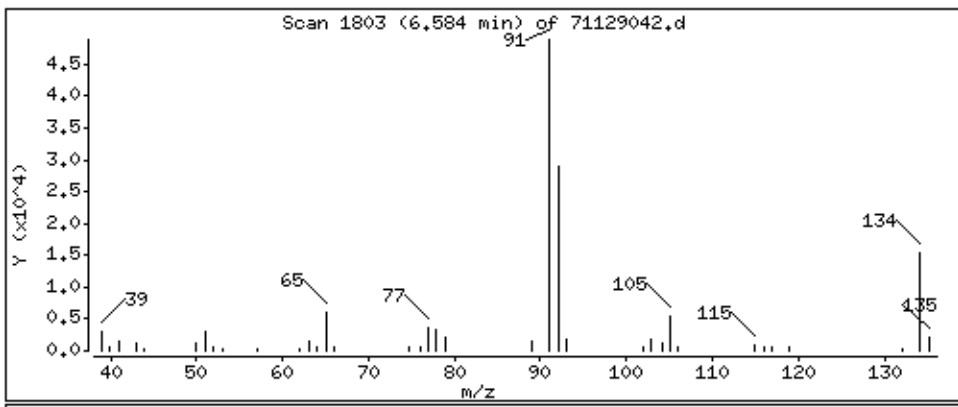
Column phase: RTX-VMS

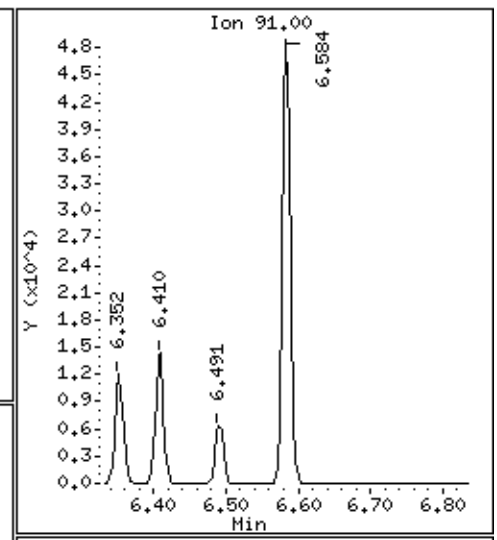
Column diameter: 0.18

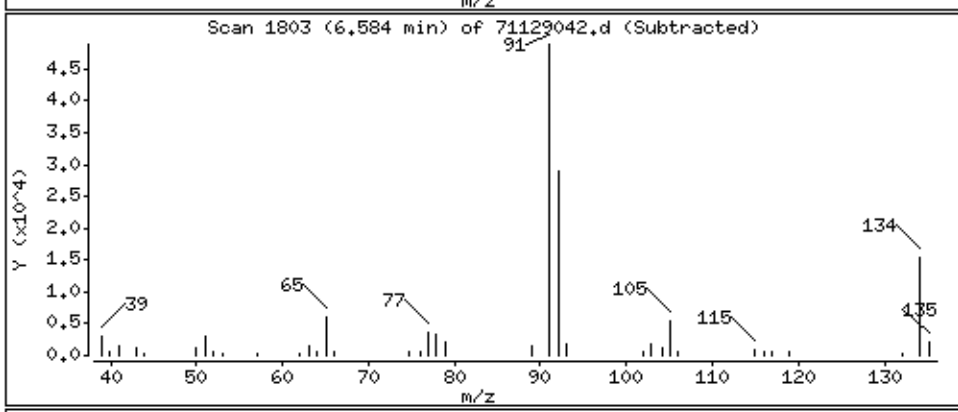
96 n-Butylbenzene

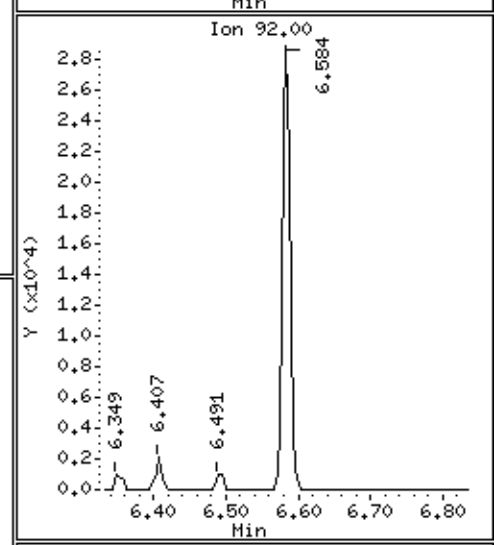
Concentration: 12.5 ug/L

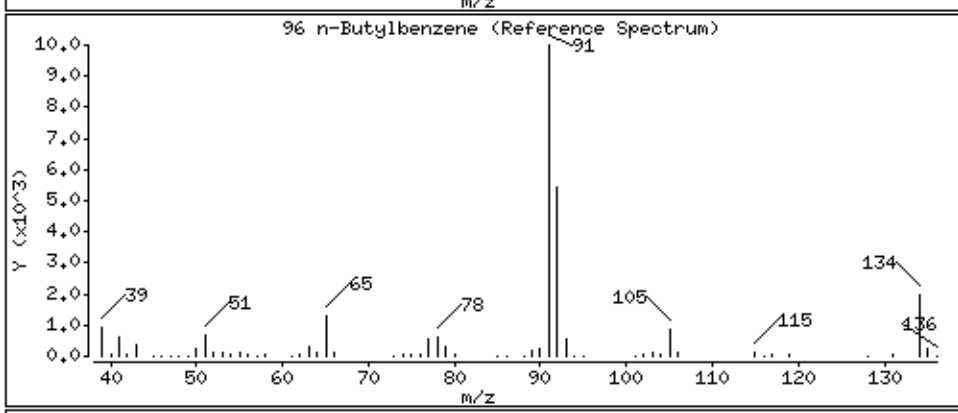
Review Code:

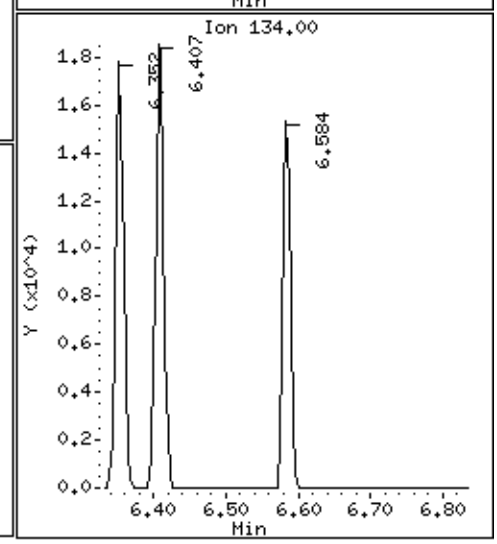


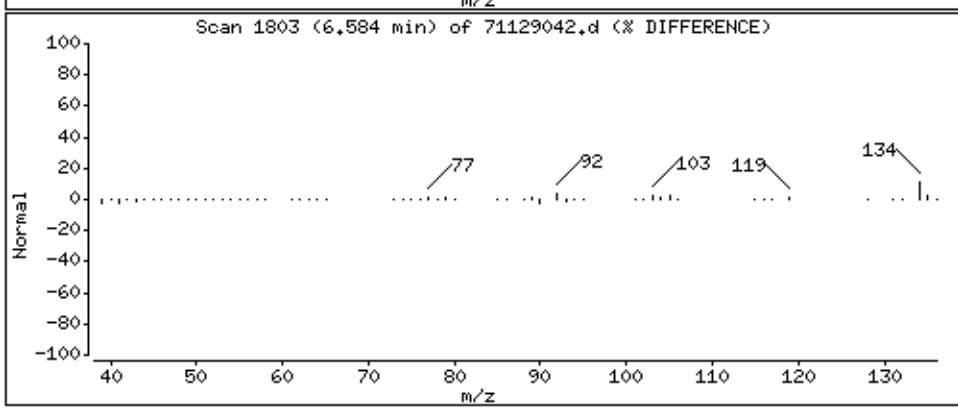












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

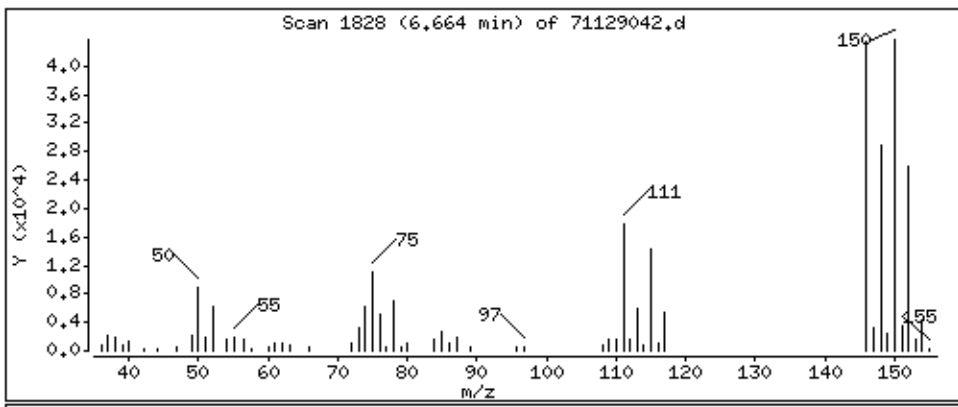
Column phase: RTX-VMS

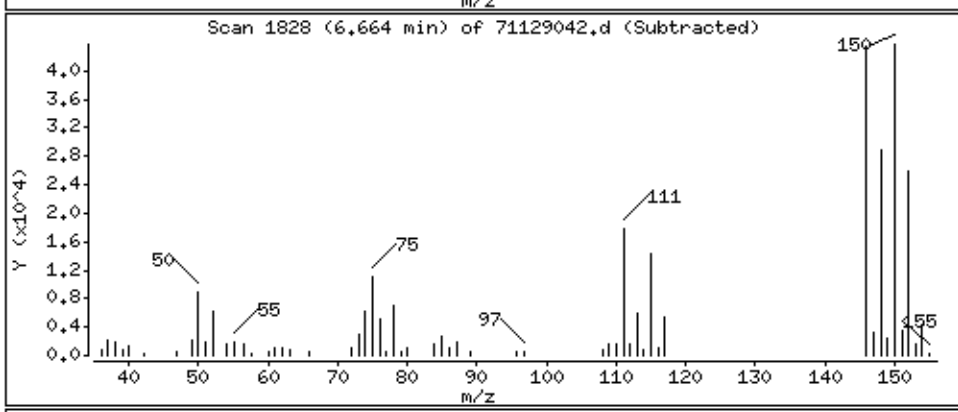
Column diameter: 0.18

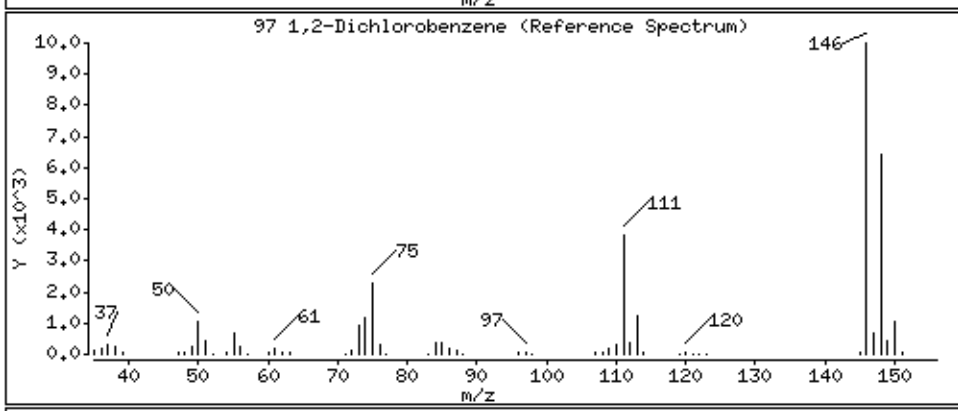
97 1,2-Dichlorobenzene

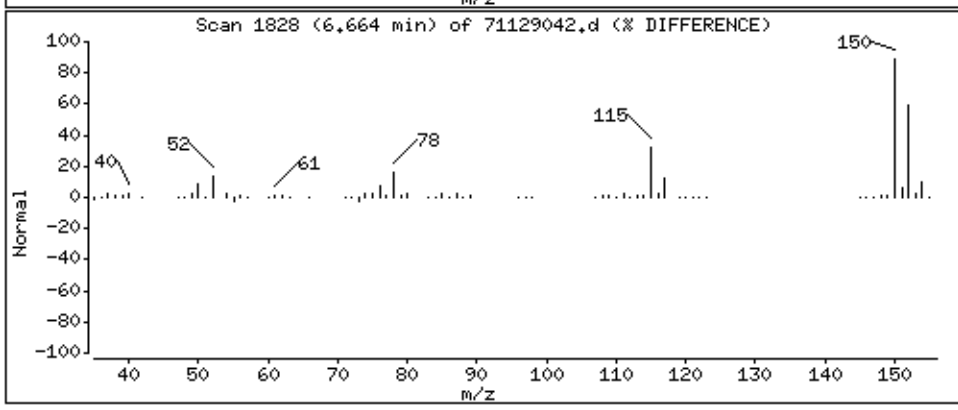
Concentration: 13.8 ug/L

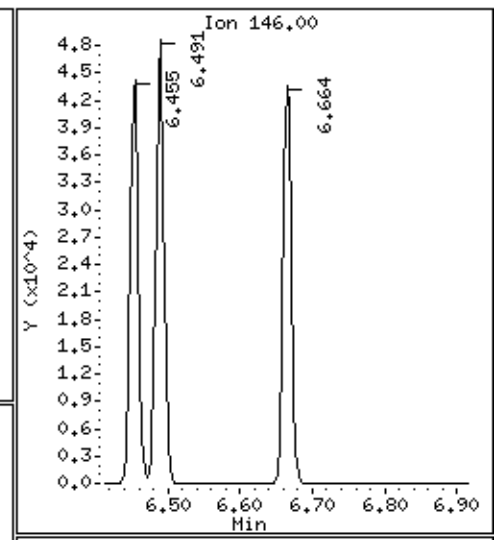
Review Code:

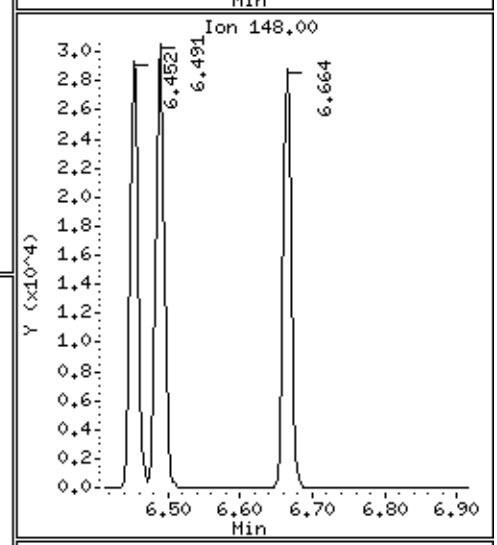


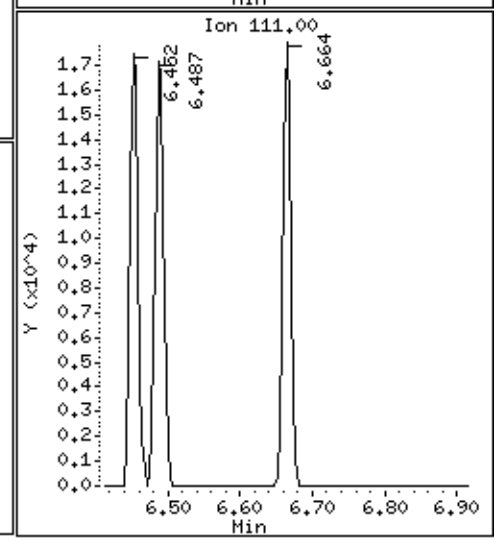












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

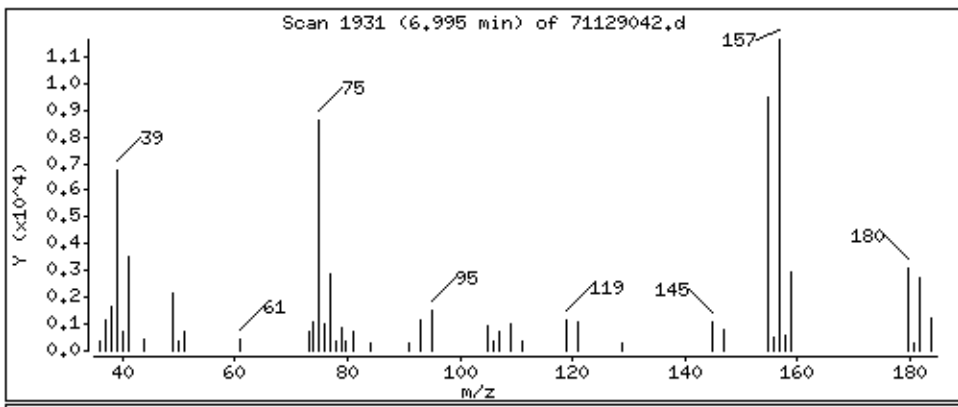
Column phase: RTX-VMS

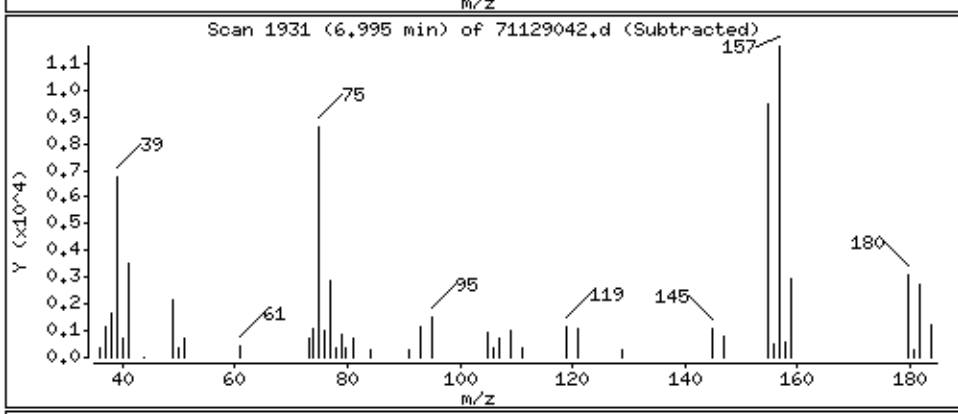
Column diameter: 0.18

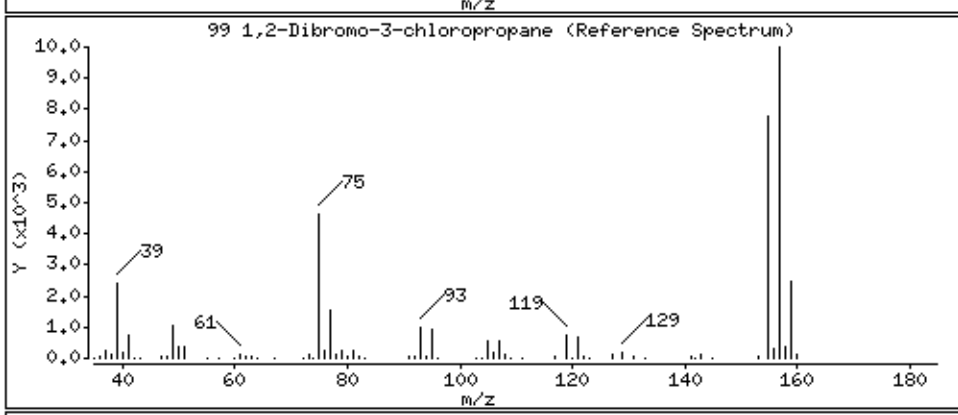
99 1,2-Dibromo-3-chloropropane

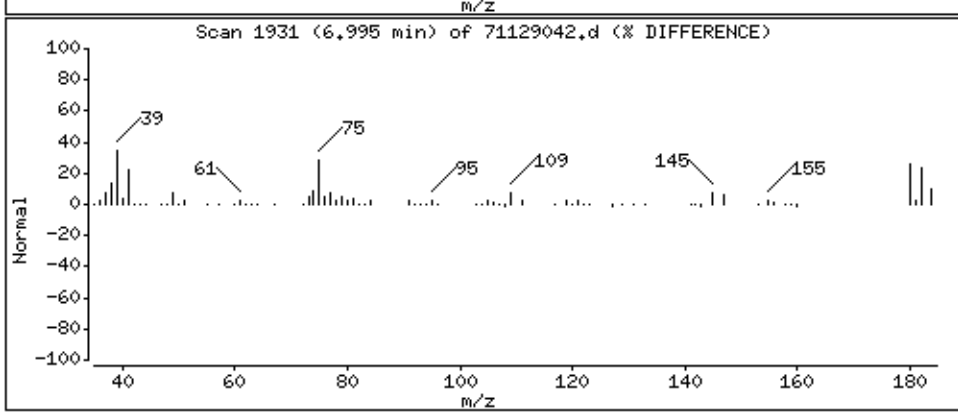
Concentration: 10.9 ug/L

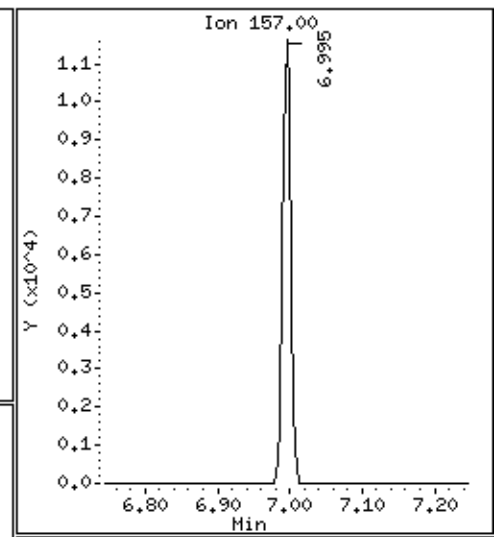
Review Code:

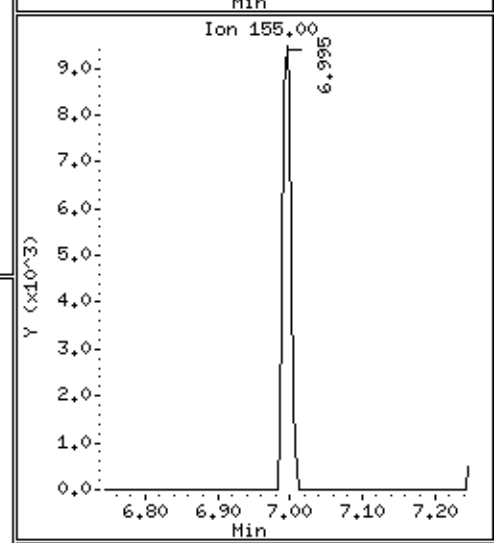


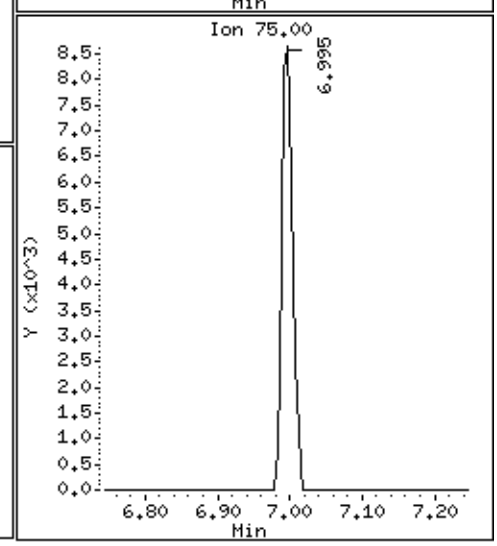












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

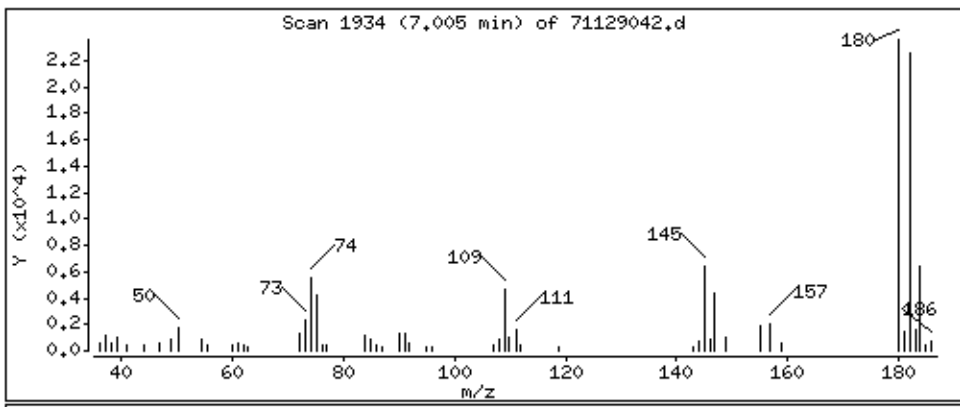
Column phase: RTX-VMS

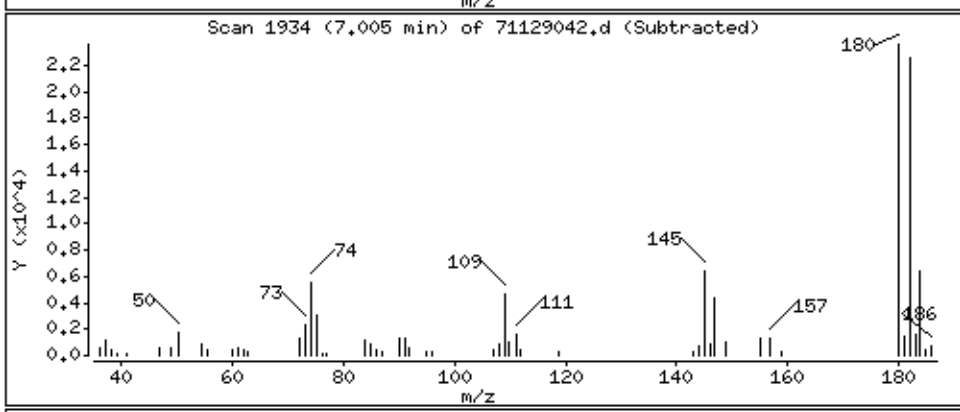
Column diameter: 0.18

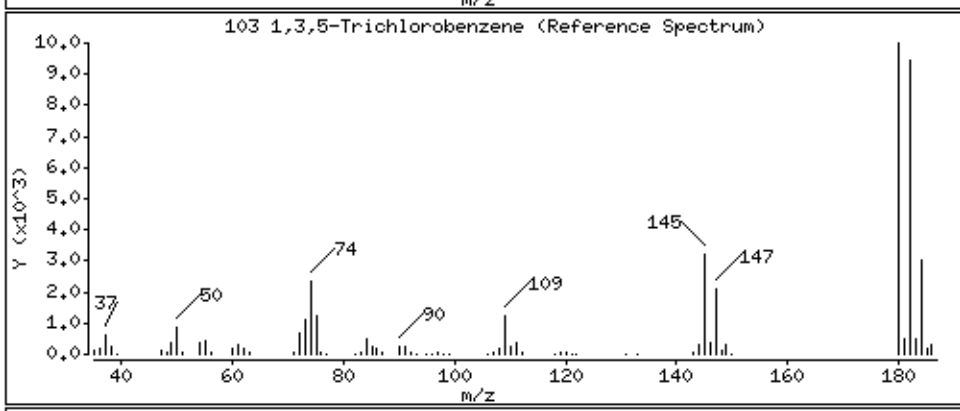
103 1,3,5-Trichlorobenzene

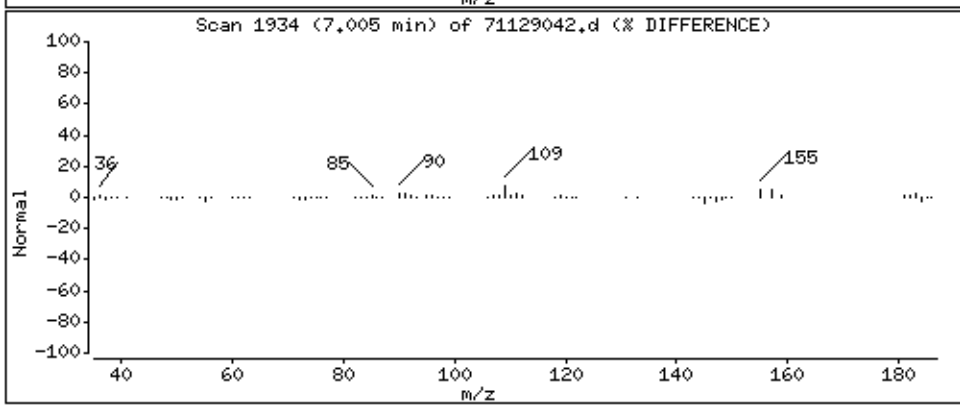
Concentration: 12.5 ug/L

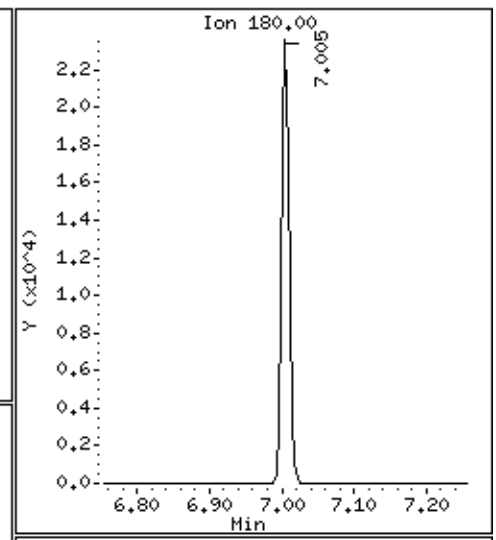
Review Code:

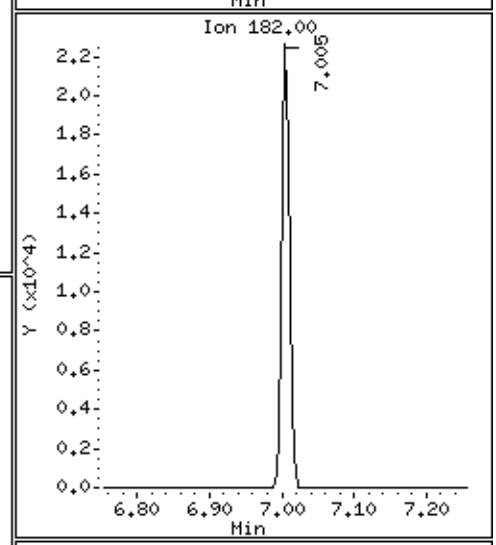


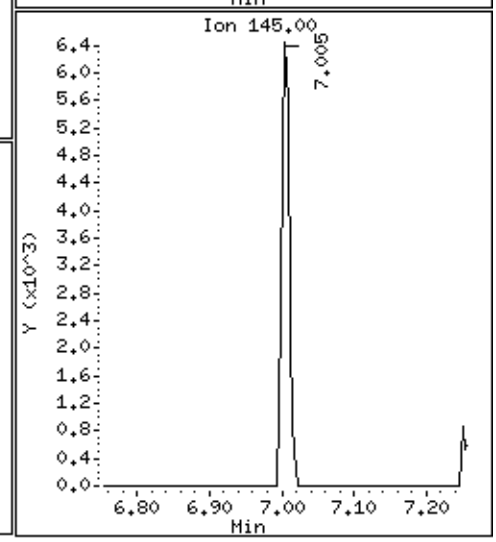












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

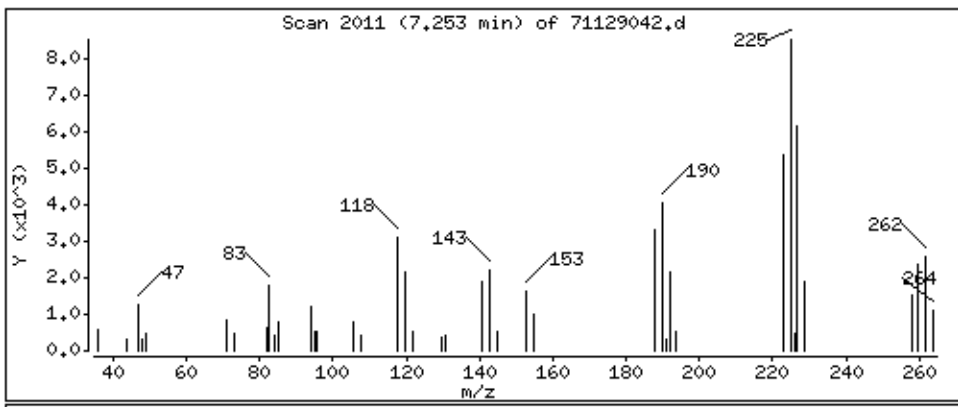
Column phase: RTX-VMS

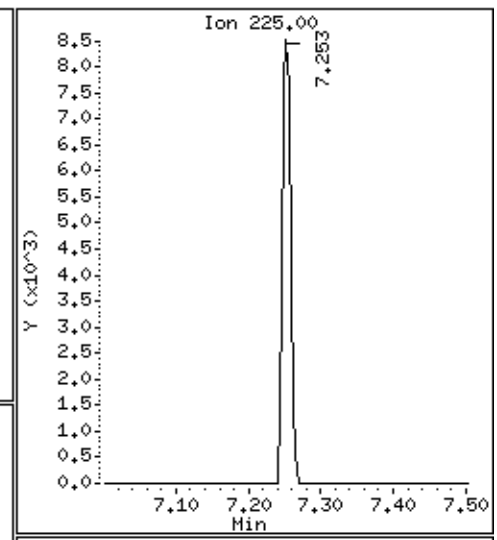
Column diameter: 0.18

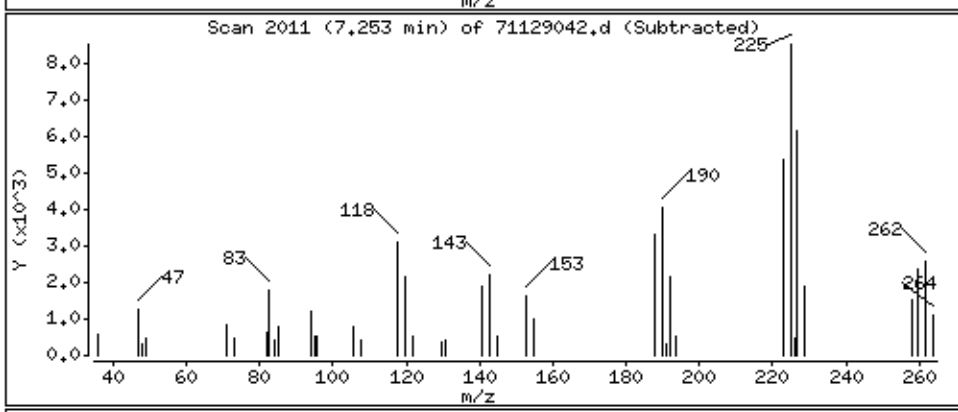
100 Hexachloro-1,3-butadiene

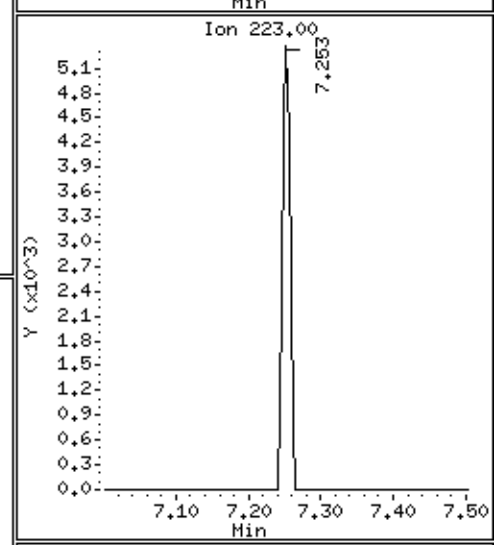
Concentration: 11.0 ug/L

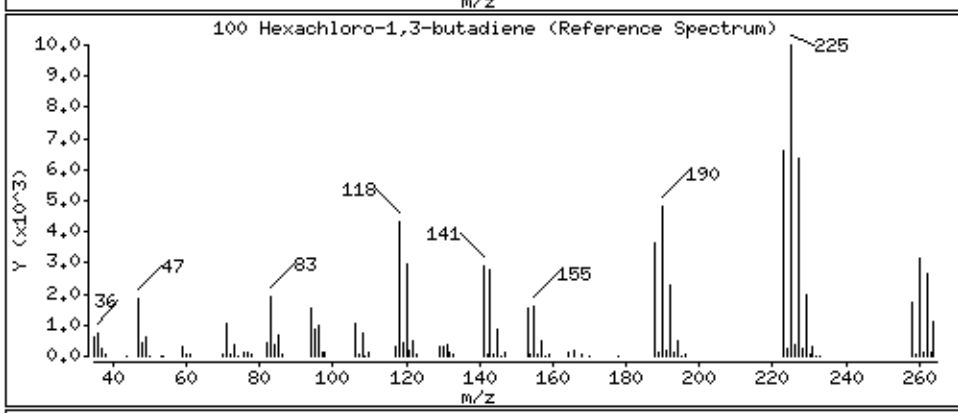
Review Code:

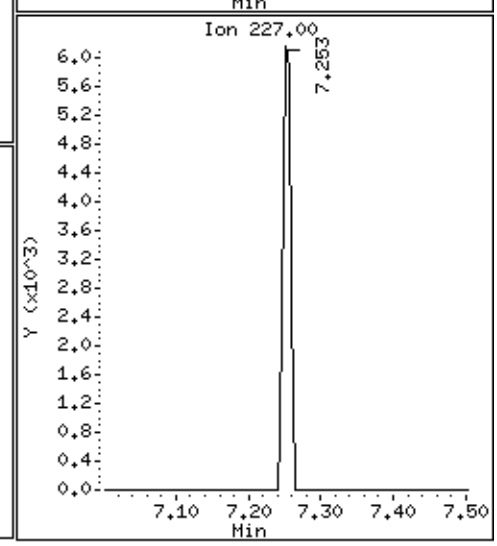


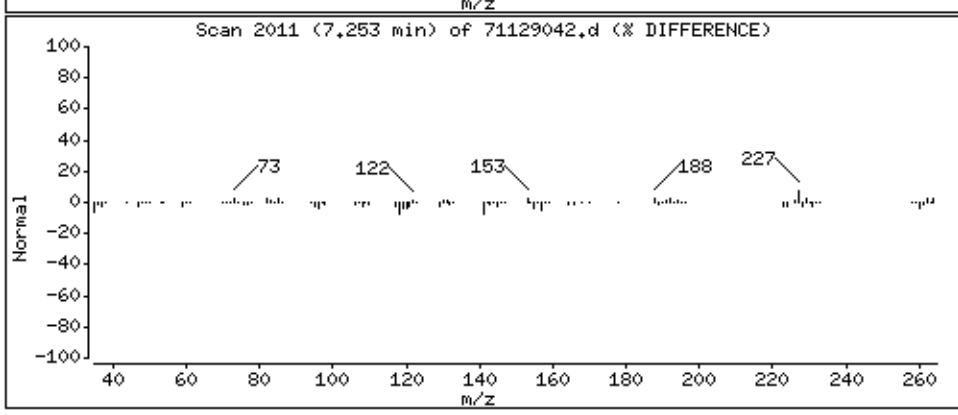












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Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

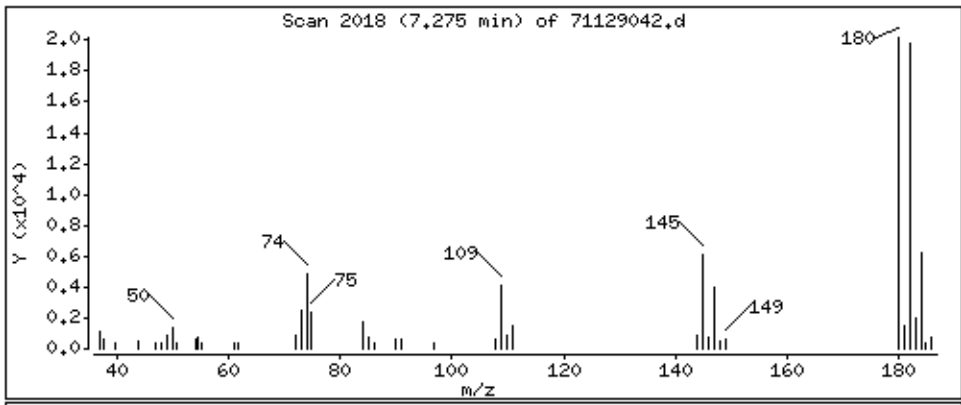
Column phase: RTX-VMS

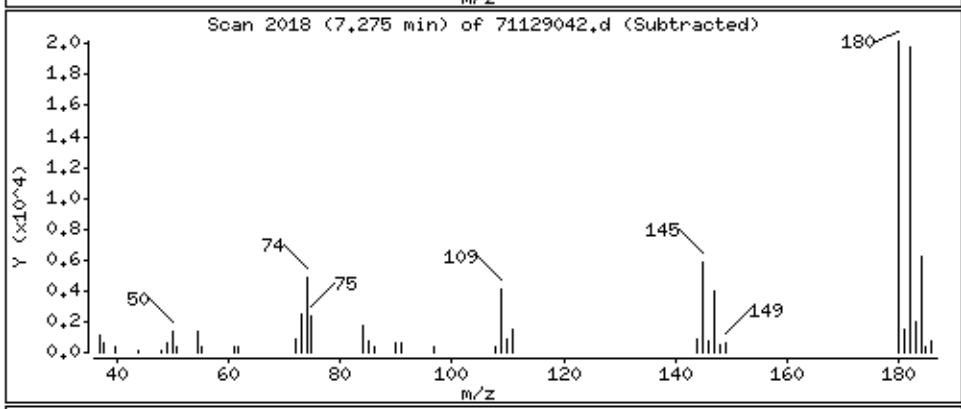
Column diameter: 0.18

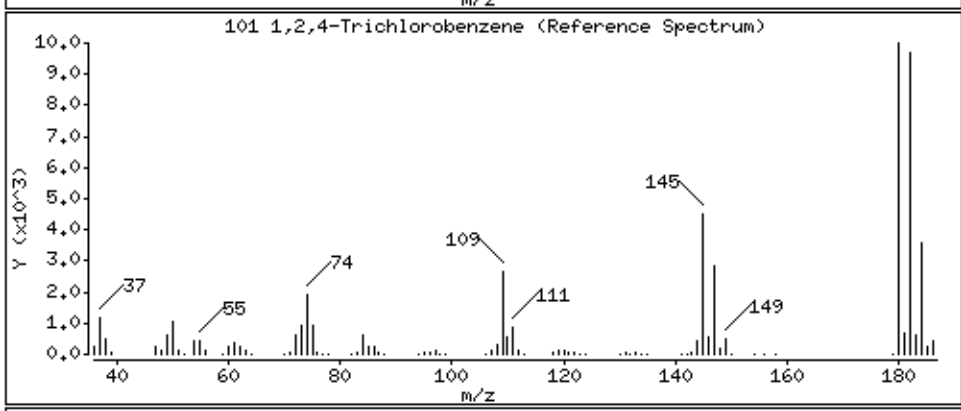
101 1,2,4-Trichlorobenzene

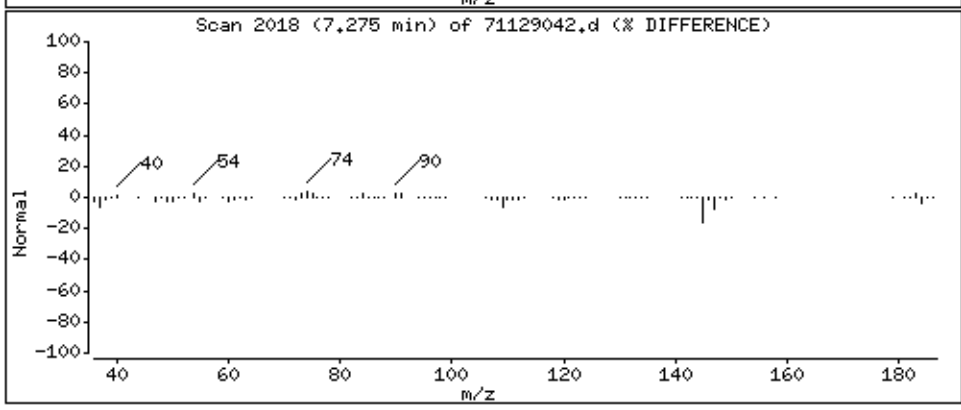
Concentration: 12.6 ug/L

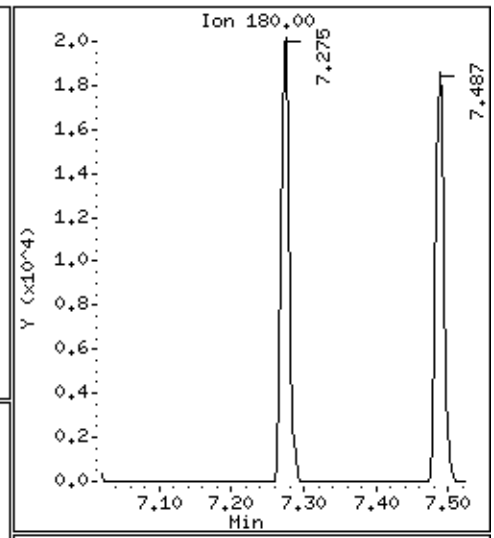
Review Code:

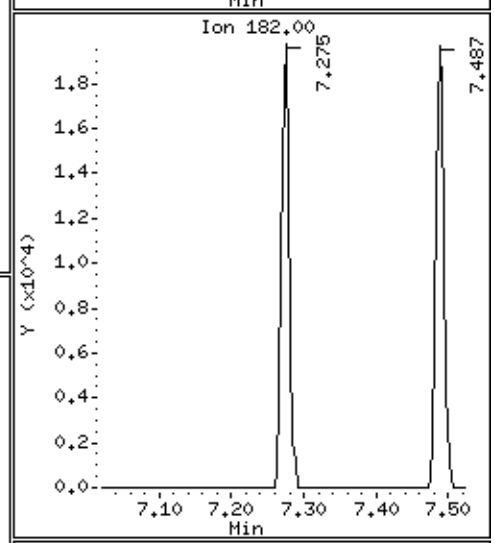


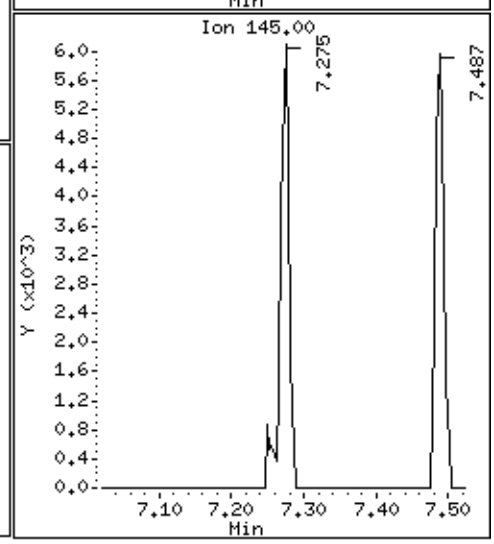












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

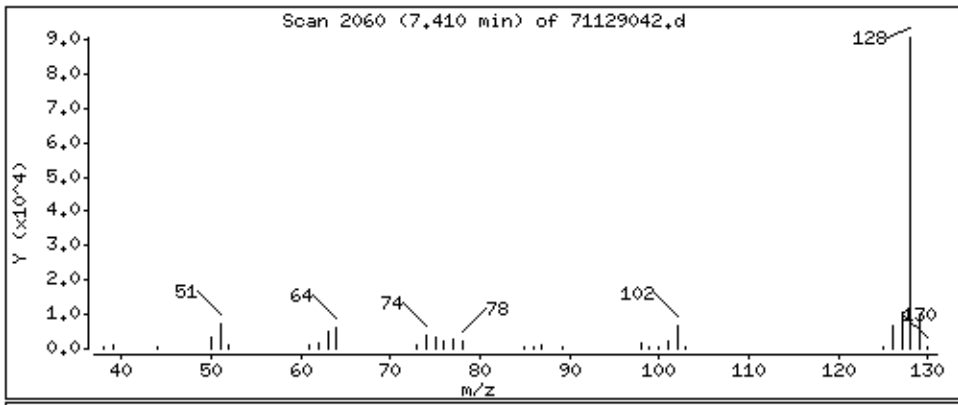
Column phase: RTX-VMS

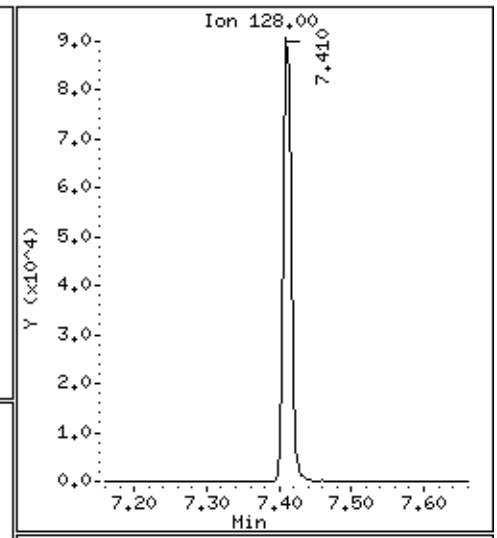
Column diameter: 0.18

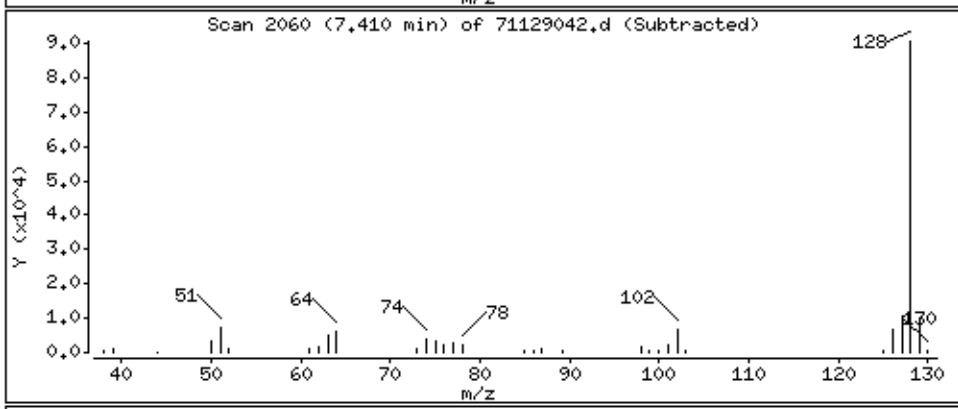
102 Naphthalene

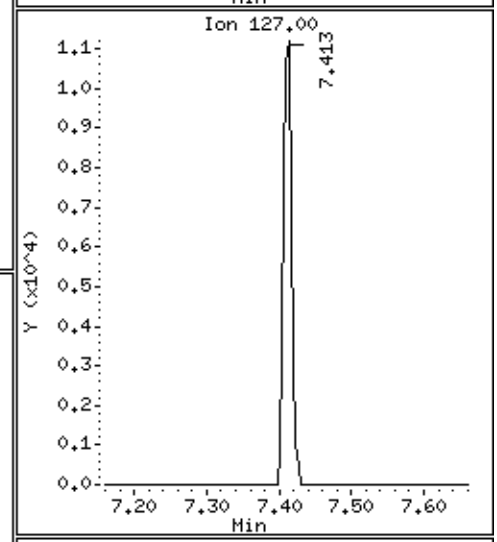
Concentration: 12.4 ug/L

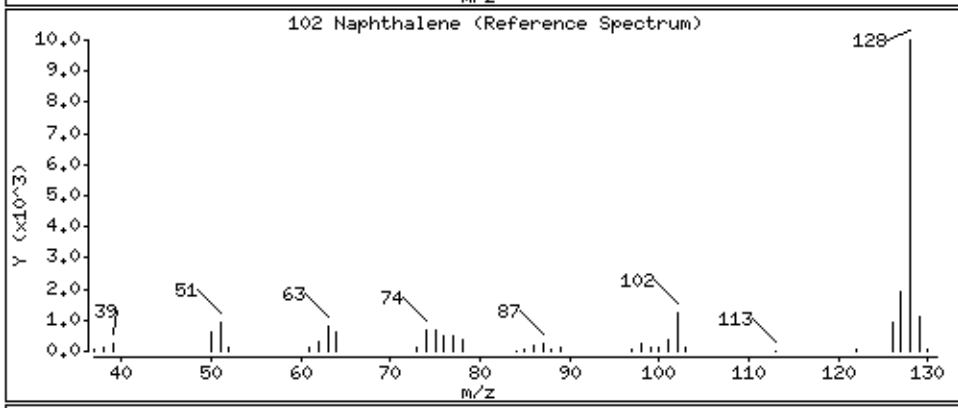
Review Code:

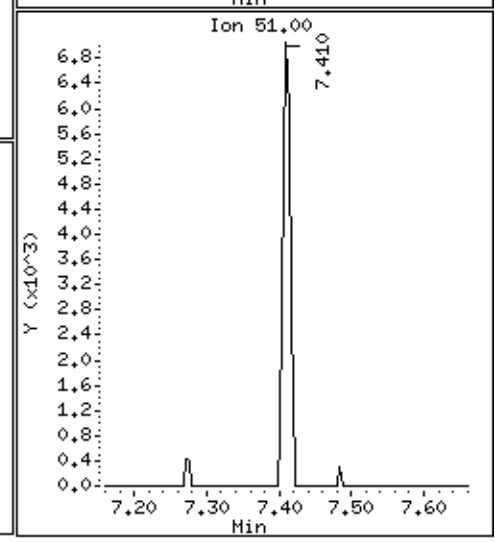


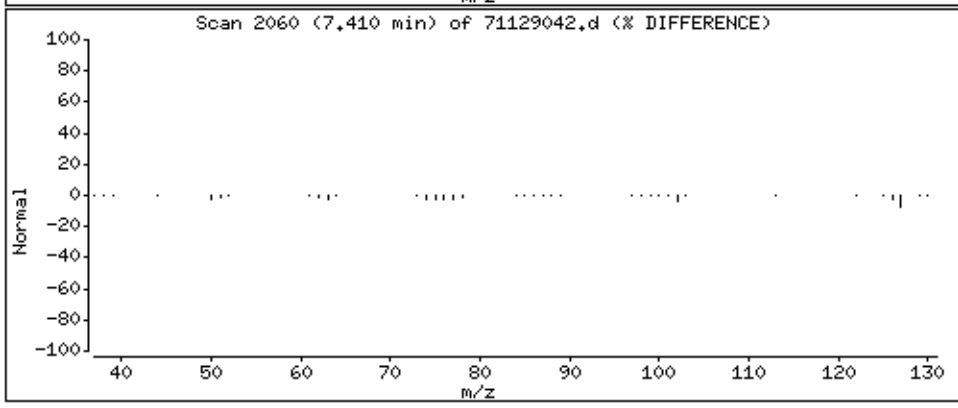












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

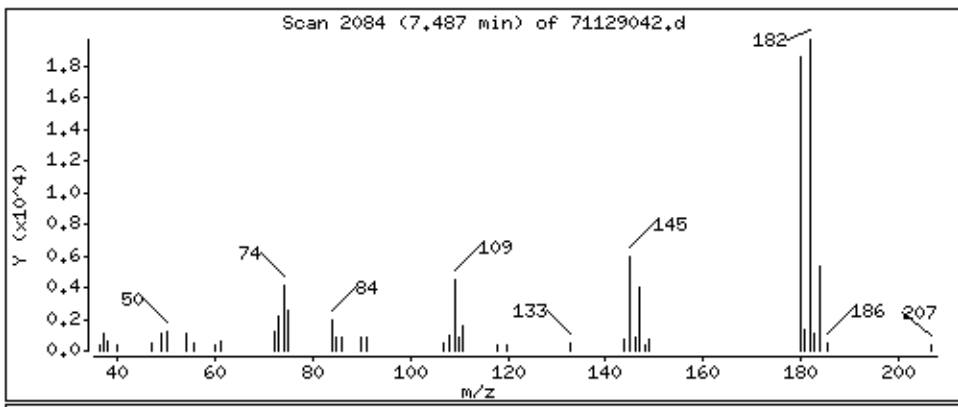
Column phase: RTX-VMS

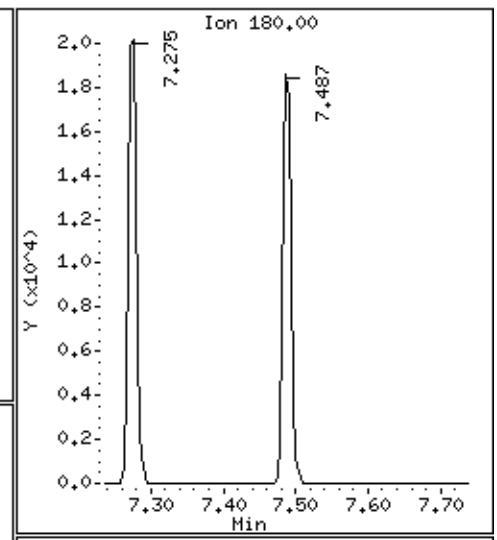
Column diameter: 0.18

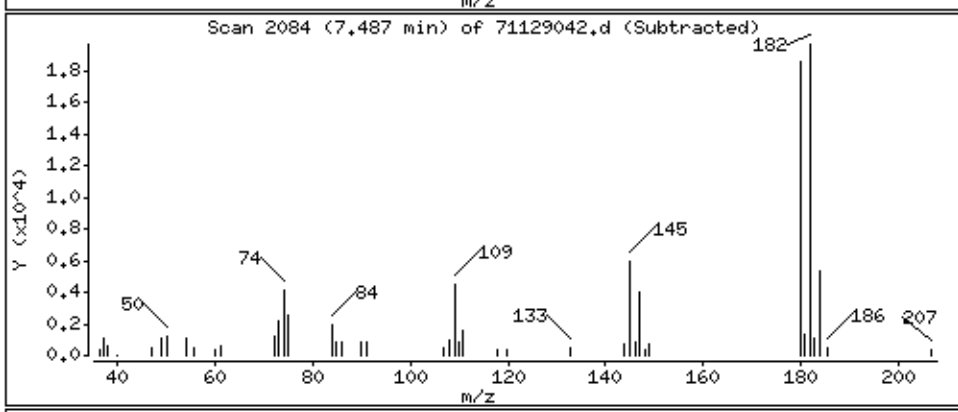
104 1,2,3-Trichlorobenzene

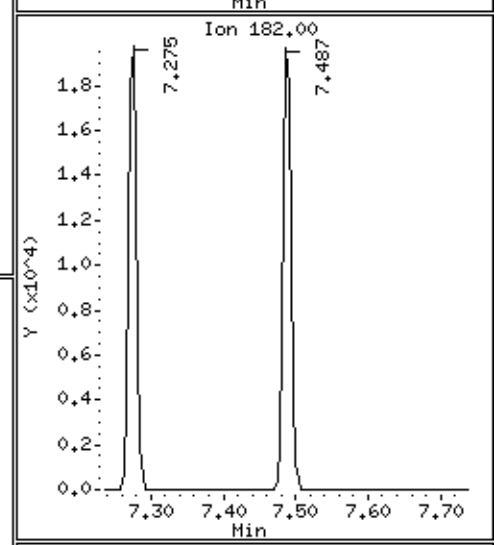
Concentration: 11.9 ug/L

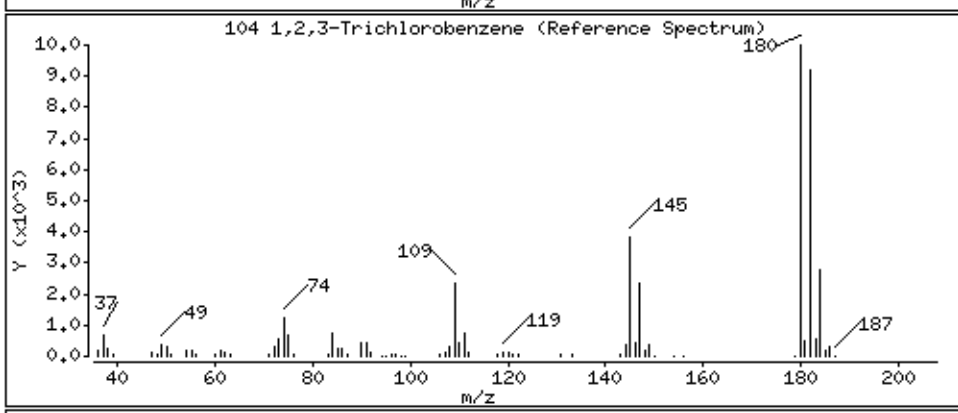
Review Code:

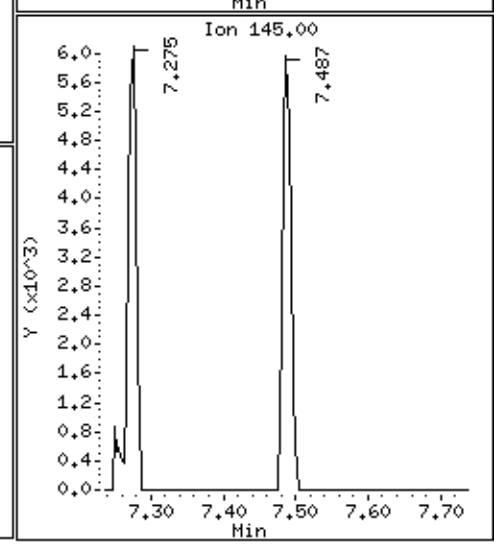


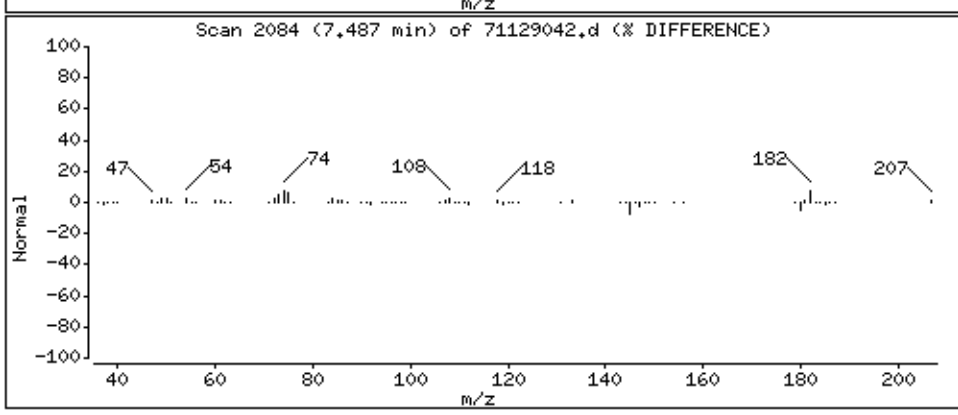












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042.d

Date : 29-NOV-2019 16:37

Client ID: MSD

Instrument: 30mv7b.i

Sample Info: 30337003007

Purge Volume: 5.0

Operator: LEL

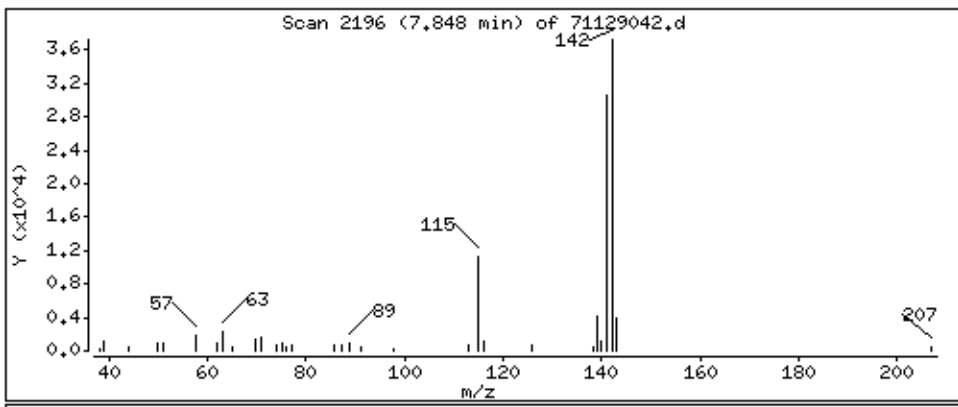
Column phase: RTX-VMS

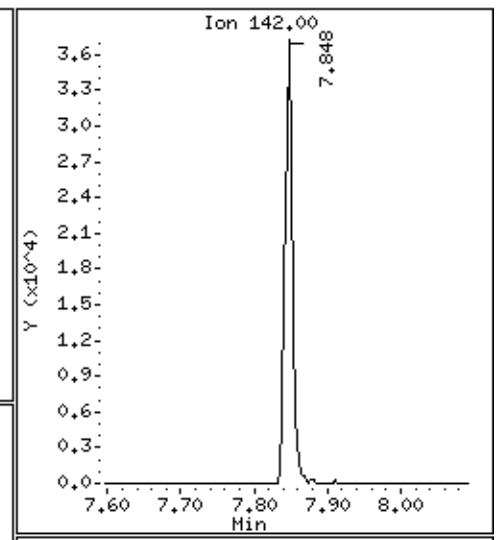
Column diameter: 0.18

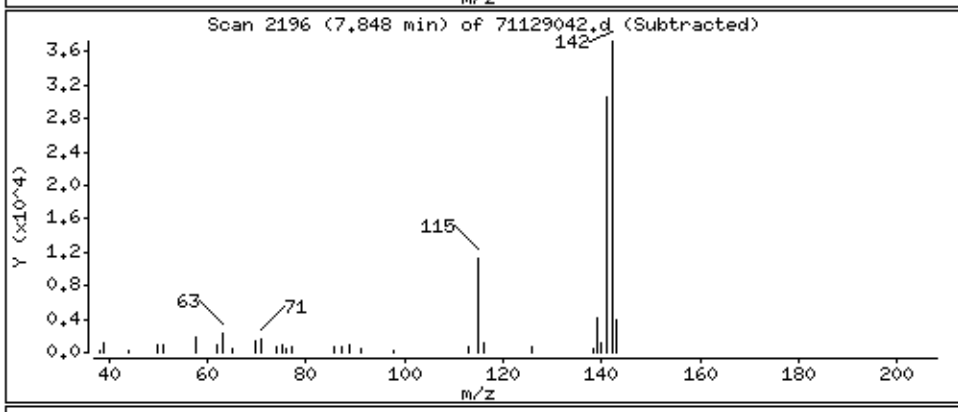
105 2-Methylnaphthalene

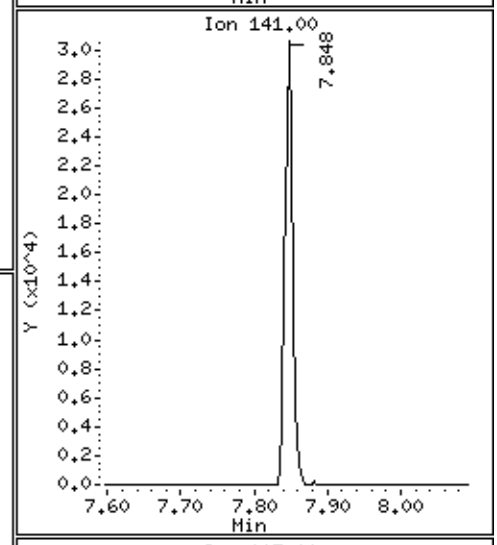
Concentration: 11.9 ug/L

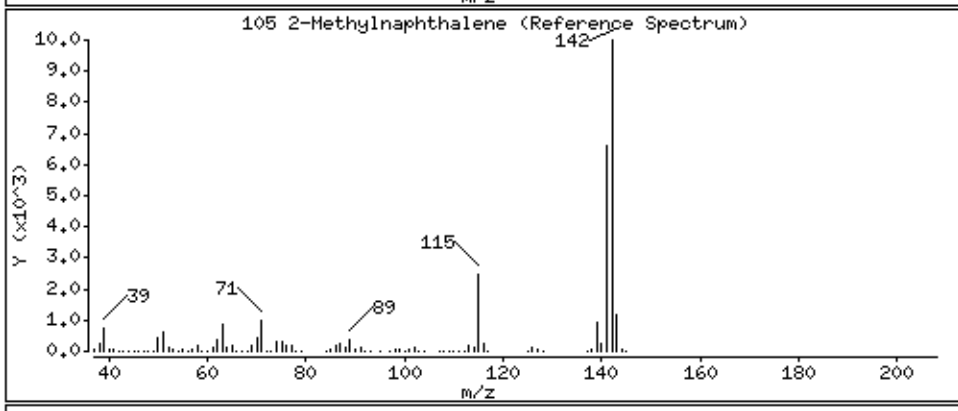
Review Code:

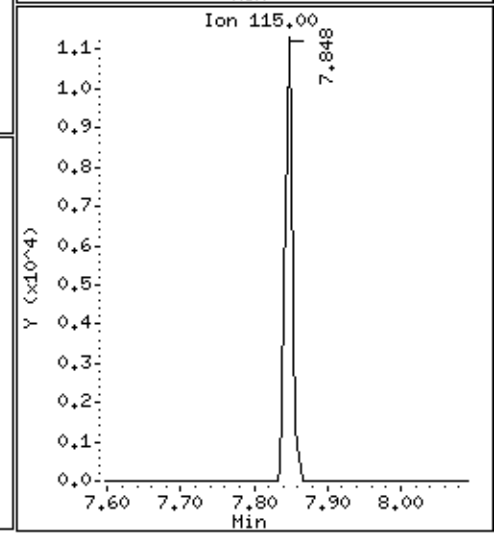


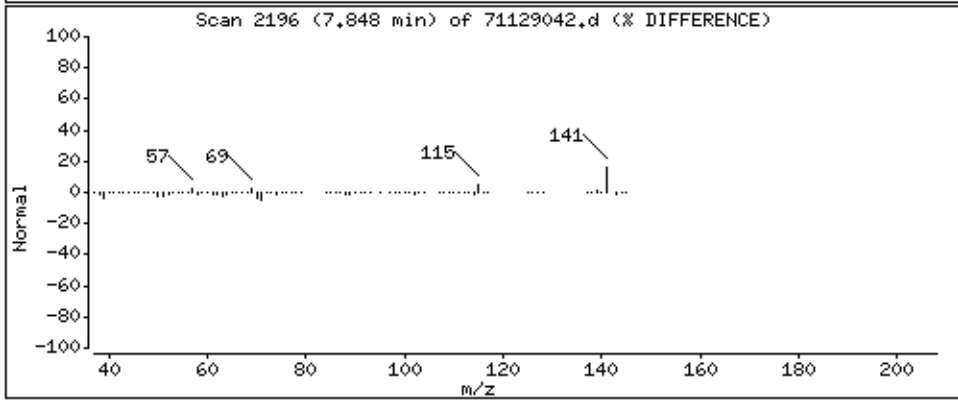






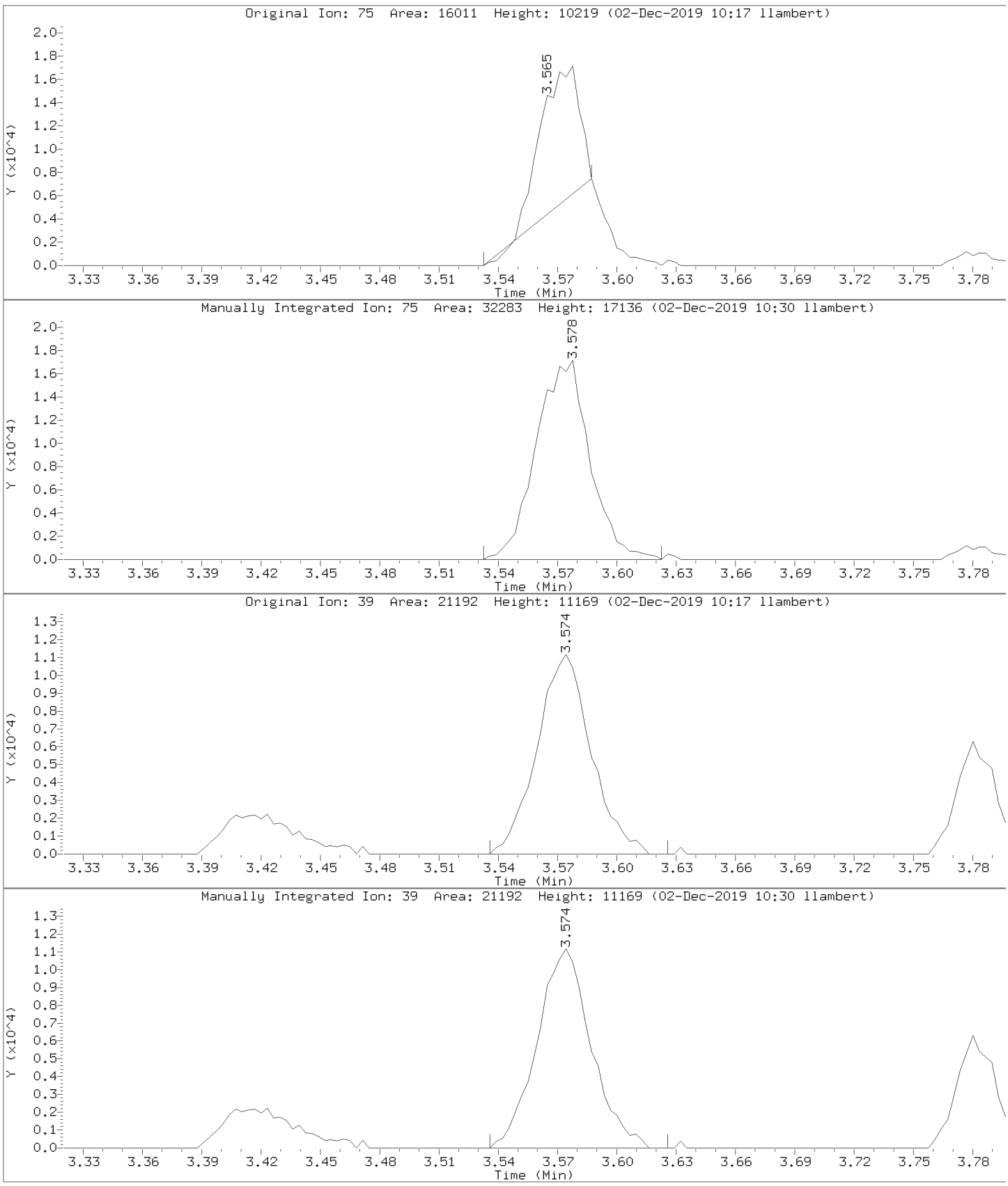






Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 30337003007

Compound: 1,1-Dichloropropene Review Code: LT
CAS Number: 563-58-6



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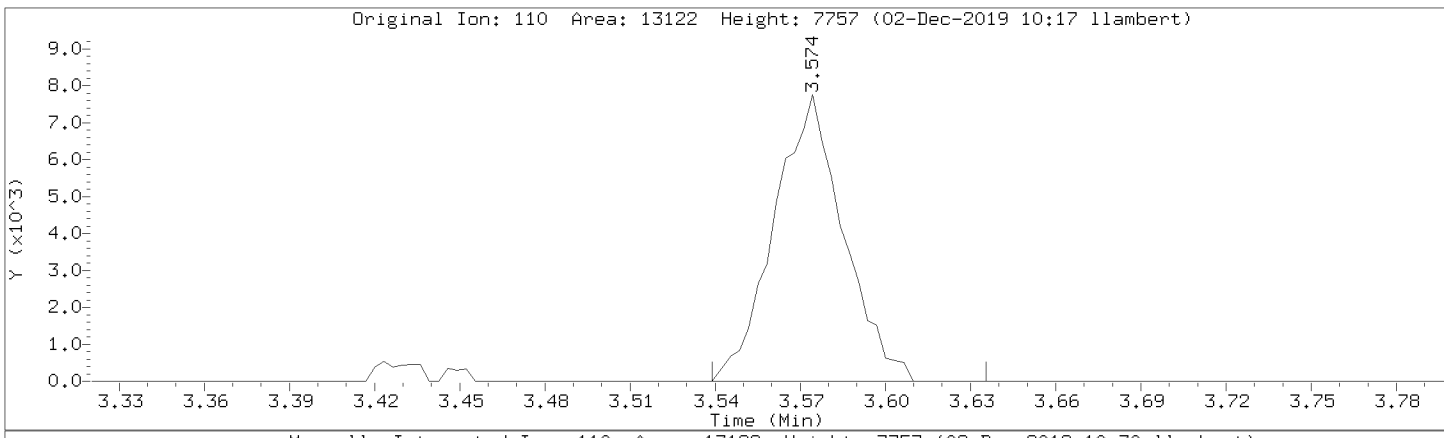
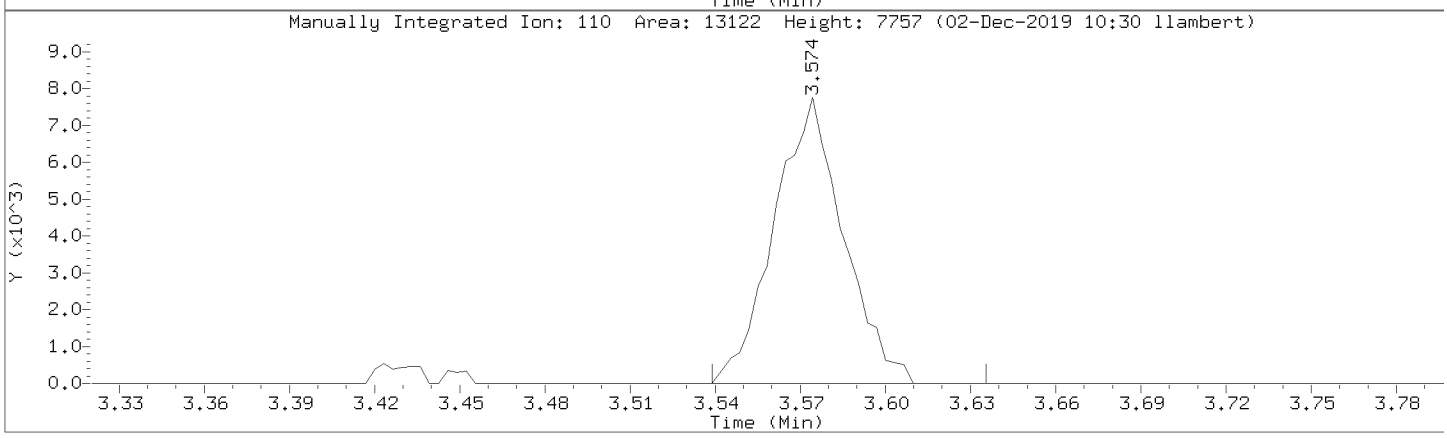
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 30337003007





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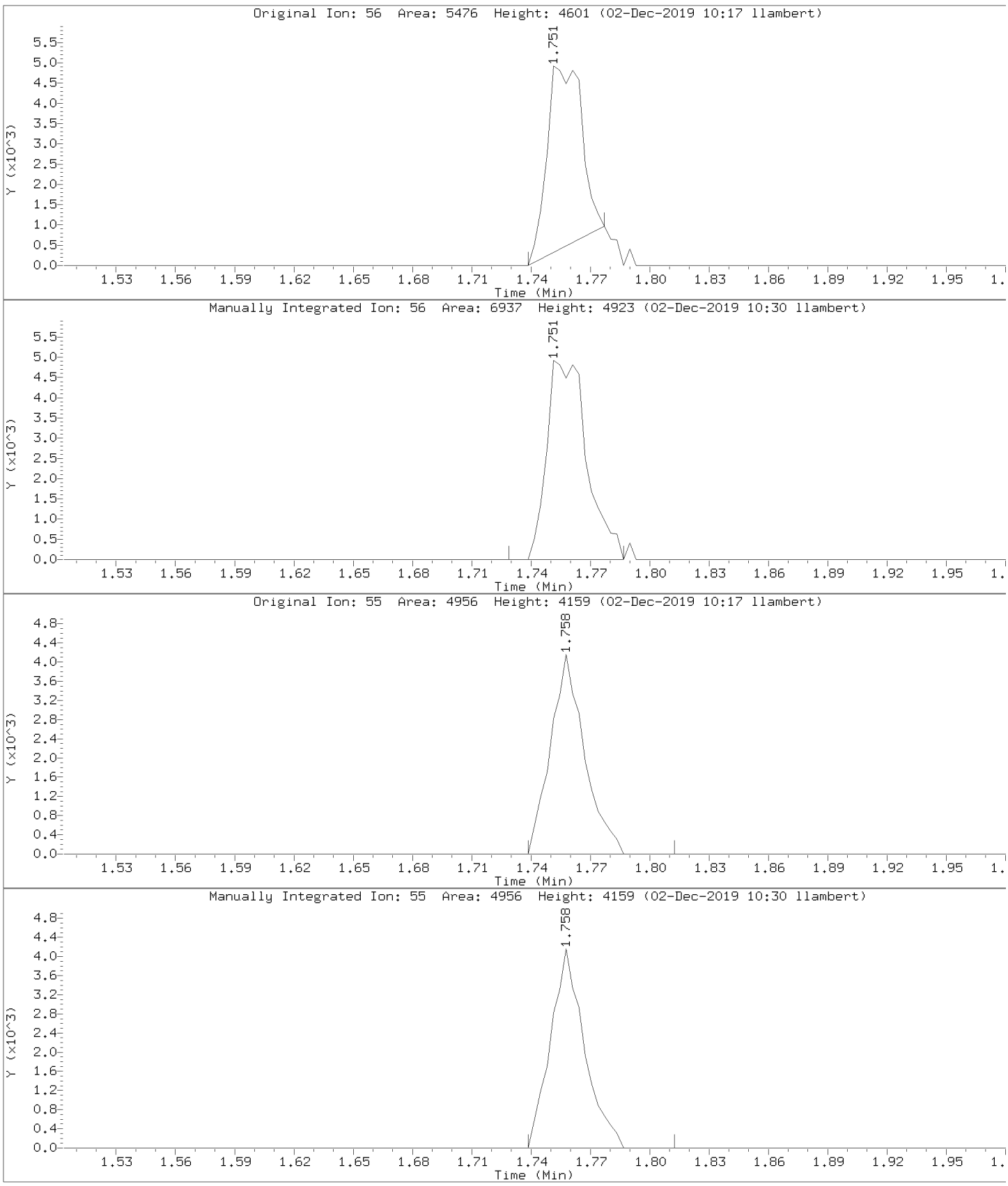
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 30337003007

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8



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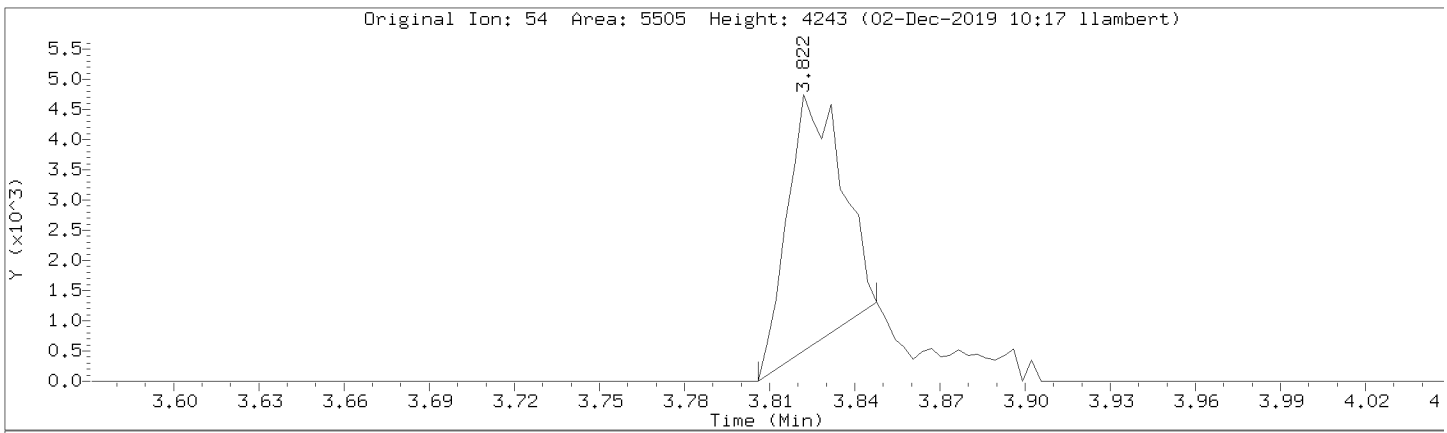
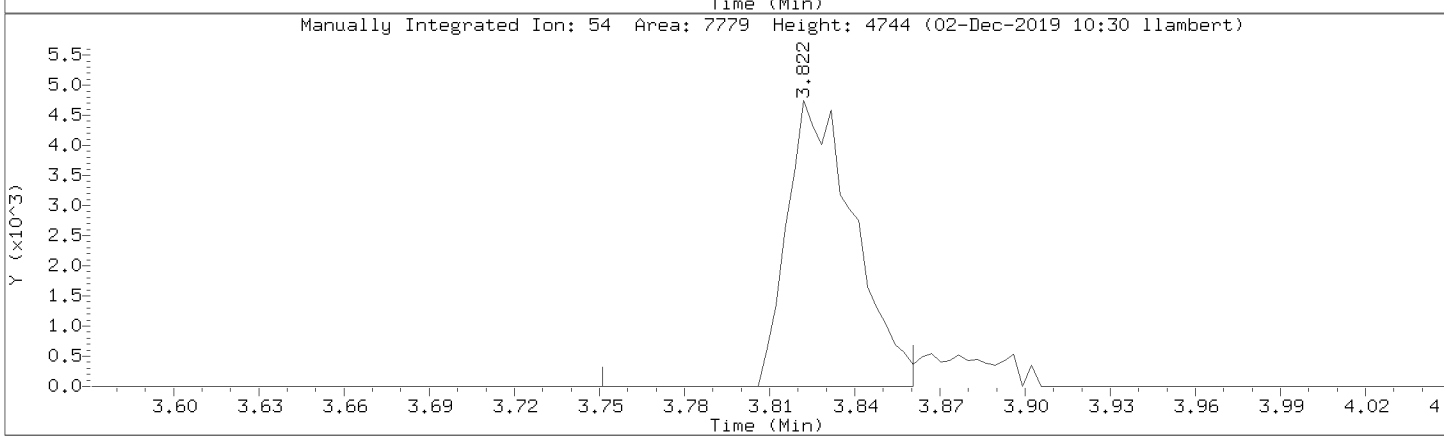
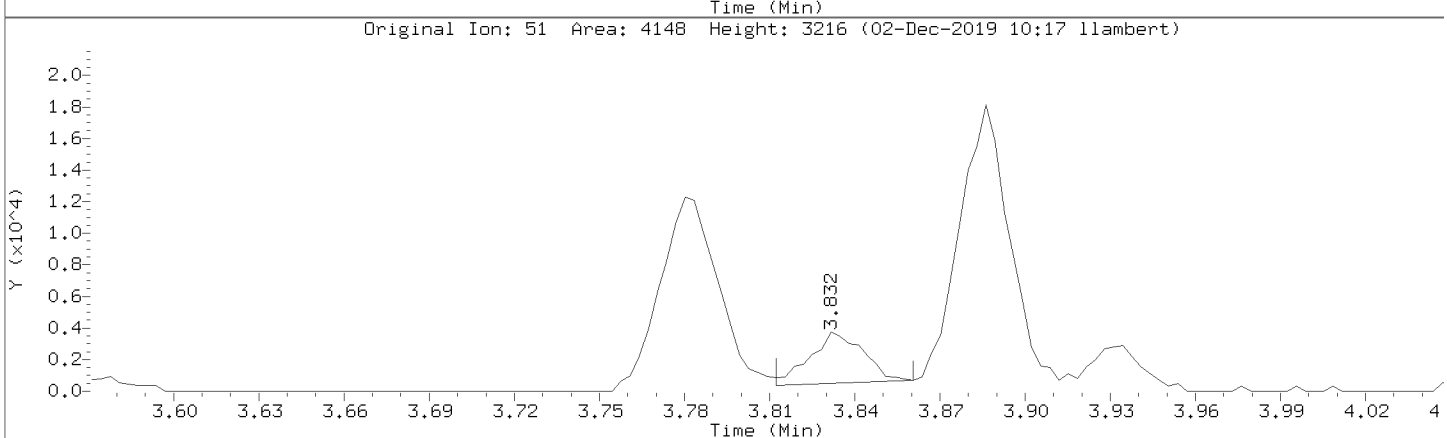
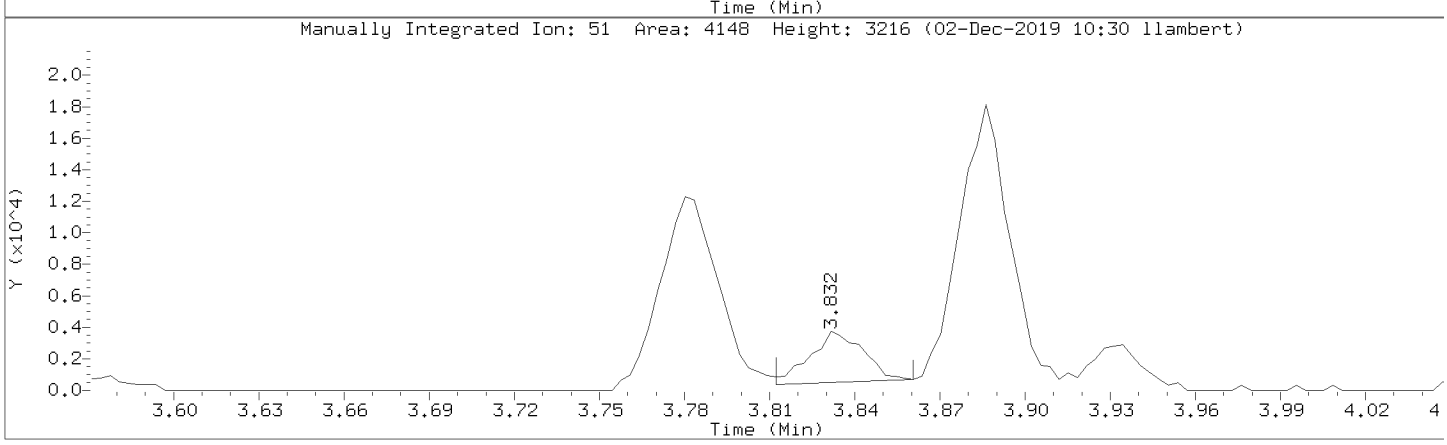
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 30337003007

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0

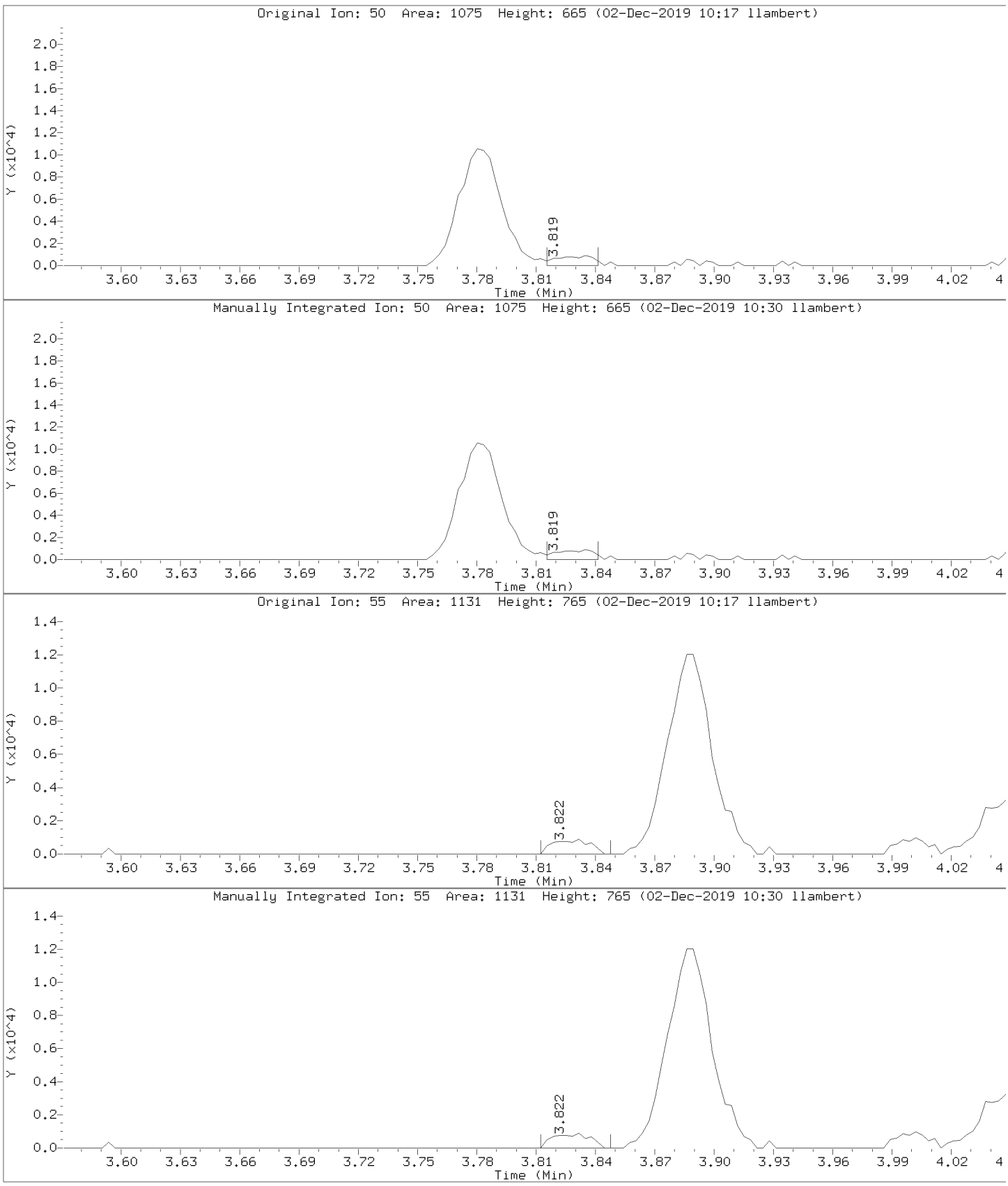








Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 30337003007



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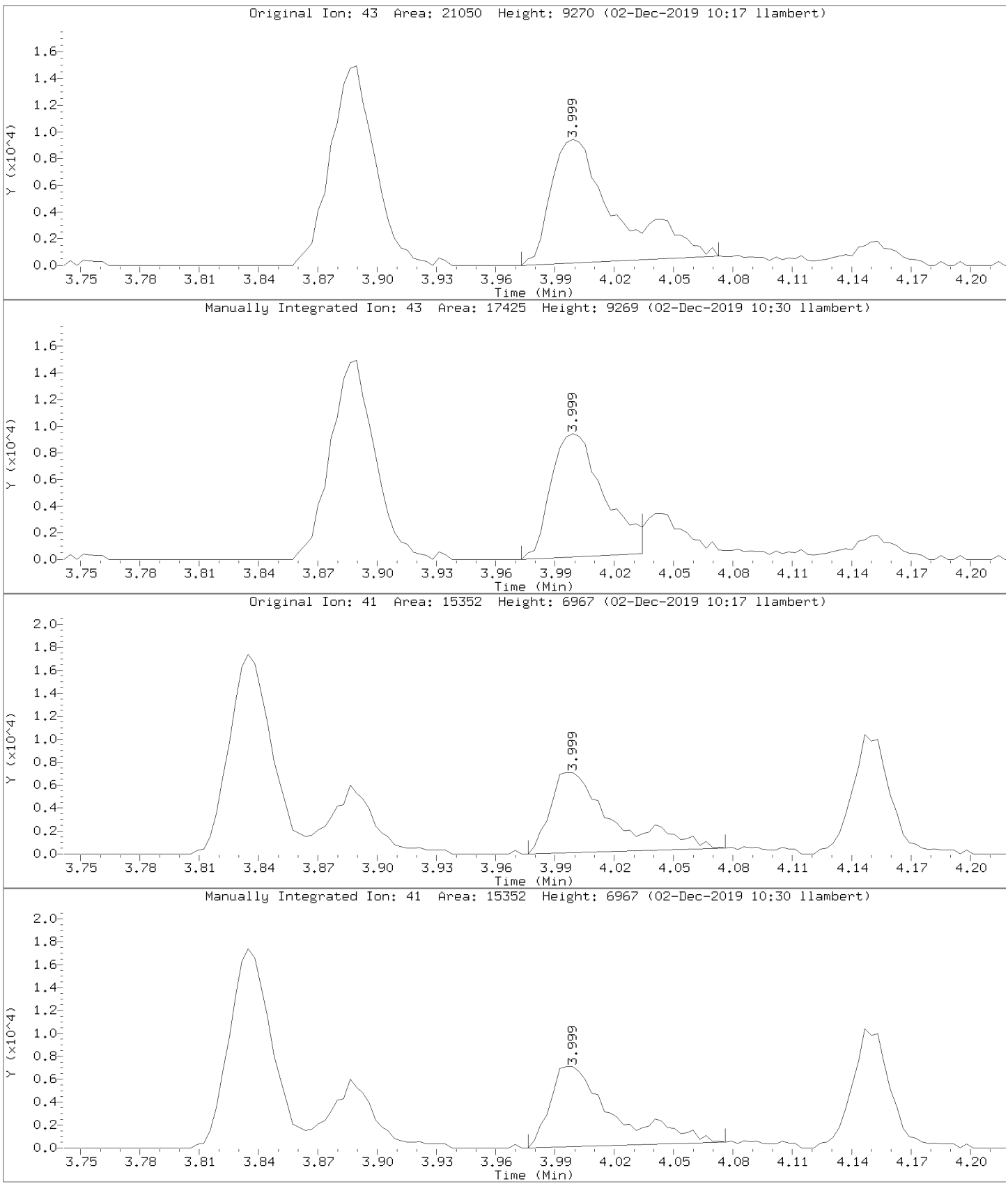
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 30337003007

Compound: Isobutanol Review Code: GT
CAS Number: 78-83-1



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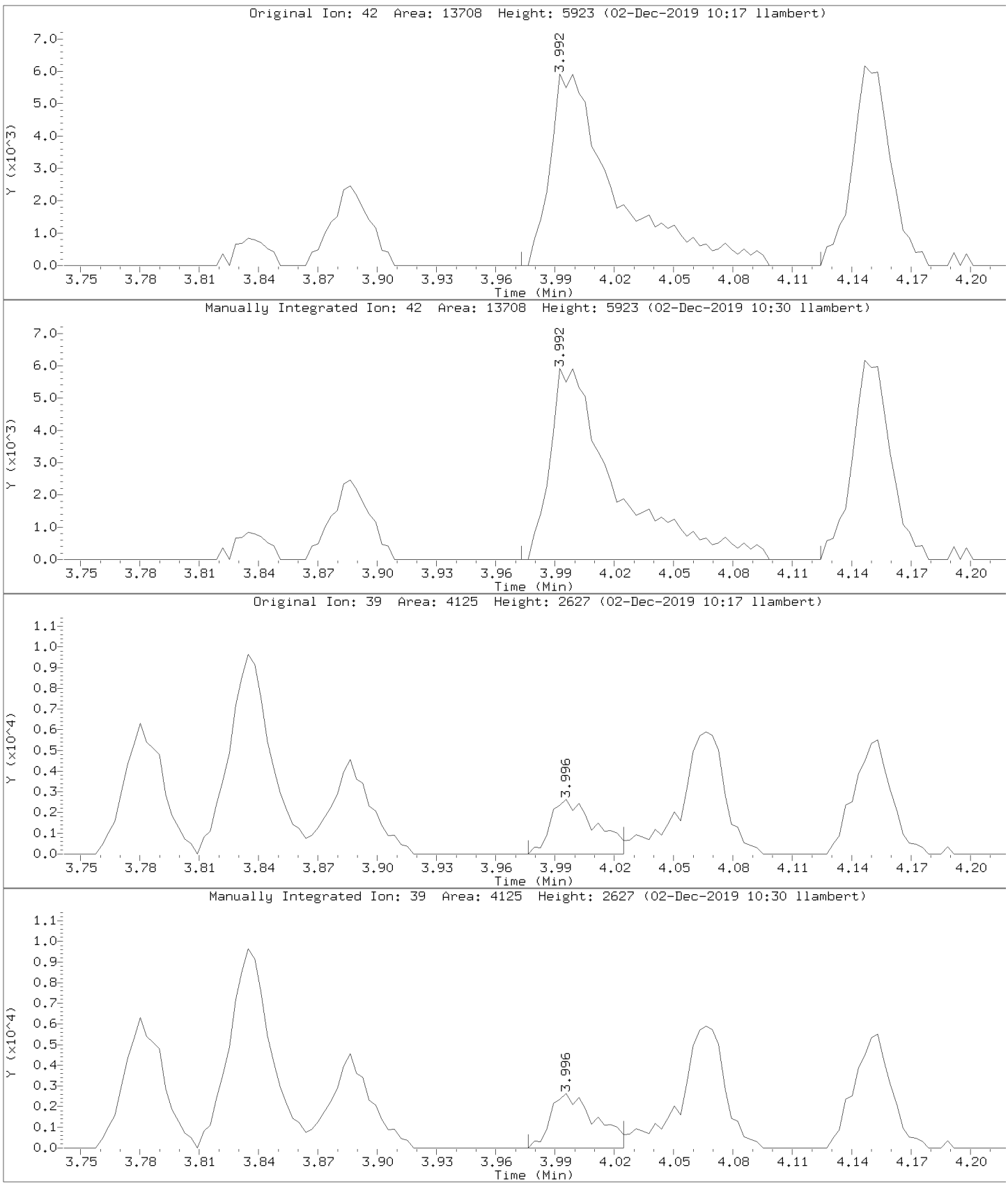
Instrument: 30mv7b.i
Lab Sample ID: 30337003007



SAMPLE NO.

Duplicate

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 12/02/2019 23:00 Lab Sample ID: 30337003008

Date Analyzed: 12/02/2019 23:00 Lab File ID: 7191202.B\1.B\71202063.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 10 Instrument: 30MV7A Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
75-35-4	1,1-Dichloroethene	704	
71-55-6	1,1,1-Trichloroethane	1550	
79-01-6	Trichloroethene	2110	

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202063.d
Report Date: 03-Dec-2019 09:20

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202063.d
Lab Smp Id: 30337003008 Client Smp ID: Duplicate
Inj Date : 02-DEC-2019 23:00
Operator : LEL Inst ID: 30mv7a.i
Smp Info : 30337003008x10
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191202.b\1.b\msv7191112a.m
Meth Date : 02-Dec-2019 11:54 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:00 Cal File: 71112005.d
Als bottle: 63
Dil Factor: 10.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	10.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	Compound Not Detected.						
2	Chloromethane	50	Compound Not Detected.						
3	Vinyl chloride	62	Compound Not Detected.						
4	Bromomethane	94	Compound Not Detected.						
5	Chloroethane	64	Compound Not Detected.						
6	Trichlorofluoromethane	101	Compound Not Detected.						
7	Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8	Ethanol	46	Compound Not Detected.						
9	1,1-Dichloroethene	61	1.558	1.555	(0.383)	144329	70.4291	704	
10	1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11	Carbon disulfide	76	Compound Not Detected.						
12	Iodomethane	142	Compound Not Detected.						
13	Acrolein	56	Compound Not Detected.						
14	Allyl chloride	41	Compound Not Detected.						
15	Methylene Chloride	49	Compound Not Detected.						
16	Acetone	58	1.960	1.947	(0.482)	2586	6.41500	64.2	
17	trans-1,2-Dichloroethene	61	2.015	2.017	(0.495)	1105	0.59549	5.95(aQ)	
18	Methyl acetate	74	Compound Not Detected.						
19	n-Hexane	86	Compound Not Detected.						
20	Methyl-tert-butyl ether	73	Compound Not Detected.						
21	tert-Butyl Alcohol	59	Compound Not Detected.						
22	Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202063.d
Report Date: 03-Dec-2019 09:20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	Compound Not Detected.						
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	2.979	2.963	(0.732)	14064	8.12857	81.3	
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Ethyl acetate	43	Compound Not Detected.						(D)
	35 Carbon tetrachloride	117	Compound Not Detected.						(D)
	36 Tetrahydrofuran	42	3.423	3.433	(0.841)	9751	8.50694	85.1(Q)	
$	37 Dibromofluoromethane (S)	111	3.446	3.439	(0.847)	42421	31.8999	31.9	
	38 1,1,1-Trichloroethane	97	3.446	3.452	(0.847)	294193	154.875	1550	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	45612	33.8824	33.9	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	151003	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	4.166	4.168	(1.024)	301875	210.630	2110	
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	130663	28.2650	28.3	
	59 Toluene	91	Compound Not Detected.						
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	2040	1.72978	17.3(Q)	
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	107203	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202063.d
Report Date: 03-Dec-2019 09:20

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	41282	30.0134	30.0	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	44377	30.0000		
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202063.d
Report Date: 03-Dec-2019 09:20

Pace Analytical Services, Inc.

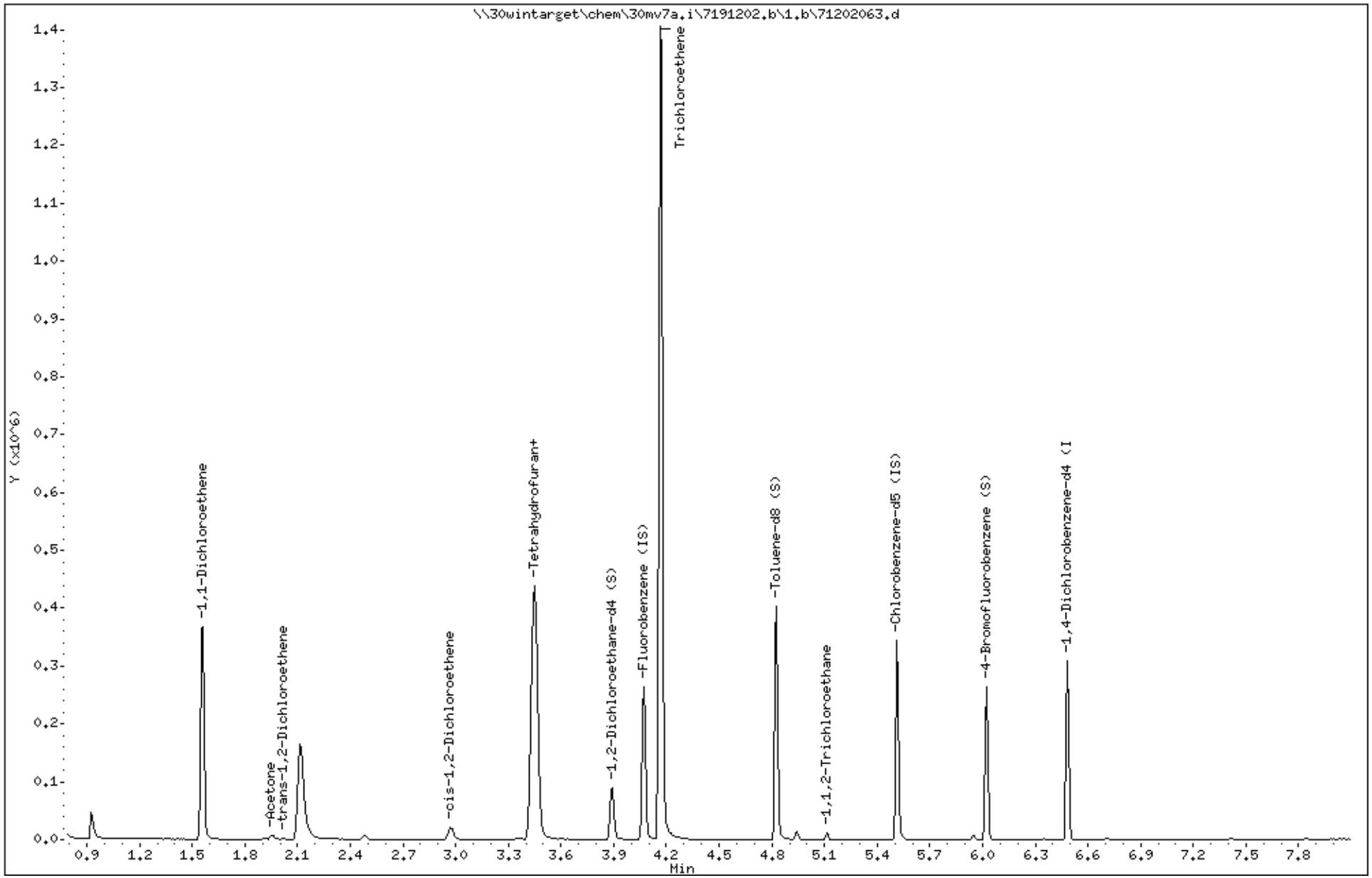
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003008
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: Duplicate
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-35-4	1,1-Dichloroethene	704	
67-64-1	Acetone	64.2	
156-60-5	trans-1,2-Dichloroethene	5.95	J
156-59-2	cis-1,2-Dichloroethene	81.3	
109-99-9	Tetrahydrofuran	85.1	
71-55-6	1,1,1-Trichloroethane	1550	
79-01-6	Trichloroethene	2110	
79-00-5	1,1,2-Trichloroethane	17.3	
1868-53-7	Dibromofluoromethane (S)	31.9	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.9	
2037-26-5	Toluene-d8 (S)	28.3	
460-00-4	4-Bromofluorobenzene (S)	30.0	

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202063.d
Date : 02-DEC-2019 23:00
Client ID: Duplicate
Instrument: 30mv7a.i
Sample Info: 30337003008X10
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

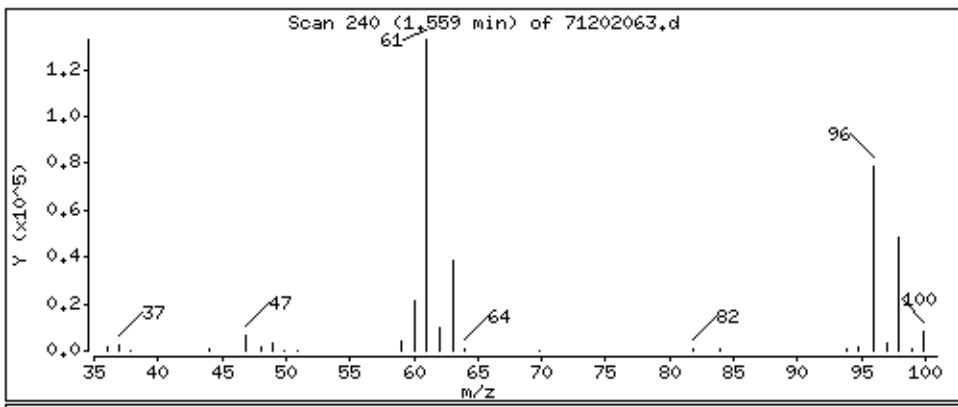
Column phase: RTX-VMS

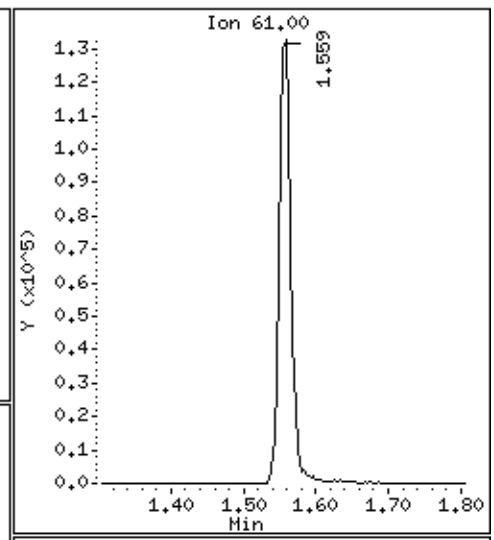
Column diameter: 0.18

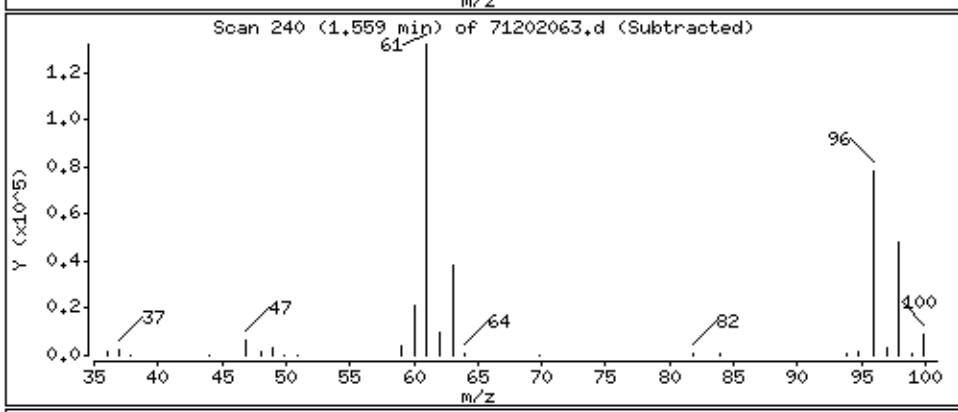
9 1,1-Dichloroethene

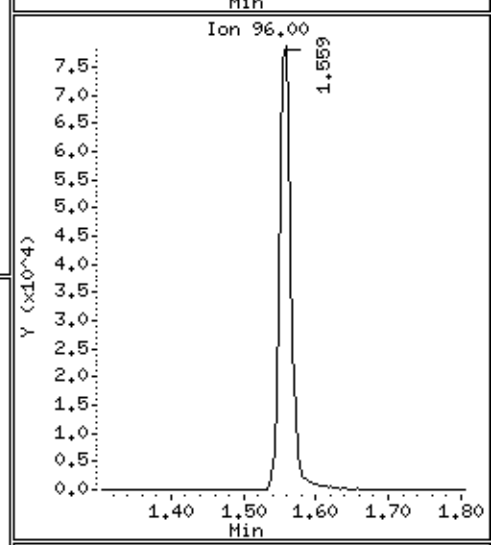
Concentration: 704 ug/L

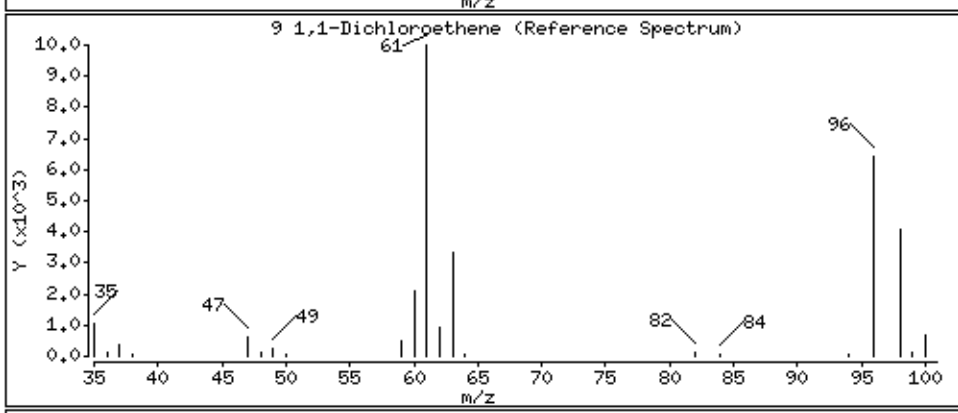
Review Code:

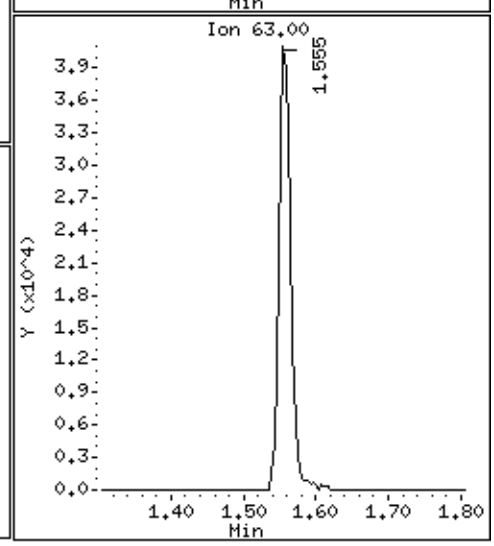


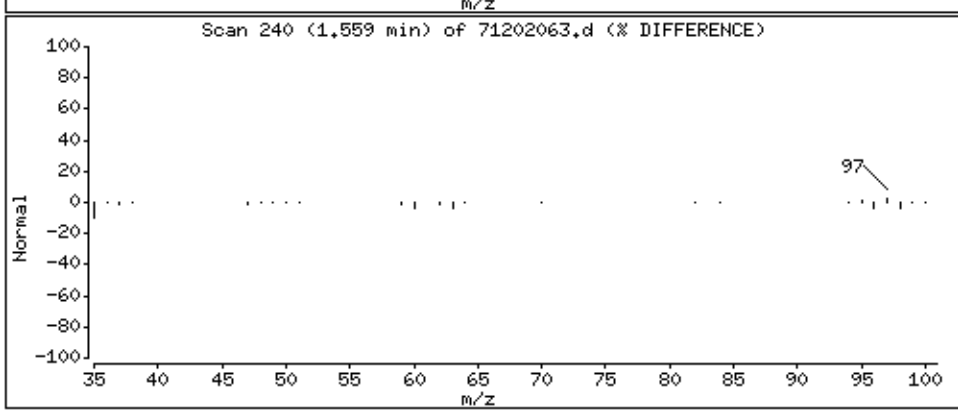












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Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

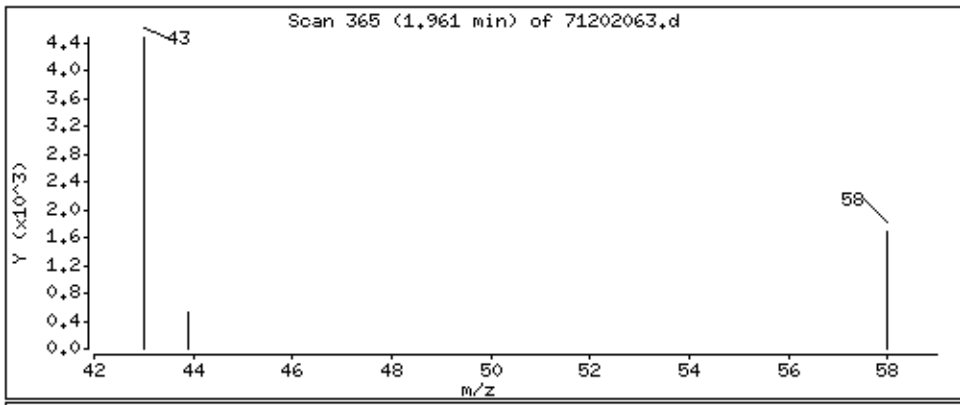
Column phase: RTX-VMS

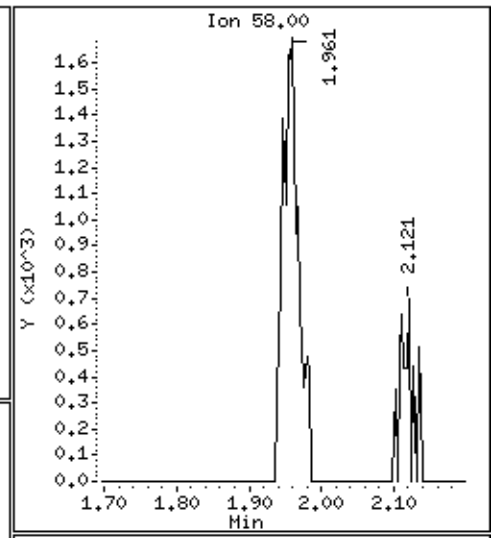
Column diameter: 0.18

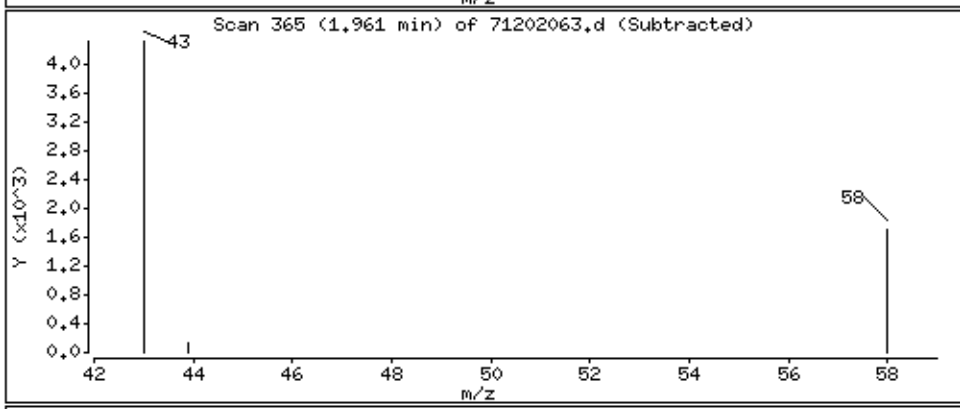
16 Acetone

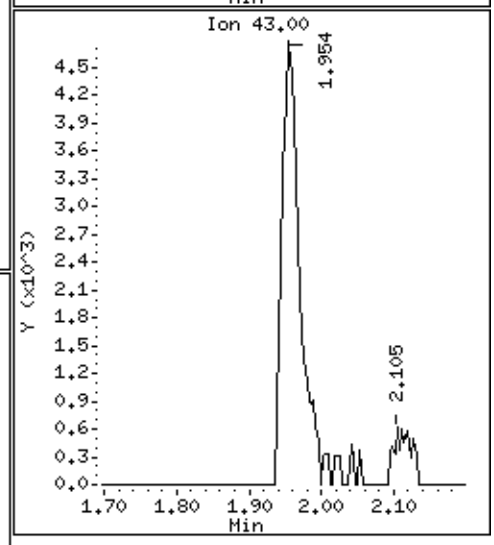
Concentration: 64.2 ug/L

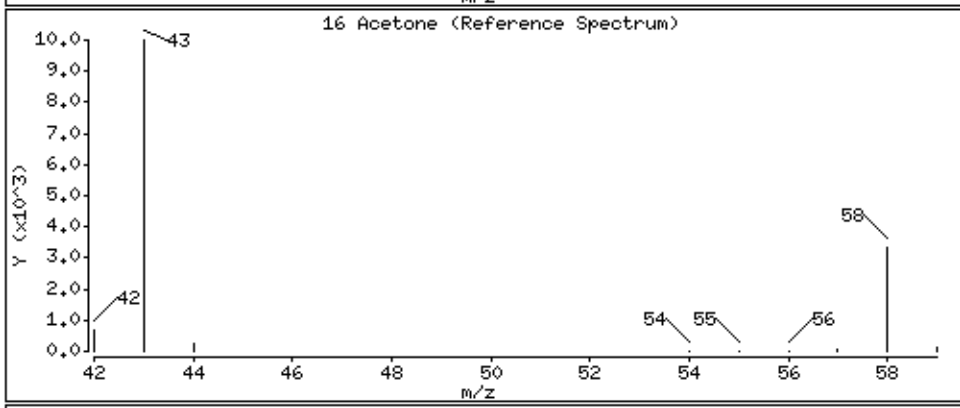
Review Code:

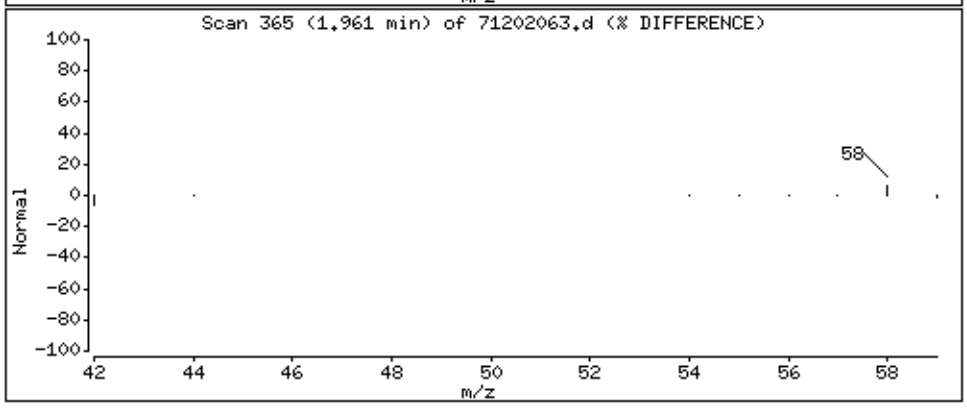












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Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

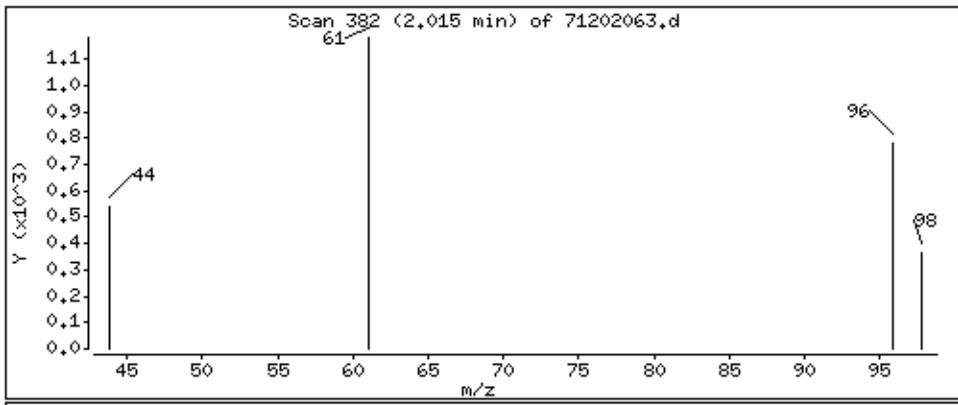
Column phase: RTX-VMS

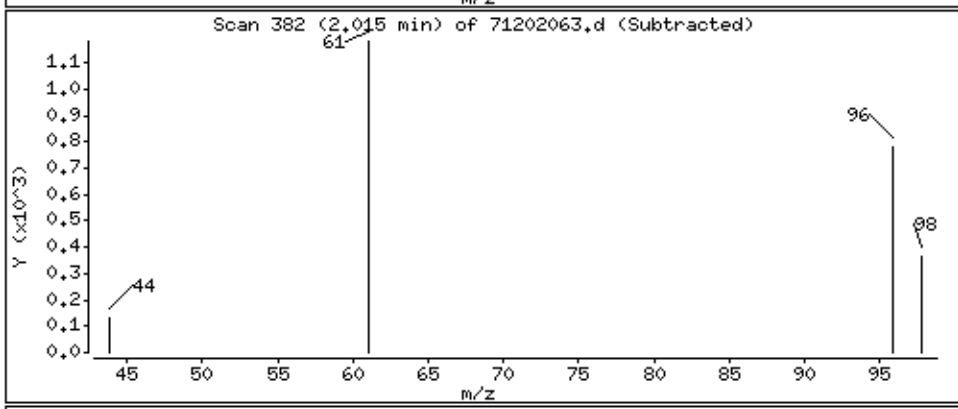
Column diameter: 0.18

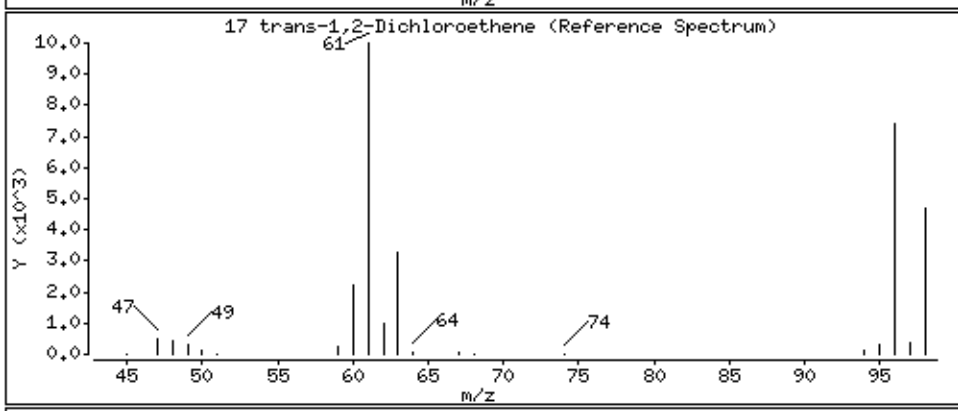
17 trans-1,2-Dichloroethene

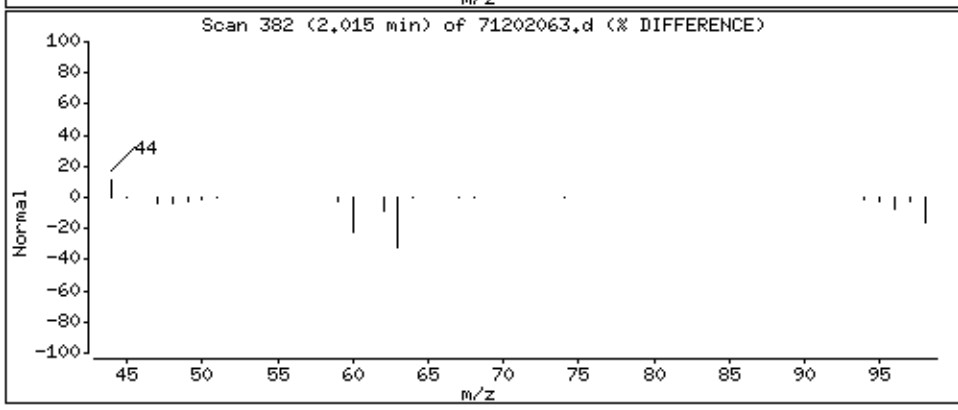
Concentration: 5.95 ug/L

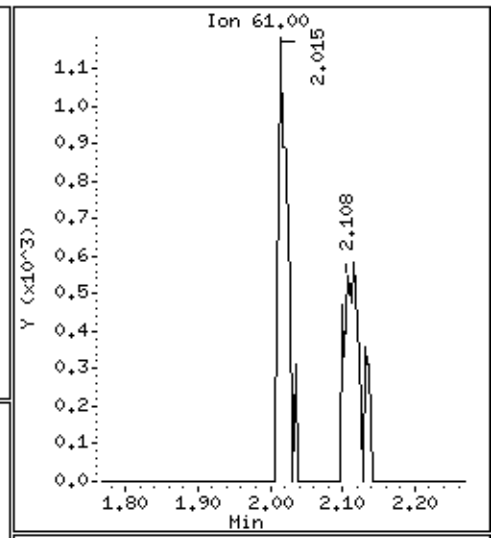
Review Code:

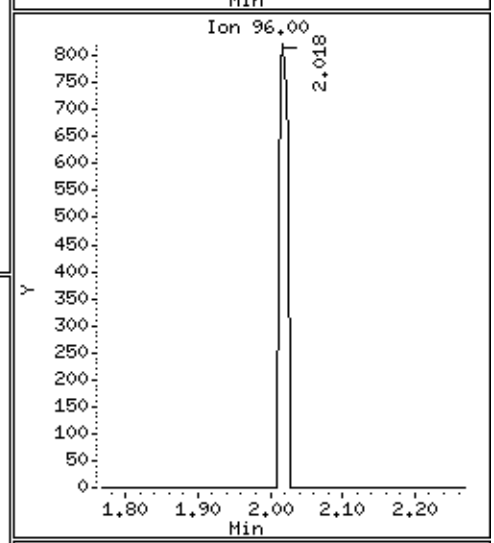


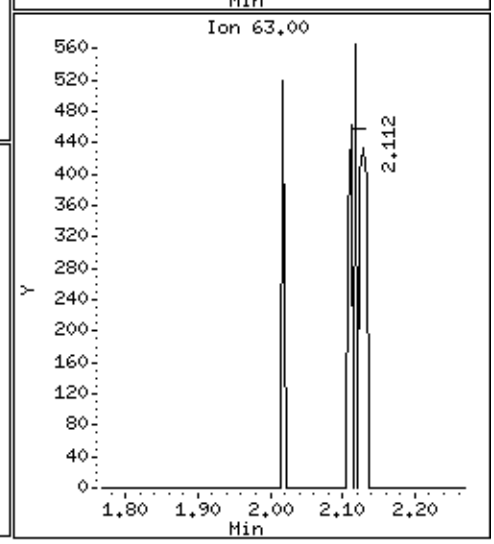












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Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

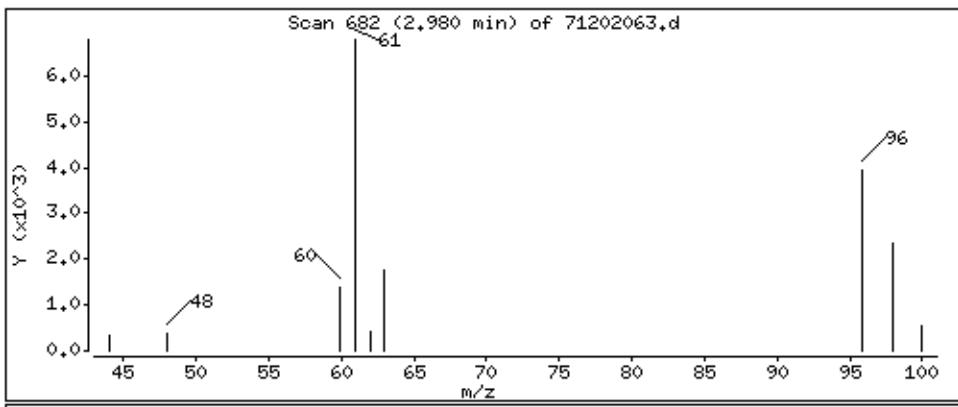
Column phase: RTX-VMS

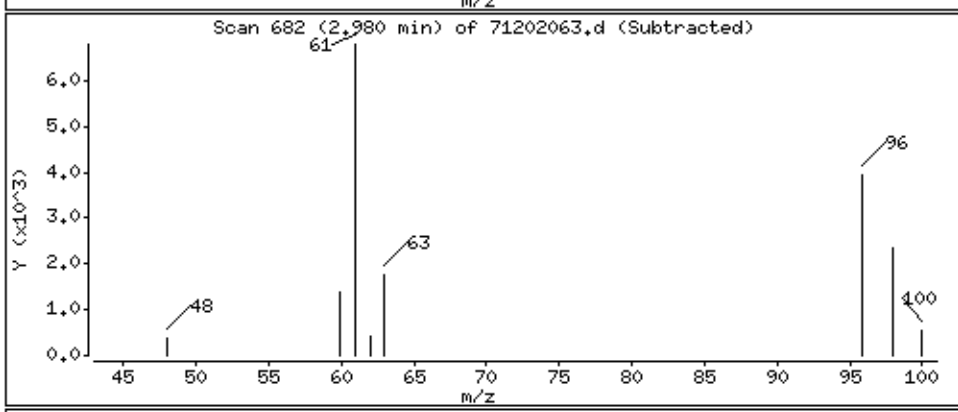
Column diameter: 0.18

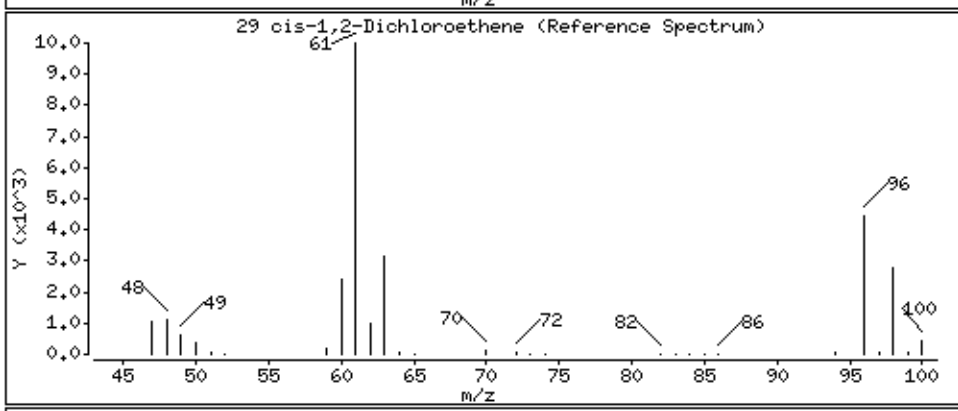
29 cis-1,2-Dichloroethene

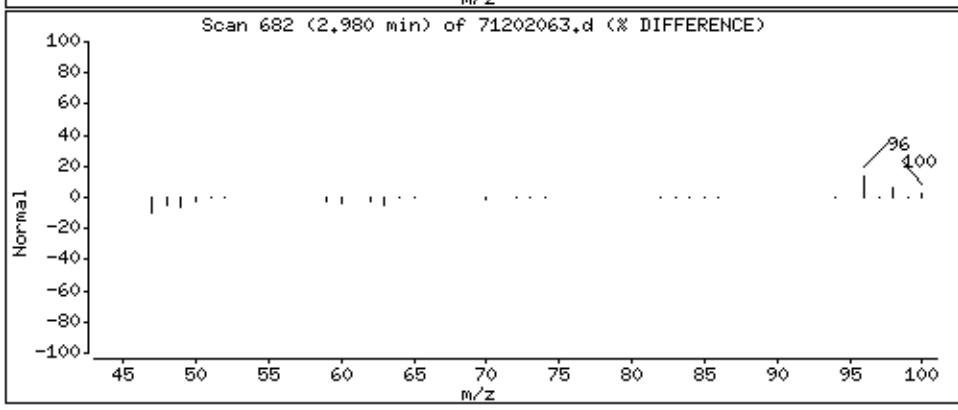
Concentration: 81.3 ug/L

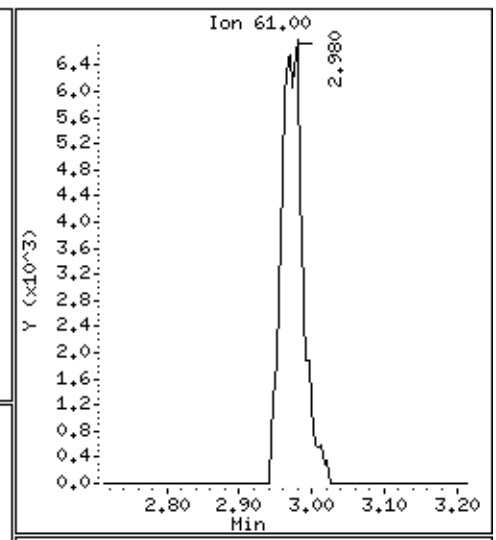
Review Code:

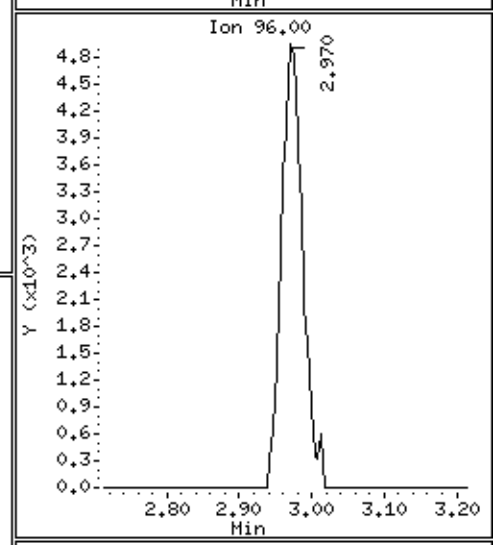


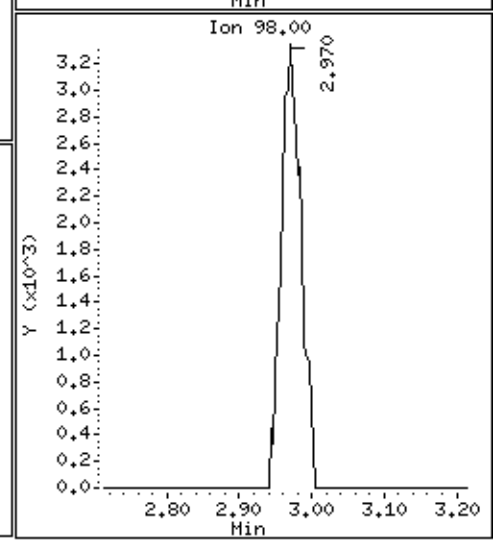












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Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

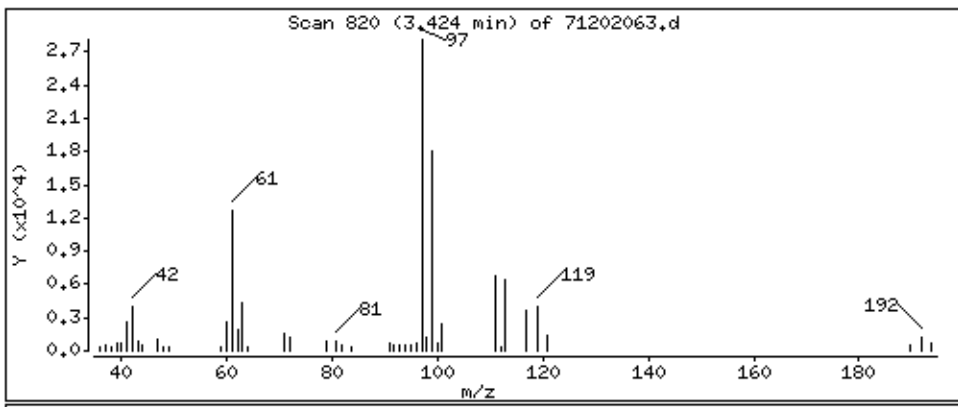
Column phase: RTX-VMS

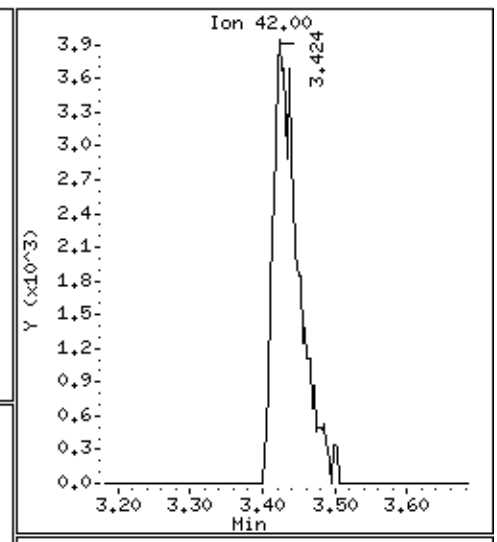
Column diameter: 0.18

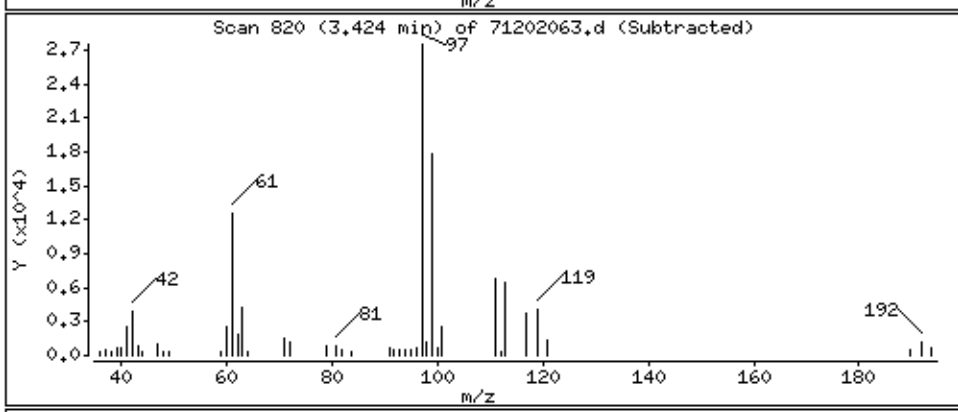
36 Tetrahydrofuran

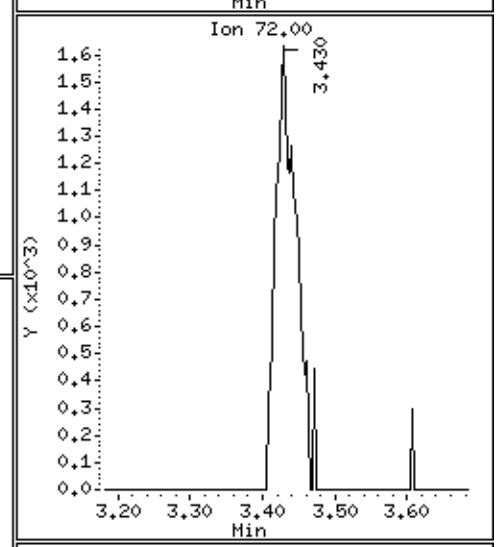
Concentration: 85.1 ug/L

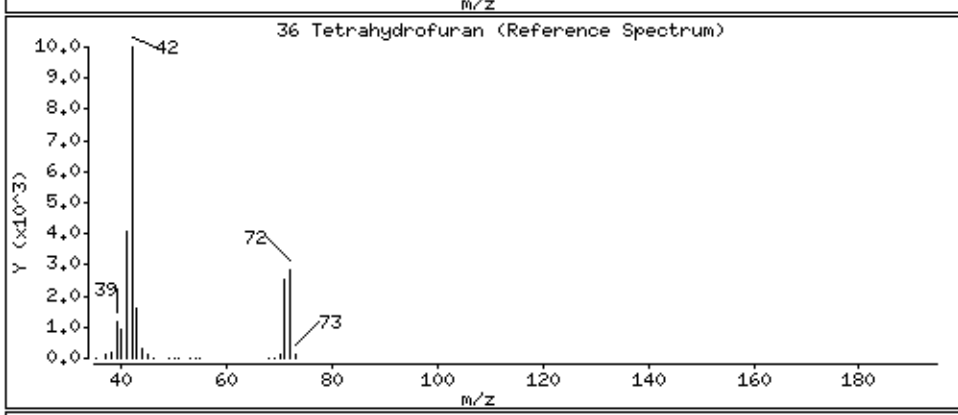
Review Code:

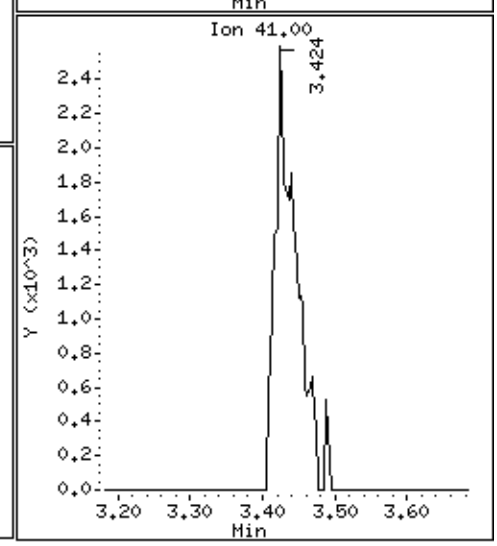


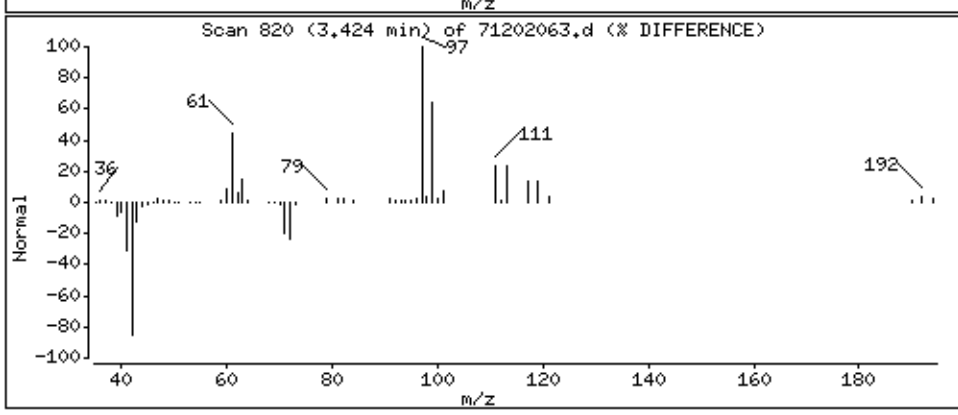












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Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

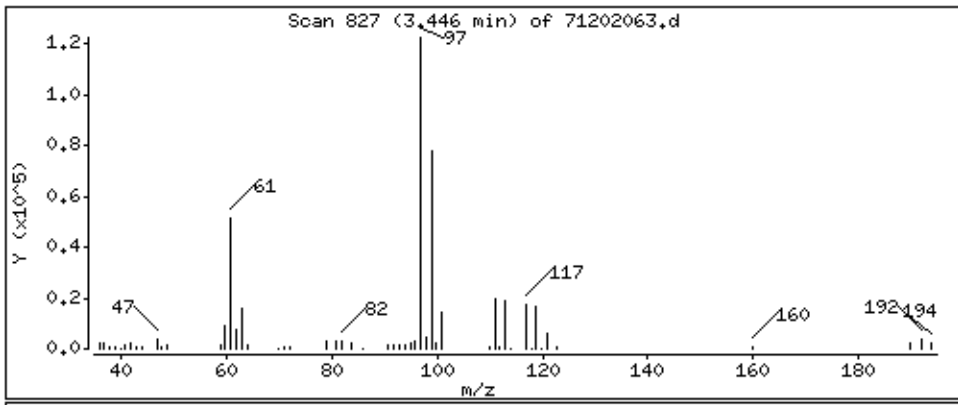
Column phase: RTX-VMS

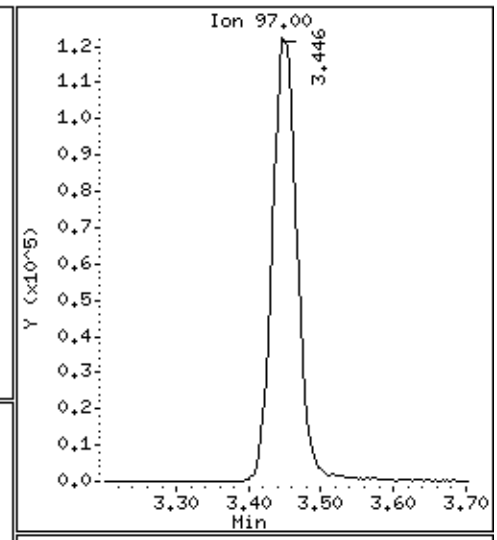
Column diameter: 0.18

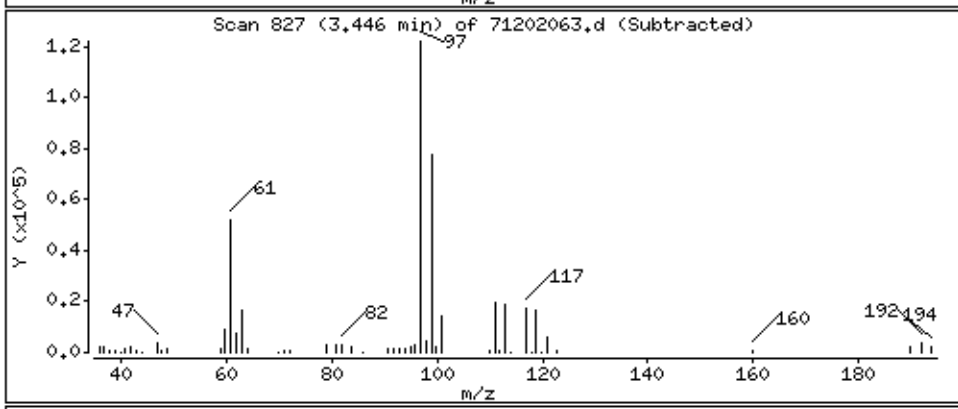
38 1,1,1-Trichloroethane

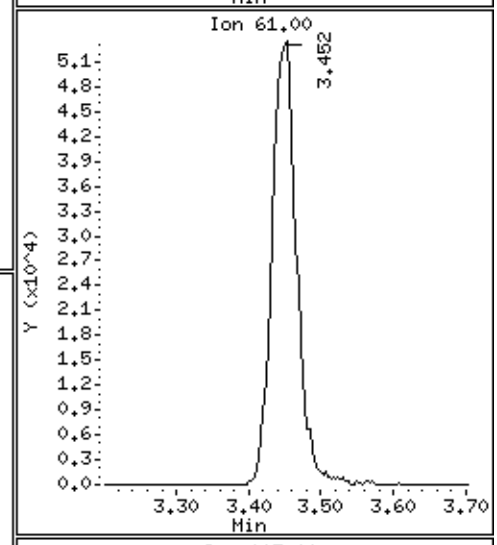
Concentration: 1550 ug/L

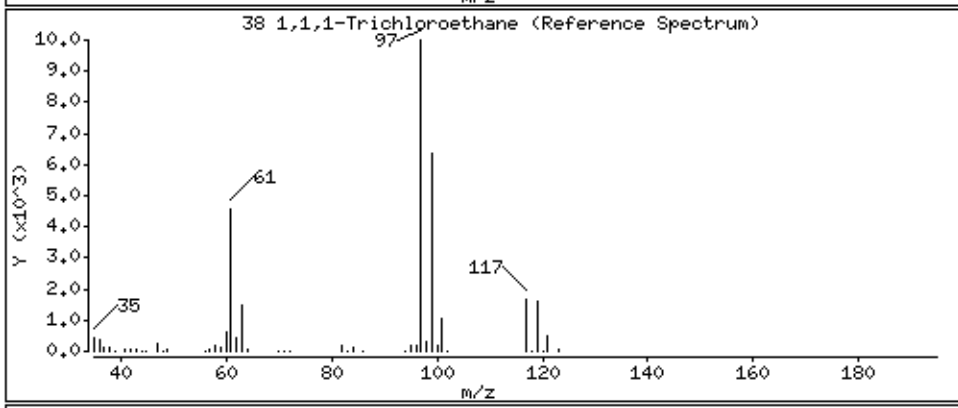
Review Code:

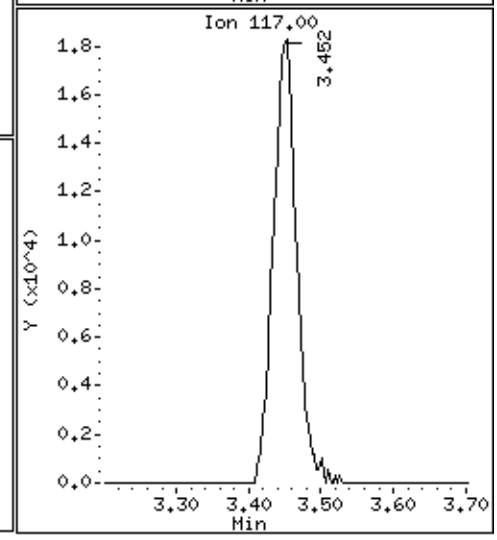


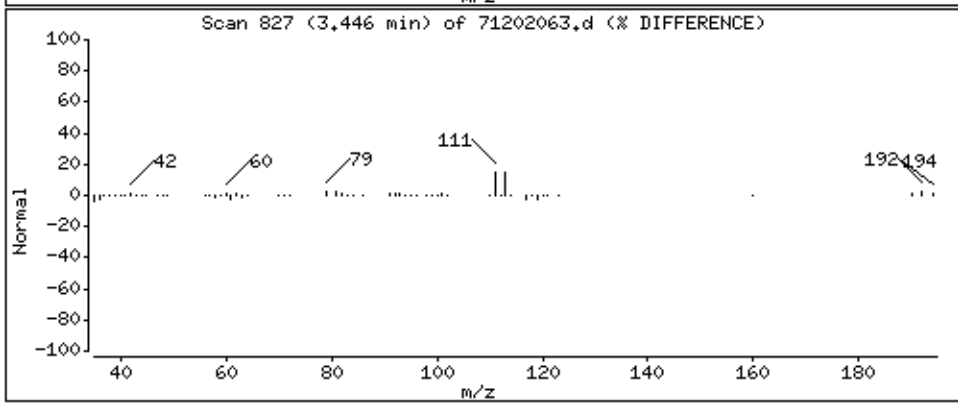












Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202063.d

Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

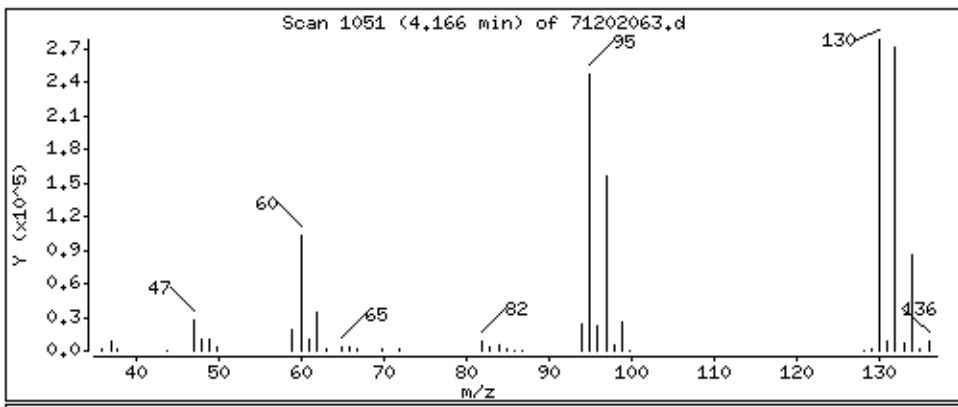
Column phase: RTX-VMS

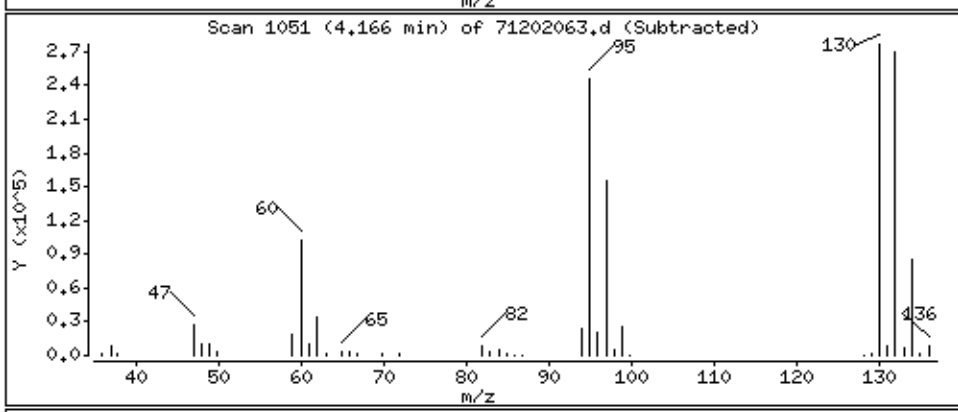
Column diameter: 0.18

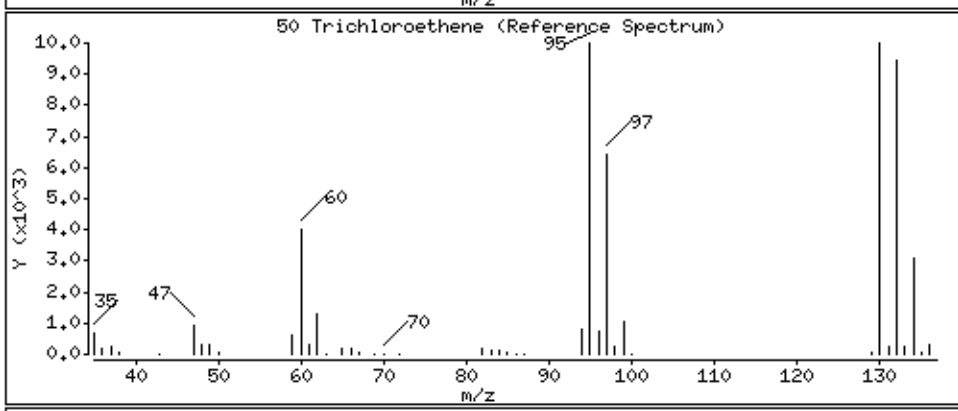
50 Trichloroethene

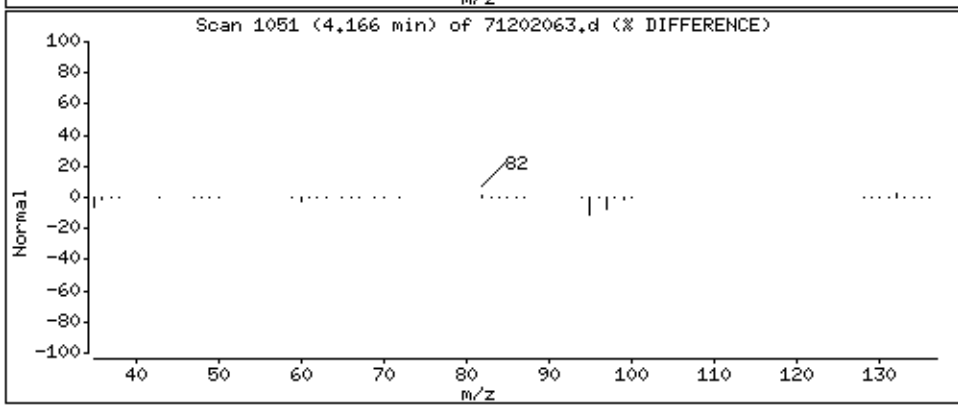
Concentration: 2110 ug/L

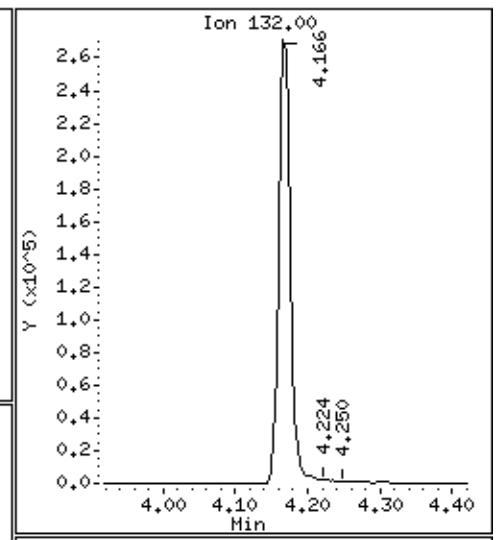
Review Code:

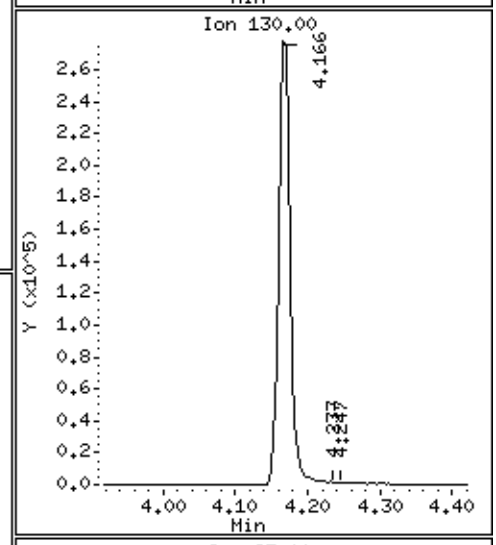


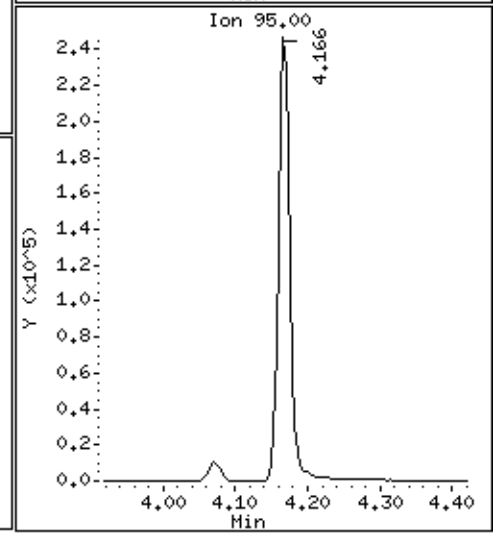












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Date : 02-DEC-2019 23:00

Client ID: Duplicate

Instrument: 30mv7a.i

Sample Info: 30337003008X10

Purge Volume: 5.0

Operator: LEL

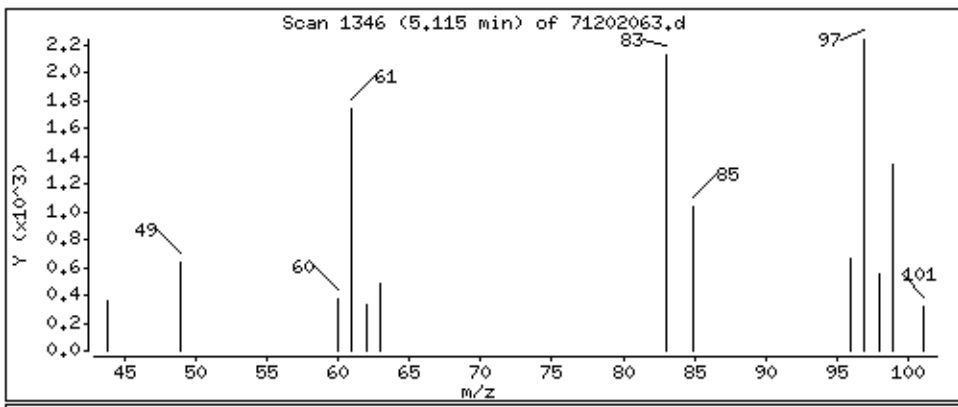
Column phase: RTX-VMS

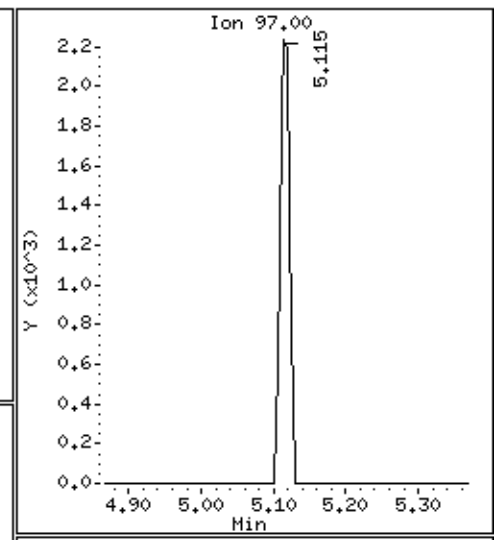
Column diameter: 0.18

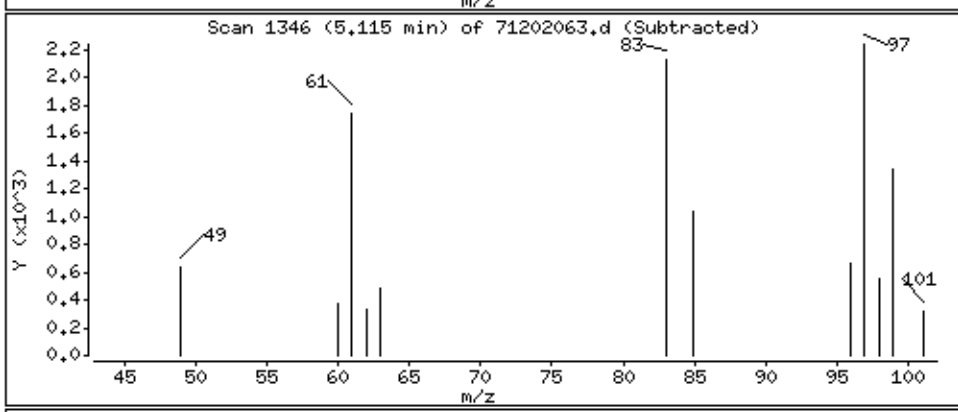
65 1,1,2-Trichloroethane

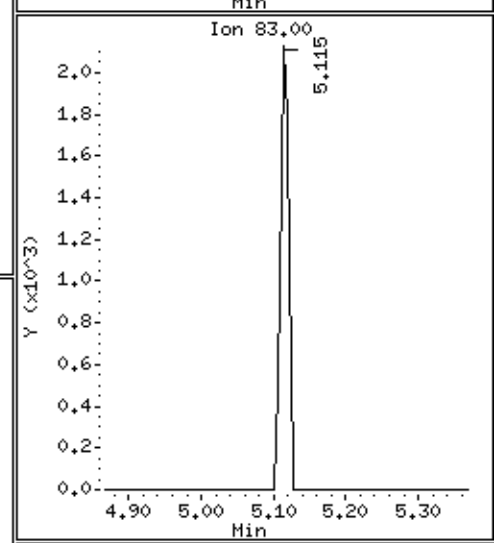
Concentration: 17.3 ug/L

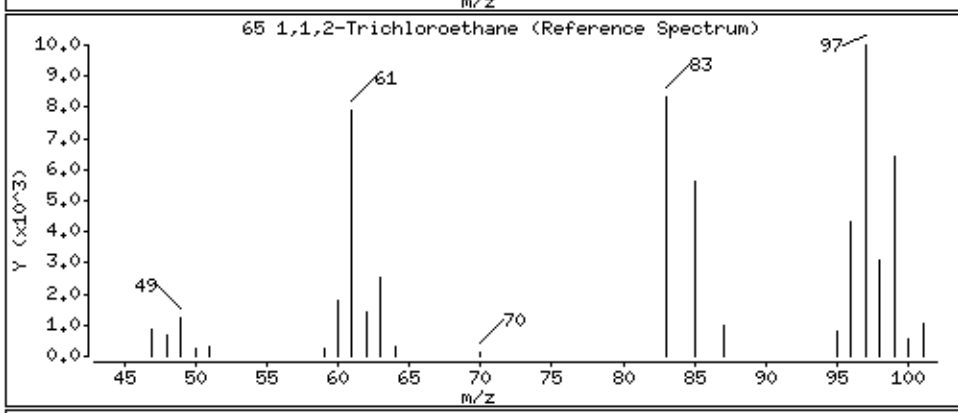
Review Code:

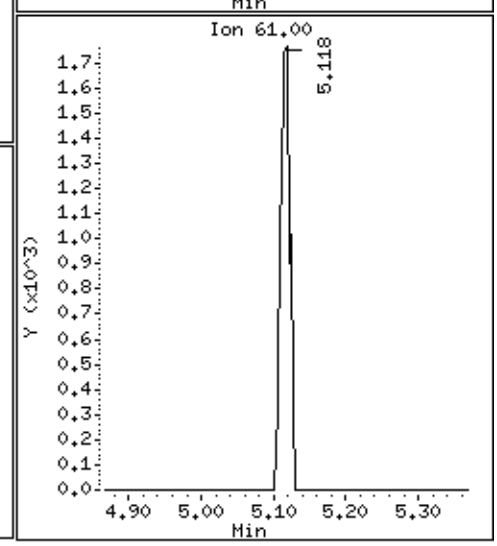


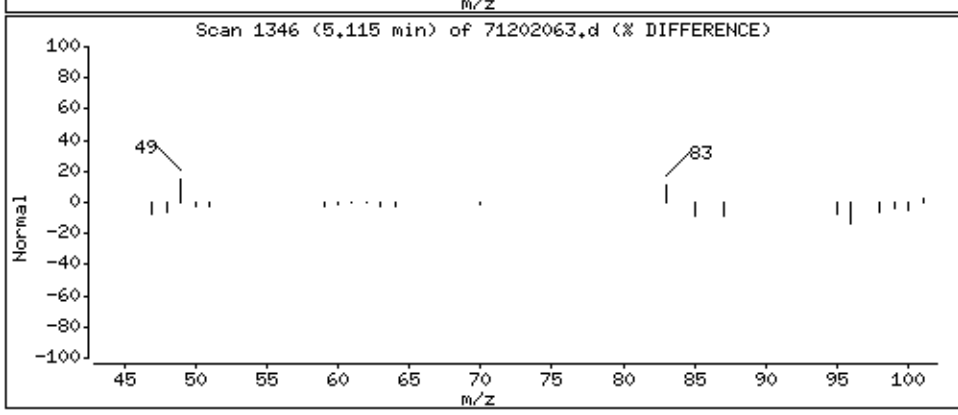












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Injection Date: 02-DEC-2019 23:00
Instrument: 30mv7a.i
Lab Sample ID: 30337003008
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

Duplicate

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 13:42 Lab Sample ID: 30337003008

Date Analyzed: 11/29/2019 13:42 Lab File ID: 7191129.B\2.B\71129028.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	2.3	
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	36.9	
107-06-2	1,2-Dichloroethane	6.1	
156-59-2	cis-1,2-Dichloroethene	88.3	
156-60-5	trans-1,2-Dichloroethene	8.4	
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U
10061-01-5	cis-1,3-Dichloropropene	ND	U

SAMPLE NO.

Duplicate

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 13:42 Lab Sample ID: 30337003008

Date Analyzed: 11/29/2019 13:42 Lab File ID: 7191129.B\2.B\71129028.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	1.2	
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
79-00-5	1,1,2-Trichloroethane	20.5	
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d
Lab Smp Id: 30337003008 Client Smp ID: Duplicate
Inj Date : 29-NOV-2019 13:42
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003008
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 28
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	Compound Not Detected.						
2	Chloromethane	50	Compound Not Detected.						
3	Vinyl chloride	62	0.983	0.979	(0.242)	916	0.43233	0.432(a)	
4	Bromomethane	94	Compound Not Detected.						
5	Chloroethane	64	Compound Not Detected.						
6	Trichlorofluoromethane	101	Compound Not Detected.						
7	Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8	Ethanol	46	Compound Not Detected.						
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	2186654	797.071	797(A)	
10	1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11	Carbon disulfide	76	Compound Not Detected.						
12	Iodomethane	142	Compound Not Detected.						
13	Acrolein	56	Compound Not Detected.						
14	Allyl chloride	41	Compound Not Detected.						
15	Methylene Chloride	49	Compound Not Detected.						
16	Acetone	58	1.947	1.944	(0.479)	787	2.08927	2.09(Q)	
17	trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	19579	8.35656	8.36	
18	Methyl acetate	74	Compound Not Detected.						
19	n-Hexane	86	Compound Not Detected.						
20	Methyl-tert-butyl ether	73	Compound Not Detected.						
21	tert-Butyl Alcohol	59	2.163	2.172	(0.532)	614	0.86546	0.865(aQ)	
22	Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	2.474	2.471	(0.609)	106528	36.8609	36.9	
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	2.963	2.957	(0.729)	195176	88.3442	88.3	
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	3.253	3.246	(0.800)	6304	2.25749	2.26	
	34 Ethyl acetate	43	Compound Not Detected.						(D)
	35 Carbon tetrachloride	117	Compound Not Detected.						(D)
	36 Tetrahydrofuran	42	3.429	3.407	(0.843)	7863	6.06841	6.07(Q)	
$	37 Dibromofluoromethane (S)	111	3.439	3.433	(0.846)	46337	31.2419	31.2	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	4242860	1766.52	1770(A)	
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	3.783	3.780	(0.930)	4564	0.70893	0.709(aM)	LT
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	48206	31.5931	31.6	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	3.934	3.931	(0.968)	12291	6.05435	6.05	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	171563	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	4.166	4.162	(1.025)	3905794	2109.12	2110(A)	
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	147189	28.4745	28.5	
	59 Toluene	91	4.841	4.844	(0.878)	1699	0.25638	0.256(a)	
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	2223	1.21909	1.22	
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	30117	20.4620	20.5(Q)	
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	114914	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	44589	29.1662	29.2	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	49048	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	22855	30.5612	30.6(Q)	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately
integrated to an area less than what it should be (e.g., Peak
area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

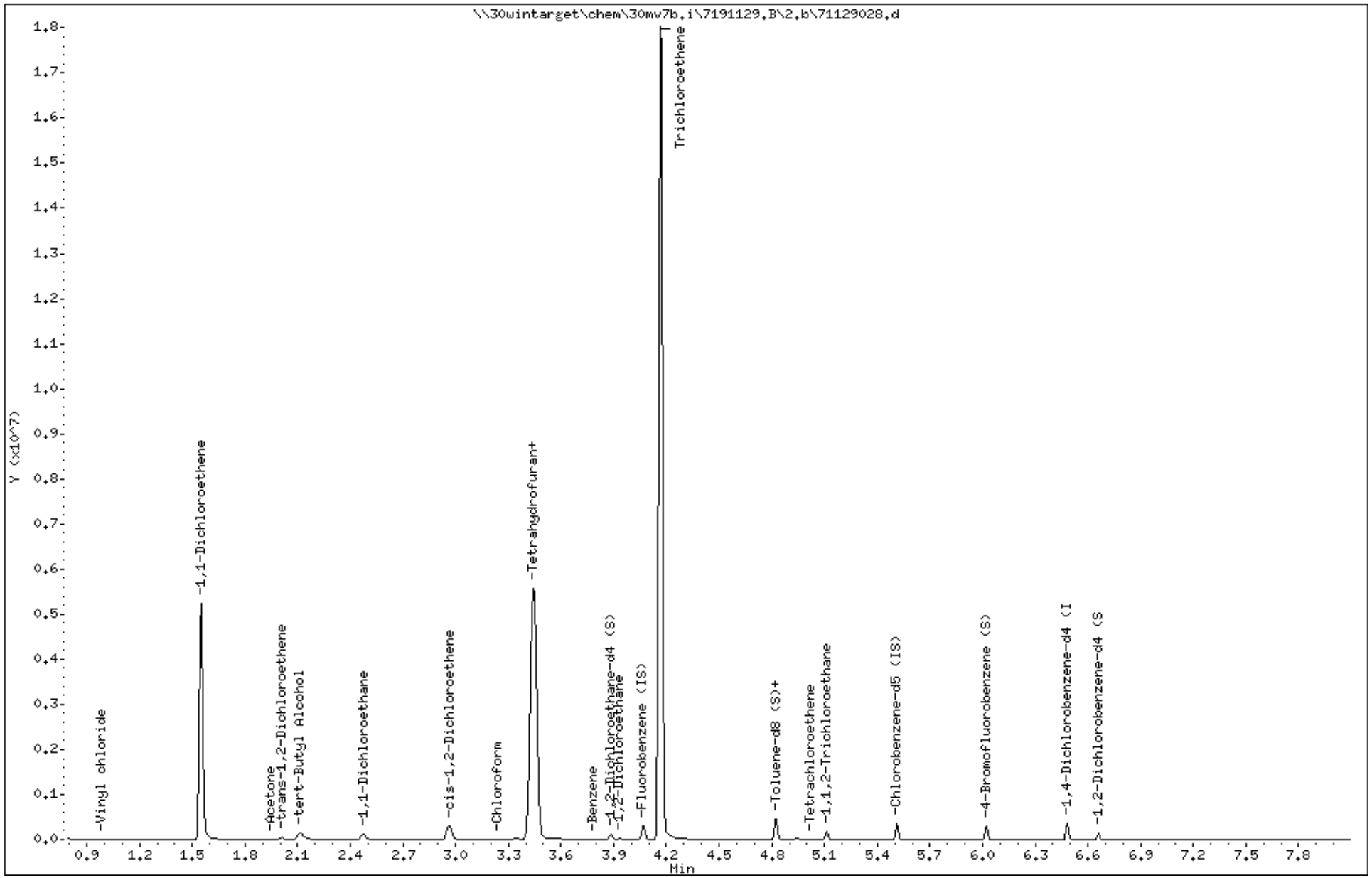
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003008
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: Duplicate
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-01-4	Vinyl chloride	0.432	J
75-35-4	1,1-Dichloroethene	797	E
67-64-1	Acetone	2.09	
156-60-5	trans-1,2-Dichloroethene	8.36	
75-65-0	tert-Butyl Alcohol	0.865	J
75-34-3	1,1-Dichloroethane	36.9	
156-59-2	cis-1,2-Dichloroethene	88.3	
67-66-3	Chloroform	2.26	
109-99-9	Tetrahydrofuran	6.07	
71-55-6	1,1,1-Trichloroethane	1770	E
71-43-2	Benzene	0.709	J
107-06-2	1,2-Dichloroethane	6.05	
79-01-6	Trichloroethene	2110	E
108-88-3	Toluene	0.256	J
127-18-4	Tetrachloroethene	1.22	
79-00-5	1,1,2-Trichloroethane	20.5	
1868-53-7	Dibromofluoromethane (S)	31.2	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.6	
2037-26-5	Toluene-d8 (S)	28.5	
460-00-4	4-Bromofluorobenzene (S)	29.2	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	30.6	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d
Date : 29-NOV-2019 13:42
Client ID: Duplicate
Instrument: 30mv7b.i
Sample Info: 30337003008
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

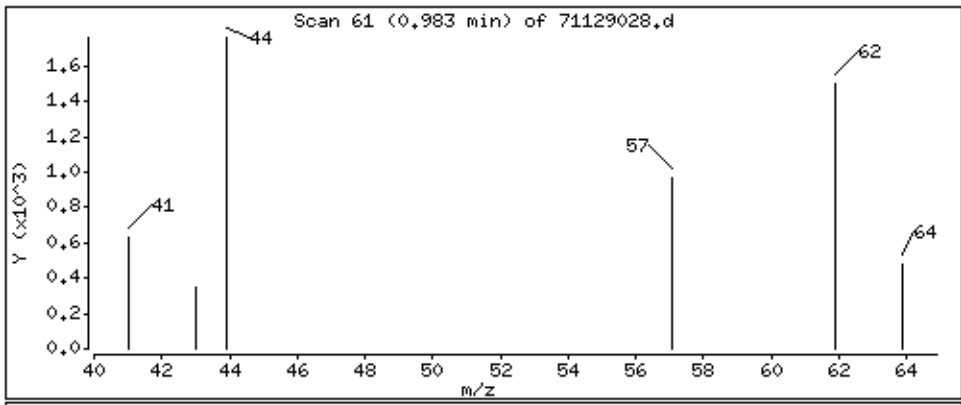
Column phase: RTX-VMS

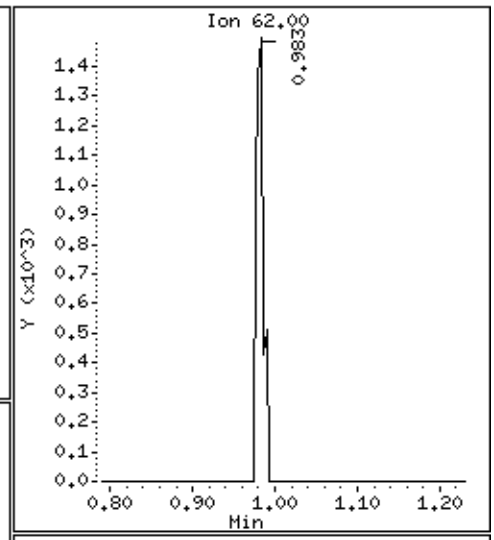
Column diameter: 0.18

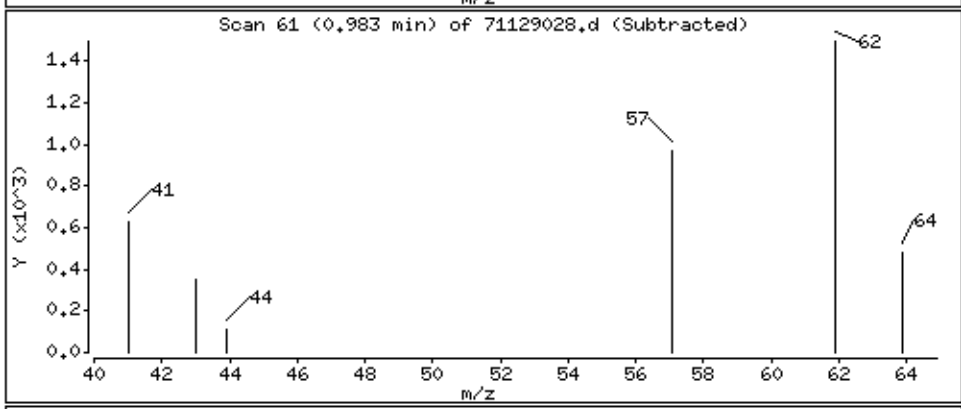
3 Vinyl chloride

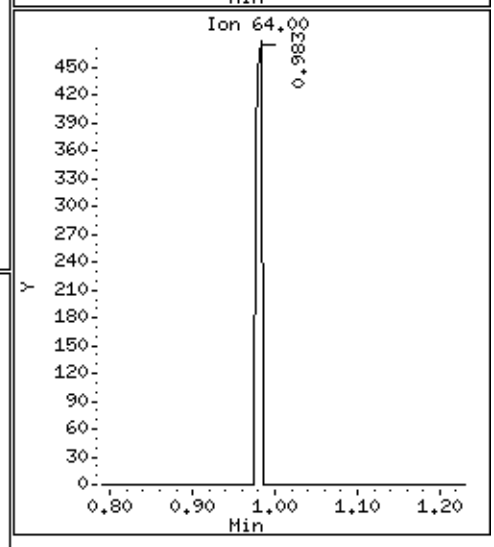
Concentration: 0.432 ug/L

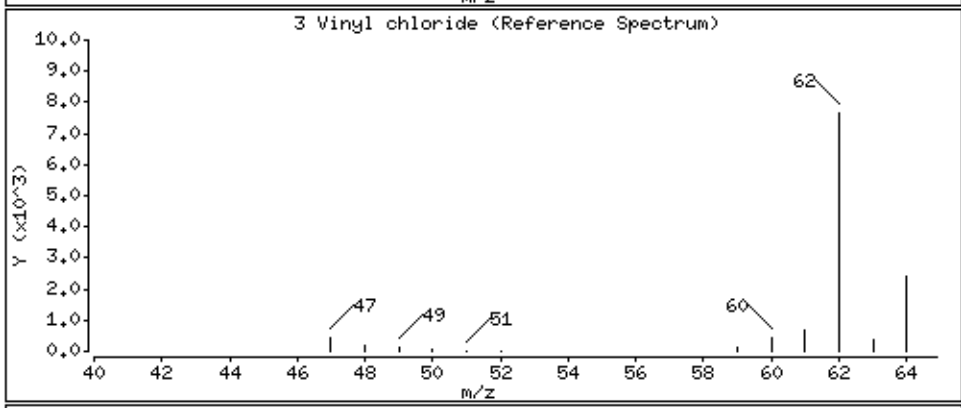
Review Code:

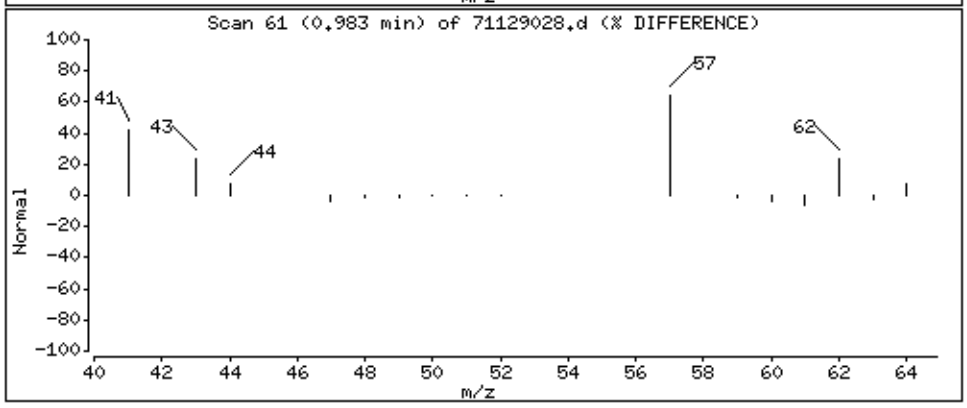












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

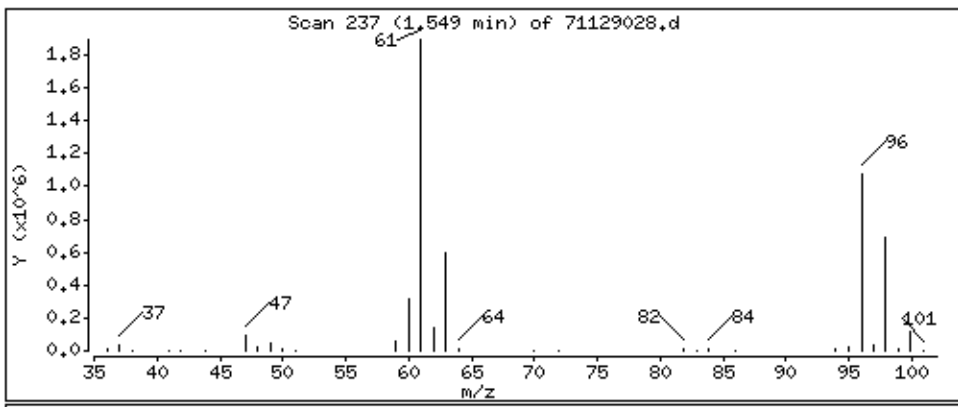
Column phase: RTX-VMS

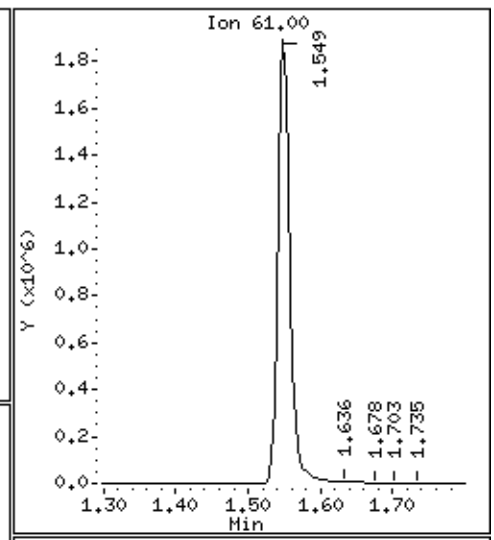
Column diameter: 0.18

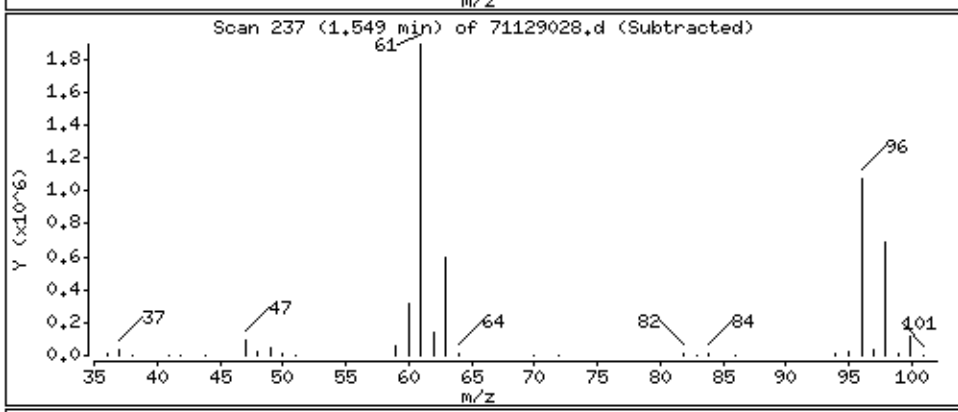
9 1,1-Dichloroethene

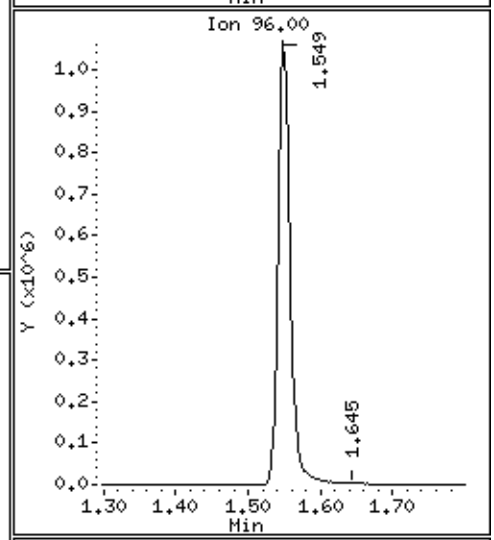
Concentration: 797 ug/L

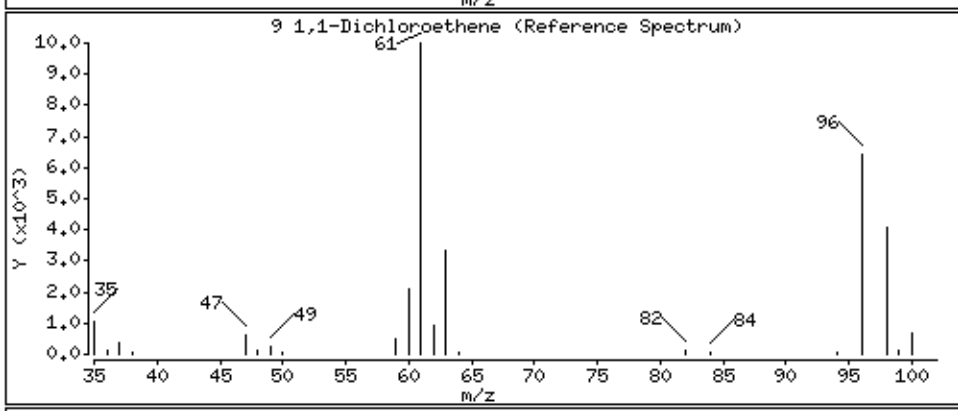
Review Code:

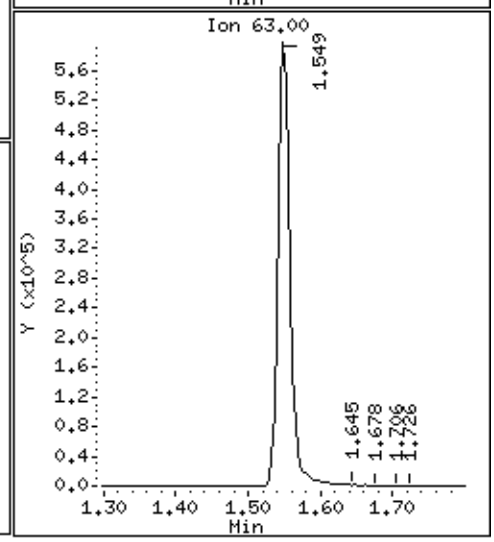


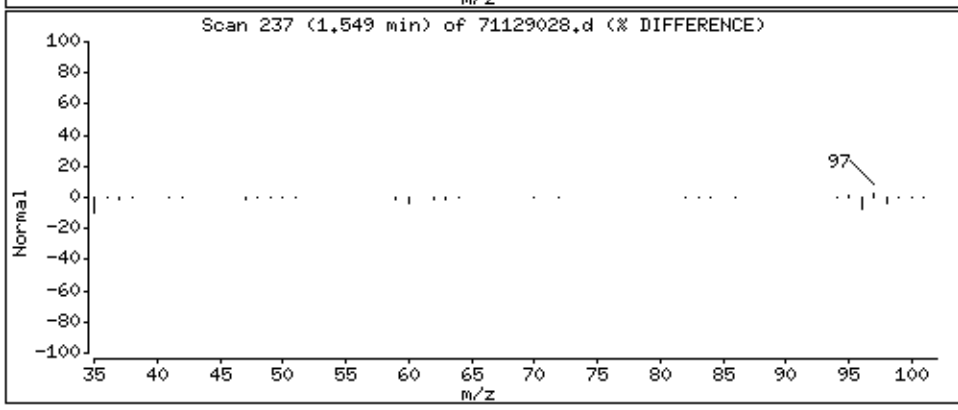












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

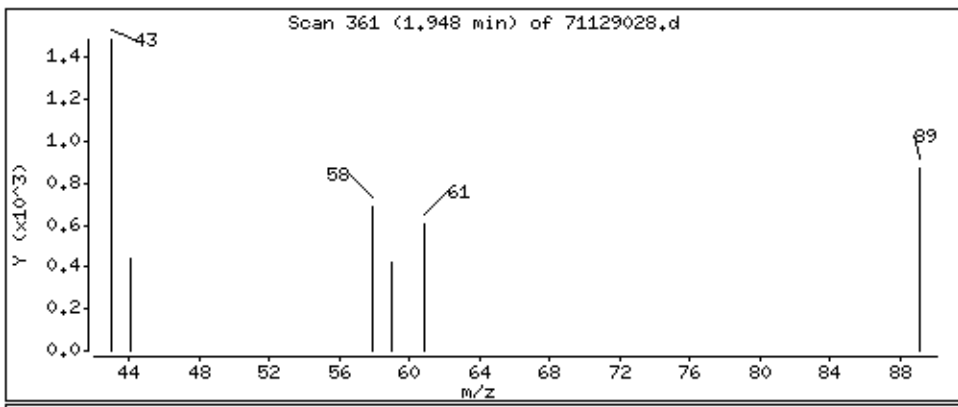
Column phase: RTX-VMS

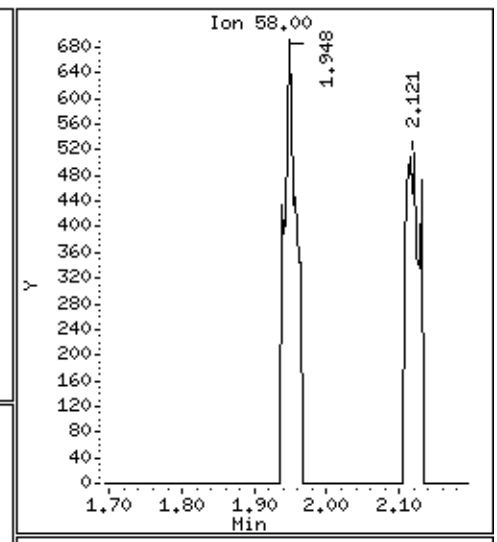
Column diameter: 0.18

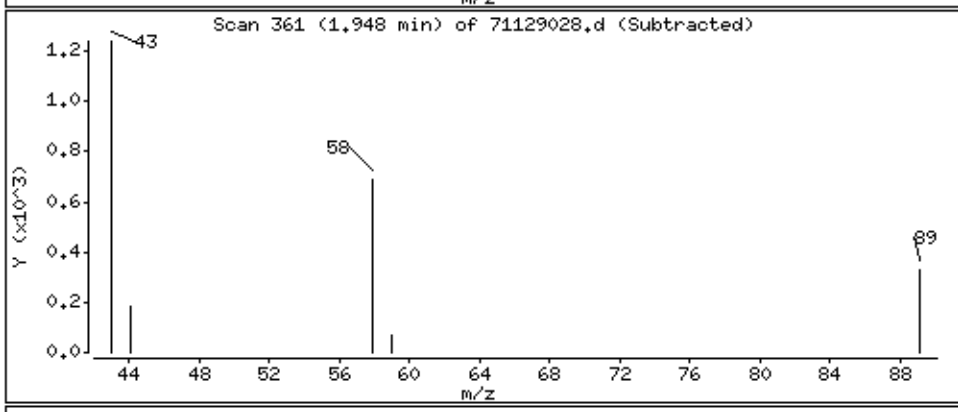
16 Acetone

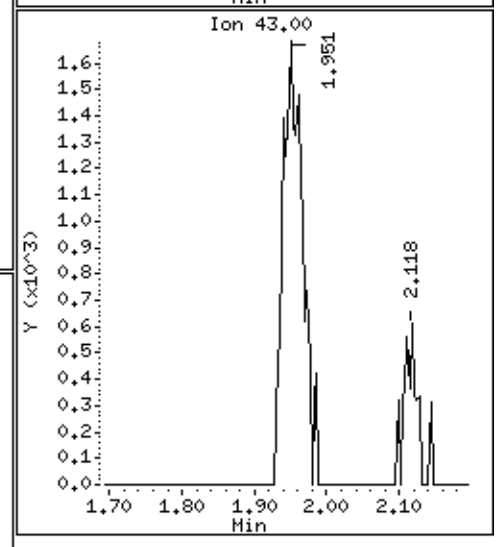
Concentration: 2.09 ug/L

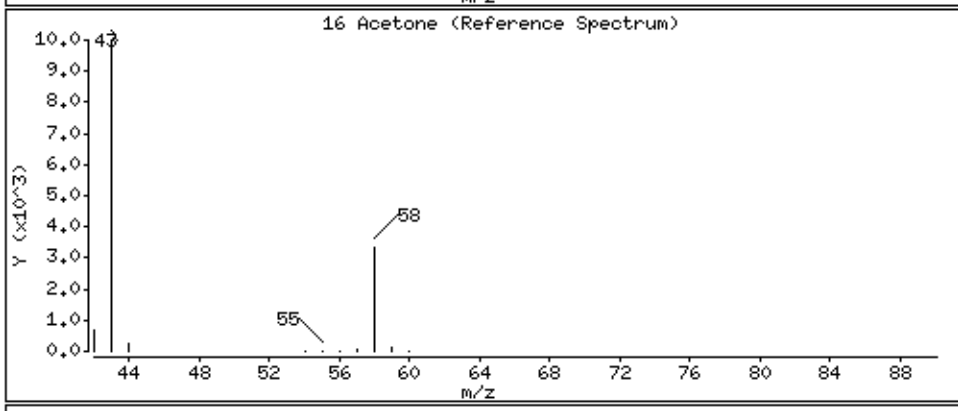
Review Code:

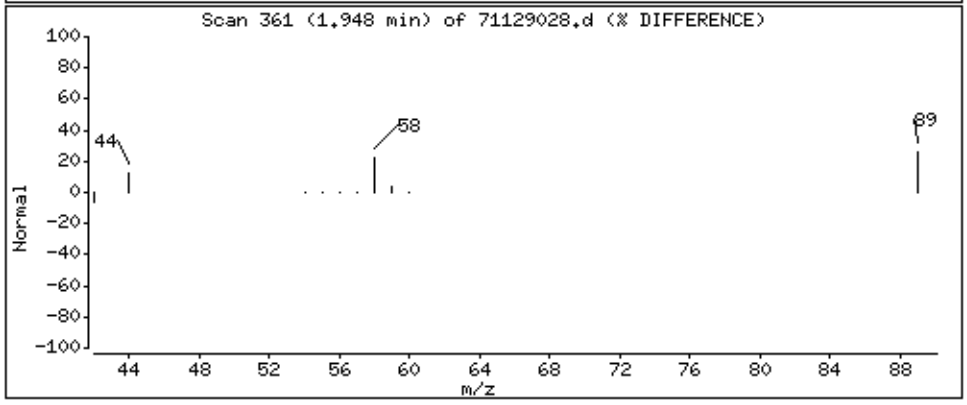












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

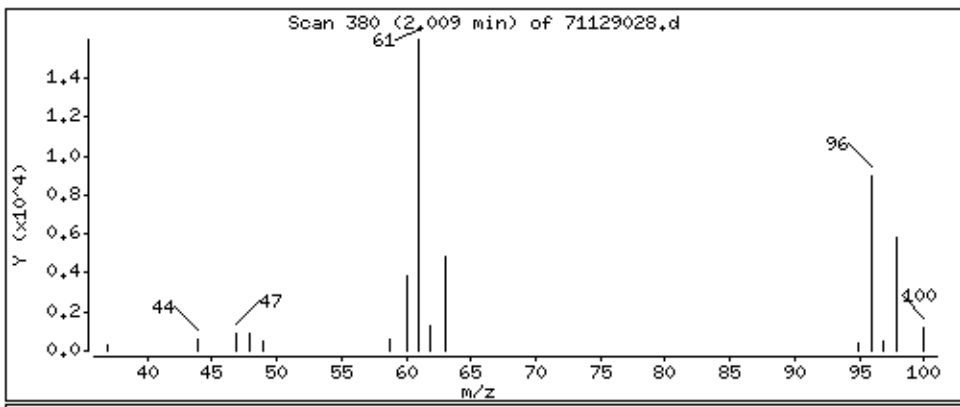
Column phase: RTX-VMS

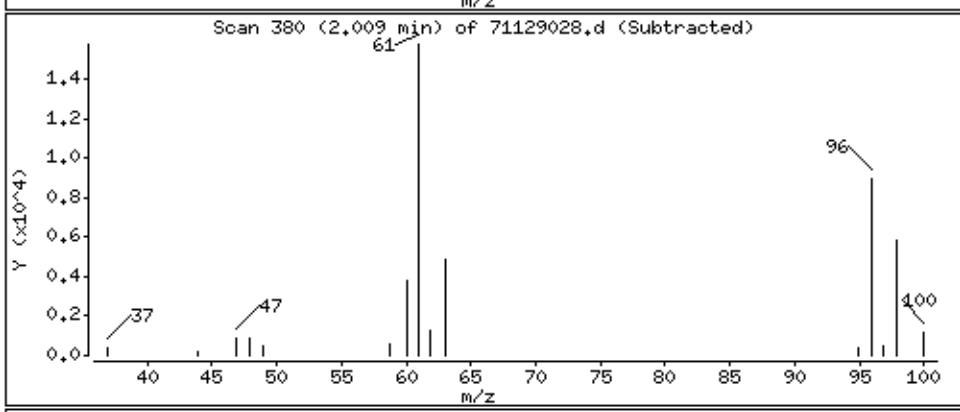
Column diameter: 0.18

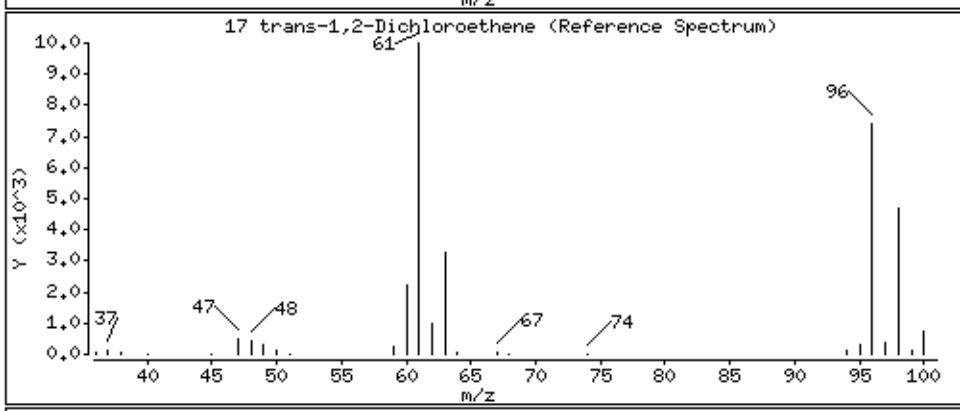
17 trans-1,2-Dichloroethene

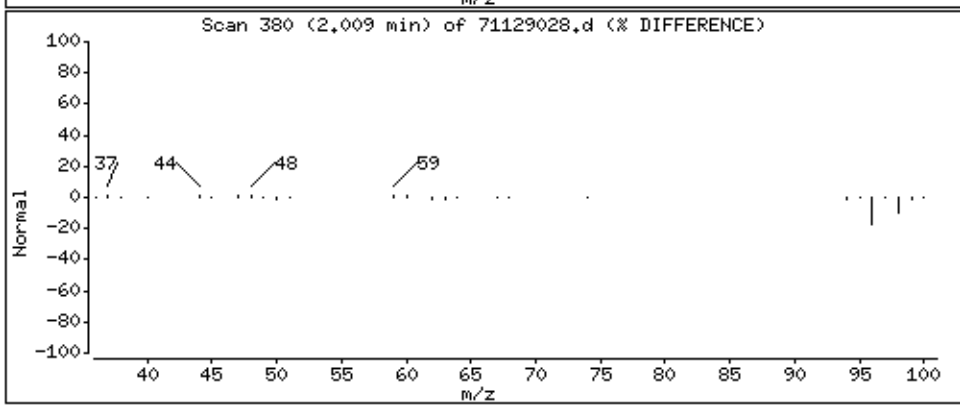
Concentration: 8.36 ug/L

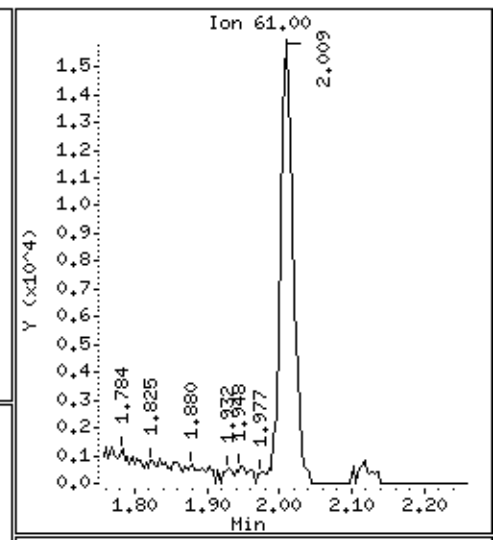
Review Code:

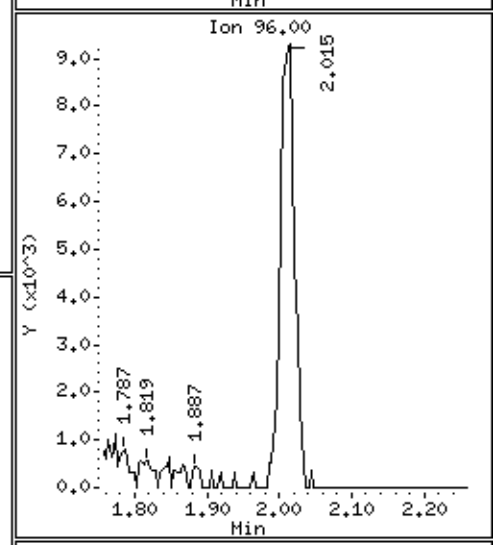


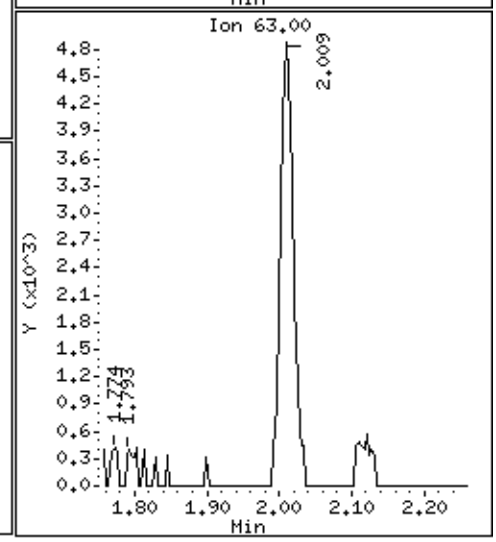












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

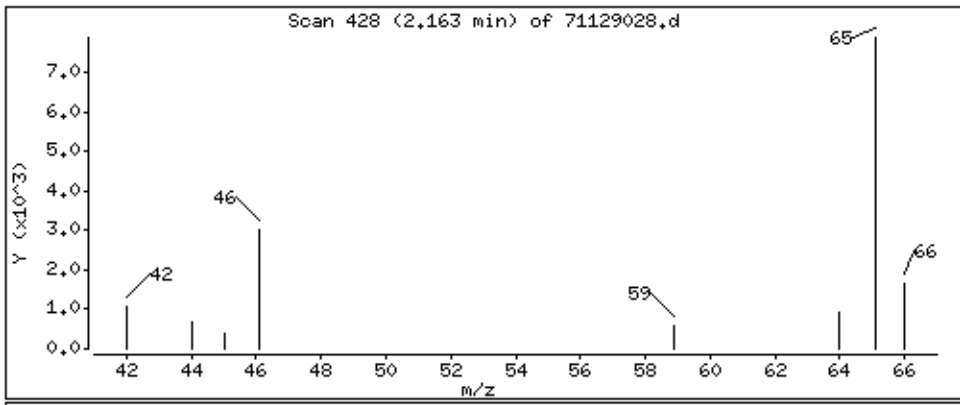
Column phase: RTX-VMS

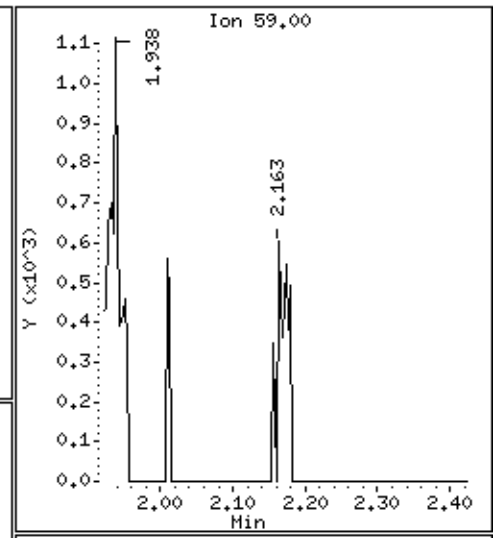
Column diameter: 0.18

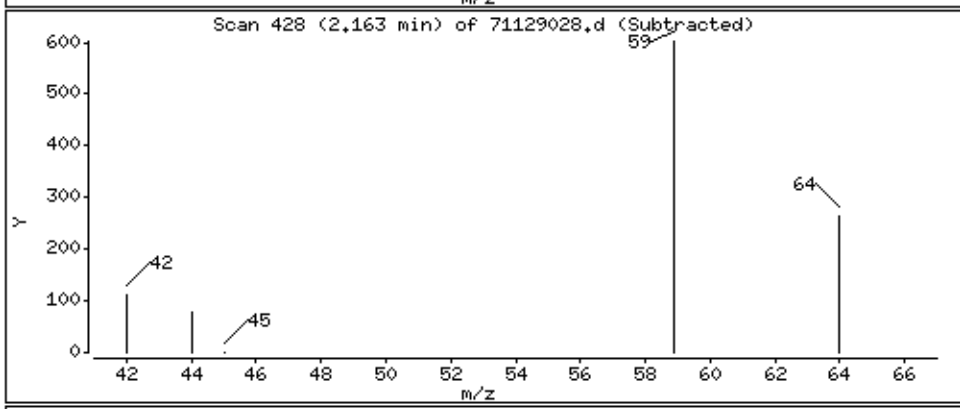
21 tert-Butyl Alcohol

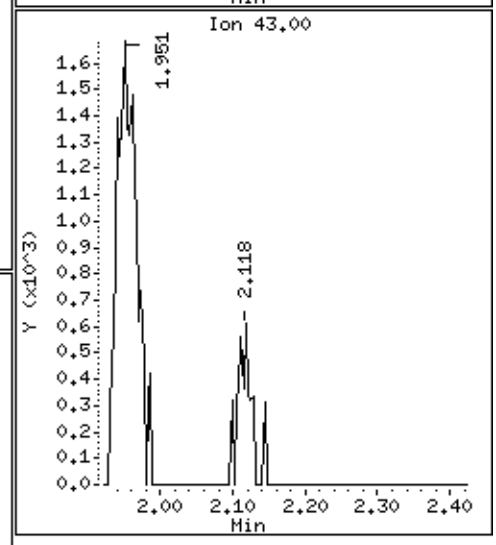
Concentration: 0.865 ug/L

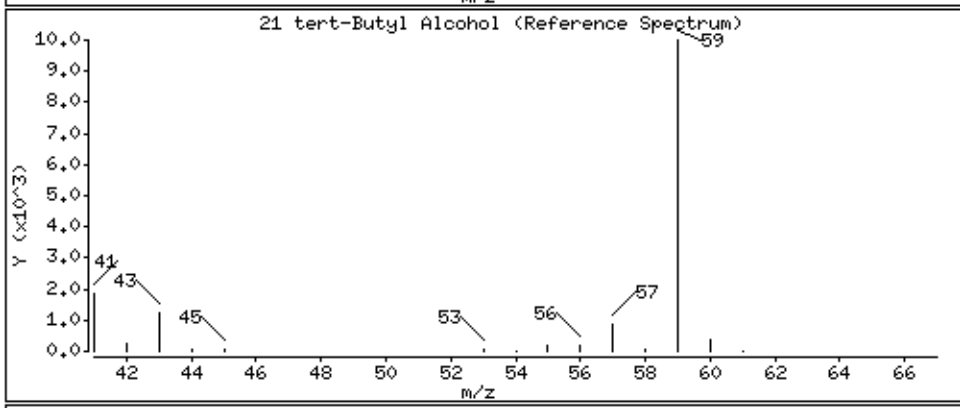
Review Code:

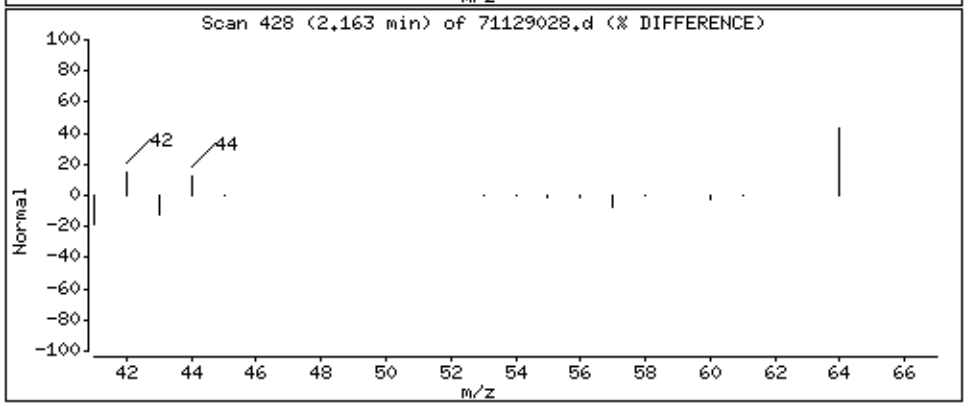












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

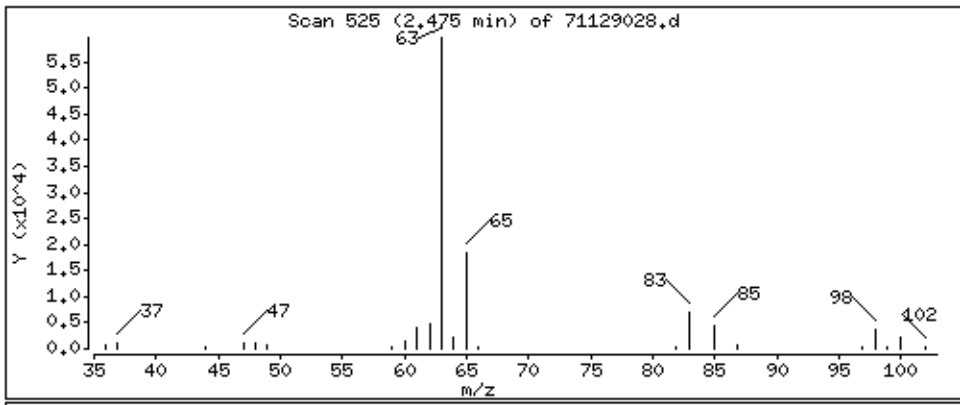
Column phase: RTX-VMS

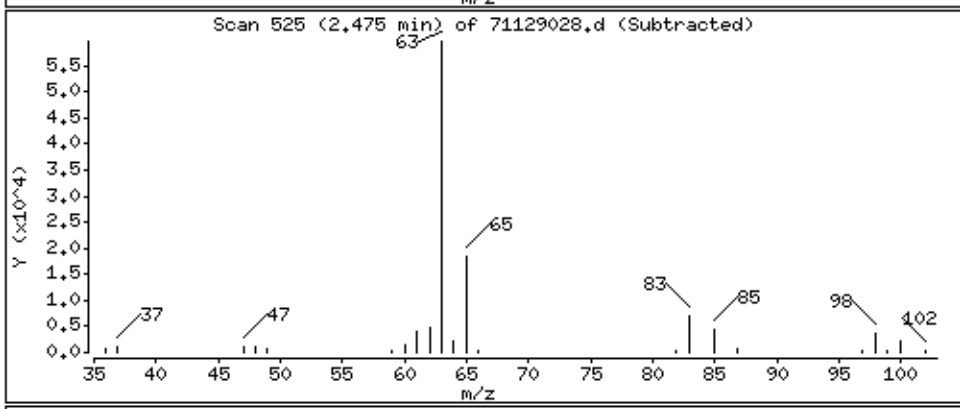
Column diameter: 0.18

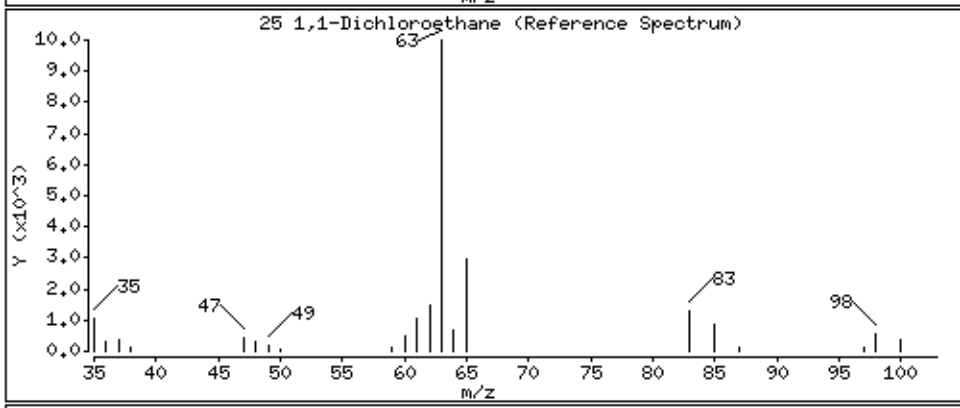
25 1,1-Dichloroethane

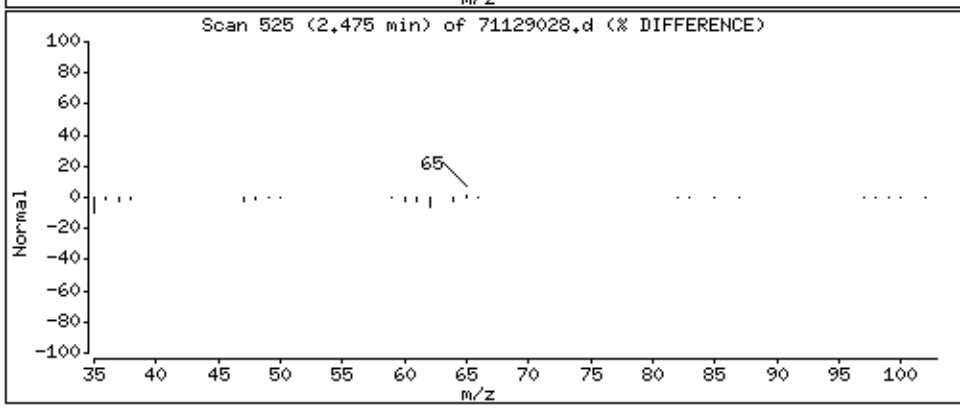
Concentration: 36.9 ug/L

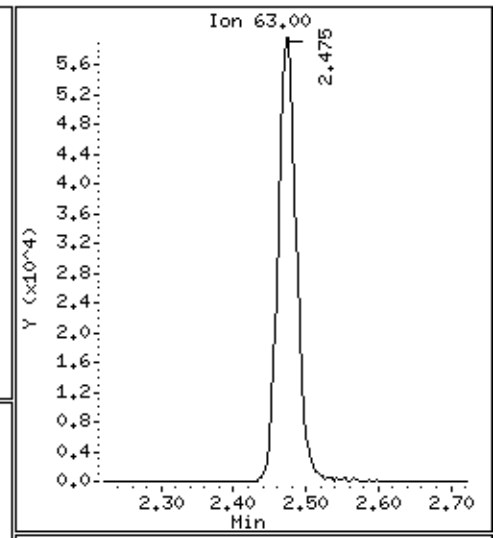
Review Code:

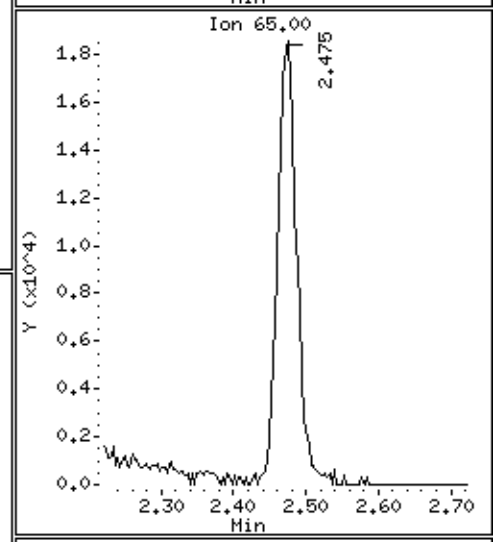


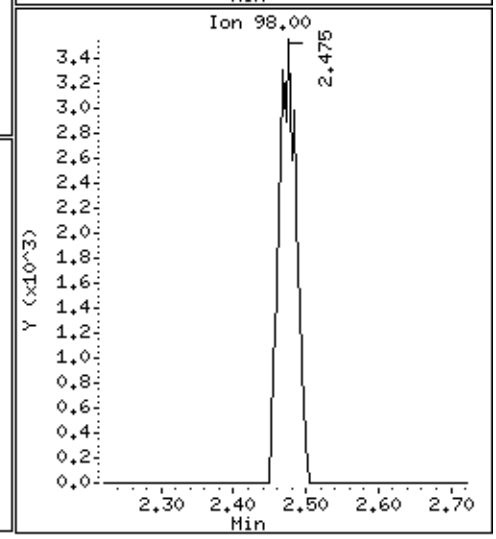












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

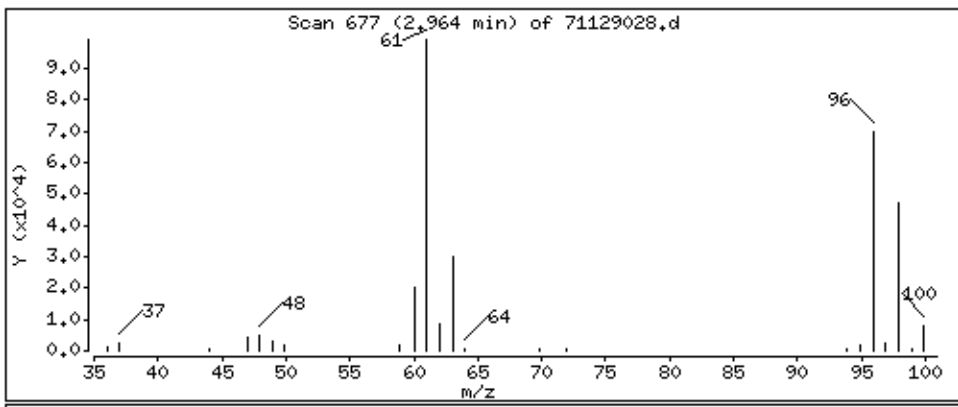
Column phase: RTX-VMS

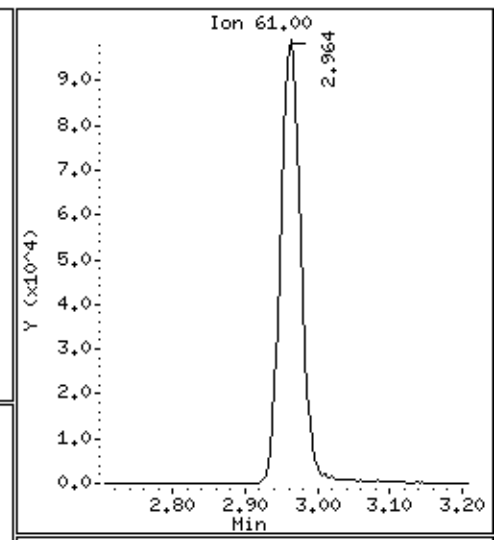
Column diameter: 0.18

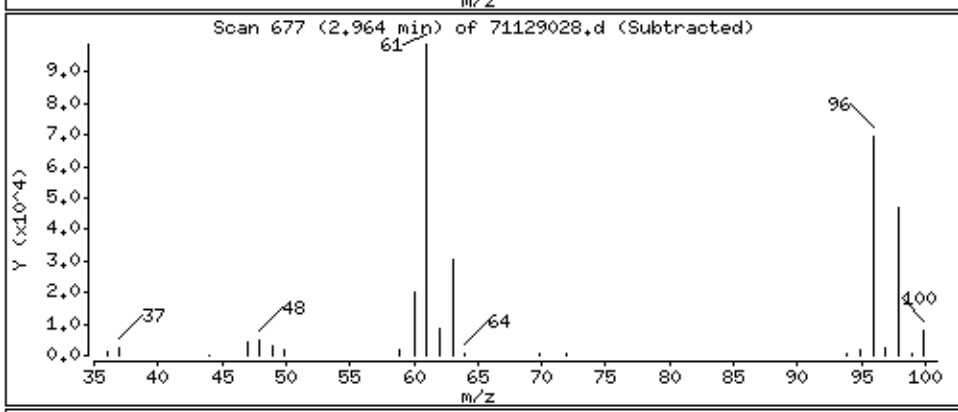
29 cis-1,2-Dichloroethene

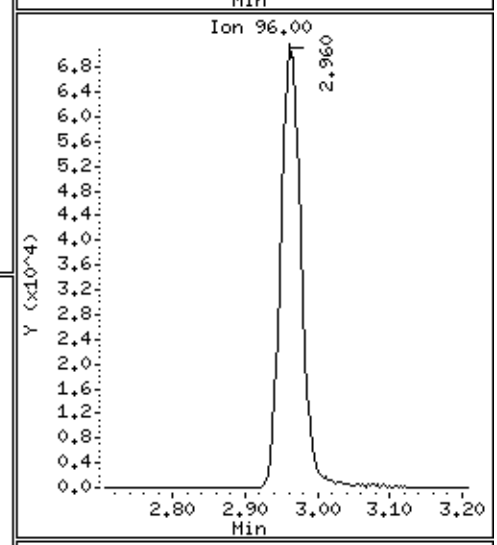
Concentration: 88.3 ug/L

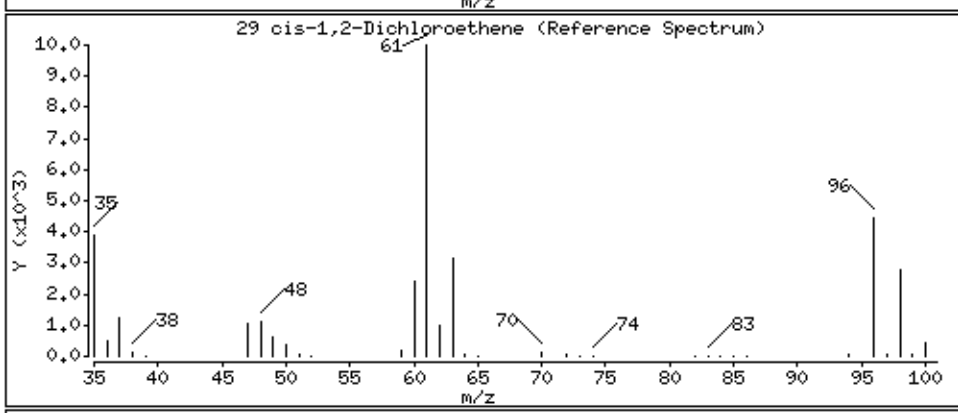
Review Code:

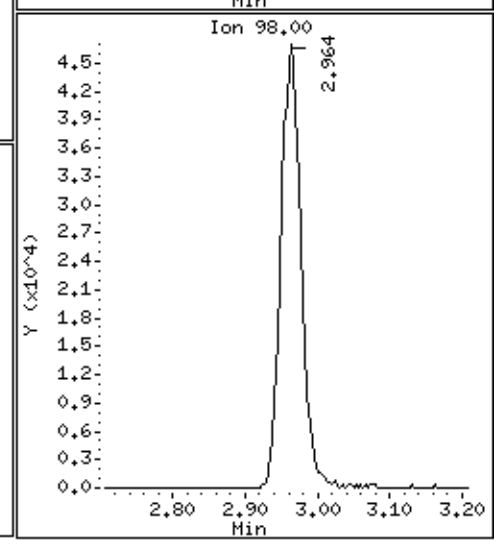


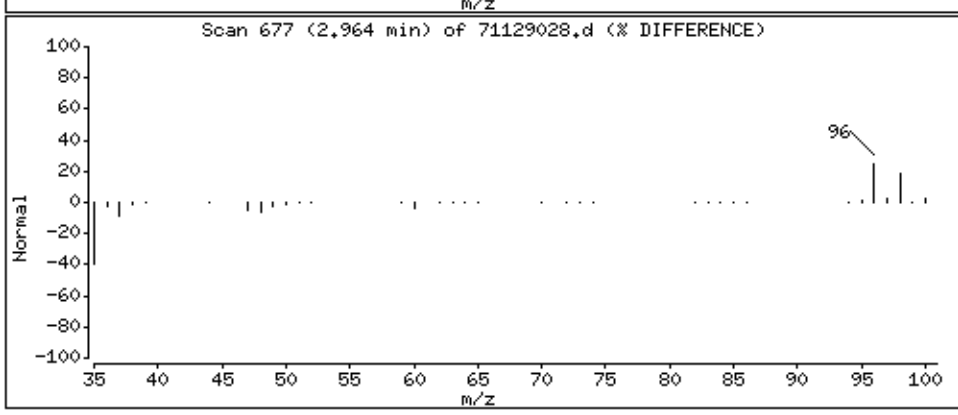












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Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

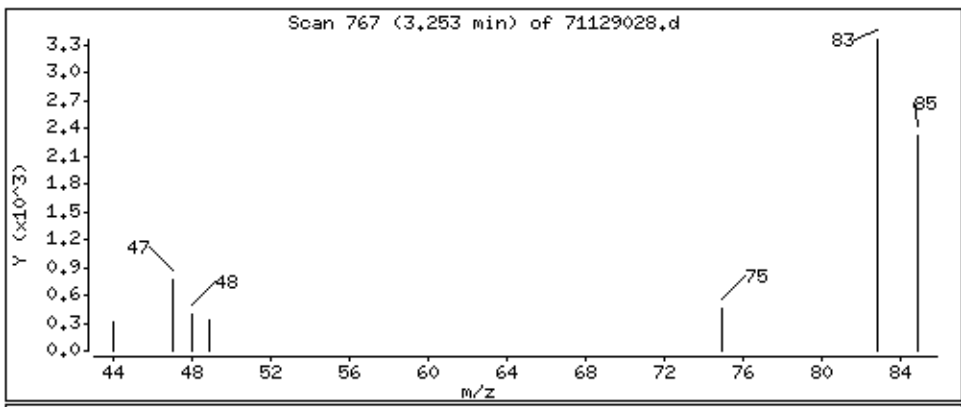
Column phase: RTX-VMS

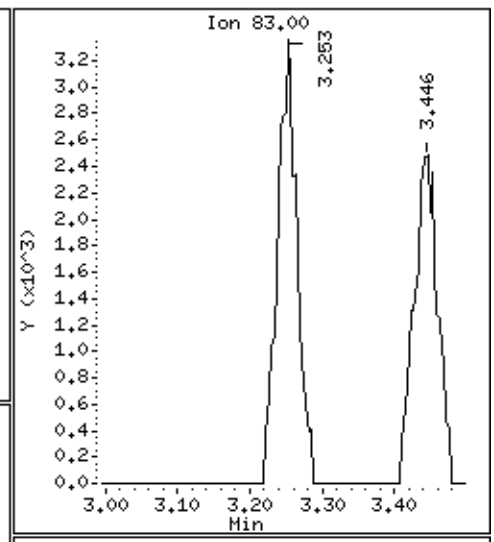
Column diameter: 0.18

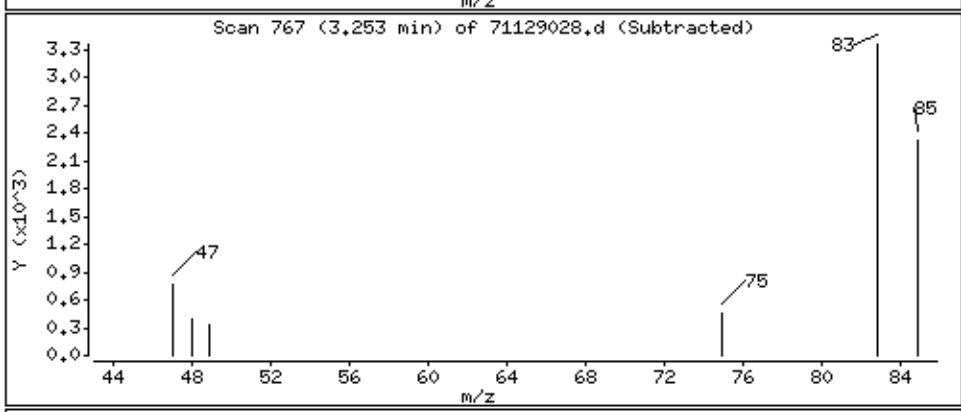
33 Chloroform

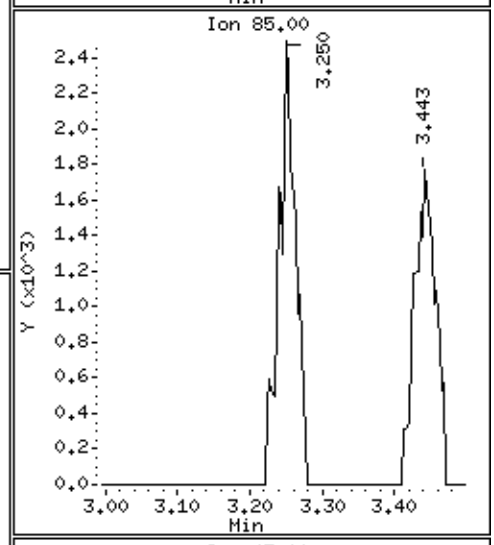
Concentration: 2.26 ug/L

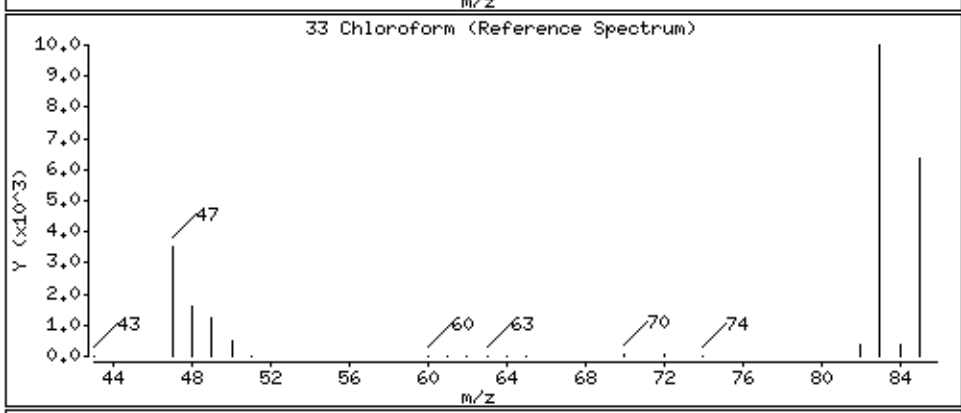
Review Code:

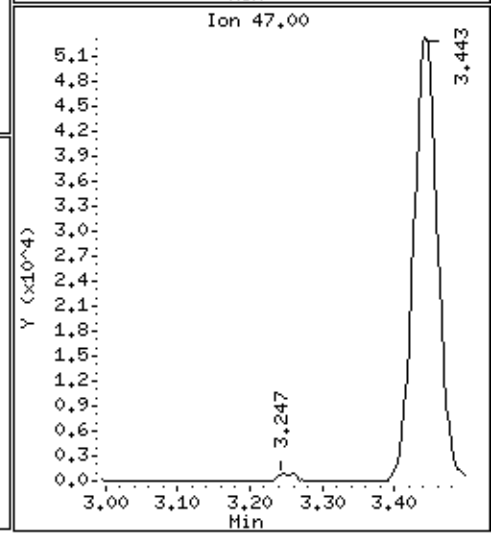


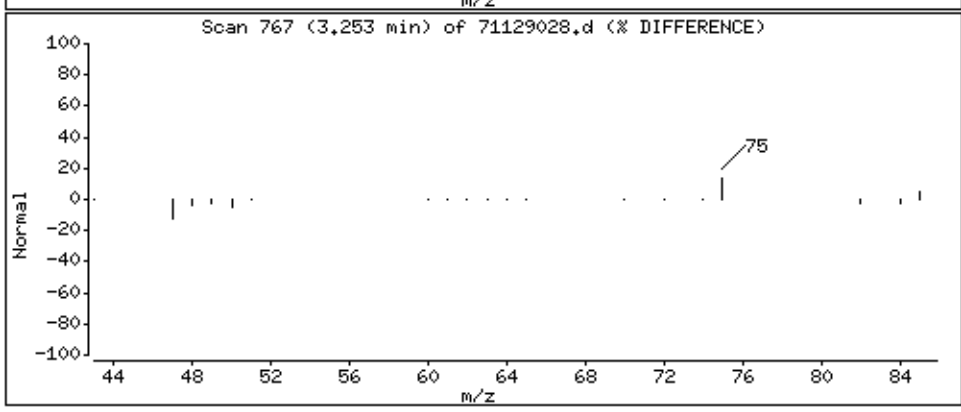












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Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

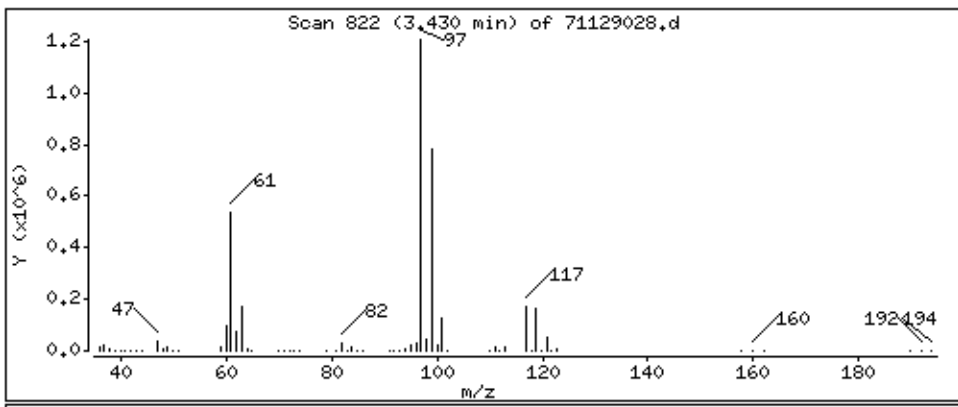
Column phase: RTX-VMS

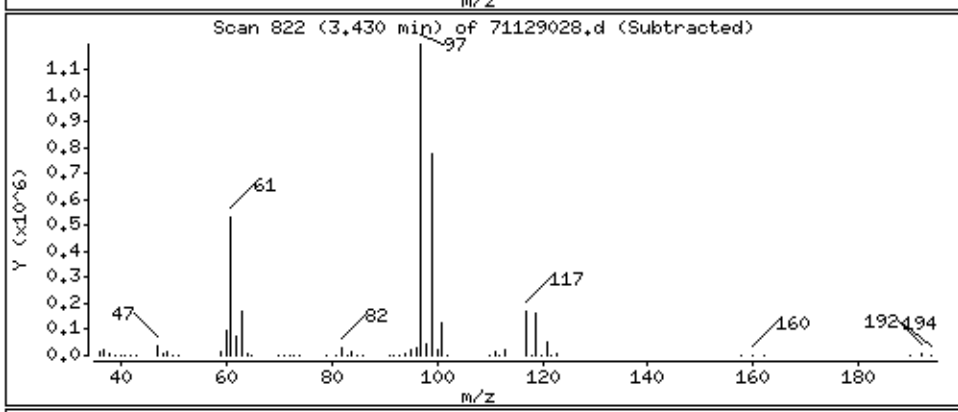
Column diameter: 0.18

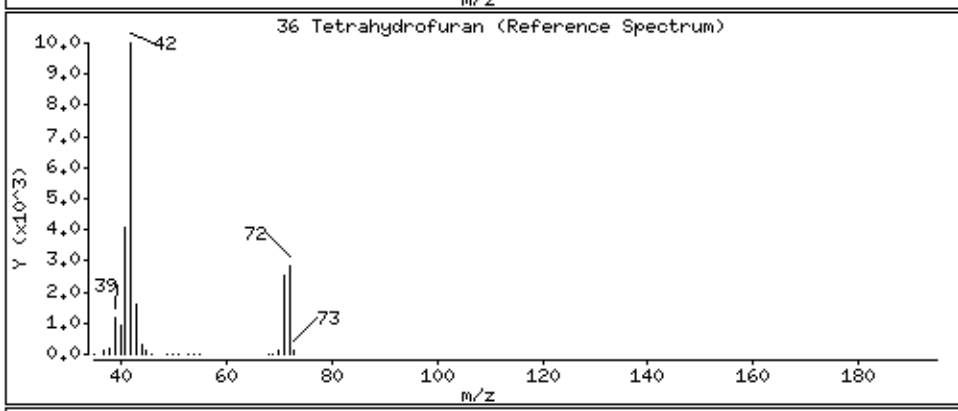
36 Tetrahydrofuran

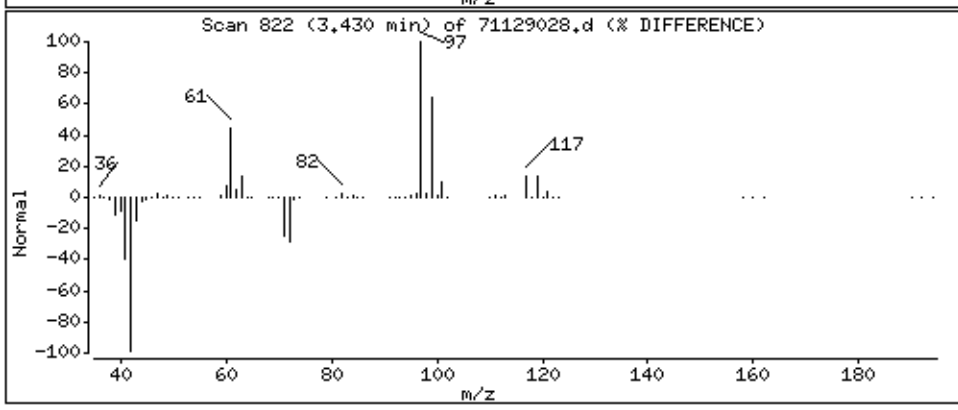
Concentration: 6.07 ug/L

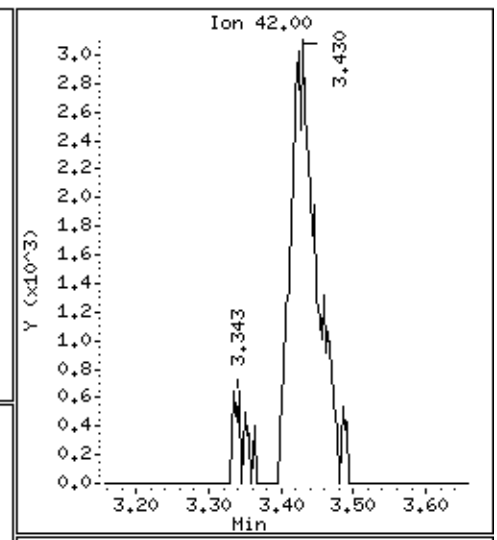
Review Code:

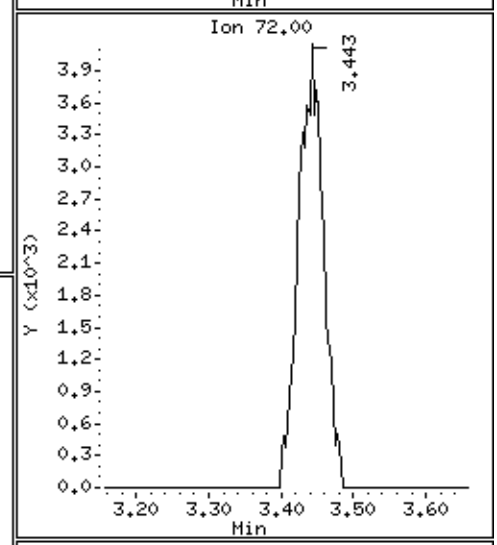


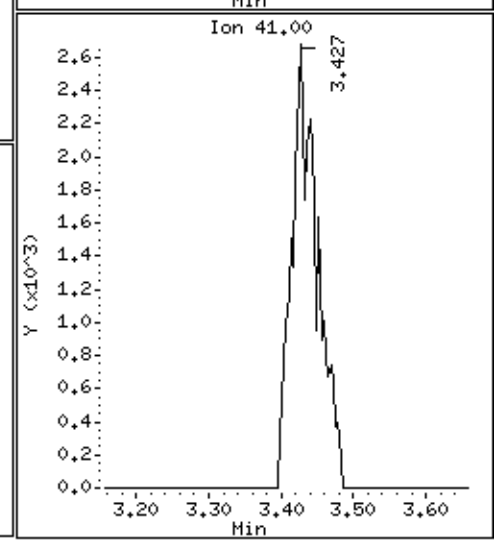












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Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

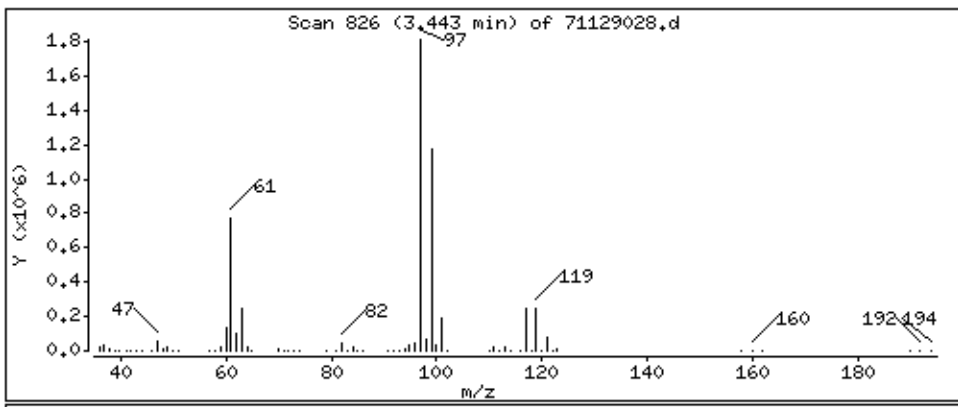
Column phase: RTX-VMS

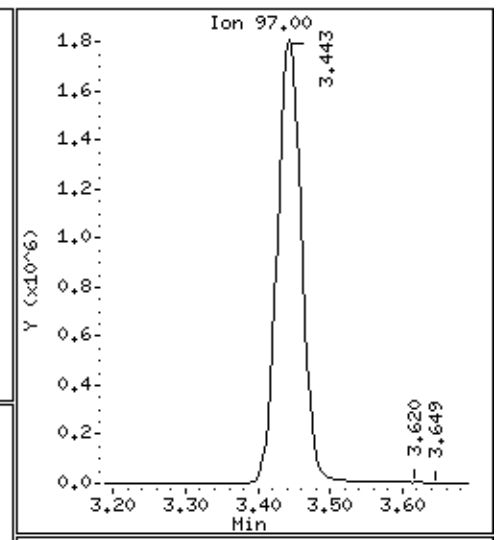
Column diameter: 0.18

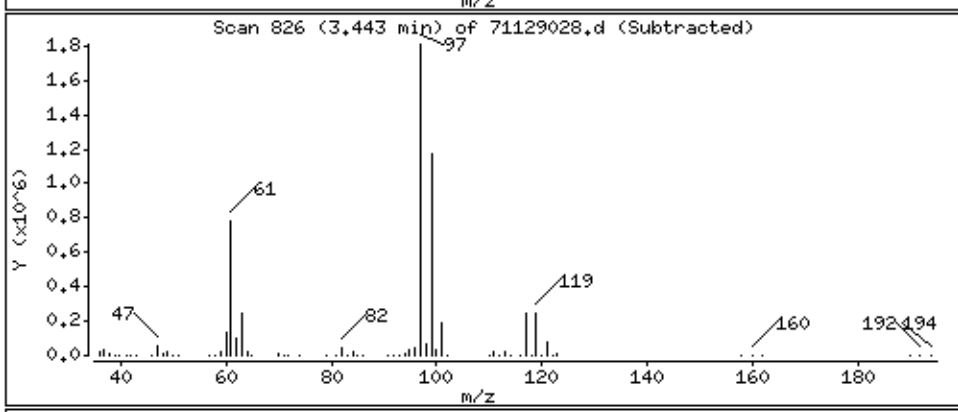
38 1,1,1-Trichloroethane

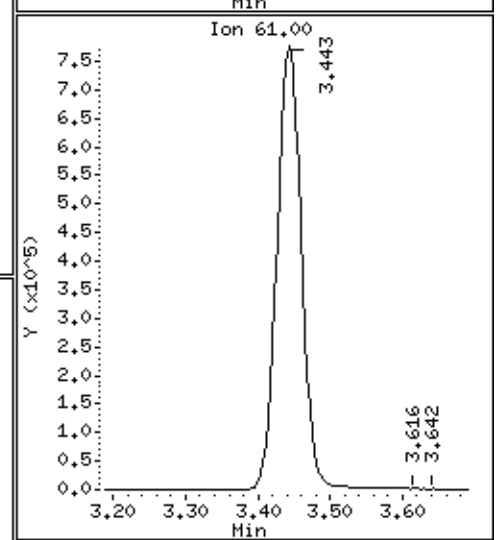
Concentration: 1770 ug/L

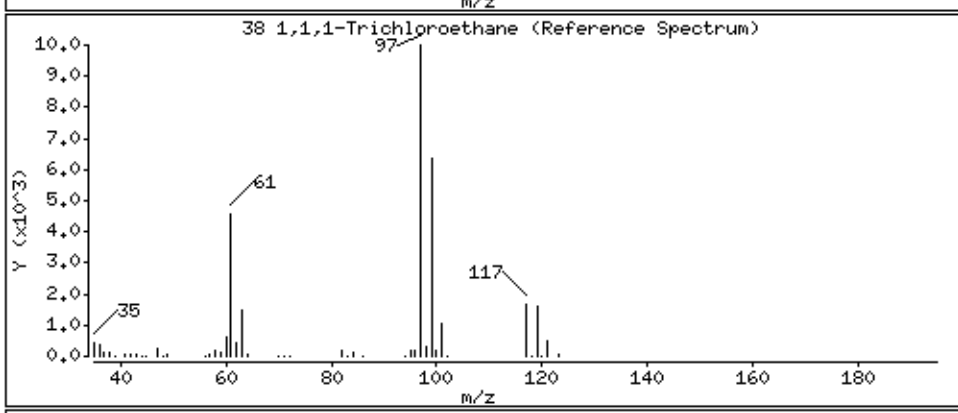
Review Code:

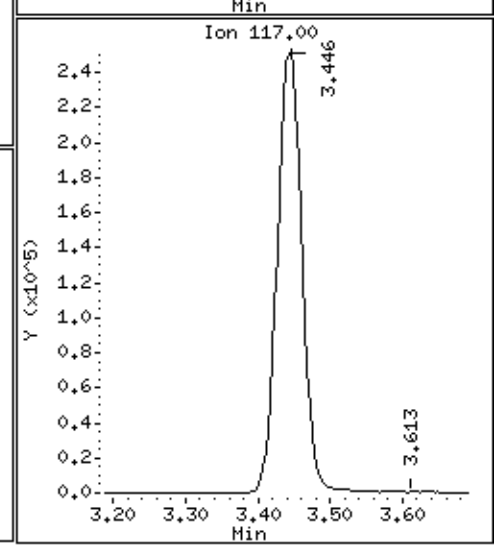


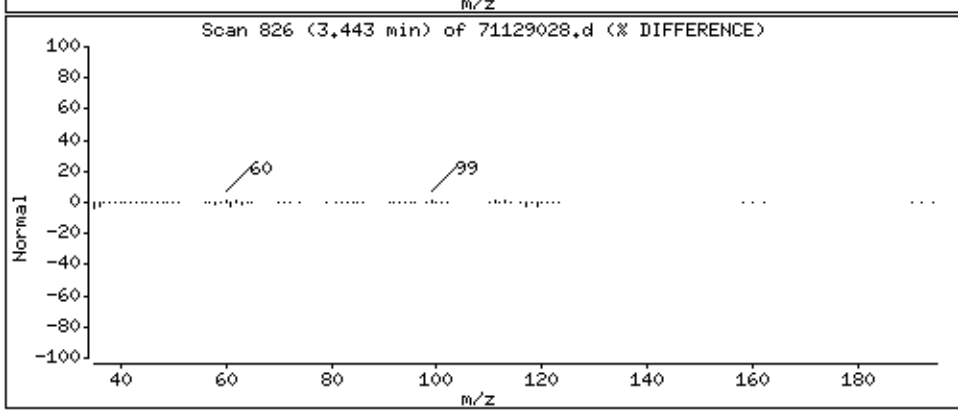












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Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

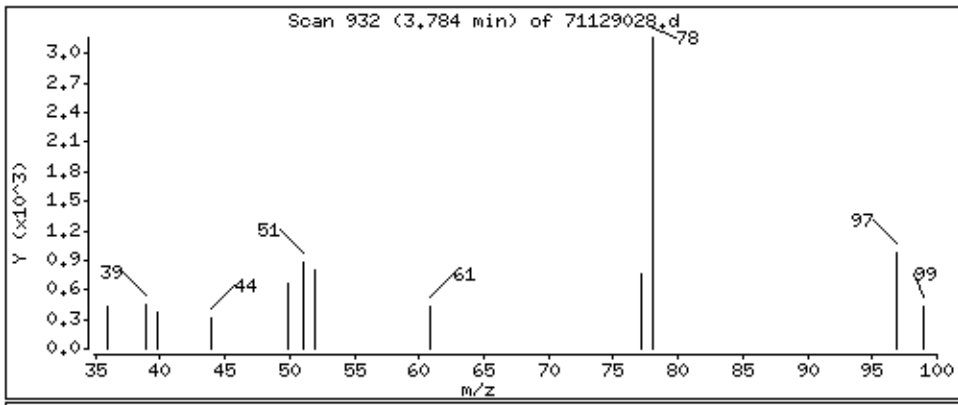
Column phase: RTX-VMS

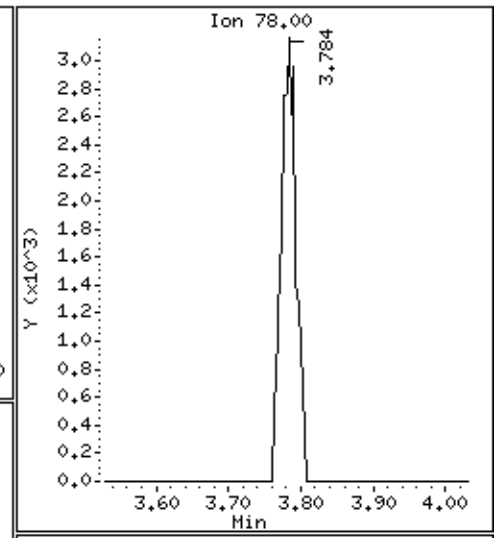
Column diameter: 0.18

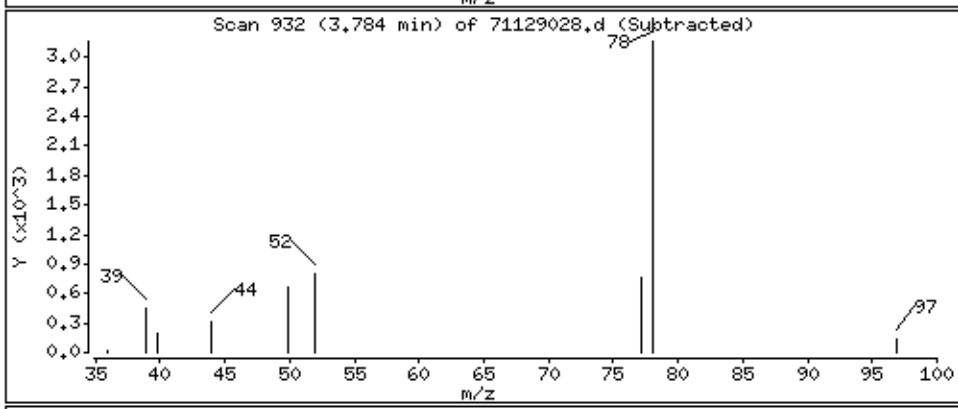
41 Benzene

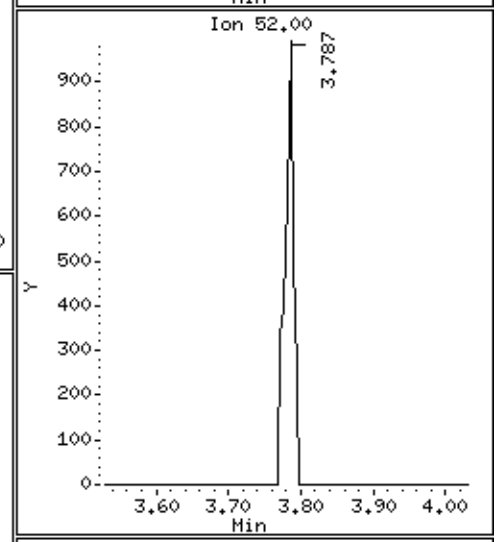
Concentration: 0.709 ug/L

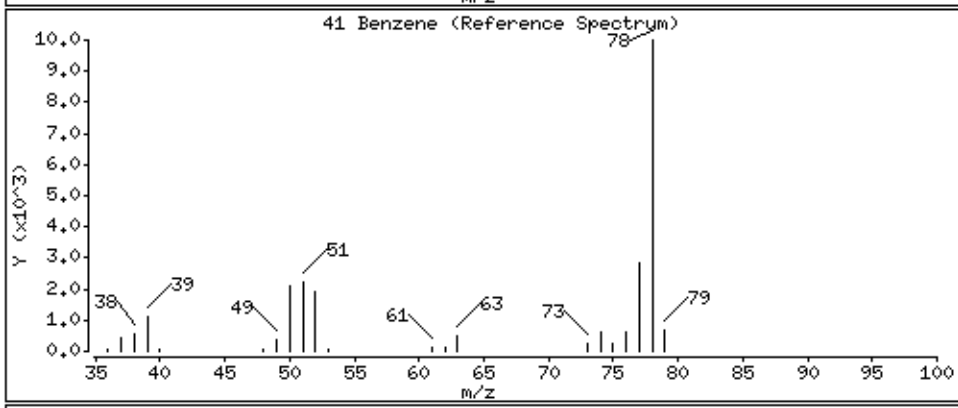
Review Code: LT

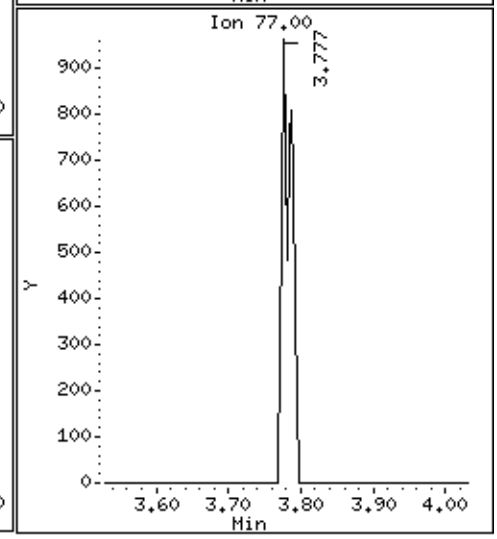


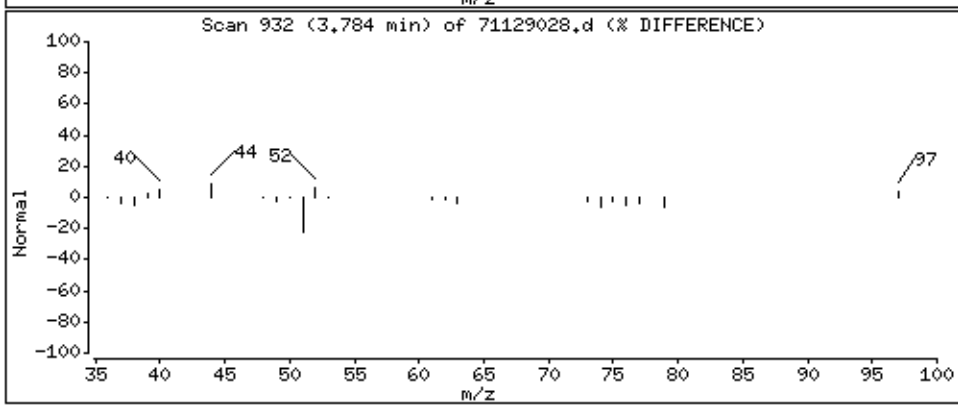












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Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

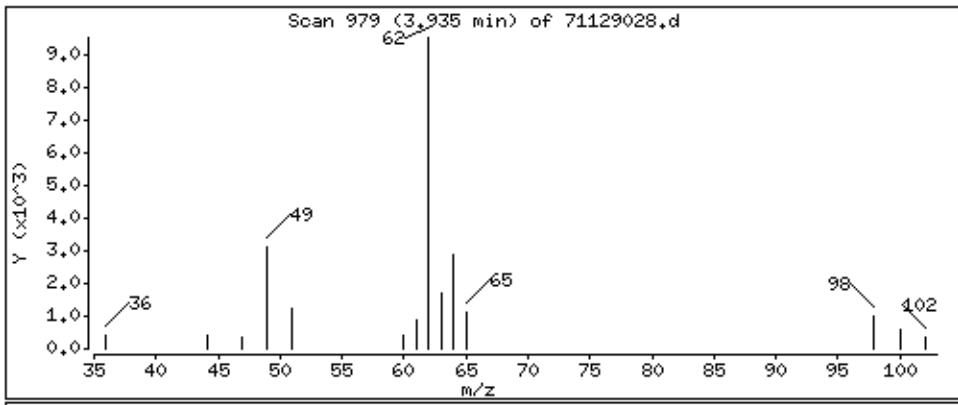
Column phase: RTX-VMS

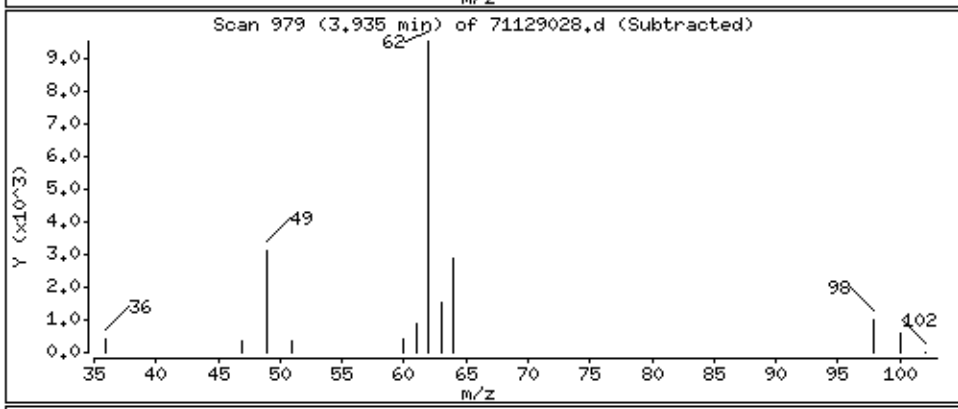
Column diameter: 0.18

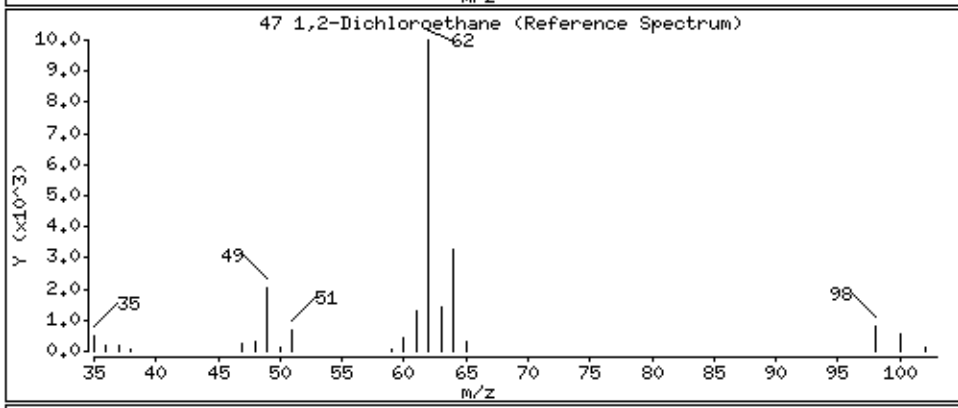
47 1,2-Dichloroethane

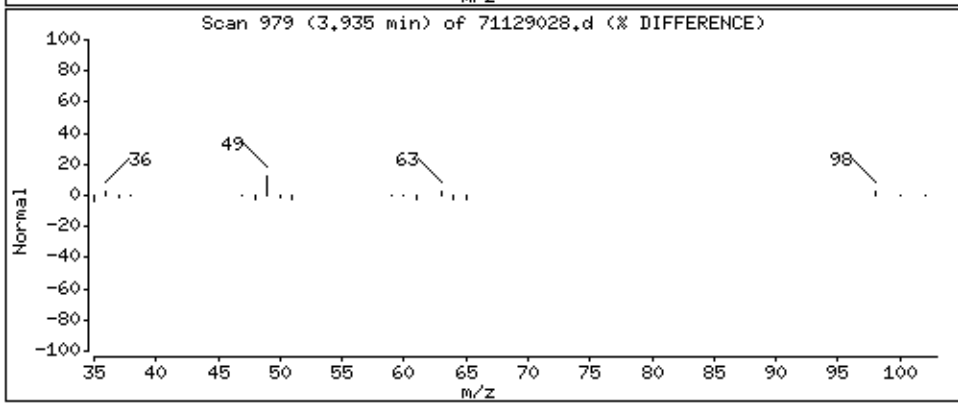
Concentration: 6.05 ug/L

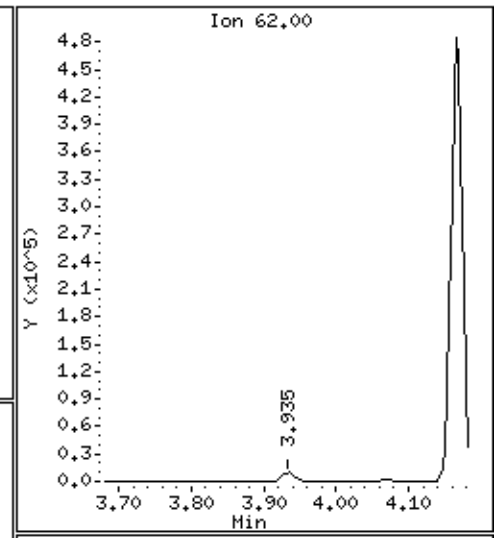
Review Code:

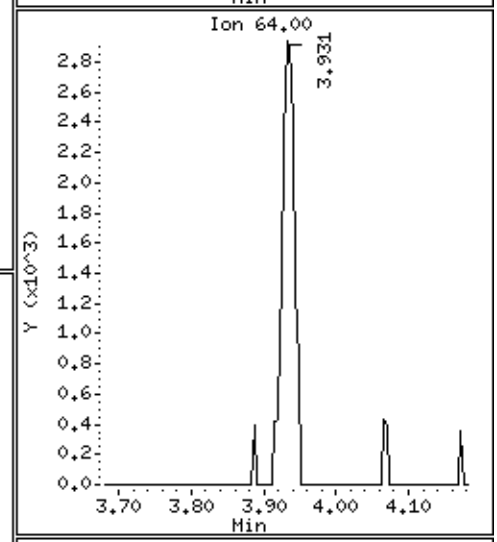


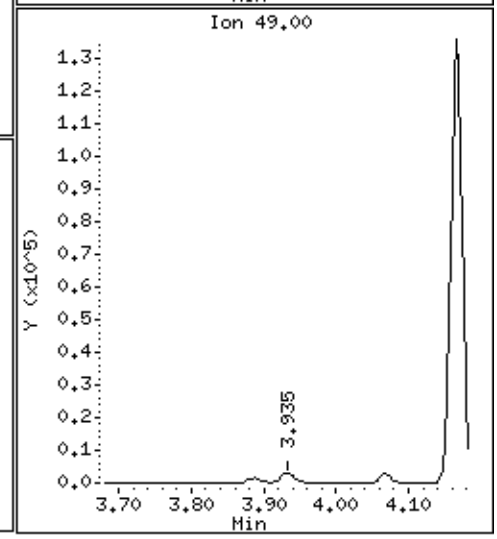












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Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

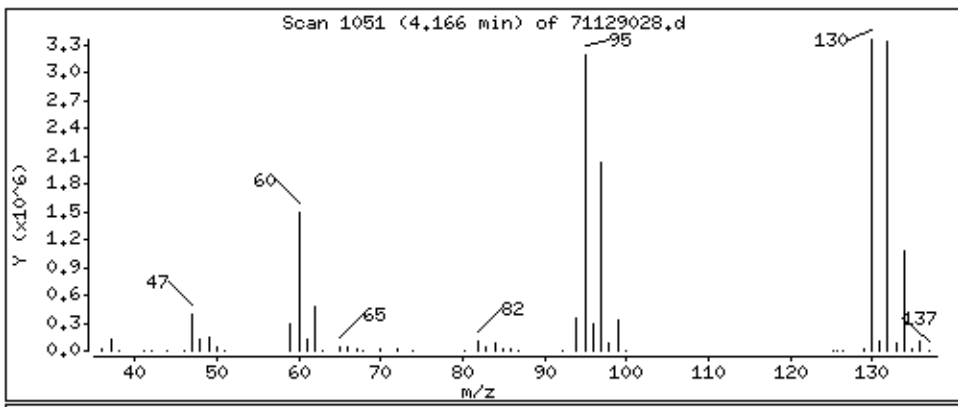
Column phase: RTX-VMS

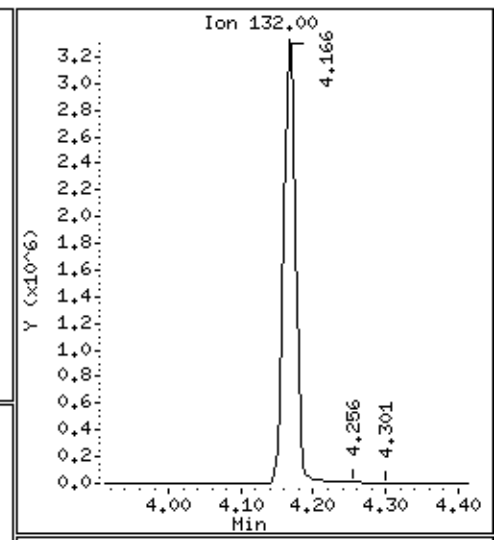
Column diameter: 0.18

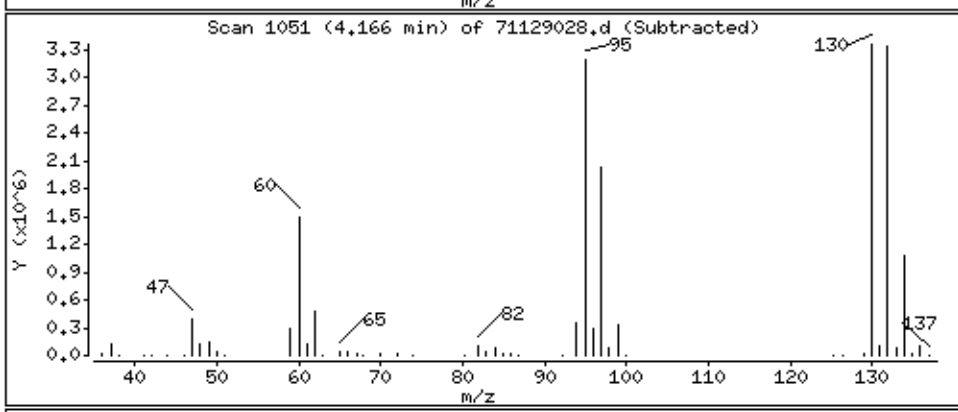
50 Trichloroethene

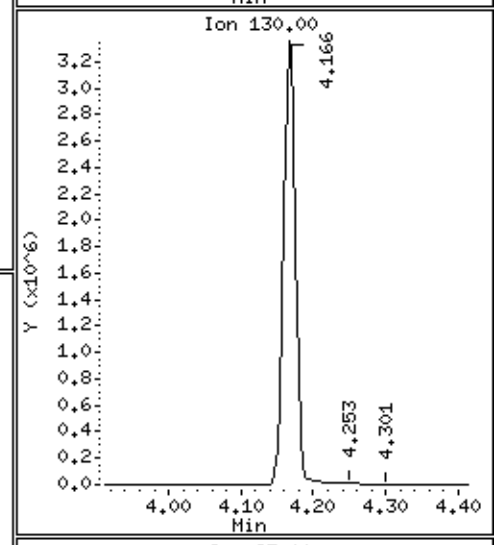
Concentration: 2110 ug/L

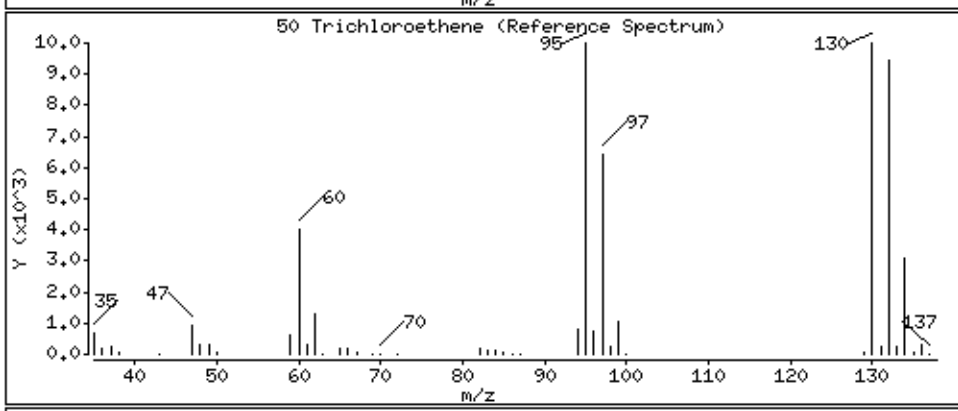
Review Code:

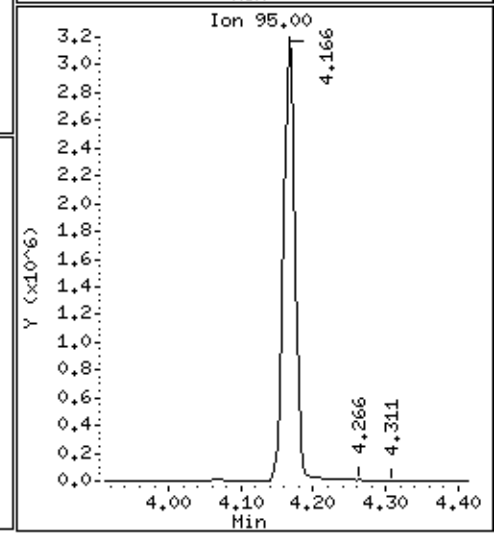


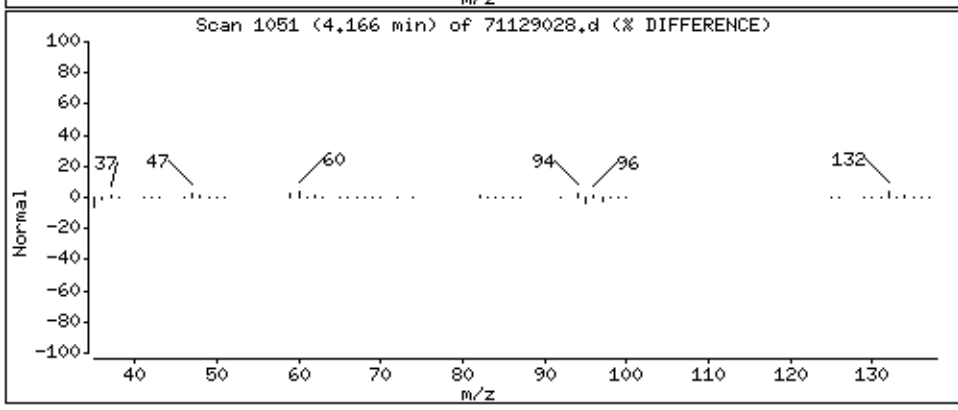












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Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

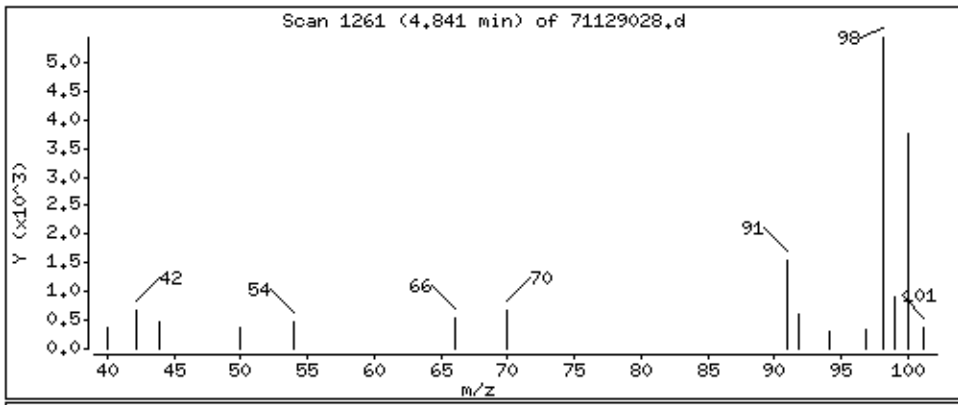
Column phase: RTX-VMS

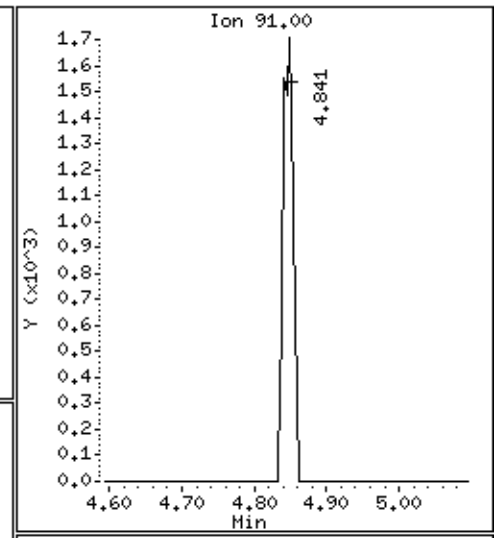
Column diameter: 0.18

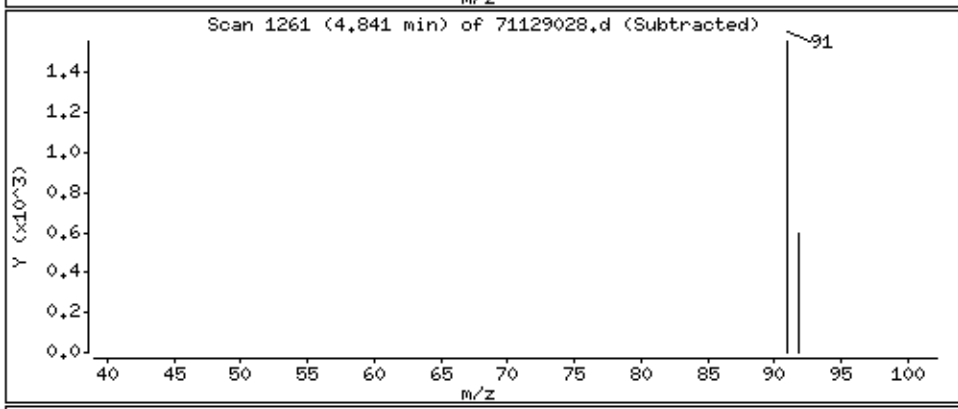
59 Toluene

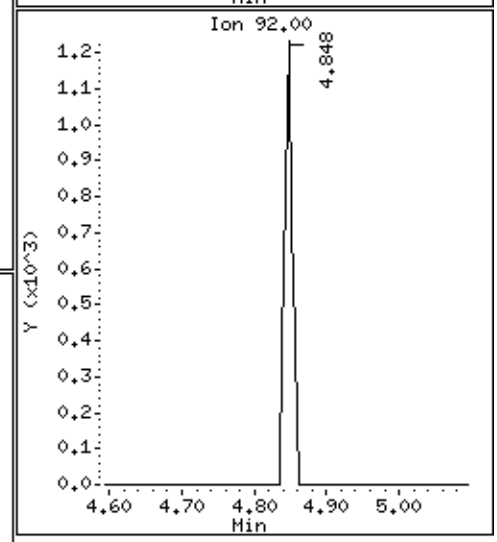
Concentration: 0.256 ug/L

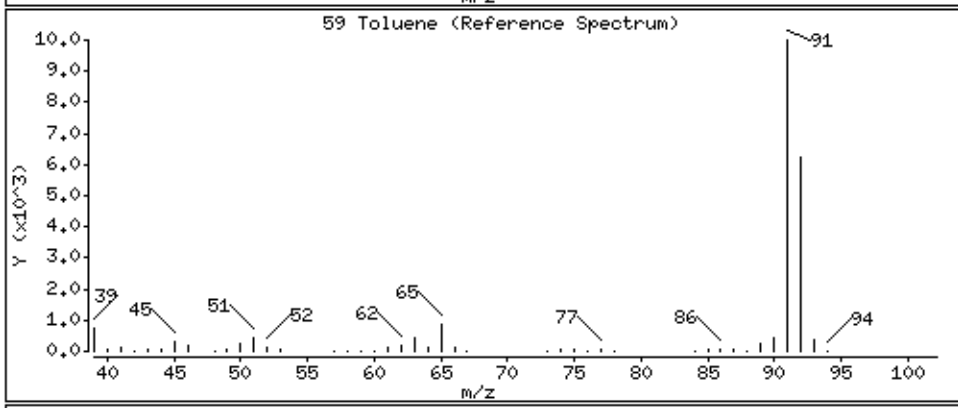
Review Code:

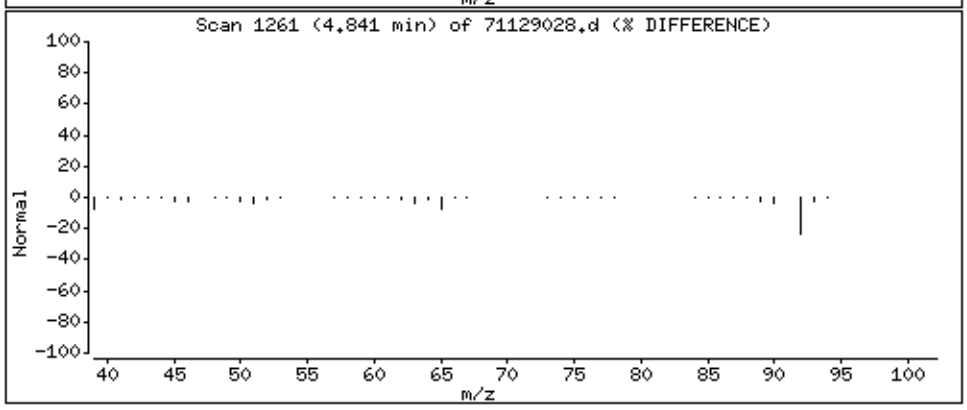












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

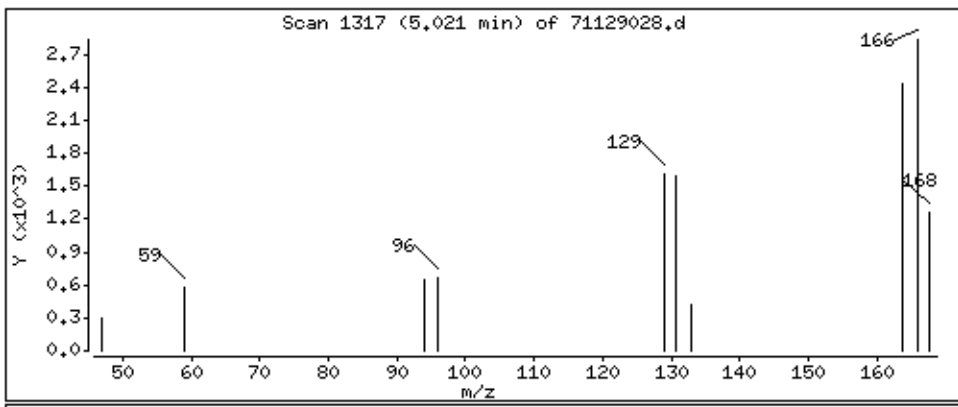
Column phase: RTX-VMS

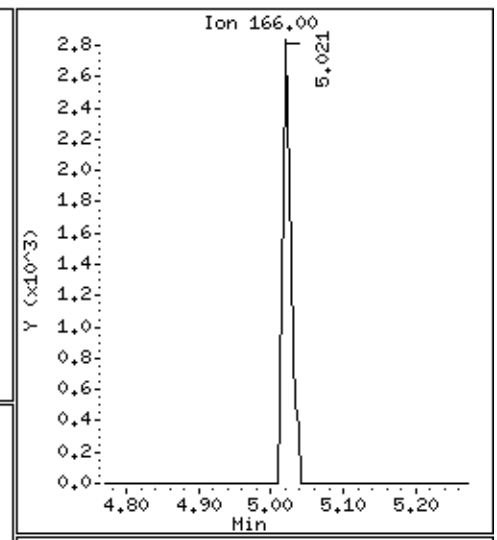
Column diameter: 0.18

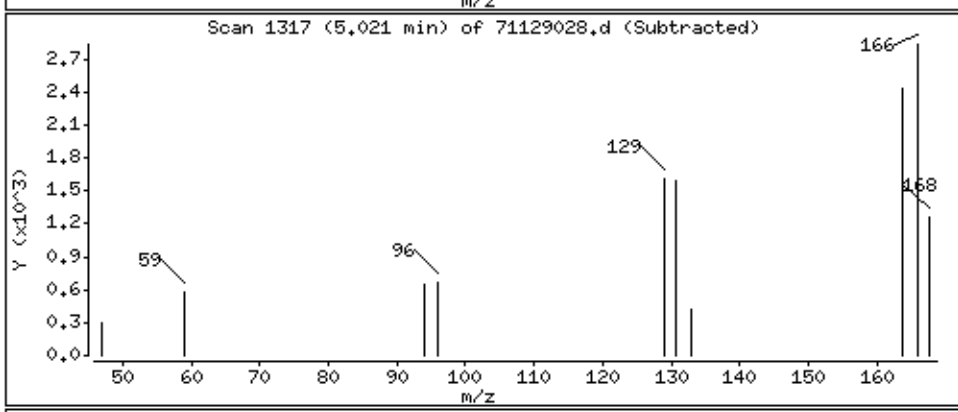
62 Tetrachloroethene

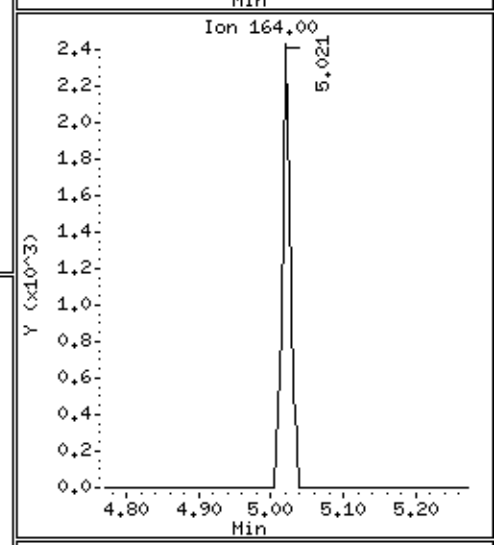
Concentration: 1.22 ug/L

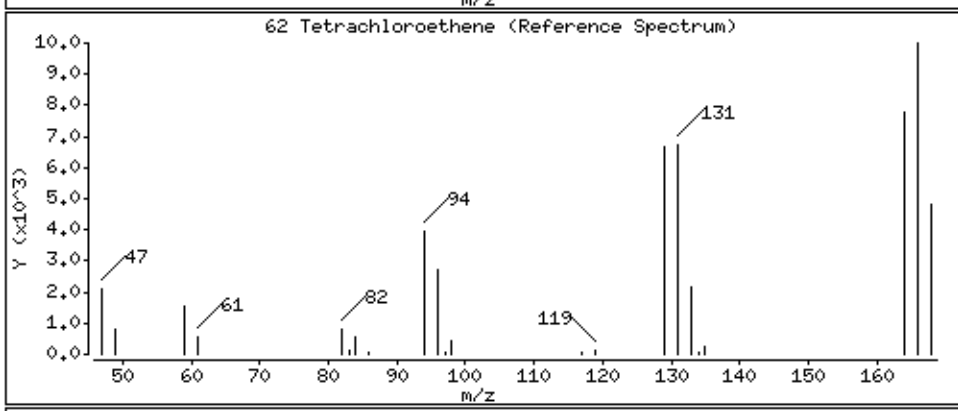
Review Code:

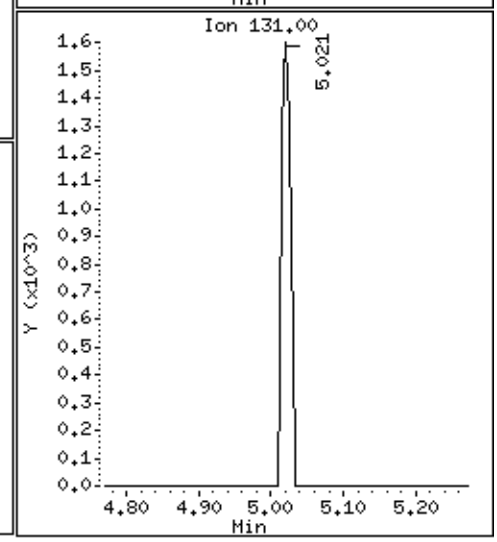


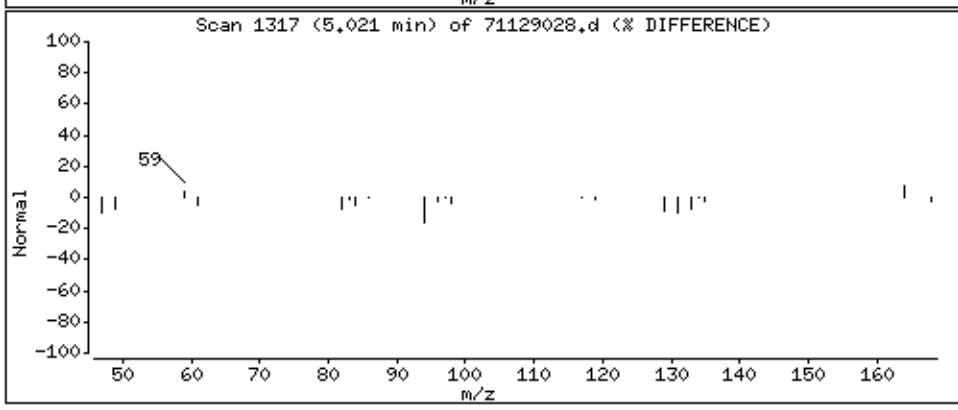












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129028.d

Date : 29-NOV-2019 13:42

Client ID: Duplicate

Instrument: 30mv7b.i

Sample Info: 30337003008

Purge Volume: 5.0

Operator: LEL

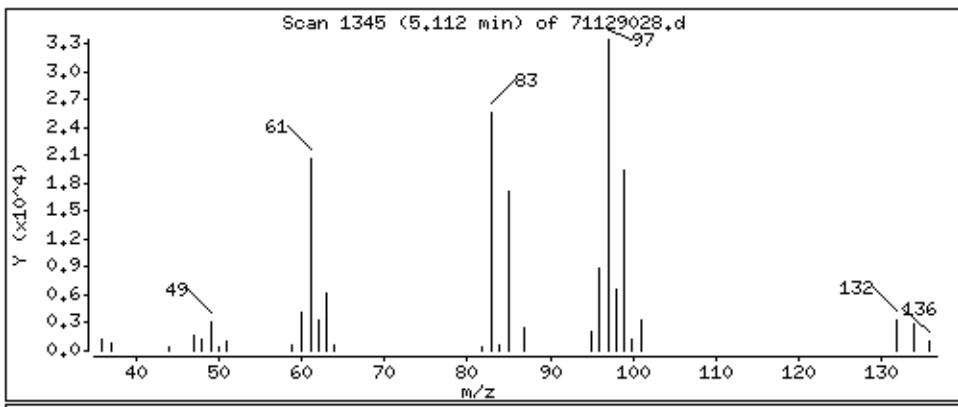
Column phase: RTX-VMS

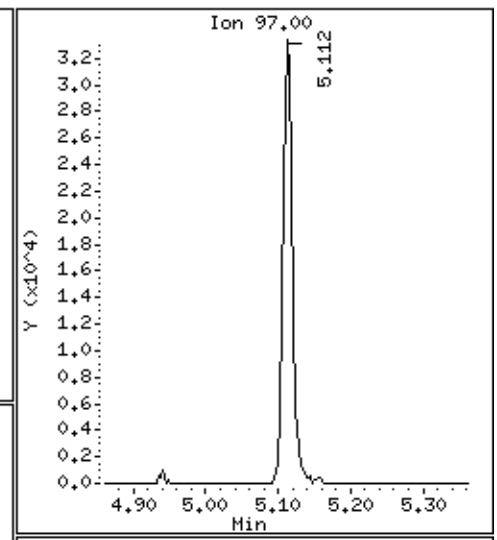
Column diameter: 0.18

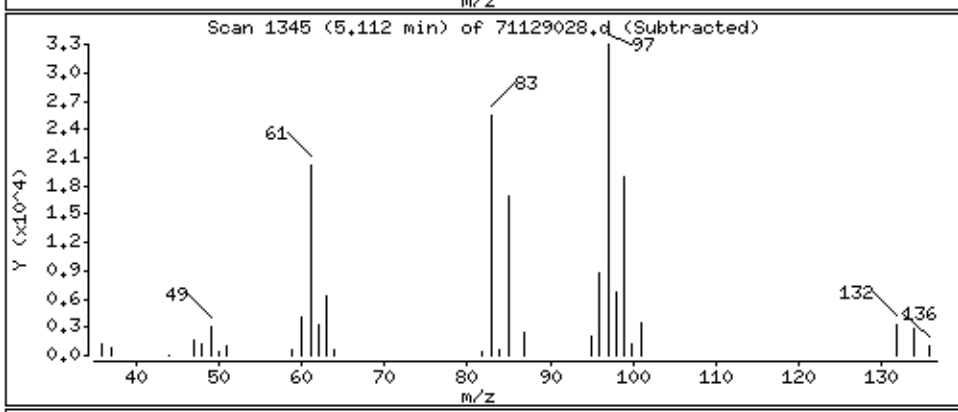
65 1,1,2-Trichloroethane

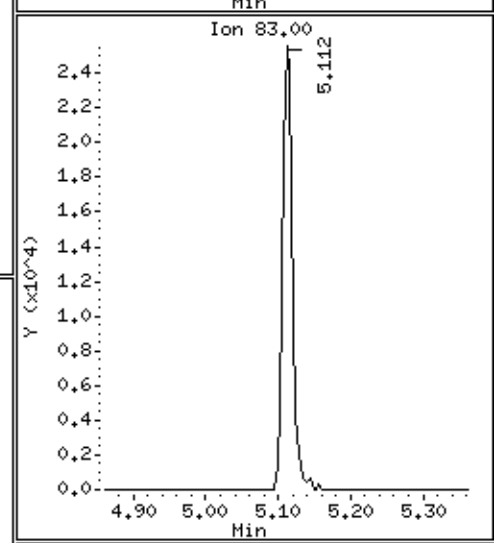
Concentration: 20.5 ug/L

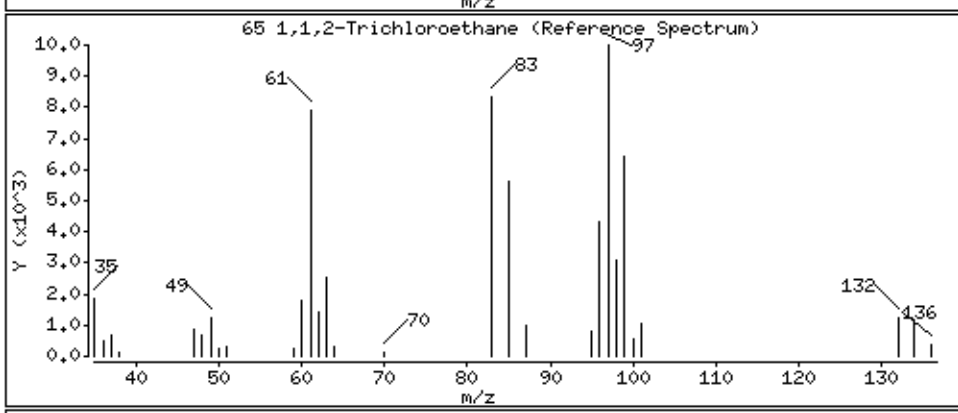
Review Code:

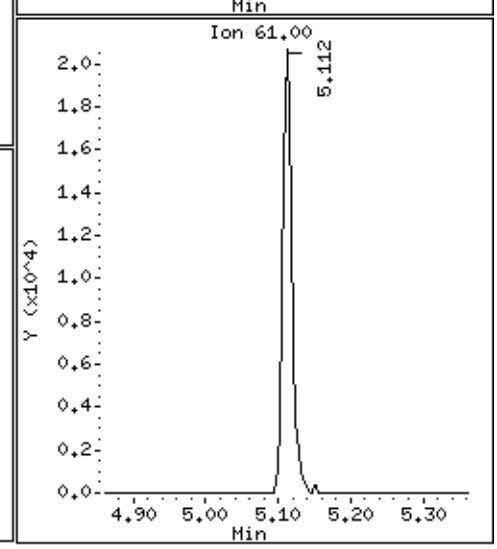


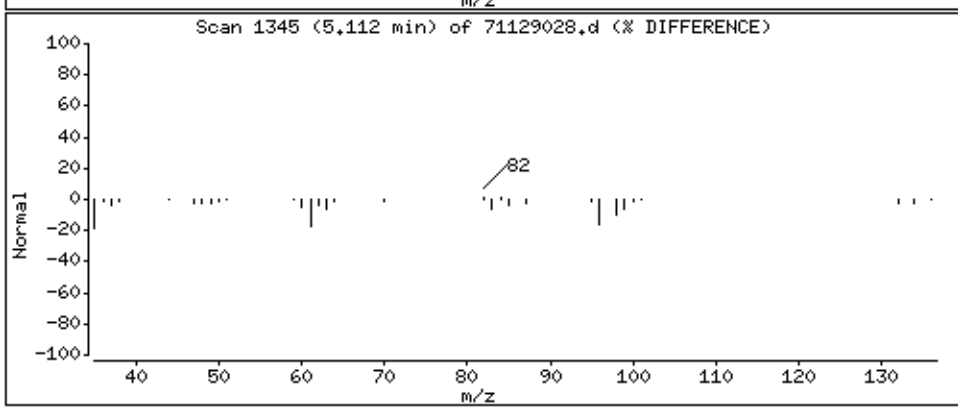






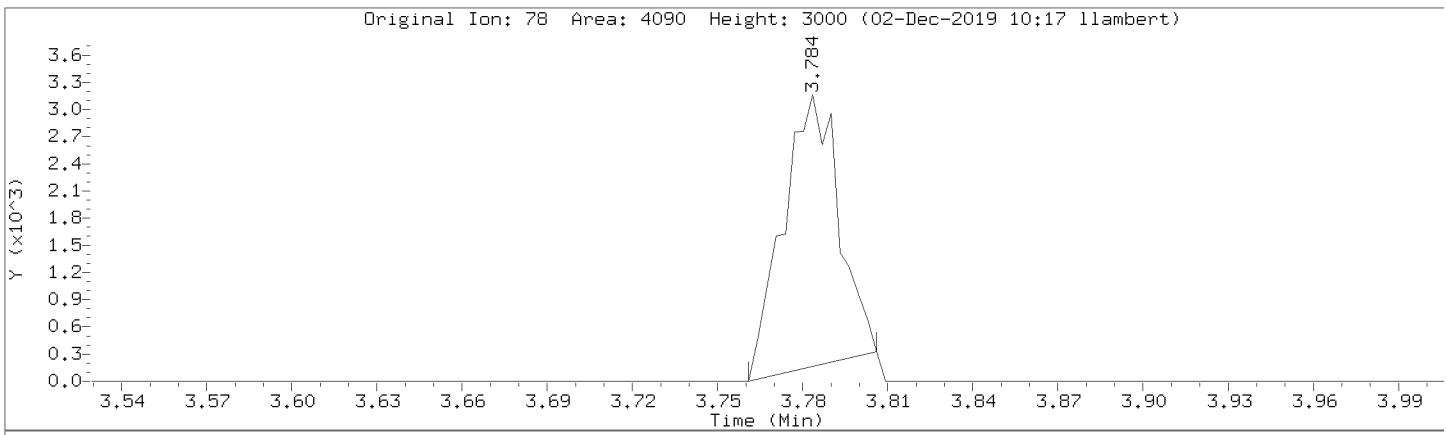


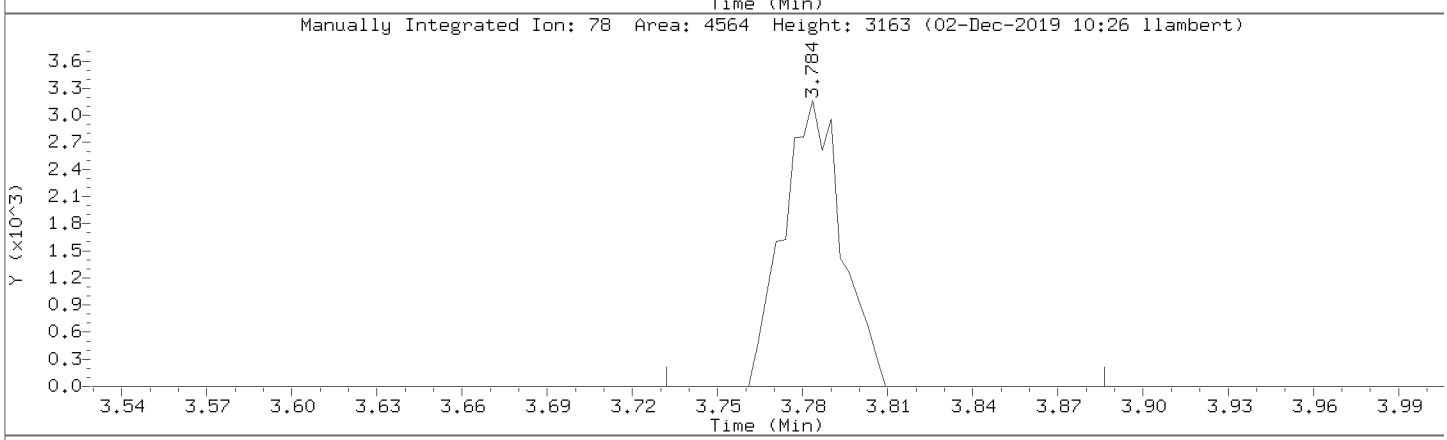


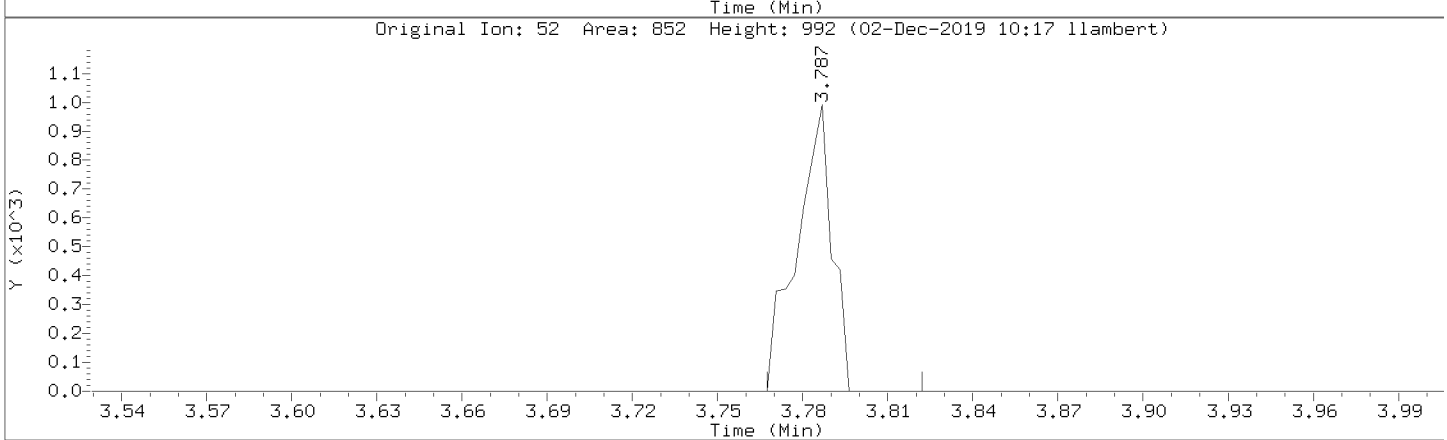


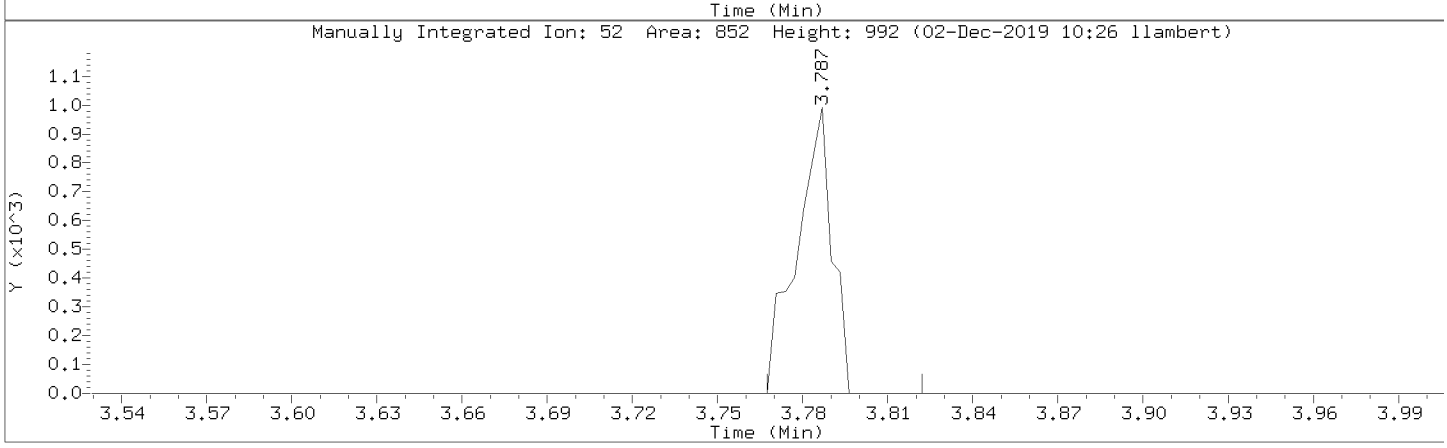
Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129028.d
Injection Date: 29-NOV-2019 13:42
Instrument: 30mv7b.i
Lab Sample ID: 30337003008

Compound: Benzene Review Code: LT
CAS Number: 71-43-2

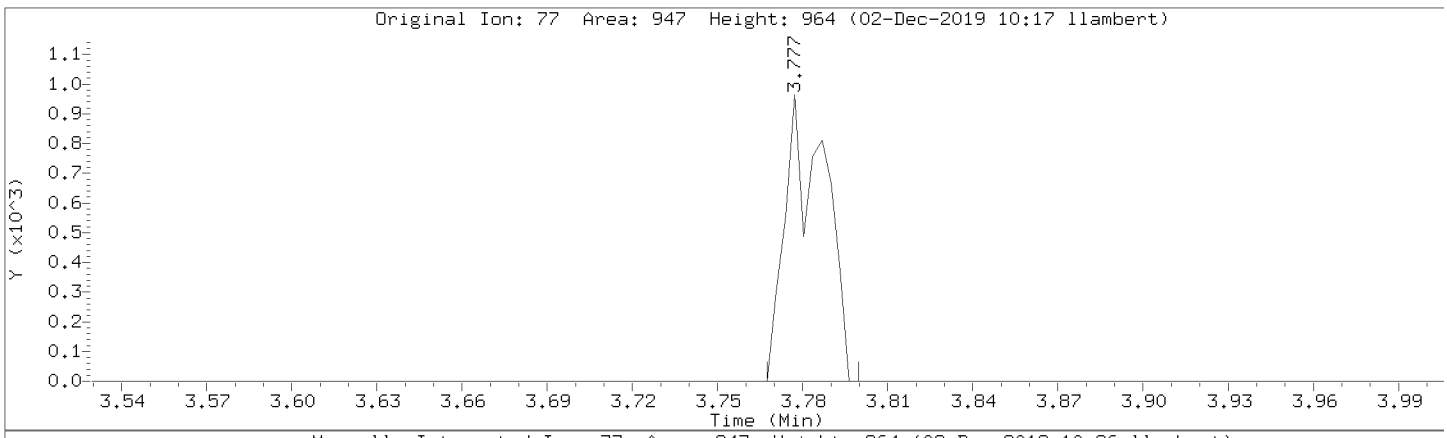


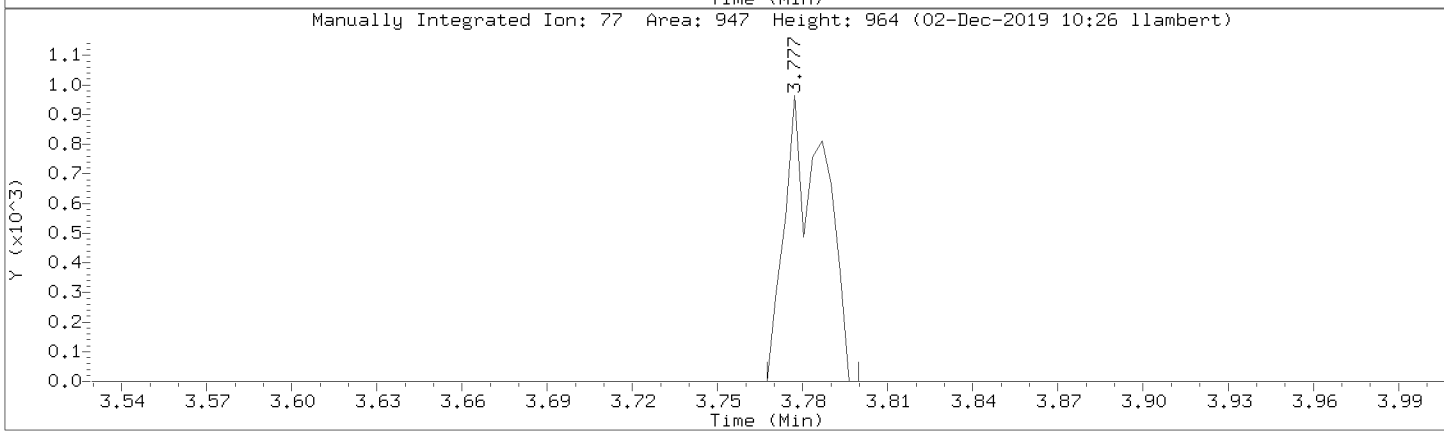






Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129028.d
Injection Date: 29-NOV-2019 13:42
Instrument: 30mv7b.i
Lab Sample ID: 30337003008





SAMPLE NO.

Trip Blank by Pace

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 10:47 Lab Sample ID: 30337003009

Date Analyzed: 11/29/2019 10:47 Lab File ID: 7191129.B\2.B\71129014.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U

SAMPLE NO.

Trip Blank by Pace

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 10:47 Lab Sample ID: 30337003009

Date Analyzed: 11/29/2019 10:47 Lab File ID: 7191129.B\2.B\71129014.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	2.3	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d
Lab Smp Id: 30337003009 Client Smp ID: Trip Blank by Pace
Inj Date : 29-NOV-2019 10:47
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 30337003009
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 14
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 Bromomethane	94	Compound Not Detected.						
5 Chloroethane	64	Compound Not Detected.						
6 Trichlorofluoromethane	101	Compound Not Detected.						
7 Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8 Ethanol	46	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	Compound Not Detected.						
15 Methylene Chloride	49	1.905	1.902	(0.469)	4649	2.27506	2.28	
16 Acetone	58	1.947	1.944	(0.479)	2097	5.32264	5.32	
17 trans-1,2-Dichloroethene	61	Compound Not Detected.						
18 Methyl acetate	74	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 tert-Butyl Alcohol	59	Compound Not Detected.						(D)
22 Acetonitrile	41	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	Compound Not Detected.						
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	Compound Not Detected.						
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Ethyl acetate	43	Compound Not Detected.						
	35 Carbon tetrachloride	117	Compound Not Detected.						
	36 Tetrahydrofuran	42	3.426	3.407	(0.843)	5334	3.93399	3.93(Q)	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	47217	30.4230	30.4	
	38 1,1,1-Trichloroethane	97	Compound Not Detected.						
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.883	3.883	(0.955)	51850	32.4738	32.5	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	179527	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	Compound Not Detected.						
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	151195	27.9627	28.0	
	59 Toluene	91	4.847	4.844	(0.879)	2229	0.32156	0.322(a)	
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	Compound Not Detected.						
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	120202	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	77 Bromoform	173	Compound Not Detected.						
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	46725	29.1450	29.1	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	51435	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.027)	24468	31.1997	31.2(Q)	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
D - User disabled compound identification.

Review Codes Legend

    :

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

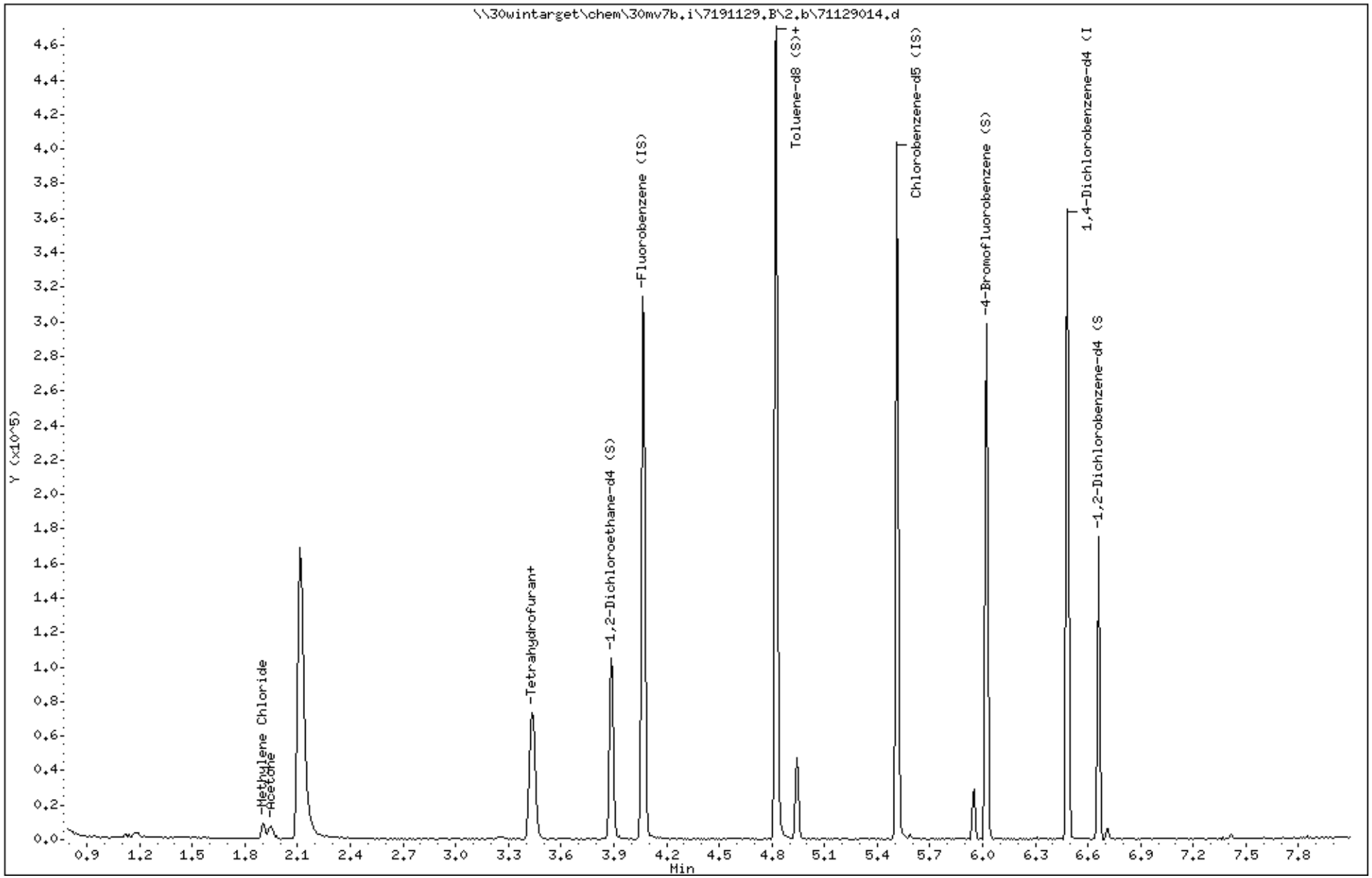
TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 30337003009
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: Trip Blank by Pace
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-09-2	Methylene Chloride	2.28	
67-64-1	Acetone	5.32	
109-99-9	Tetrahydrofuran	3.93	
108-88-3	Toluene	0.322	J
1868-53-7	Dibromofluoromethane (S)	30.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.5	
2037-26-5	Toluene-d8 (S)	28.0	
460-00-4	4-Bromofluorobenzene (S)	29.1	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	31.2	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d
Date : 29-NOV-2019 10:47
Client ID: Trip Blank by Pace
Instrument: 30mv7b.i
Sample Info: 30337003009
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 29-NOV-2019 10:47

Client ID: Trip Blank by Pace

Instrument: 30mv7b.i

Sample Info: 30337003009

Purge Volume: 5.0

Operator: LEL

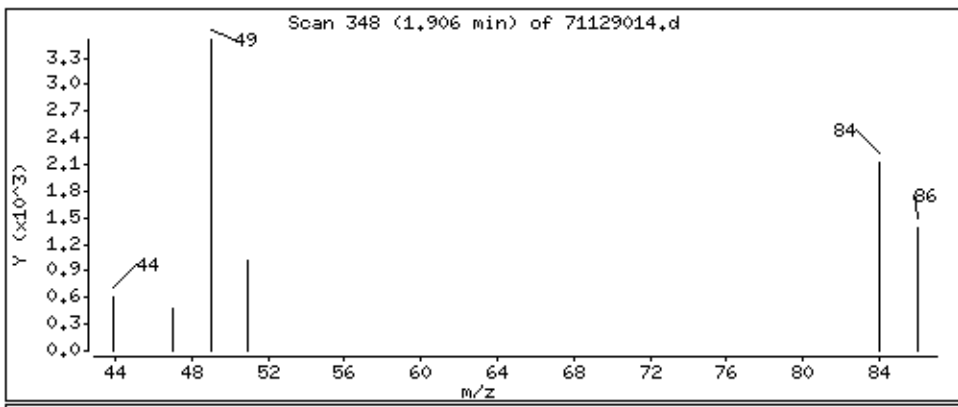
Column phase: RTX-VMS

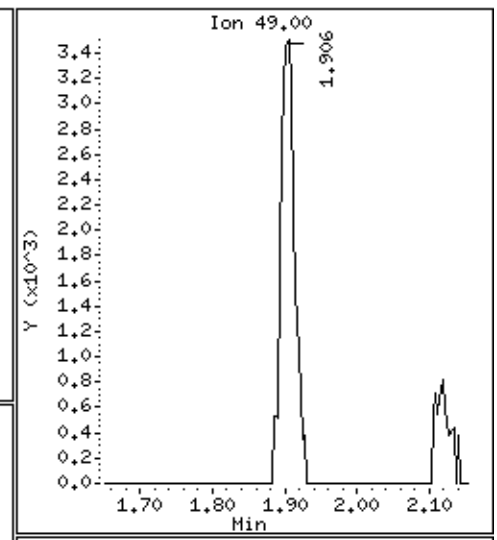
Column diameter: 0.18

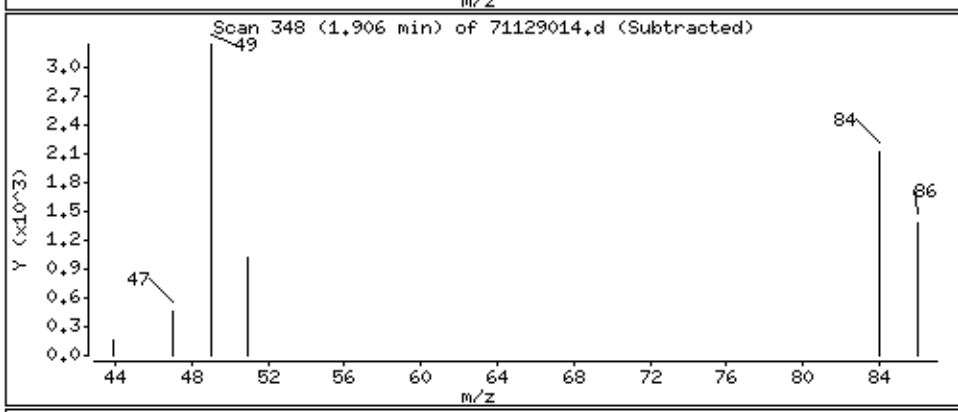
15 Methylene Chloride

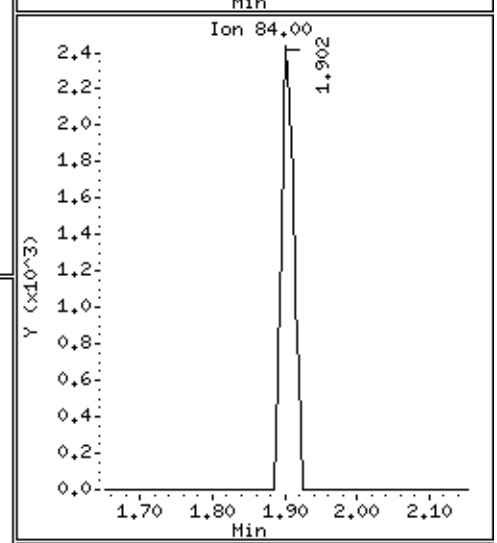
Concentration: 2.28 ug/L

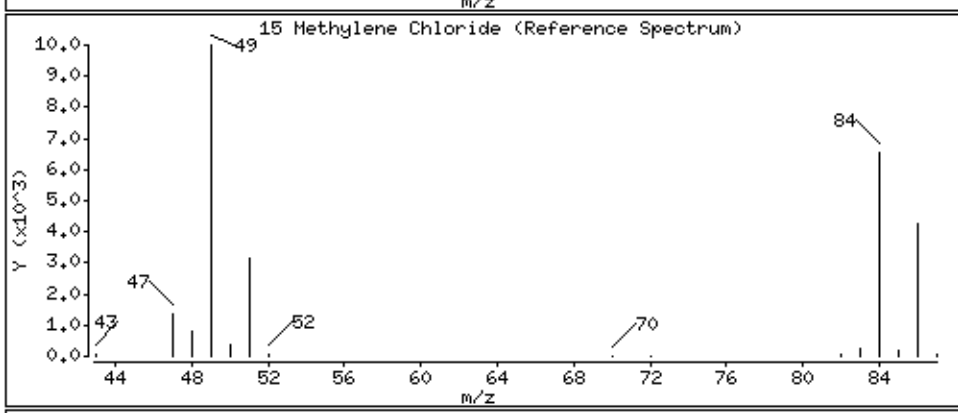
Review Code:

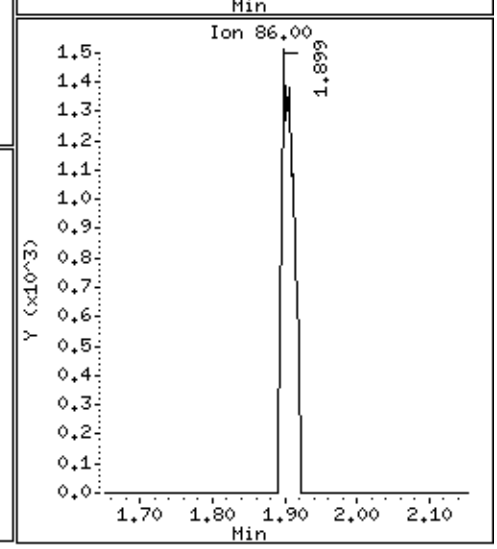


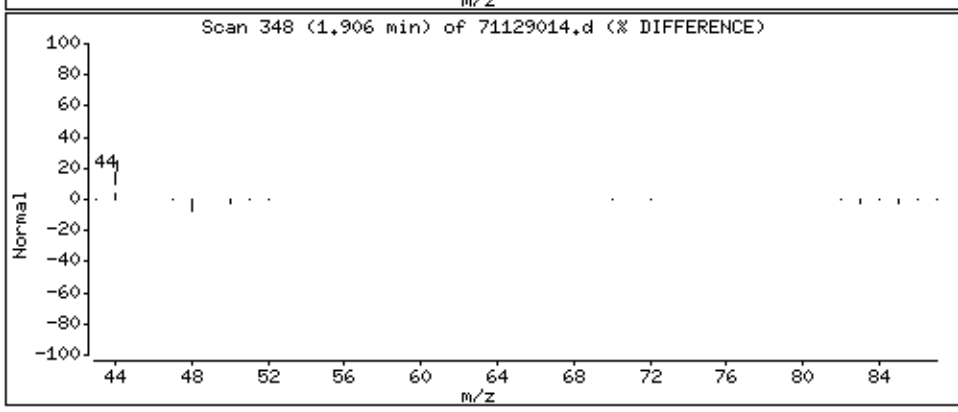












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d

Date : 29-NOV-2019 10:47

Client ID: Trip Blank by Pace

Instrument: 30mv7b.i

Sample Info: 30337003009

Purge Volume: 5.0

Operator: LEL

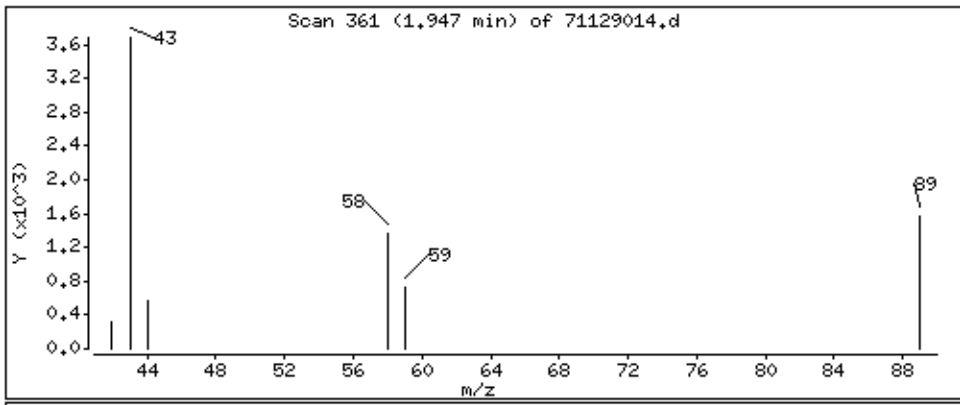
Column phase: RTX-VMS

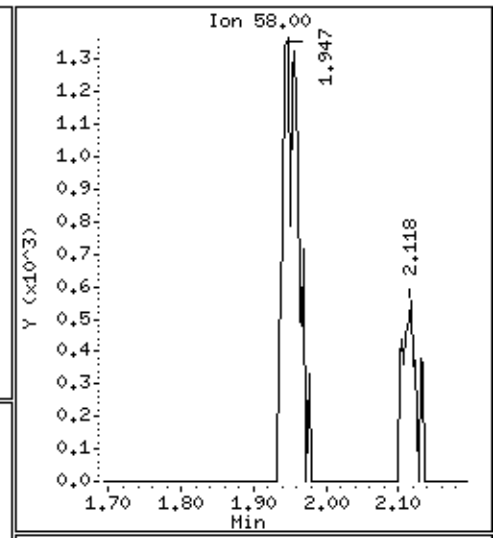
Column diameter: 0.18

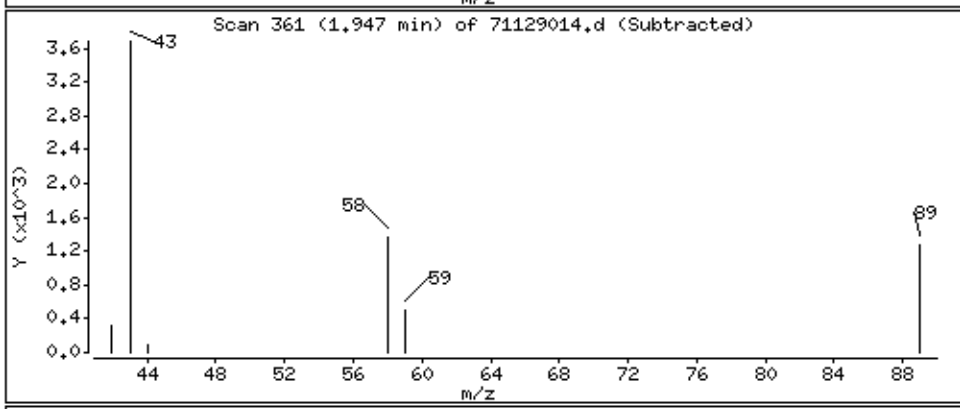
16 Acetone

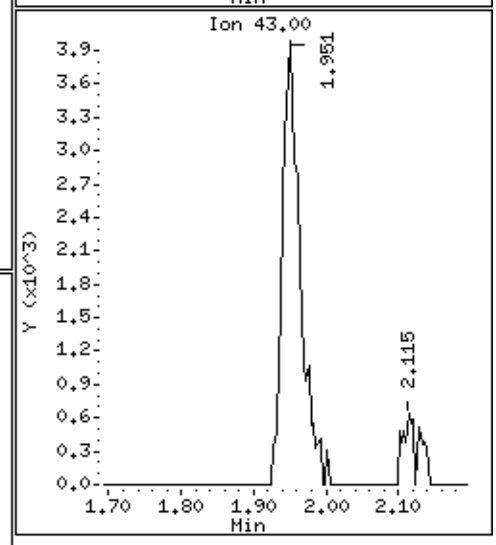
Concentration: 5.32 ug/L

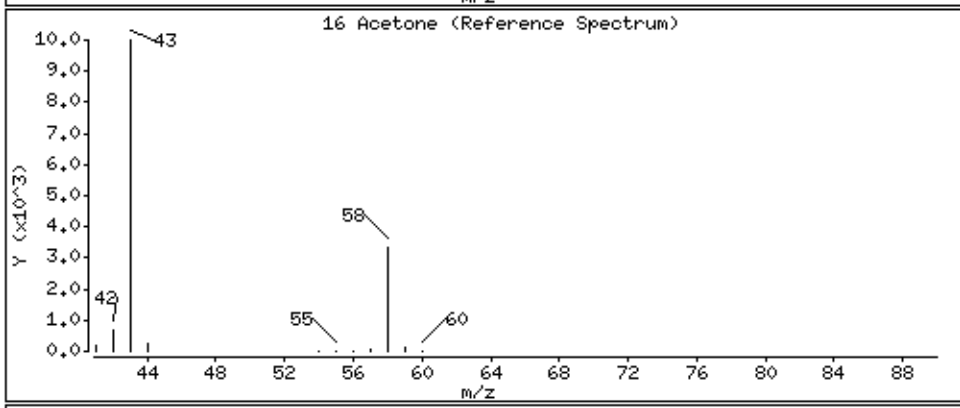
Review Code:

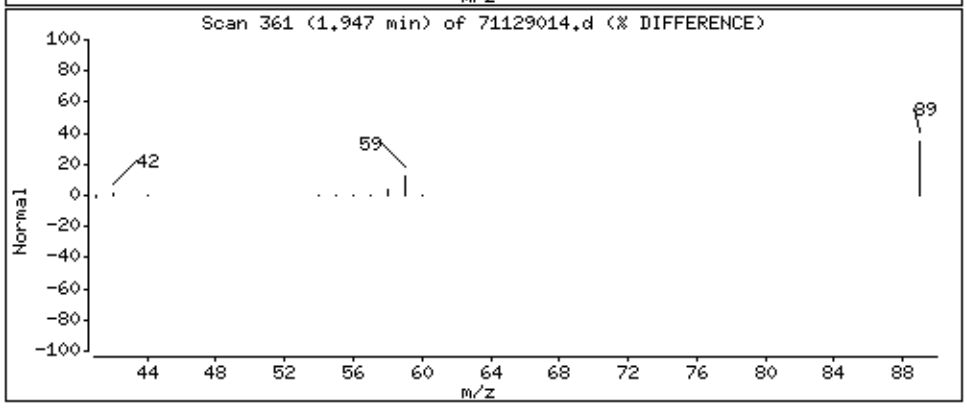












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d

Date : 29-NOV-2019 10:47

Client ID: Trip Blank by Pace

Instrument: 30mv7b.i

Sample Info: 30337003009

Purge Volume: 5.0

Operator: LEL

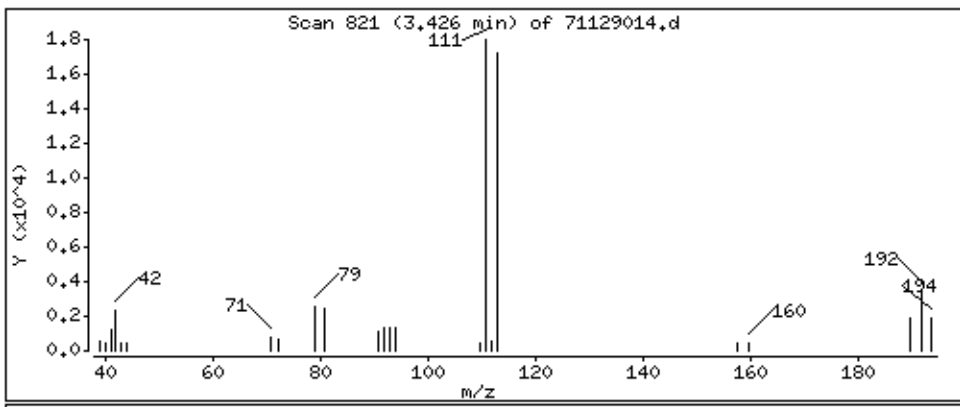
Column phase: RTX-VMS

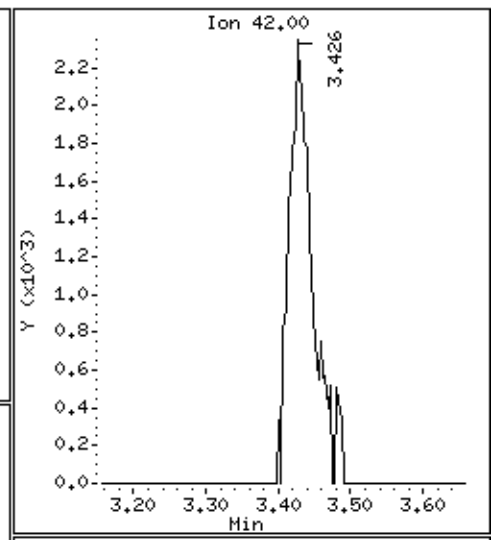
Column diameter: 0.18

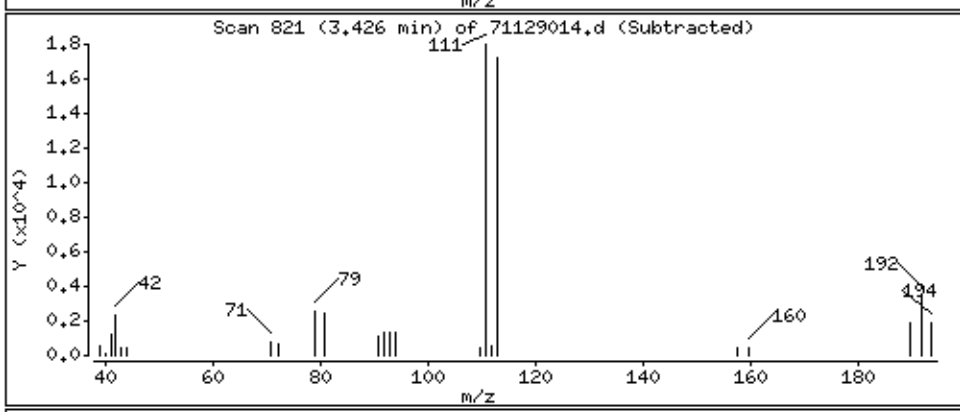
36 Tetrahydrofuran

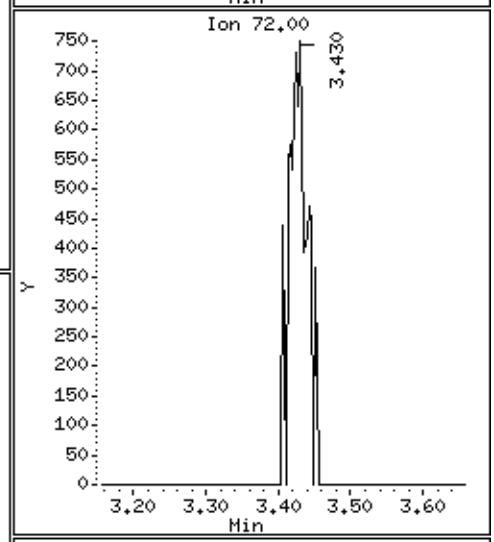
Concentration: 3.93 ug/L

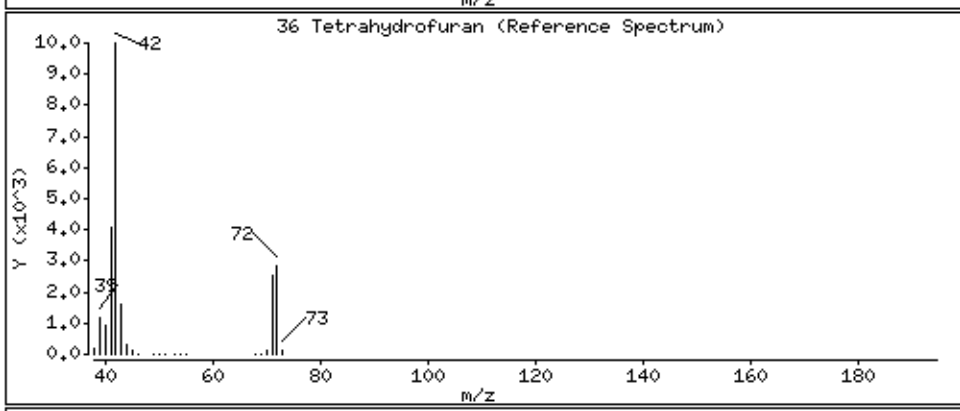
Review Code:

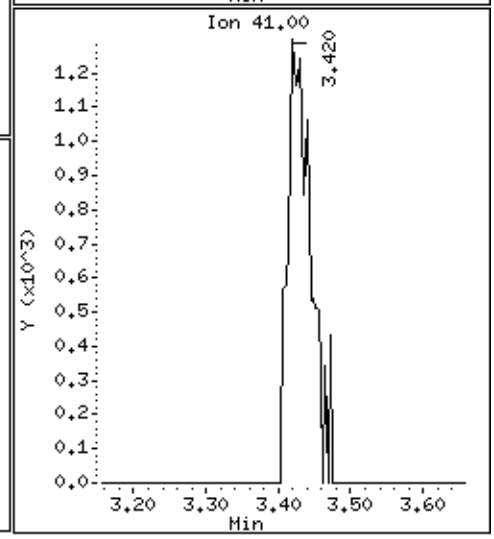


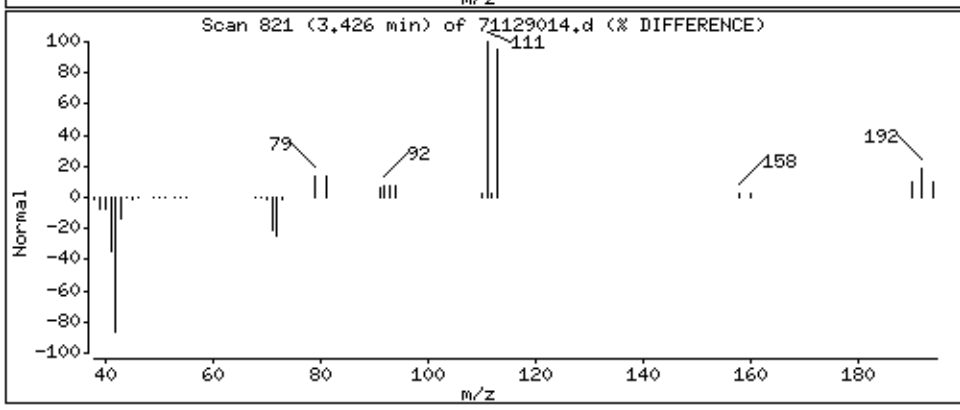












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129014.d

Date : 29-NOV-2019 10:47

Client ID: Trip Blank by Pace

Instrument: 30mv7b.i

Sample Info: 30337003009

Purge Volume: 5.0

Operator: LEL

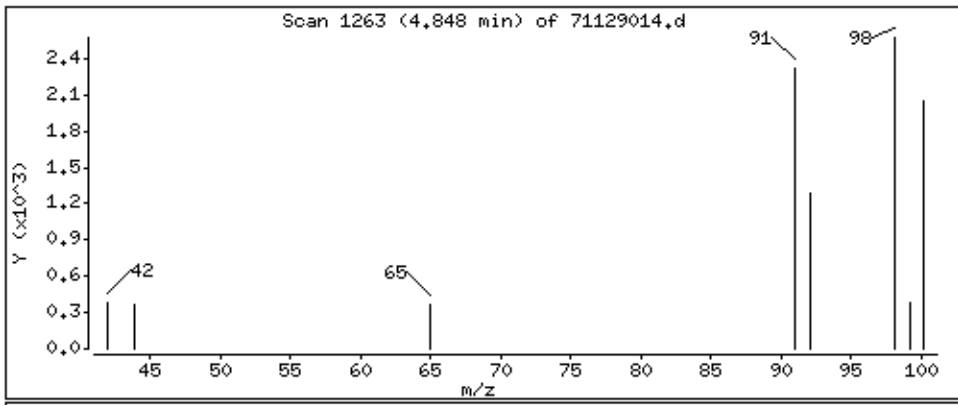
Column phase: RTX-VMS

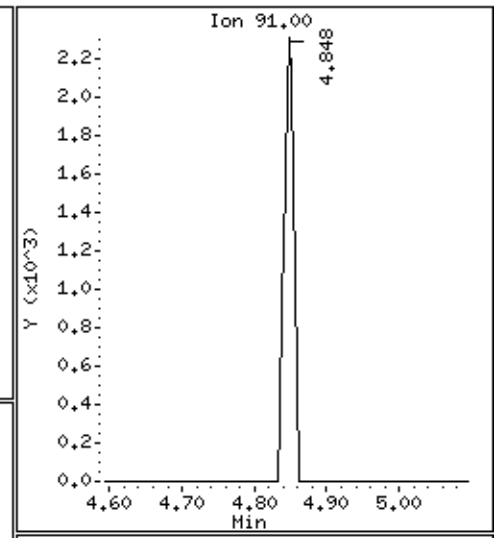
Column diameter: 0.18

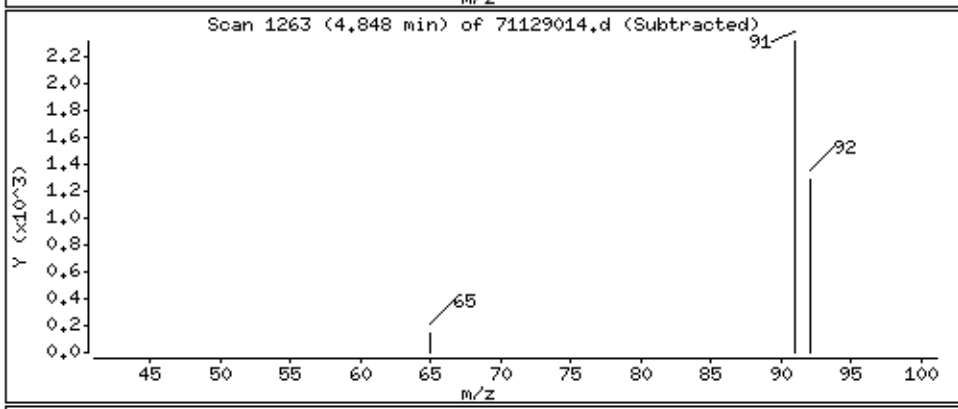
59 Toluene

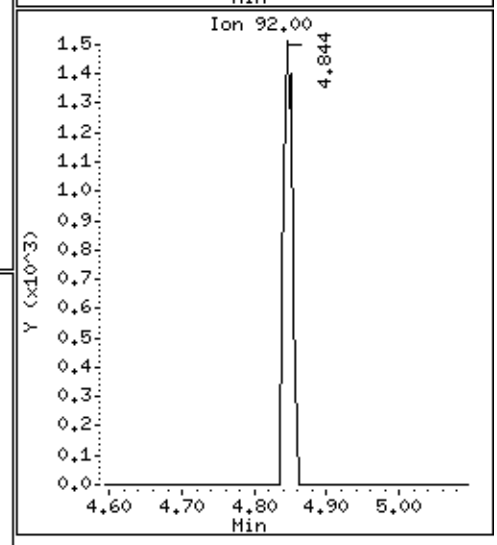
Concentration: 0.322 ug/L

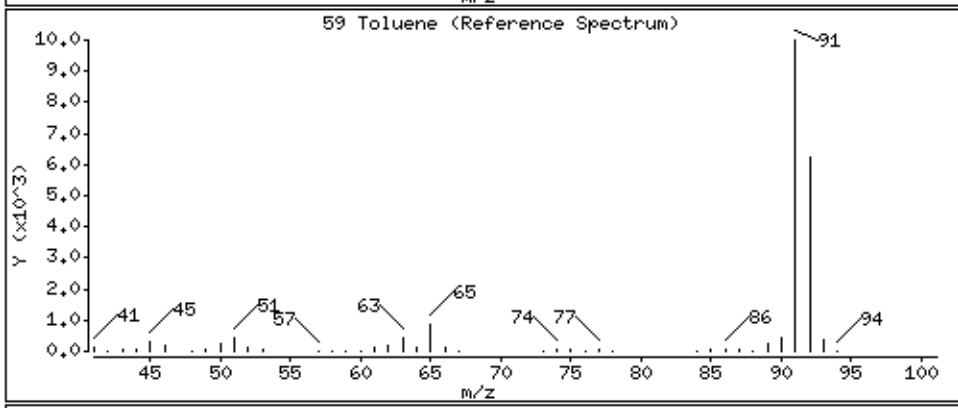
Review Code:

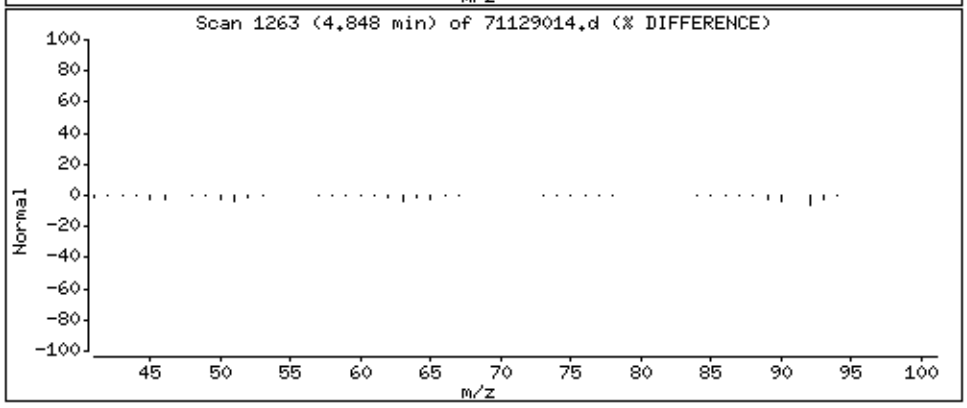












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129014.d
Injection Date: 29-NOV-2019 10:47
Instrument: 30mv7b.i
Lab Sample ID: 30337003009
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

MSV - FORM VI VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7A GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:00 16:28

LAB FILE ID

CAL1 = 7191112.B\1.B\71112005.D CAL2 = 7191112.B\1.B\71112007.D CAL3 = 7191112.B\1.B\71112009.D

CAL4 = 7191112.B\1.B\71112011.D CAL5 = 7191112.B\1.B\71112013.D CAL6 = 7191112.B\1.B\71112015.D

CAL7 = 7191112.B\1.B\71112017.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Quadratic	0.25346	0.12027	0.08671	0.07538	0.08116	0.07634
Benzene	Averaged	1.05343	0.99528	0.91648	0.83427	1.04823	1.02925
Bromobenzene	Averaged	1.30678	1.37221	1.19005	1.09339	1.37167	1.35091
Bromochloromethane	Averaged	0.17189	0.19663	0.17211	0.16072	0.18521	0.16822
Bromodichloromethane	Quadratic	0.20049	0.26790	0.24423	0.23586	0.30165	0.30544
Bromoform	Quadratic	0.44529	0.55908	0.54436	0.54561	0.73996	0.79167
Bromomethane	Quadratic	0.16005	0.08772	0.07892	0.07177	0.08747	0.08052
2-Butanone (MEK)	Averaged	0.36786	0.41444	0.29294	0.31678	0.37122	0.39311
n-Butylbenzene	Averaged	1.38629	1.49101	1.37236	1.27862	1.63452	1.64499
sec-Butylbenzene	Averaged	2.14464	2.23297	2.11145	1.96566	2.42326	2.39774
tert-Butylbenzene	Averaged	1.61939	1.66439	1.57338	1.42943	1.82296	1.77943
Carbon disulfide	Averaged	0.78969	0.72885	0.59304	0.58370	0.73899	0.76085
Carbon tetrachloride	Averaged	0.32123	0.35323	0.31814	0.28144	0.37135	0.38766
Chlorobenzene	Averaged	0.87959	0.89887	0.85793	0.78348	0.94973	0.95004
Chloroethane	Quadratic	0.16273	0.13747	0.11811	0.10484	0.10294	0.07770
2-Chloroethylvinyl ether	Quadratic	0.10877	0.18046	0.17076	0.15655	0.21321	0.19018
Chloroform	Averaged	0.44859	0.43341	0.39600	0.36229	0.45638	0.45032
Chloromethane	Quadratic	0.48226	0.37780	0.33897	0.31735	0.38576	0.43082
2-Chlorotoluene	Averaged	0.66248	0.78867	0.63729	0.57748	0.74189	0.72815
4-Chlorotoluene	Averaged	0.64158	0.74602	0.66584	0.61551	0.78116	0.77074
1,2-Dibromo-3-chloropropane	Quadratic	0.30716	0.39428	0.37768	0.36544	0.48669	0.52560
Dibromochloromethane	Quadratic	0.31746	0.34436	0.33545	0.32335	0.41462	0.43473
1,2-Dibromoethane (EDB)	Averaged	0.32525	0.37446	0.35709	0.33654	0.41904	0.42129
Dibromomethane	Averaged	0.19499	0.20137	0.19191	0.17476	0.21693	0.21890
1,2-Dichlorobenzene	Averaged	1.21136	1.22213	1.14168	1.03040	1.30499	1.29804
1,3-Dichlorobenzene	Averaged	1.38766	1.25377	1.16262	1.06660	1.33751	1.32322
1,4-Dichlorobenzene	Averaged	1.22726	1.41081	1.25378	1.11717	1.41611	1.38853
Dichlorodifluoromethane	Quadratic	0.25642	0.28131	0.29897	0.27234	0.33355	0.32390
1,1-Dichloroethane	Averaged	0.46508	0.48237	0.43003	0.38385	0.48306	0.47382
1,2-Dichloroethane	Averaged	0.33842	0.33648	0.29819	0.27280	0.33742	0.32643
1,1-Dichloroethene	Averaged	0.38632	0.41881	0.39586	0.35523	0.43853	0.43450
cis-1,2-Dichloroethene	Averaged	0.32038	0.35989	0.32883	0.29723	0.36565	0.35977
trans-1,2-Dichloroethene	Averaged	0.38223	0.37452	0.34906	0.30841	0.38342	0.38594
1,2-Dichloropropane	Averaged	0.22993	0.23672	0.22743	0.20345	0.25578	0.25449
1,3-Dichloropropane	Averaged	0.49537	0.56362	0.53430	0.47674	0.59841	0.59544

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7A GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:00 16:28

LAB FILE ID

CAL1 = 7191112.B\1.B\71112005.D CAL2 = 7191112.B\1.B\71112007.D CAL3 = 7191112.B\1.B\71112009.D

CAL4 = 7191112.B\1.B\71112011.D CAL5 = 7191112.B\1.B\71112013.D CAL6 = 7191112.B\1.B\71112015.D

CAL7 = 7191112.B\1.B\71112017.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
2,2-Dichloropropane	Averaged	0.32405	0.33969	0.33171	0.29415	0.36617	0.36556
1,1-Dichloropropene	Averaged	0.28122	0.34163	0.31564	0.28603	0.36162	0.36391
cis-1,3-Dichloropropene	Quadratic	0.28995	0.31246	0.30709	0.28347	0.38216	0.39314
trans-1,3-Dichloropropene	Quadratic	0.33771	0.42824	0.40677	0.39191	0.50051	0.52865
Ethylbenzene	Averaged	0.37858	0.43619	0.45746	0.41688	0.49615	0.50434
Hexachloro-1,3-butadiene	Averaged	0.27217	0.30759	0.29628	0.27321	0.33306	0.33477
2-Hexanone	Averaged	0.47298	0.58836	0.50353	0.52354	0.65956	0.66405
Isopropylbenzene (Cumene)	Quadratic	2.51087	2.61451	2.45209	2.25338	2.85173	2.82200
p-Isopropyltoluene	Averaged	1.79568	1.88181	1.79404	1.63674	2.11092	2.07431
Methylene Chloride	Quadratic	0.67401	0.42338	0.33866	0.28981	0.34614	0.34427
4-Methyl-2-pentanone (MIBK)	Averaged	0.40985	0.48599	0.42228	0.41490	0.52156	0.48478
Methyl-tert-butyl ether	Averaged	0.78461	0.77054	0.65189	0.61933	0.76382	0.76846
Naphthalene	Averaged	2.61810	2.59330	2.33878	2.30843	2.99970	2.98623
n-Propylbenzene	Averaged	2.83802	2.86426	2.76614	2.50800	3.17250	3.11042
Styrene	Averaged	0.80874	0.77188	0.76342	0.73462	0.93813	0.93396
1,1,1,2-Tetrachloroethane	Averaged	0.29216	0.34210	0.30950	0.29031	0.36788	0.38339
1,1,2,2-Tetrachloroethane	Averaged	1.12230	1.12350	1.04017	0.95645	1.20910	1.19702
Tetrachloroethene	Averaged	0.36573	0.36269	0.38050	0.34769	0.42088	0.43530
Toluene	Averaged	1.41681	1.38922	1.32074	1.26932	1.53999	1.59516
1,2,3-Trichlorobenzene	Averaged	0.71609	0.65029	0.56620	0.53323	0.63210	0.62548
1,2,4-Trichlorobenzene	Averaged	0.57296	0.65690	0.58252	0.54950	0.68099	0.67525
1,1,1-Trichloroethane	Averaged	0.37181	0.36043	0.36231	0.31361	0.40830	0.40944
1,1,2-Trichloroethane	Averaged	0.29158	0.34750	0.31457	0.29278	0.34794	0.35457
Trichloroethene	Averaged	0.27614	0.28073	0.26992	0.23797	0.31039	0.30497
Trichlorofluoromethane	Averaged	0.38237	0.44071	0.42751	0.38792	0.45534	0.36104
1,2,4-Trimethylbenzene	Averaged	1.91700	2.11638	1.88305	1.79016	2.22193	2.20947
1,3,5-Trimethylbenzene	Averaged	1.84612	2.14003	1.90031	1.78860	2.25121	2.19946
Vinyl acetate	Quadratic	0.50650	0.66474	0.59113	0.59020	0.73390	0.76525
Vinyl chloride	Averaged	0.31024	0.36170	0.33143	0.31838	0.38558	0.37367
m&p-Xylene	Averaged	0.56865	0.56548	0.52973	0.49602	0.61025	0.60474
o-Xylene	Averaged	0.52320	0.55494	0.52060	0.47851	0.58702	0.58625
4-Bromofluorobenzene (S)	Averaged	0.91156	0.93008	0.93310	0.94103	0.95286	0.92243
Dibromofluoromethane (S)	Averaged	0.26710	0.26190	0.26546	0.26544	0.26355	0.26433
1,2-Dichlorobenzene-d4 (S)	Averaged	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
1,2-Dichloroethane-d4 (S)	Averaged	0.28279	0.25507	0.26390	0.26636	0.26910	0.25337

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

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MSV - FORM VI VOA-3

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7A GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:00 16:28

LAB FILE ID

CAL1 = 7191112.B\1.B\71112005.D CAL2 = 7191112.B\1.B\71112007.D CAL3 = 7191112.B\1.B\71112009.D

CAL4 = 7191112.B\1.B\71112011.D CAL5 = 7191112.B\1.B\71112013.D CAL6 = 7191112.B\1.B\71112015.D

CAL7 = 7191112.B\1.B\71112017.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Toluene-d8 (S)	Averaged	1.21915	1.21115	1.28261	1.30904	1.29511	1.32994

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-4
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7A GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:00 16:28

LAB FILE ID

CAL1 = 7191112.B\1.B\71112005.D CAL2 = 7191112.B\1.B\71112007.D CAL3 = 7191112.B\1.B\71112009.D

CAL4 = 7191112.B\1.B\71112011.D CAL5 = 7191112.B\1.B\71112013.D CAL6 = 7191112.B\1.B\71112015.D

CAL7 = 7191112.B\1.B\71112017.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
Acetone	Quadratic	0.07287		0.99993	0.00000000	0.08021	-0.00055
Benzene	Averaged	1.05771	8.56737			0.99066	
Bromobenzene	Averaged	1.36825	8.47644			1.29332	
Bromochloromethane	Averaged	0.16454	7.20454			0.17419	
Bromodichloromethane	Quadratic	0.32217		0.99991	0.00000000	0.28815	0.00255
Bromoform	Quadratic	0.84217		0.99988	0.00000000	0.73023	0.00844
Bromomethane	Quadratic	0.08339		0.99979	0.00000000	0.07916	0.00031
2-Butanone (MEK)	Averaged	0.37929	11.79352			0.36224	
n-Butylbenzene	Averaged	1.64598	10.17108			1.49340	
sec-Butylbenzene	Averaged	2.41047	7.90862			2.24088	
tert-Butylbenzene	Averaged	1.77106	8.32065			1.66572	
Carbon disulfide	Averaged	0.75210	11.76221			0.70674	
Carbon tetrachloride	Averaged	0.39988	12.24845			0.34756	
Chlorobenzene	Averaged	0.96354	7.15367			0.89760	
Chloroethane	Quadratic			0.99990	0.00000000	0.11143	-0.00506
2-Chloroethylvinyl ether	Quadratic	0.17083		0.99973	0.00000000	0.20910	-0.00287
Chloroform	Averaged	0.46195	8.61477			0.42985	
Chloromethane	Quadratic	0.47966		0.99995	0.00000000	0.37780	0.00766
2-Chlorotoluene	Averaged	0.72963	10.41918			0.69509	
4-Chlorotoluene	Averaged	0.78787	10.11984			0.71553	
1,2-Dibromo-3-chloropropane	Quadratic	0.54070		0.99984	0.00000000	0.49942	0.00314
Dibromochloromethane	Quadratic	0.45872		0.99991	0.00000000	0.40673	0.00392
1,2-Dibromoethane (EDB)	Averaged	0.44179	11.92049			0.38221	
Dibromomethane	Averaged	0.22612	8.89308			0.20357	
1,2-Dichlorobenzene	Averaged	1.33075	8.71018			1.21991	
1,3-Dichlorobenzene	Averaged	1.34277	9.08883			1.26774	
1,4-Dichlorobenzene	Averaged	1.38726	8.81832			1.31442	
Dichlorodifluoromethane	Quadratic			0.99962	0.00000000	0.32192	0.00032
1,1-Dichloroethane	Averaged	0.48618	8.26867			0.45777	
1,2-Dichloroethane	Averaged	0.32975	7.81892			0.31993	
1,1-Dichloroethene	Averaged	0.42069	7.30661			0.40713	
cis-1,2-Dichloroethene	Averaged	0.37444	8.28926			0.34374	
trans-1,2-Dichloroethene	Averaged	0.39704	8.25313			0.36866	
1,2-Dichloropropane	Averaged	0.26307	8.69755			0.23870	
1,3-Dichloropropane	Averaged	0.61539	9.70205			0.55418	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-5
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7A GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:00 16:28

LAB FILE ID

CAL1 = 7191112.B\1.B\71112005.D CAL2 = 7191112.B\1.B\71112007.D CAL3 = 7191112.B\1.B\71112009.D

CAL4 = 7191112.B\1.B\71112011.D CAL5 = 7191112.B\1.B\71112013.D CAL6 = 7191112.B\1.B\71112015.D

CAL7 = 7191112.B\1.B\71112017.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
2,2-Dichloropropane	Averaged	0.38041	8.68653			0.34310	
1,1-Dichloropropene	Averaged	0.37813	11.69271			0.33260	
cis-1,3-Dichloropropene	Quadratic	0.40475		0.99987	0.00000000	0.37720	0.00208
trans-1,3-Dichloropropene	Quadratic	0.55412		0.99991	0.00000000	0.49692	0.00432
Ethylbenzene	Averaged	0.51385	10.99658			0.45764	
Hexachloro-1,3-butadiene	Averaged	0.33509	9.11182			0.30745	
2-Hexanone	Averaged	0.67393	14.44903			0.58371	
Isopropylbenzene (Cumene)	Quadratic	2.81244		0.99990	0.00000000	2.81368	-0.00001
p-Isopropyltoluene	Averaged	2.06808	9.42826			1.90880	
Methylene Chloride	Quadratic	0.36609		0.99992	0.00000000	0.32498	0.00307
4-Methyl-2-pentanone (MIBK)	Averaged	0.47398	9.42868			0.45905	
Methyl-tert-butyl ether	Averaged	0.79506	9.53311			0.73625	
Naphthalene	Averaged	3.03763	11.60141			2.69745	
n-Propylbenzene	Averaged	3.05863	7.96076			2.90257	
Styrene	Averaged	0.97366	11.67960			0.84634	
1,1,1,2-Tetrachloroethane	Averaged	0.39458	12.78221			0.33999	
1,1,2,2-Tetrachloroethane	Averaged	1.24664	9.05719			1.12788	
Tetrachloroethene	Averaged	0.45553	10.47931			0.39548	
Toluene	Averaged	1.66722	10.10960			1.45692	
1,2,3-Trichlorobenzene	Averaged	0.62847	9.47132			0.62170	
1,2,4-Trichlorobenzene	Averaged	0.67778	9.10419			0.62799	
1,1,1-Trichloroethane	Averaged	0.41581	9.71972			0.37739	
1,1,2-Trichloroethane	Averaged	0.36128	9.01392			0.33003	
Trichloroethene	Averaged	0.31303	9.47317			0.28474	
Trichlorofluoromethane	Averaged	0.30722	13.02756			0.39459	
1,2,4-Trimethylbenzene	Averaged	2.21913	8.92554			2.05102	
1,3,5-Trimethylbenzene	Averaged	2.18621	9.39908			2.04456	
Vinyl acetate	Quadratic	0.80057		0.99993	0.00000000	0.72315	0.00583
Vinyl chloride	Averaged	0.35715	8.22159			0.34831	
m&p-Xylene	Averaged	0.59737	7.42388			0.56746	
o-Xylene	Averaged	0.60055	8.11458			0.55015	
4-Bromofluorobenzene (S)	Averaged	0.91783	1.52013			0.92984	
Dibromofluoromethane (S)	Averaged	0.26160	0.75728			0.26420	
1,2-Dichlorobenzene-d4 (S)	Averaged	0.00000	0.00000				
1,2-Dichloroethane-d4 (S)	Averaged	0.28155	4.32311			0.26745	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

02/13/2020 2:33

MSV - FORM VI VOA-6

MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7A GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:00 16:28

LAB FILE ID

CAL1 = 7191112.B\1.B\71112005.D CAL2 = 7191112.B\1.B\71112007.D CAL3 = 7191112.B\1.B\71112009.D

CAL4 = 7191112.B\1.B\71112011.D CAL5 = 7191112.B\1.B\71112013.D CAL6 = 7191112.B\1.B\71112015.D

CAL7 = 7191112.B\1.B\71112017.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
Toluene-d8 (S)	Averaged	1.40857	5.20871			1.29365	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7B GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:12 16:40

LAB FILE ID

CAL1 = 7191112.B\2.B\71112006.D CAL2 = 7191112.B\2.B\71112008.D CAL3 = 7191112.B\2.B\71112010.D

CAL4 = 7191112.B\2.B\71112012.D CAL5 = 7191112.B\2.B\71112014.D CAL6 = 7191112.B\2.B\71112016.D

CAL7 = 7191112.B\2.B\71112018.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Acetone	Quadratic	0.26253	0.10107	0.09213	0.08137	0.06884	0.06302
Benzene	Averaged	1.13415	1.07072	1.23858	1.18070	1.10571	1.06325
Bromobenzene	Averaged	1.35927	1.44009	1.66654	1.54288	1.47367	1.46390
Bromochloromethane	Averaged	0.18148	0.19933	0.22283	0.20777	0.19209	0.17419
Bromodichloromethane	Averaged	0.24685	0.28476	0.32815	0.32102	0.31454	0.31613
Bromoform	Quadratic	0.46210	0.60393	0.74450	0.73558	0.77357	0.85584
Bromomethane	Quadratic	0.14772	0.10417	0.13262	0.12810	0.12491	0.10504
2-Butanone (MEK)	Averaged	0.35243	0.33970	0.37313	0.36324	0.34075	0.32271
n-Butylbenzene	Averaged	1.47656	1.60229	1.84568	1.70655	1.74389	1.63200
sec-Butylbenzene	Averaged	2.26891	2.41235	2.95175	2.63591	2.60804	2.45732
tert-Butylbenzene	Averaged	1.68203	1.82279	2.18608	1.96761	1.94784	1.84858
Carbon disulfide	Averaged	0.83307	0.79066	0.83725	0.81754	0.79450	0.78408
Carbon tetrachloride	Averaged	0.31616	0.35768	0.43510	0.40454	0.40834	0.40491
Chlorobenzene	Averaged	0.95044	1.01588	1.17859	1.09288	1.04757	0.97361
Chloroethane	Quadratic	0.11780	0.11420	0.12642	0.10823	0.10387	0.07177
2-Chloroethylvinyl ether	Quadratic	0.10499	0.18343	0.22735	0.23144	0.22256	0.22421
Chloroform	Averaged	0.52015	0.45662	0.52776	0.50688	0.47926	0.46364
Chloromethane	Averaged	0.38356	0.37329	0.39915	0.37397	0.35380	0.37667
2-Chlorotoluene	Averaged	0.66591	0.81677	0.91957	0.81193	0.80009	0.77931
4-Chlorotoluene	Averaged	0.74202	0.82851	0.94853	0.87875	0.84010	0.82026
1,2-Dibromo-3-chloropropane	Averaged	0.37143	0.40618	0.48381	0.47252	0.47606	0.52035
Dibromochloromethane	Averaged	0.30108	0.38724	0.46073	0.46179	0.45237	0.45251
1,2-Dibromoethane (EDB)	Averaged	0.38196	0.44090	0.49459	0.46310	0.44150	0.43366
Dibromomethane	Averaged	0.19262	0.21804	0.24908	0.23698	0.22816	0.22417
1,2-Dichlorobenzene	Averaged	1.34346	1.38997	1.58181	1.44007	1.42017	1.37835
1,3-Dichlorobenzene	Averaged	1.35636	1.42960	1.65830	1.46069	1.46125	1.40977
1,4-Dichlorobenzene	Averaged	1.49154	1.60208	1.78889	1.57727	1.54646	1.47182
Dichlorodifluoromethane	Averaged	0.24876	0.27591	0.36343	0.34140	0.32430	0.29252
1,1-Dichloroethane	Averaged	0.46747	0.50749	0.56077	0.53914	0.50333	0.48802
1,2-Dichloroethane	Averaged	0.35471	0.33616	0.39873	0.37849	0.34998	0.33556
1,1-Dichloroethene	Averaged	0.44892	0.45390	0.55445	0.52261	0.49372	0.45178
cis-1,2-Dichloroethene	Averaged	0.36991	0.36915	0.42566	0.41093	0.38500	0.37379
trans-1,2-Dichloroethene	Averaged	0.36943	0.40070	0.45376	0.43327	0.40542	0.39862
1,2-Dichloropropane	Averaged	0.23056	0.24976	0.29862	0.28917	0.26851	0.26097
1,3-Dichloropropane	Averaged	0.61908	0.62919	0.72016	0.69464	0.62945	0.62003

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

02/13/2020 2:33

MSV - FORM VI VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7B GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:12 16:40

LAB FILE ID

CAL1 = 7191112.B\2.B\71112006.D CAL2 = 7191112.B\2.B\71112008.D CAL3 = 7191112.B\2.B\71112010.D

CAL4 = 7191112.B\2.B\71112012.D CAL5 = 7191112.B\2.B\71112014.D CAL6 = 7191112.B\2.B\71112016.D

CAL7 = 7191112.B\2.B\71112018.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
2,2-Dichloropropane	Averaged	0.32047	0.36296	0.43799	0.41075	0.38976	0.38550
1,1-Dichloropropene	Averaged	0.34417	0.34578	0.42286	0.40825	0.39196	0.38099
cis-1,3-Dichloropropene	Averaged	0.28563	0.33419	0.40894	0.40741	0.40292	0.40195
trans-1,3-Dichloropropene	Averaged	0.38748	0.48422	0.57778	0.56410	0.56008	0.55929
Ethylbenzene	Averaged	0.50471	0.52693	0.60564	0.58022	0.55010	0.51828
Hexachloro-1,3-butadiene	Averaged	0.34023	0.31496	0.40581	0.36103	0.34314	0.33252
2-Hexanone	Averaged	0.51219	0.61039	0.66362	0.66134	0.63085	0.64044
Isopropylbenzene (Cumene)	Averaged	2.65490	2.92212	3.41815	3.14428	3.09782	2.99760
p-Isopropyltoluene	Averaged	1.83634	2.01487	2.48653	2.25393	2.24489	2.10153
Methylene Chloride	Quadratic	0.65171	0.42791	0.42803	0.38419	0.35088	0.34292
4-Methyl-2-pentanone (MIBK)	Averaged	0.41624	0.48444	0.53306	0.54188	0.48345	0.46821
Methyl-tert-butyl ether	Averaged	0.82577	0.82881	0.89170	0.84698	0.80148	0.81689
Naphthalene	Averaged	2.70523	2.77743	3.40242	3.20500	3.18228	3.27272
n-Propylbenzene	Averaged	3.17981	3.22073	3.82174	3.46662	3.44289	3.26336
Styrene	Averaged	0.79420	0.90783	1.07559	1.04236	1.01333	0.96422
1,1,1,2-Tetrachloroethane	Averaged	0.29431	0.35432	0.42976	0.41058	0.40310	0.39551
1,1,2,2-Tetrachloroethane	Averaged	1.17252	1.21184	1.39371	1.30564	1.26447	1.29505
Tetrachloroethene	Averaged	0.40423	0.46155	0.55268	0.50222	0.48043	0.45922
Toluene	Averaged	1.57594	1.69988	1.94001	1.80900	1.71882	1.65467
1,2,3-Trichlorobenzene	Averaged	0.69918	0.68550	0.77655	0.69772	0.69431	0.68270
1,2,4-Trichlorobenzene	Averaged	0.64095	0.67103	0.78730	0.71089	0.71326	0.70333
1,1,1-Trichloroethane	Averaged	0.34788	0.38158	0.46533	0.45695	0.43316	0.42373
1,1,2-Trichloroethane	Averaged	0.34633	0.38439	0.43949	0.41329	0.37859	0.36881
Trichloroethene	Averaged	0.29258	0.30869	0.36357	0.34700	0.32792	0.31016
Trichlorofluoromethane	Quadratic	0.40558	0.45612	0.58185	0.53562	0.48313	0.35441
1,2,4-Trimethylbenzene	Averaged	2.02393	2.19038	2.61662	2.42090	2.41010	2.30953
1,3,5-Trimethylbenzene	Averaged	1.97319	2.27804	2.71035	2.43482	2.41584	2.31290
Vinyl acetate	Averaged	0.68212	0.74203	0.83483	0.83108	0.79242	0.77568
Vinyl chloride	Averaged	0.35914	0.36015	0.43539	0.39965	0.38032	0.32184
m&p-Xylene	Averaged	0.58728	0.65147	0.77374	0.70713	0.66930	0.61624
o-Xylene	Averaged	0.58897	0.62423	0.72586	0.66833	0.65246	0.60426
4-Bromofluorobenzene (S)	Averaged	0.92300	0.95370	0.94587	0.91574	0.92302	0.93264
Dibromofluoromethane (S)	Averaged	0.26392	0.25744	0.25447	0.26168	0.26470	0.25770
1,2-Dichlorobenzene-d4 (S)	Averaged	0.45416	0.45016	0.47203	0.45149	0.45889	0.46452
1,2-Dichloroethane-d4 (S)	Averaged	0.27768	0.27205	0.25380	0.26394	0.26102	0.26787

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

02/13/2020 2:33

MSV - FORM VI VOA-3
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7B GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:12 16:40

LAB FILE ID

CAL1 = 7191112.B\2.B\71112006.D CAL2 = 7191112.B\2.B\71112008.D CAL3 = 7191112.B\2.B\71112010.D

CAL4 = 7191112.B\2.B\71112012.D CAL5 = 7191112.B\2.B\71112014.D CAL6 = 7191112.B\2.B\71112016.D

CAL7 = 7191112.B\2.B\71112018.D

COMPOUND	CURVE TYPE	CAL1	CAL2	CAL3	CAL4	CAL5	CAL6
Toluene-d8 (S)	Averaged	1.28846	1.33484	1.32017	1.34431	1.36061	1.37965

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-4
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7B GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:12 16:40

LAB FILE ID

CAL1 = 7191112.B\2.B\71112006.D CAL2 = 7191112.B\2.B\71112008.D CAL3 = 7191112.B\2.B\71112010.D

CAL4 = 7191112.B\2.B\71112012.D CAL5 = 7191112.B\2.B\71112014.D CAL6 = 7191112.B\2.B\71112016.D

CAL7 = 7191112.B\2.B\71112018.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
Acetone	Quadratic	0.06194		0.99983	0.00000000	0.06589	-0.00030
Benzene	Averaged	1.08712	5.69355			1.12575	
Bromobenzene	Averaged	1.41483	6.72586			1.48017	
Bromochloromethane	Averaged	0.16732	10.16650			0.19214	
Bromodichloromethane	Averaged	0.31403	9.38051			0.30364	
Bromoform	Quadratic			0.99999	0.00000000	0.74015	0.01736
Bromomethane	Quadratic	0.08825		0.99989	0.00000000	0.12351	-0.00265
2-Butanone (MEK)	Averaged	0.31221	6.26827			0.34345	
n-Butylbenzene	Averaged	1.62911	7.04822			1.66230	
sec-Butylbenzene	Averaged	2.40493	8.79412			2.53417	
tert-Butylbenzene	Averaged	1.80789	8.43107			1.89469	
Carbon disulfide	Averaged	0.78725	2.79211			0.80634	
Carbon tetrachloride	Averaged	0.42085	10.50908			0.39251	
Chlorobenzene	Averaged	0.97298	7.82688			1.03314	
Chloroethane	Quadratic			0.99987	0.00000000	0.11490	-0.00647
2-Chloroethylvinyl ether	Quadratic			0.99996	0.00000000	0.22369	0.00008
Chloroform	Averaged	0.46382	6.03437			0.48830	
Chloromethane	Averaged	0.45248	8.16714			0.38756	
2-Chlorotoluene	Averaged	0.75993	9.54781			0.79336	
4-Chlorotoluene	Averaged	0.81999	7.50039			0.83974	
1,2-Dibromo-3-chloropropane	Averaged	0.52715	12.30485			0.46536	
Dibromochloromethane	Averaged	0.45540	14.21437			0.42445	
1,2-Dibromoethane (EDB)	Averaged	0.43238	7.72808			0.44116	
Dibromomethane	Averaged	0.21510	7.99022			0.22345	
1,2-Dichlorobenzene	Averaged	1.38684	5.46793			1.42010	
1,3-Dichlorobenzene	Averaged	1.41120	6.62297			1.45531	
1,4-Dichlorobenzene	Averaged	1.44679	7.39498			1.56069	
Dichlorodifluoromethane	Averaged	0.30369	12.78073			0.30714	
1,1-Dichloroethane	Averaged	0.47124	6.81669			0.50535	
1,2-Dichloroethane	Averaged	0.33131	7.07371			0.35499	
1,1-Dichloroethene	Averaged	0.43260	9.41346			0.47971	
cis-1,2-Dichloroethene	Averaged	0.36979	5.93061			0.38632	
trans-1,2-Dichloroethene	Averaged	0.40666	6.57247			0.40969	
1,2-Dichloropropane	Averaged	0.25737	8.74130			0.26499	
1,3-Dichloropropane	Averaged	0.60831	6.70192			0.64584	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-5
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7B GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:12 16:40

LAB FILE ID

CAL1 = 7191112.B\2.B\71112006.D CAL2 = 7191112.B\2.B\71112008.D CAL3 = 7191112.B\2.B\71112010.D

CAL4 = 7191112.B\2.B\71112012.D CAL5 = 7191112.B\2.B\71112014.D CAL6 = 7191112.B\2.B\71112016.D

CAL7 = 7191112.B\2.B\71112018.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
2,2-Dichloropropane	Averaged	0.39362	9.58826			0.38586	
1,1-Dichloropropene	Averaged	0.39121	7.72455			0.38360	
cis-1,3-Dichloropropene	Averaged	0.39447	12.70262			0.37650	
trans-1,3-Dichloropropene	Averaged	0.55808	13.03675			0.52729	
Ethylbenzene	Averaged	0.51910	6.82750			0.54357	
Hexachloro-1,3-butadiene	Averaged	0.33243	8.45068			0.34716	
2-Hexanone	Averaged	0.63146	8.30380			0.62147	
Isopropylbenzene (Cumene)	Averaged	2.94936	7.72722			3.02632	
p-Isopropyltoluene	Averaged	2.08052	9.64120			2.14551	
Methylene Chloride	Quadratic	0.34915		0.99995	0.00000000	0.34143	0.00056
4-Methyl-2-pentanone (MIBK)	Averaged	0.43199	9.76862			0.47989	
Methyl-tert-butyl ether	Averaged	0.81335	3.58694			0.83214	
Naphthalene	Averaged	3.30223	8.64479			3.12104	
n-Propylbenzene	Averaged	3.15858	7.00202			3.36482	
Styrene	Averaged	0.97672	9.71874			0.96775	
1,1,1,2-Tetrachloroethane	Averaged	0.39289	11.82098			0.38292	
1,1,2,2-Tetrachloroethane	Averaged	1.25549	5.59187			1.27125	
Tetrachloroethene	Averaged	0.47203	9.48913			0.47605	
Toluene	Averaged	1.71184	6.72081			1.73002	
1,2,3-Trichlorobenzene	Averaged	0.69514	4.59742			0.70444	
1,2,4-Trichlorobenzene	Averaged	0.71822	6.40835			0.70643	
1,1,1-Trichloroethane	Averaged	0.43129	9.91874			0.41999	
1,1,2-Trichloroethane	Averaged	0.35884	8.39938			0.38425	
Trichloroethene	Averaged	0.31683	7.53762			0.32382	
Trichlorofluoromethane	Quadratic			0.99982	0.00000000	0.53400	-0.02695
1,2,4-Trimethylbenzene	Averaged	2.27494	8.11573			2.32092	
1,3,5-Trimethylbenzene	Averaged	2.24325	9.56853			2.33834	
Vinyl acetate	Averaged	0.80054	6.87234			0.77981	
Vinyl chloride	Averaged	0.33692	10.38895			0.37049	
m&p-Xylene	Averaged	0.60584	9.88566			0.65871	
o-Xylene	Averaged	0.60760	7.42539			0.63882	
4-Bromofluorobenzene (S)	Averaged	0.95160	1.63786			0.93508	
Dibromofluoromethane (S)	Averaged	0.25555	1.57013			0.25935	
1,2-Dichlorobenzene-d4 (S)	Averaged	0.45065	1.80811			0.45742	
1,2-Dichloroethane-d4 (S)	Averaged	0.27133	2.97495			0.26681	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

MSV - FORM VI VOA-6
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Instrument ID: 30MV7B GC Column: Col 1 SDG No.: 30337003

Calibration Date(s): 11/12/2019 11/12/2019 Calibration Time(s): 14:12 16:40

LAB FILE ID

CAL1 = 7191112.B\2.B\71112006.D CAL2 = 7191112.B\2.B\71112008.D CAL3 = 7191112.B\2.B\71112010.D

CAL4 = 7191112.B\2.B\71112012.D CAL5 = 7191112.B\2.B\71112014.D CAL6 = 7191112.B\2.B\71112016.D

CAL7 = 7191112.B\2.B\71112018.D

COMPOUND	CURVE TYPE	CAL7	%RSD	R2	A1	A2	A3
Toluene-d8 (S)	Averaged	1.41834	3.11452			1.34948	

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 12-NOV-2019 14:00
Operator : LEL Inst ID: 30mv7a.i
Smp Info : cal1, 105188:1
Misc Info : 47221,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:00 Cal File: 71112005.d
Als bottle: 5 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.850	0.851	(0.209)	1820	1.00000	0.861(TaQ)	
2 Chloromethane	50	0.950	0.951	(0.234)	3423	1.00000	1.20(Q)	
3 Vinyl chloride	62	0.989	0.989	(0.243)	2202	1.00000	0.891(aQ)	
4 Bromomethane	94	1.146	1.147	(0.282)	1136	1.00000	1.72	
5 Chloroethane	64	1.207	1.208	(0.297)	1155	1.00000	1.47(QM)	GT
6 Trichlorofluoromethane	101	1.281	1.282	(0.315)	2714	1.00000	0.969(aQM)	NI
7 Diethyl ether (Ethyl ether)	59	1.442	1.443	(0.354)	1788	1.00000	1.09	
8 Ethanol	46	Compound Not Detected.						
9 1,1-Dichloroethene	61	1.555	1.555	(0.382)	2742	1.00000	0.949(a)	
10 1,1,2-Trichlorotrifluoroethane	151	1.584	1.584	(0.389)	1405	1.00000	0.912(a)	
11 Carbon disulfide	76	1.577	1.578	(0.388)	5605	1.00000	1.12(Q)	
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	1.764	1.764	(0.433)	424	1.00000	0.646(aQM)	NI
14 Allyl chloride	41	1.841	1.841	(0.452)	13784	5.00000	5.35	
15 Methylene Chloride	49	1.915	1.915	(0.471)	4784	1.00000	1.70(M)	LT
16 Acetone	58	1.947	1.947	(0.479)	1799	1.00000	2.32(Q)	
17 trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	2713	1.00000	1.04(Q)	
18 Methyl acetate	74	2.034	2.033	(0.500)	1071	1.00000	1.12(QM)	LT
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	2.092	2.092	(0.514)	5569	1.00000	1.06(Q)	
21 tert-Butyl Alcohol	59	2.165	2.166	(0.532)	5325	5.00000	5.35	
22 Acetonitrile	41	2.294	2.295	(0.564)	3243	5.00000	5.47(QM)	NI

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.384	2.385	(0.586)	6024	1.00000	1.07	
	24 Chloroprene	53	2.461	2.462	(0.605)	1588	1.00000	0.841(aQ)	
	25 1,1-Dichloroethane	63	2.484	2.484	(0.610)	3301	1.00000	1.02(QM)	NI
	26 Acrylonitrile	53	2.535	2.536	(0.623)	1218	1.00000	0.792(aQM)	NI
	27 Ethyl-tert-butyl ether	59	2.693	2.693	(0.662)	5162	1.00000	0.980(a)	
	28 Vinyl acetate	43	2.719	2.719	(0.668)	3595	1.00000	0.762(aQM)	NI
	29 cis-1,2-Dichloroethene	61	2.963	2.963	(0.728)	2274	1.00000	0.932(aQ)	
	30 2,2-Dichloropropane	77	3.072	3.073	(0.755)	2300	1.00000	0.944(aQM)	NI
	31 Cyclohexane	56	3.153	3.153	(0.775)	2589	1.00000	0.925(aQM)	NI
	32 Bromochloromethane	130	3.162	3.163	(0.777)	1220	1.00000	0.987(aQM)	NI
	33 Chloroform	83	3.252	3.253	(0.799)	3184	1.00000	1.04	
	34 Ethyl acetate	43	3.436	3.436	(0.844)	670	1.00000	0.441(aQM)	NI
	35 Carbon tetrachloride	117	3.358	3.359	(0.825)	2280	1.00000	0.924(aQ)	
	36 Tetrahydrofuran	42	3.432	3.433	(0.844)	1422	1.00000	0.880(aQM)	NI
$	37 Dibromofluoromethane (S)	111	3.439	3.439	(0.845)	56874	30.0000	30.3	
	38 1,1,1-Trichloroethane	97	3.452	3.452	(0.848)	2639	1.00000	0.985(aQ)	
	39 2-Butanone (MEK)	43	3.603	3.603	(0.885)	2611	1.00000	1.02(aQM)	NI
	40 1,1-Dichloropropene	75	3.577	3.578	(0.879)	1996	1.00000	0.846(aQM)	LT
	41 Benzene	78	3.783	3.783	(0.930)	7477	1.00000	1.06	
	42 Propionitrile	54	3.828	3.828	(0.941)	308	1.00000	0.458(aQ)	
	43 Methacrylonitrile	41	3.841	3.841	(0.944)	1717	1.00000	0.963(aQM)	NI
	44 tert-Amylmethyl ether	73	3.895	3.896	(0.957)	4352	1.00000	0.977(aQM)	NI
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	60216	30.0000	31.7	
	45 Isobutanol	43	4.011	4.011	(0.986)	1105	5.00000	3.71(aQM)	NI
	47 1,2-Dichloroethane	62	3.931	3.931	(0.966)	2402	1.00000	1.06	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	212933	30.0000	(M)	GT
	49 Methylcyclohexane	55	4.153	4.152	(1.021)	1435	1.00000	0.889(a)	
	50 Trichloroethene	132	4.169	4.168	(1.024)	1960	1.00000	0.970(a)	
	51 Dibromomethane	174	4.387	4.388	(1.078)	1384	1.00000	0.958(aQ)	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.089)	1632	1.00000	0.963(aQ)	
	53 Bromodichloromethane	83	4.468	4.468	(1.098)	1423	1.00000	0.747(aQM)	NI
	54 Methyl methacrylate	69	4.558	4.558	(1.120)	1045	1.00000	0.700(aQ)	
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	4.731	4.732	(1.163)	772	1.00000	0.639(aQ)	
	57 cis-1,3-Dichloropropene	75	4.741	4.741	(1.165)	2058	1.00000	0.855(aQ)	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	187905	30.0000	28.3	
	59 Toluene	91	4.847	4.848	(0.879)	7279	1.00000	0.972(a)	
	60 2-Nitropropane	43	4.960	4.960	(1.219)	4410	5.00000	4.17(aQM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.027	5.028	(1.235)	2909	1.00000	0.893(a)	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	1879	1.00000	0.925(a)	
	63 trans-1,3-Dichloropropene	75	5.043	5.044	(0.915)	1735	1.00000	0.751(a)	
	64 Ethyl methacrylate	41	5.114	5.114	(0.928)	1284	1.00000	0.799(aQM)	NI
	65 1,1,2-Trichloroethane	97	5.117	5.118	(0.928)	1498	1.00000	0.883(a)	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	1631	1.00000	0.845(aQM)	NI
	67 1,3-Dichloropropane	76	5.230	5.230	(0.949)	2545	1.00000	0.894(a)	
	68 1,2-Dibromoethane (EDB)	107	5.297	5.298	(0.961)	1671	1.00000	0.851(aQM)	NI
	69 2-Hexanone	43	5.397	5.397	(0.979)	2430	1.00000	0.810(aQM)	NI
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	154128	30.0000		
	71 Ethylbenzene	106	5.525	5.526	(1.002)	1945	1.00000	0.827(aQ)	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	4519	1.00000	0.980(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.548	(1.006)	1501	1.00000	0.859(aQ)	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	5843	2.00000	2.00	
	75 o-Xylene	106	5.770	5.770	(1.047)	2688	1.00000	0.951(a)	
	76 Styrene	104	5.792	5.793	(1.051)	4155	1.00000	0.956(aQM)	NI

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 Bromoform	173	5.808	5.809	(0.896)	980	1.00000	0.698(a)	
	78 Isopropylbenzene (Cumene)	105	5.898	5.899	(0.910)	5526	1.00000	0.960(aQ)	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	60186	30.0000	29.4	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	6246	1.00000	0.978(aQM)	NI
	81 Bromobenzene	77	6.069	6.069	(0.936)	2876	1.00000	1.01(Q)	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	2470	1.00000	0.995(aQM)	NI
	83 1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	4063	1.00000	0.903(a)	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	1458	1.00000	0.953(aQ)	
	85 1,2,3-Trichloropropane	110	6.162	6.163	(0.951)	982	1.00000	1.07(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.953)	227	1.00000	0.347(aQM)	NI
	87 Cyclohexanone	55	6.185	6.185	(0.954)	841	5.00000	3.09(aQM)	NI
	88 4-Chlorotoluene	126	6.210	6.211	(0.958)	1412	1.00000	0.897(a)	
	89 tert-Butylbenzene	119	6.281	6.282	(0.969)	3564	1.00000	0.972(aQM)	NI
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	4219	1.00000	0.935(a)	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	4720	1.00000	0.957(a)	
	92 p-Isopropyltoluene	119	6.410	6.410	(0.989)	3952	1.00000	0.941(a)	
	93 1,3-Dichlorobenzene	146	6.451	6.452	(0.996)	3054	1.00000	1.09(Q)	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.480	6.481	(1.000)	66025	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	2701	1.00000	0.934(aQ)	
	96 n-Butylbenzene	91	6.583	6.584	(1.016)	3051	1.00000	0.928(aQ)	
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	2666	1.00000	0.993(aM)	WP
	99 1,2-Dibromo-3-chloropropane	157	6.992	6.992	(1.079)	676	1.00000	0.717(aQ)	
	103 1,3,5-Trichlorobenzene	180	7.008	7.008	(1.081)	1593	1.00000	1.04(Q)	
	100 Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	599	1.00000	0.885(aQM)	WP
	101 1,2,4-Trichlorobenzene	180	7.278	7.278	(1.123)	1261	1.00000	0.912(aQM)	WP
	102 Naphthalene	128	7.413	7.413	(1.144)	5762	1.00000	0.970(aQ)	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	1576	1.00000	1.15(Q)	
	105 2-Methylnaphthalene	142	7.844	7.844	(1.210)	1750	1.00000	1.07(QM)	NI

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  GT: Indicates that the peak in question was inappropriately
      integrated to an area greater than it should be (e.g., Peak
      tailing).
  NI: Indicates that the peak was not integrated at all by the
      computer software.
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	0.861	J
74-87-3	Chloromethane	1.20	
75-01-4	Vinyl chloride	0.891	J
74-83-9	Bromomethane	1.72	
75-00-3	Chloroethane	1.47	
75-69-4	Trichlorofluoromethane	0.969	J
60-29-7	Diethyl ether (Ethyl ether)	1.09	
75-35-4	1,1-Dichloroethene	0.949	J
76-13-1	1,1,2-Trichlorotrifluoroetha	0.912	J
75-15-0	Carbon disulfide	1.12	
107-02-8	Acrolein	0.646	J
107-05-1	Allyl chloride	5.35	
75-09-2	Methylene Chloride	1.70	
67-64-1	Acetone	2.32	
156-60-5	trans-1,2-Dichloroethene	1.04	
79-20-9	Methyl acetate	1.12	
1634-04-4	Methyl-tert-butyl ether	1.06	
75-65-0	tert-Butyl Alcohol	5.35	
75-05-8	Acetonitrile	5.47	
108-20-3	Diisopropyl ether	1.07	
126-99-8	Chloroprene	0.841	J
75-34-3	1,1-Dichloroethane	1.02	
107-13-1	Acrylonitrile	0.792	J
637-92-3	Ethyl-tert-butyl ether	0.980	J
108-05-4	Vinyl acetate	0.762	J
156-59-2	cis-1,2-Dichloroethene	0.932	J
594-20-7	2,2-Dichloropropane	0.944	J
110-82-7	Cyclohexane	0.925	J
74-97-5	Bromochloromethane	0.987	J
67-66-3	Chloroform	1.04	
141-78-6	Ethyl acetate	0.441	J
56-23-5	Carbon tetrachloride	0.924	J
109-99-9	Tetrahydrofuran	0.880	J
71-55-6	1,1,1-Trichloroethane	0.985	J
78-93-3	2-Butanone (MEK)	1.02	J
563-58-6	1,1-Dichloropropene	0.846	J
71-43-2	Benzene	1.06	
107-12-0	Propionitrile	0.458	J
126-98-7	Methacrylonitrile	0.963	J
994-05-8	tert-Amylmethyl ether	0.977	J
78-83-1	Isobutanol	3.71	J
107-06-2	1,2-Dichloroethane	1.06	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
108-87-2	Methylcyclohexane	0.889	J
79-01-6	Trichloroethene	0.970	J
74-95-3	Dibromomethane	0.958	J
78-87-5	1,2-Dichloropropane	0.963	J
75-27-4	Bromodichloromethane	0.747	J
80-62-6	Methyl methacrylate	0.700	J
110-75-8	2-Chloroethylvinyl ether	0.639	J
10061-01-5	cis-1,3-Dichloropropene	0.855	J
108-88-3	Toluene	0.972	J
79-46-9	2-Nitropropane	4.17	J
108-10-1	4-Methyl-2-pentanone (MIBK)	0.893	J
127-18-4	Tetrachloroethene	0.925	J
10061-02-6	trans-1,3-Dichloropropene	0.751	J
97-63-2	Ethyl methacrylate	0.799	J
79-00-5	1,1,2-Trichloroethane	0.883	J
124-48-1	Dibromochloromethane	0.845	J
142-28-9	1,3-Dichloropropane	0.894	J
106-93-4	1,2-Dibromoethane (EDB)	0.851	J
591-78-6	2-Hexanone	0.810	J
100-41-4	Ethylbenzene	0.827	J
108-90-7	Chlorobenzene	0.980	J
630-20-6	1,1,1,2-Tetrachloroethane	0.859	J
7816-60-0	m&p-Xylene	2.00	
95-47-6	o-Xylene	0.951	J
100-42-5	Styrene	0.956	J
75-25-2	Bromoform	0.698	J
98-82-8	Isopropylbenzene (Cumene)	0.960	J
103-65-1	n-Propylbenzene	0.978	J
108-86-1	Bromobenzene	1.01	
79-34-5	1,1,2,2-Tetrachloroethane	0.995	J
108-67-8	1,3,5-Trimethylbenzene	0.903	J
95-49-8	2-Chlorotoluene	0.953	J
96-18-4	1,2,3-Trichloropropane	1.07	
110-57-6	trans-1,4-Dichloro-2-butene	0.347	J
108-94-1	Cyclohexanone	3.09	J
106-43-4	4-Chlorotoluene	0.897	J
98-06-6	tert-Butylbenzene	0.972	J
95-63-6	1,2,4-Trimethylbenzene	0.935	J
135-98-8	sec-Butylbenzene	0.957	J
99-87-6	p-Isopropyltoluene	0.941	J
541-73-1	1,3-Dichlorobenzene	1.09	
106-46-7	1,4-Dichlorobenzene	0.934	J

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Report Date: 13-Nov-2019 08:53

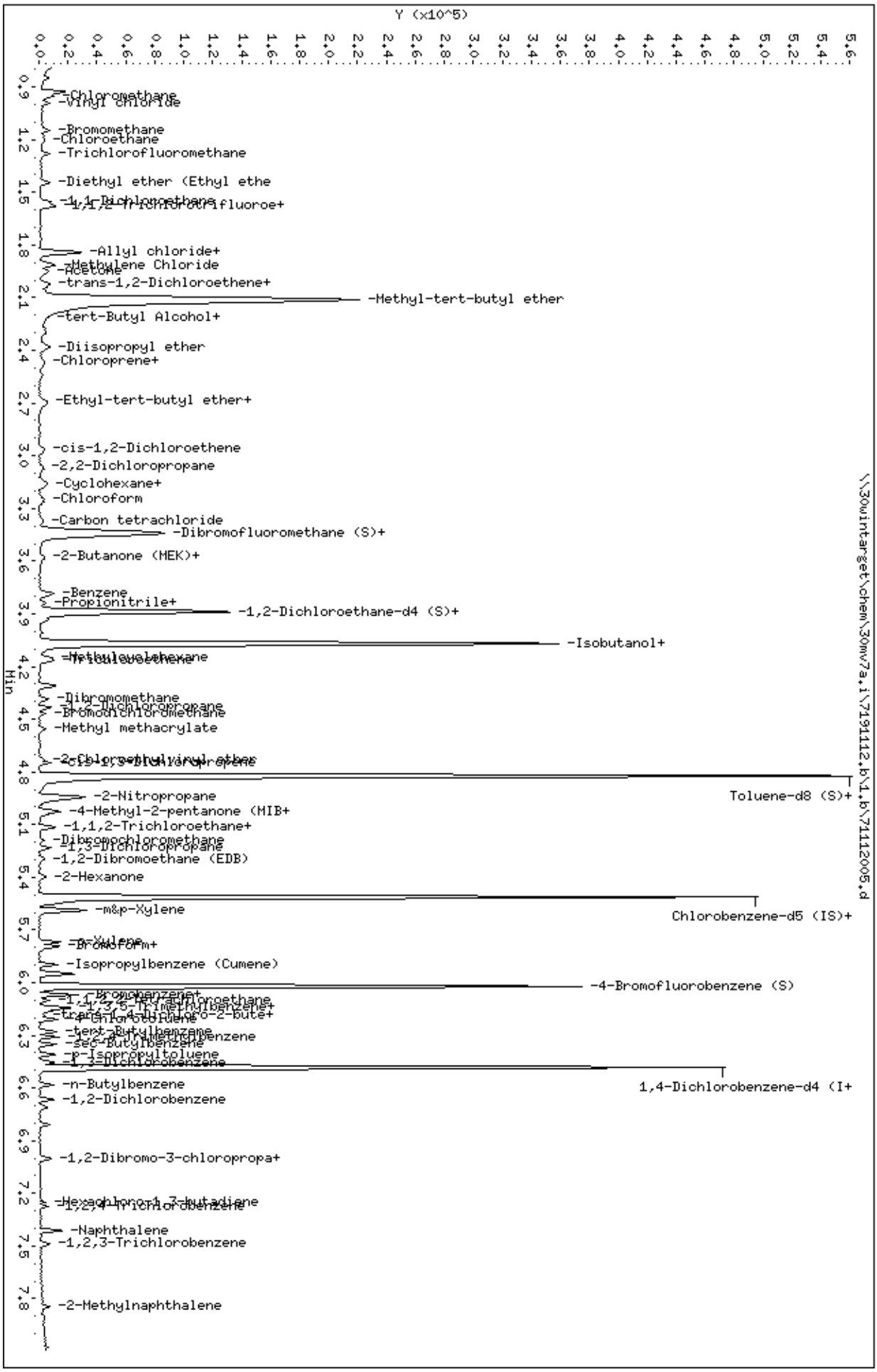
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
104-51-8	n-Butylbenzene	0.928	J
95-50-1	1,2-Dichlorobenzene	0.993	J
96-12-8	1,2-Dibromo-3-chloropropane	0.717	J
108-70-3	1,3,5-Trichlorobenzene	1.04	
87-68-3	Hexachloro-1,3-butadiene	0.885	J
120-82-1	1,2,4-Trichlorobenzene	0.912	J
91-20-3	Naphthalene	0.970	J
87-61-6	1,2,3-Trichlorobenzene	1.15	
91-57-6	2-Methylnaphthalene	1.07	
1868-53-7	Dibromofluoromethane (S)	30.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.7	
2037-26-5	Toluene-d8 (S)	28.3	
460-00-4	4-Bromofluorobenzene (S)	29.4	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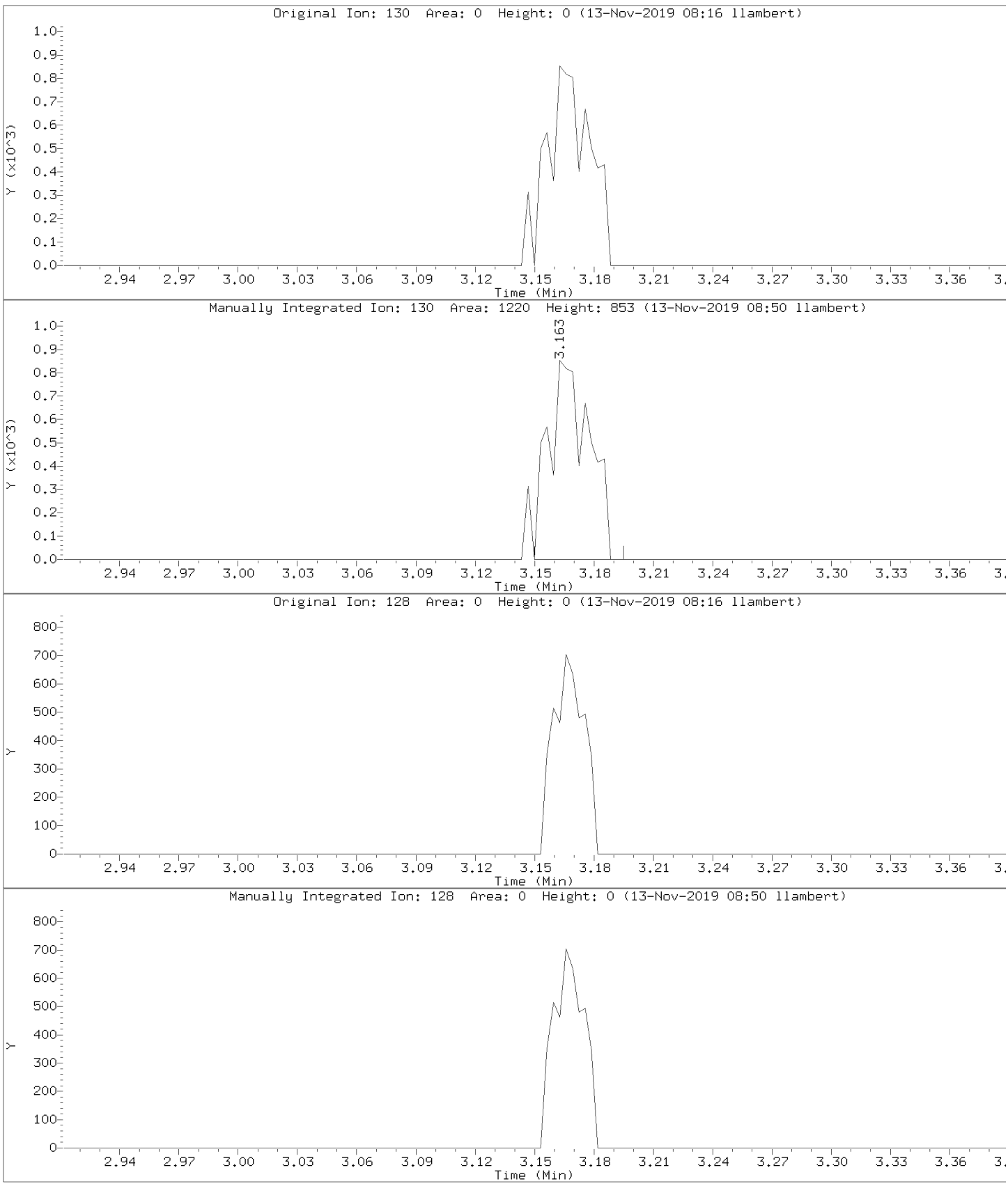
Date : 12-NOV-2019 14:00
Client ID: CAL1
Sample Info: CAL1, 10518:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112005.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene
-1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether
-tert-Butyl Alcohol+
-Diisopropyl ether
-Chloroprene+
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Dibromofluoromethane (S)+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-1,2-Dichloroethane-d4 (S)+
-Isobutanol+
-Methylcyclohexane
-Trichloroethene
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate
-2-Chloroethyl vinyl ether
-cis-1,3-Dichloropropene
Toluene-d8 (S)+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-1,1,2-Trichloroethane+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-Bromoform+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-Bromobenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-trans-1,4-Dichloro-2-bute+
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Bromochloromethane Review Code: NI
CAS Number: 74-97-5



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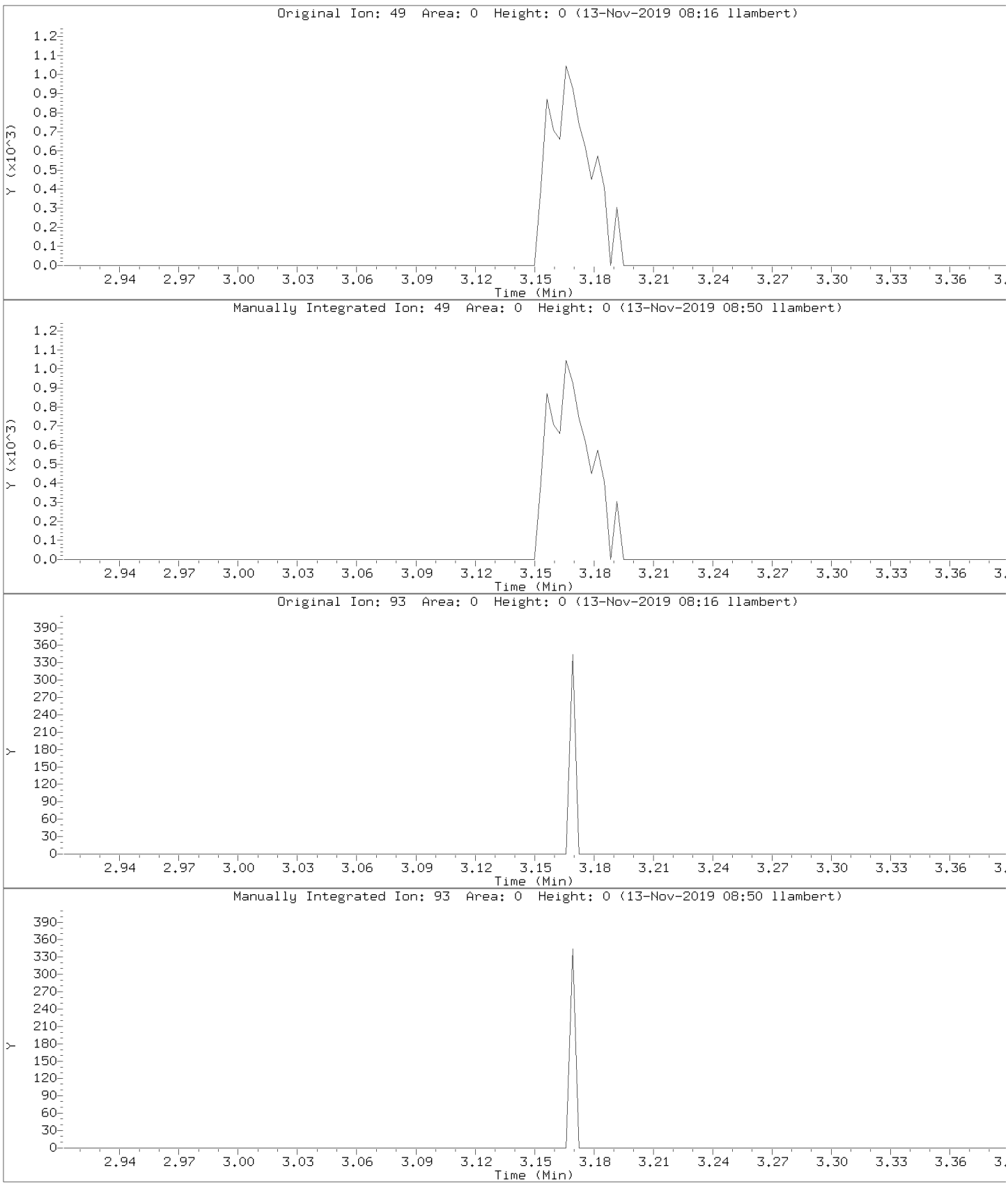
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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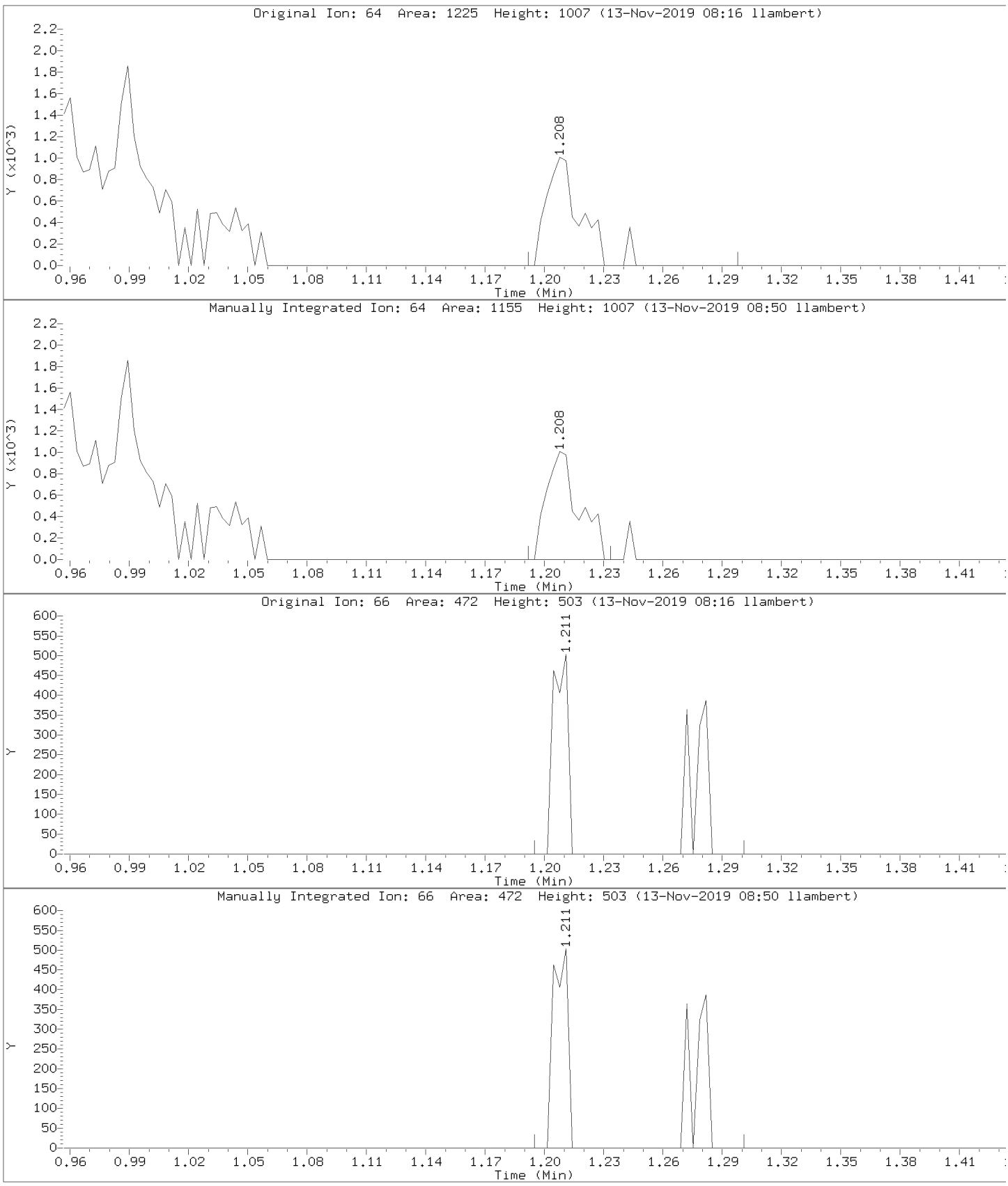
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Chloroethane Review Code: GT
CAS Number: 75-00-3



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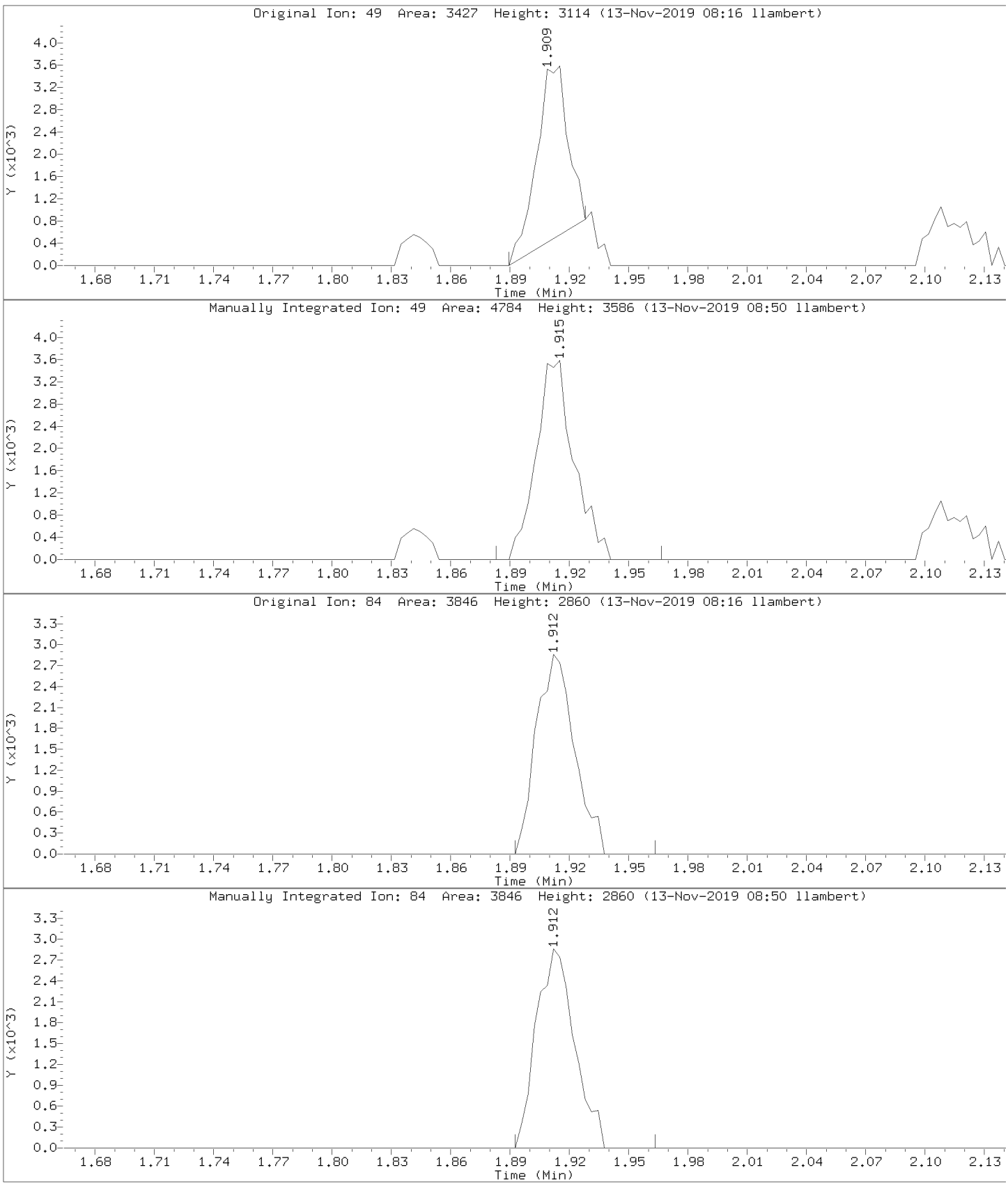
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Methylene Chloride Review Code: LT
CAS Number: 75-09-2



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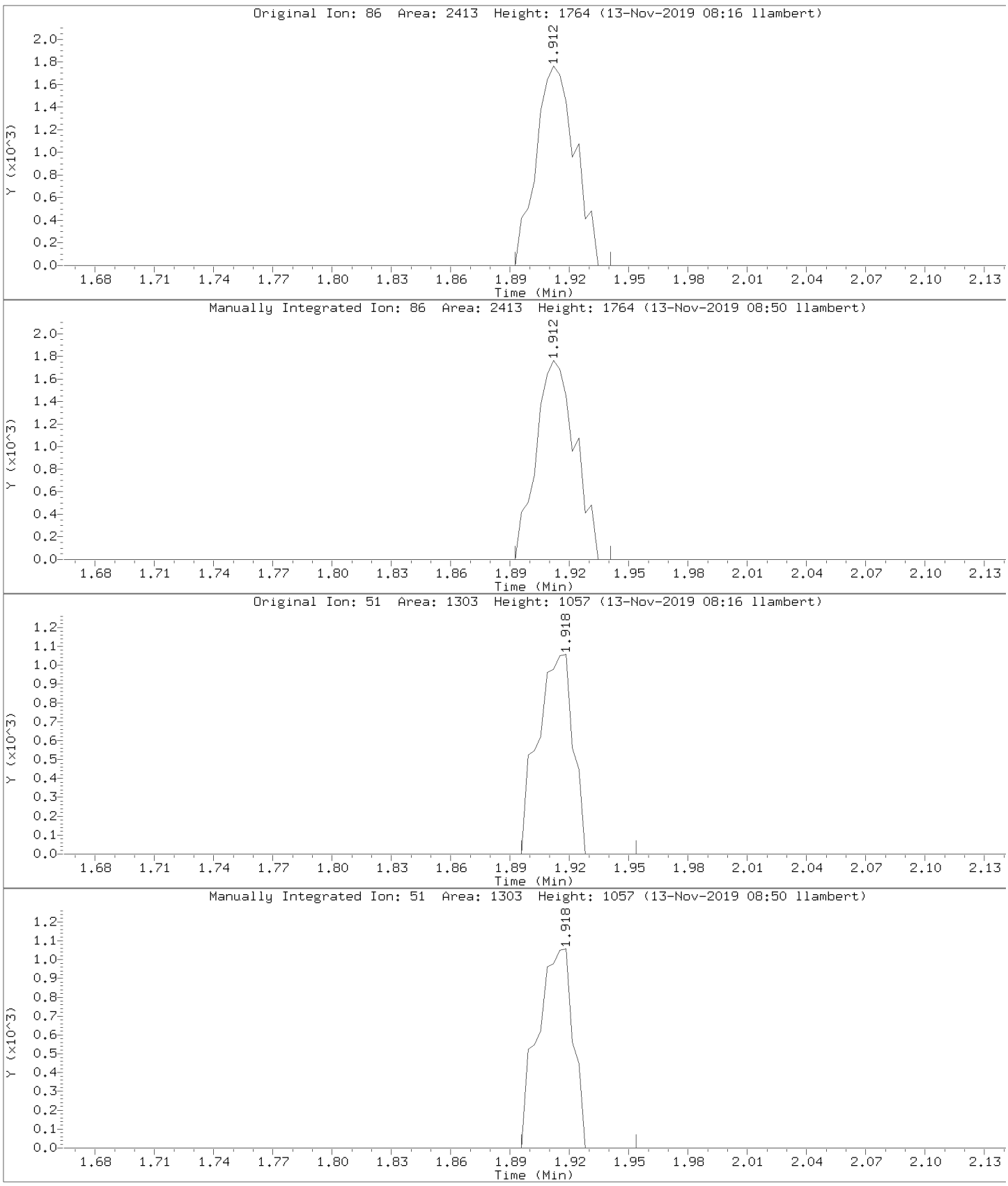
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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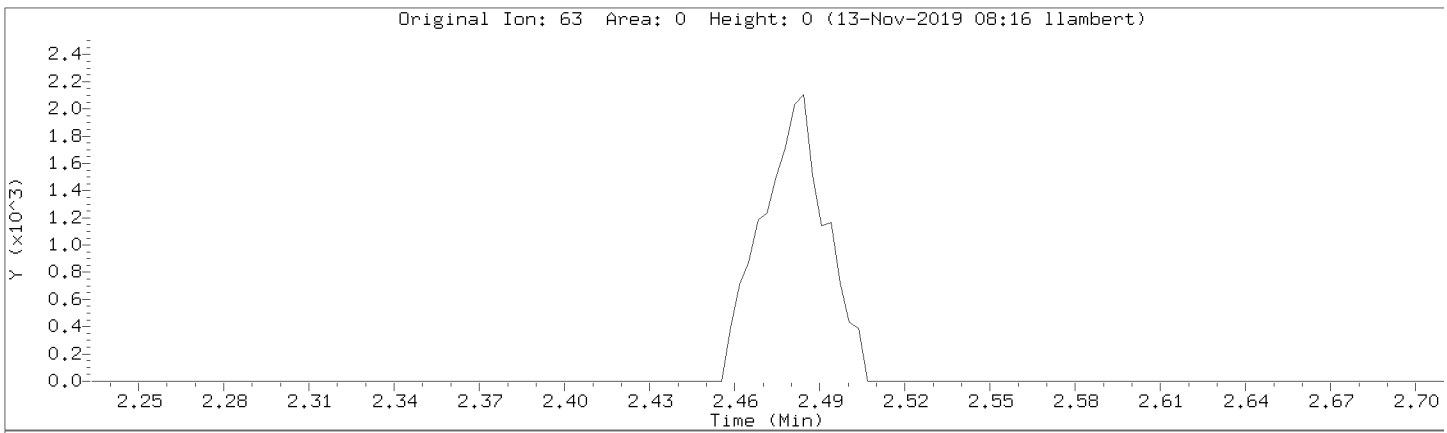
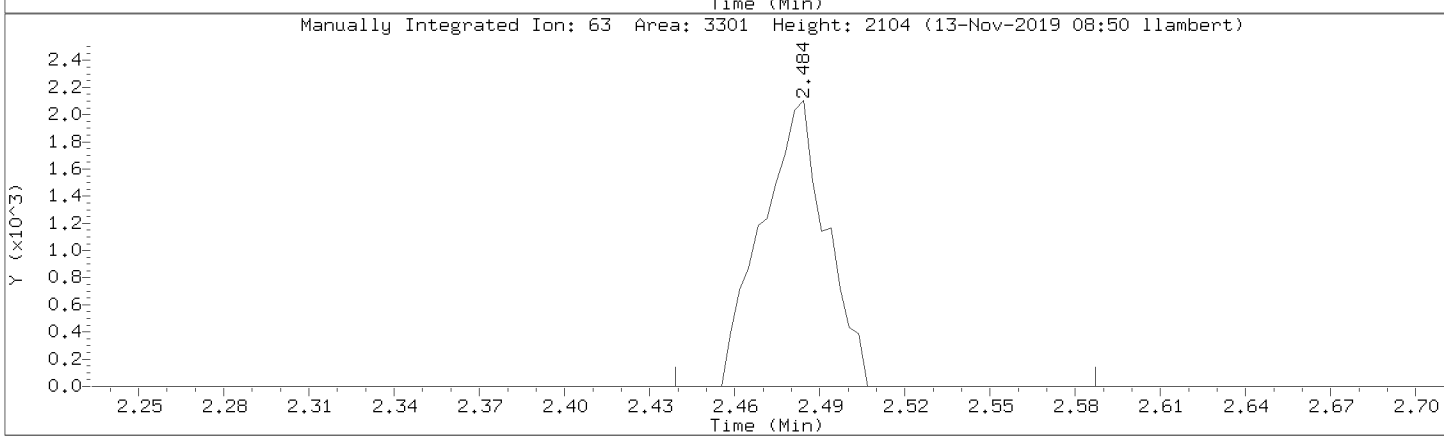
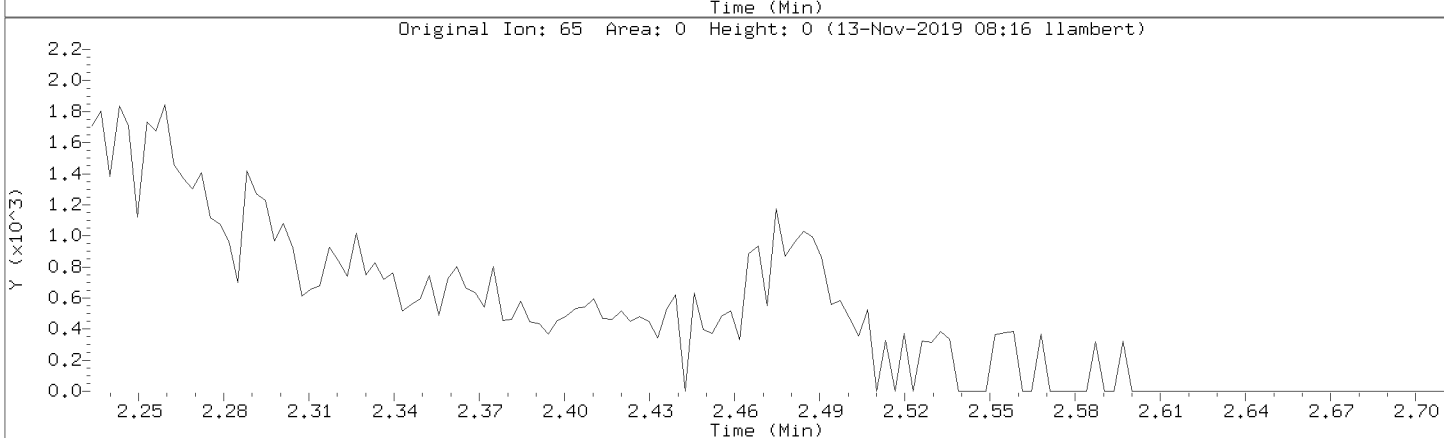
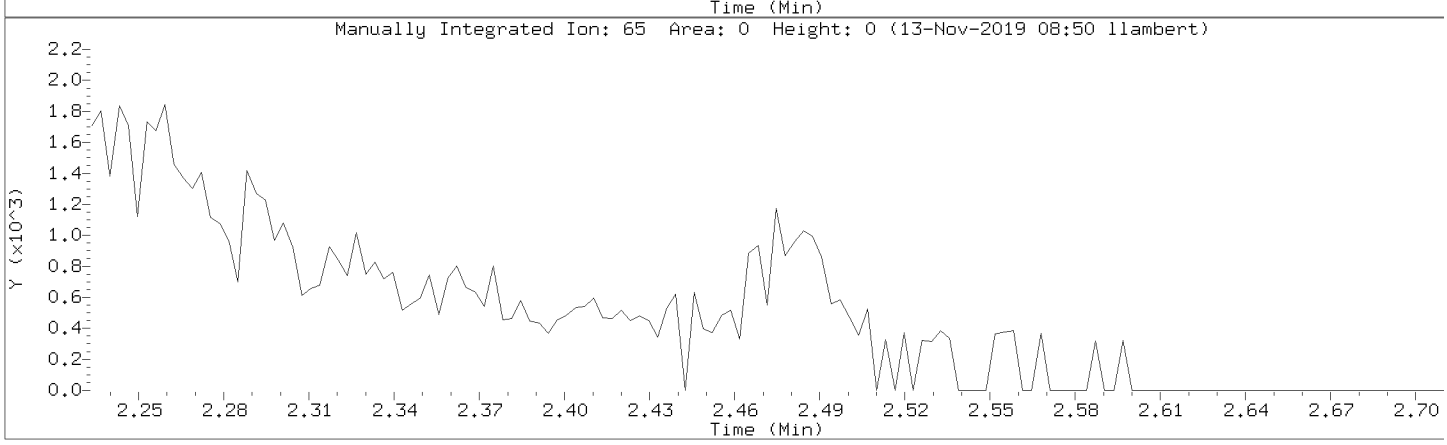
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 1,1-Dichloroethane Review Code: NI
CAS Number: 75-34-3









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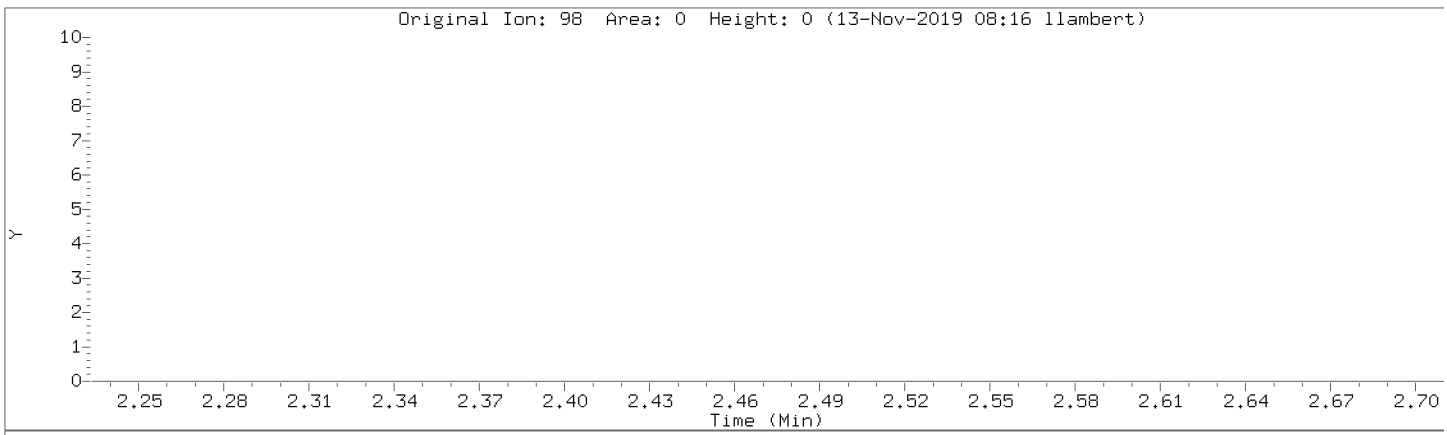
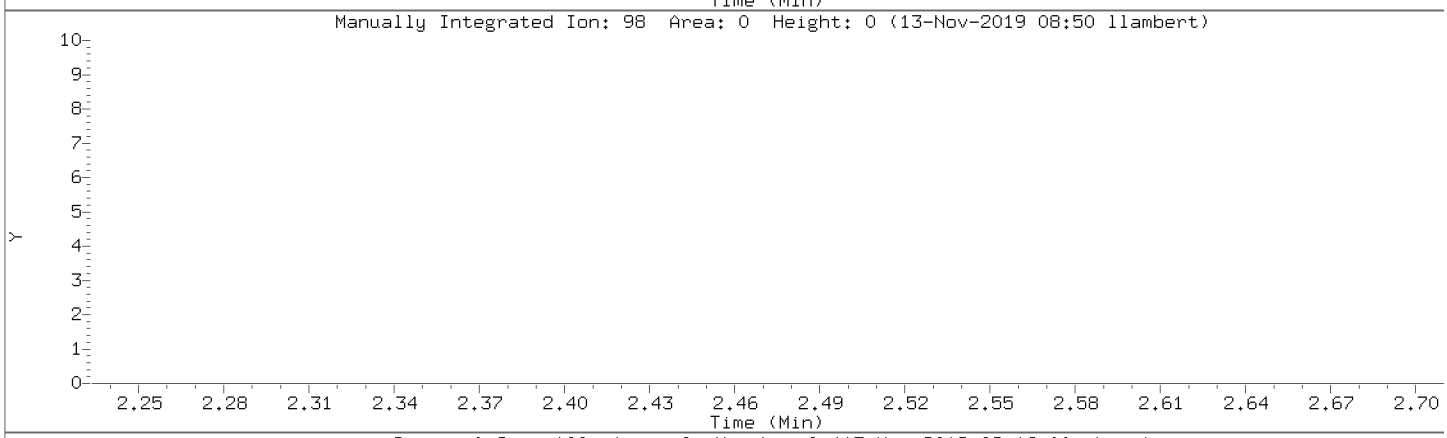
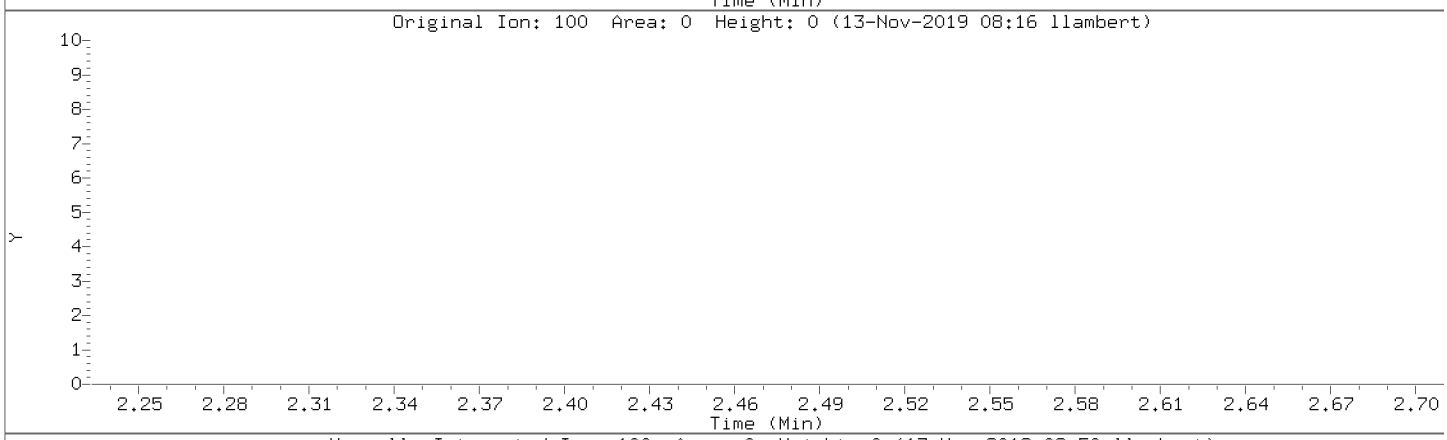
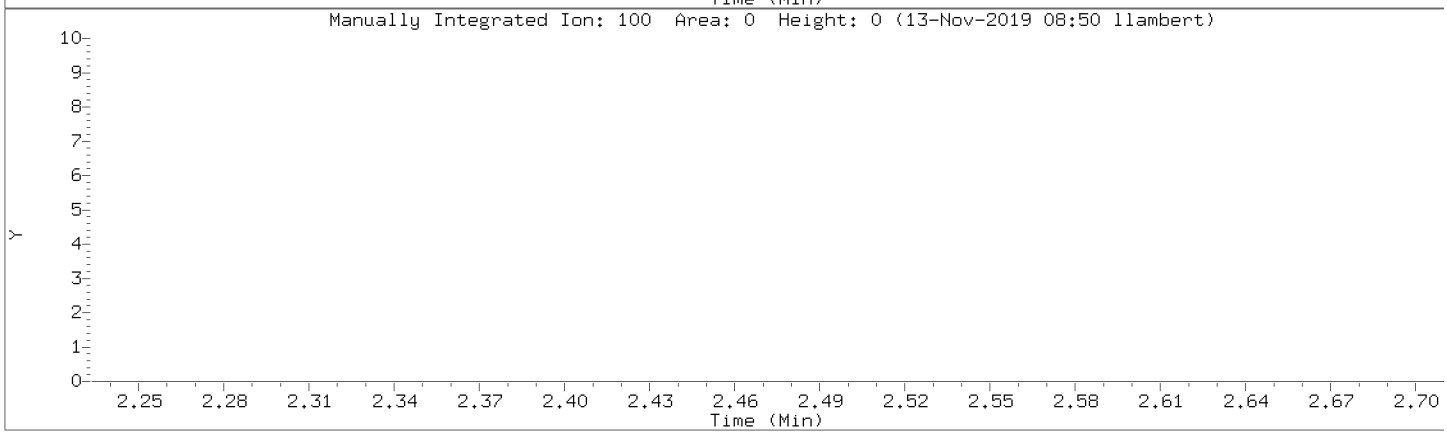
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1









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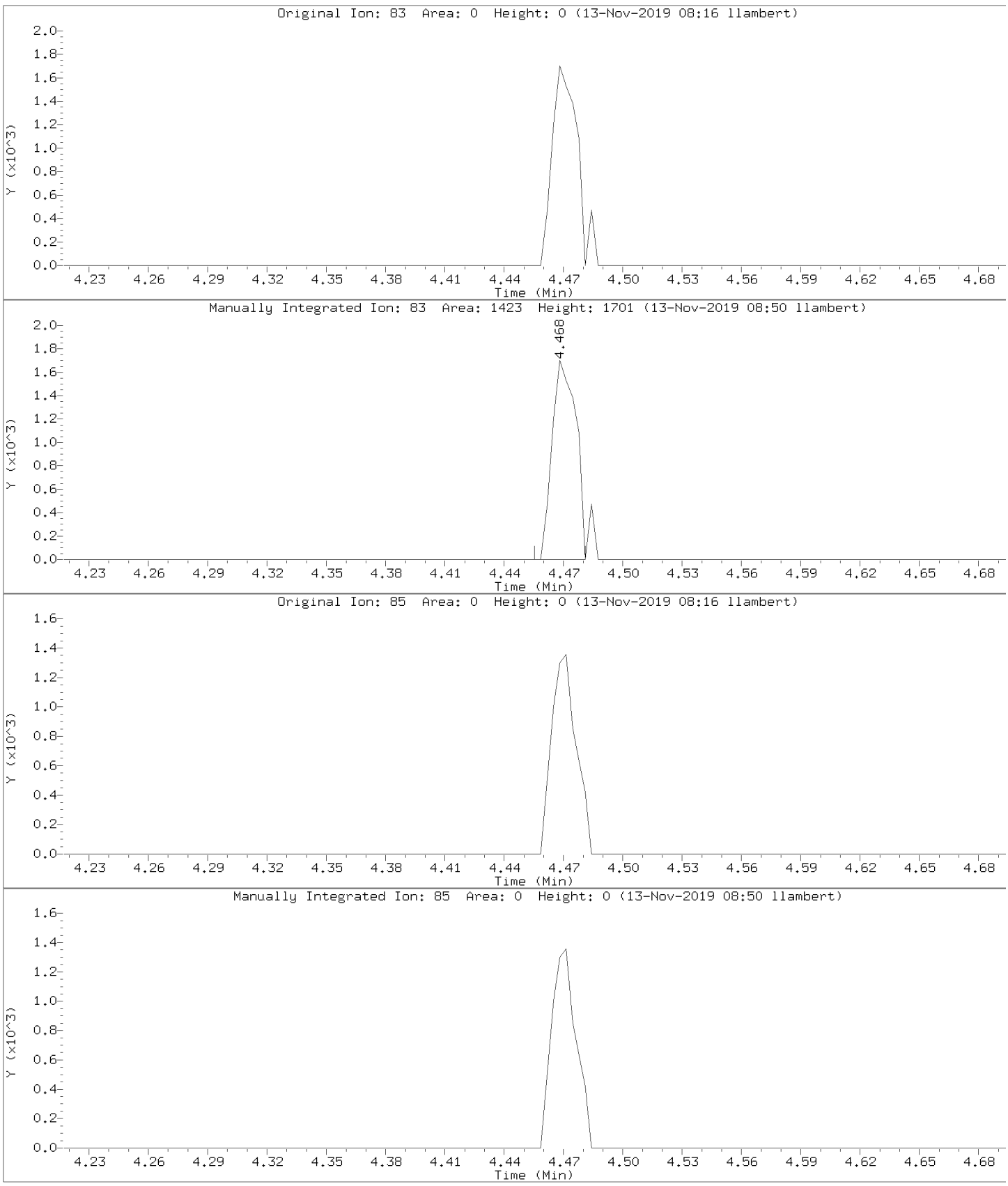
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Bromodichloromethane Review Code: NI
CAS Number: 75-27-4



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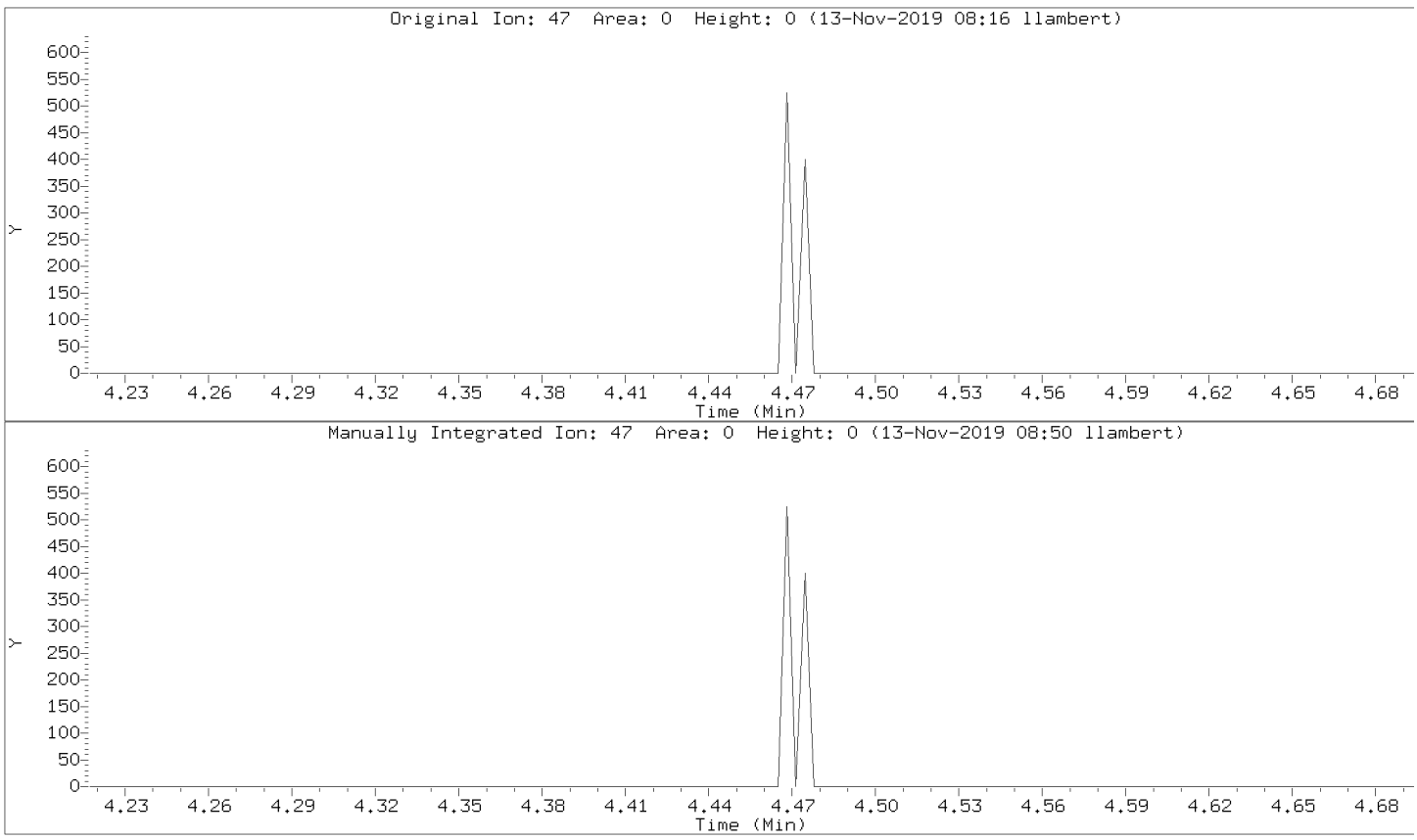
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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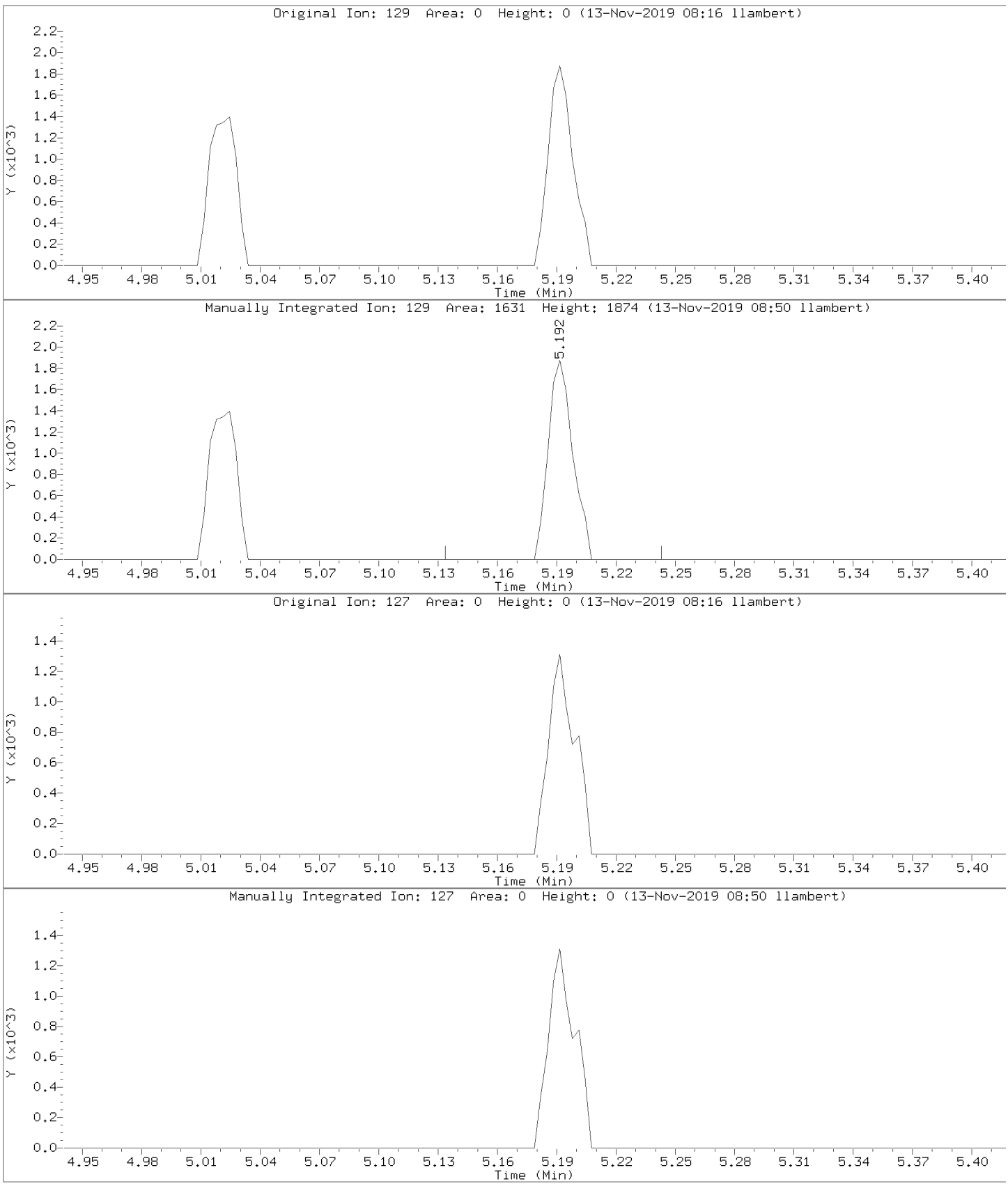
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1



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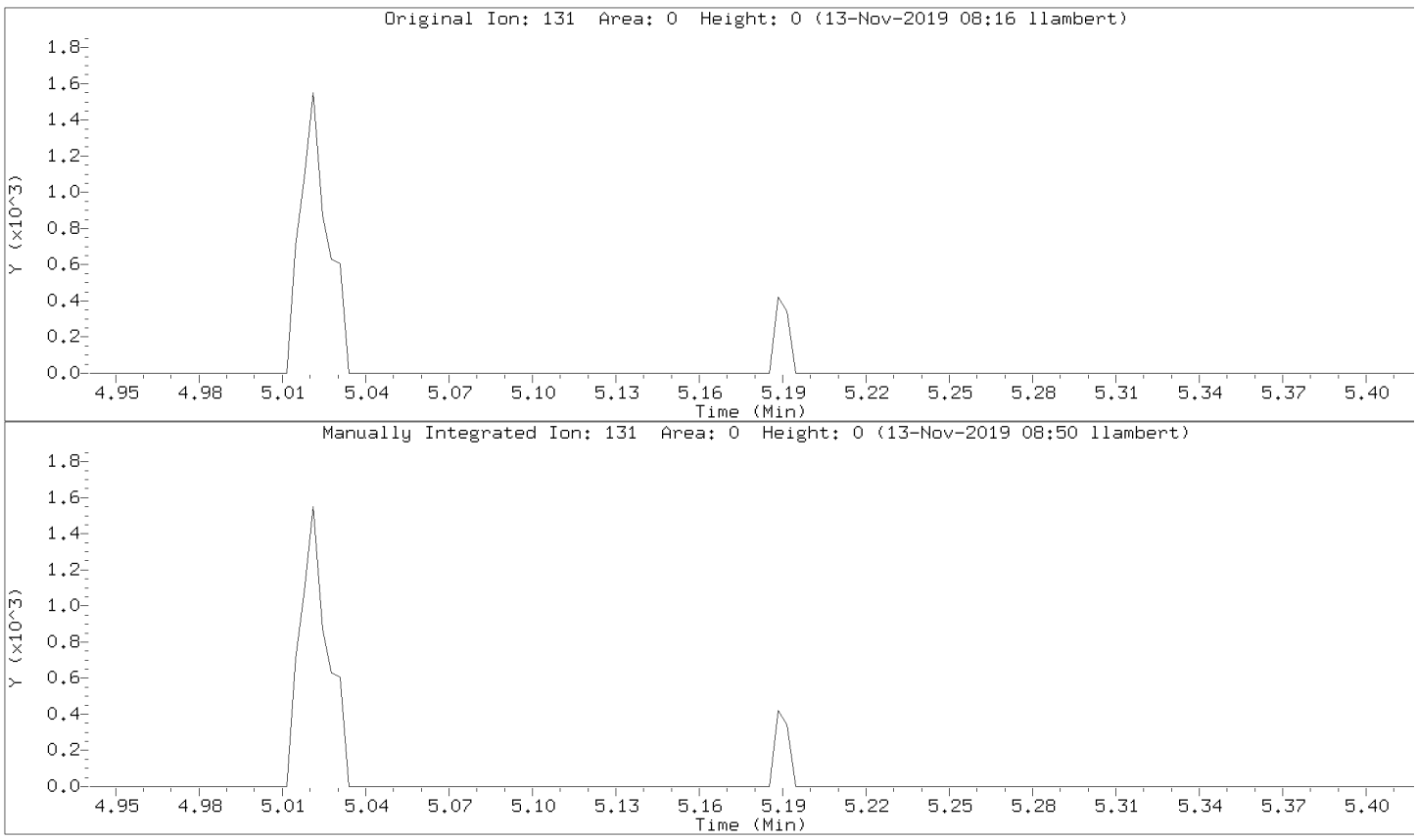
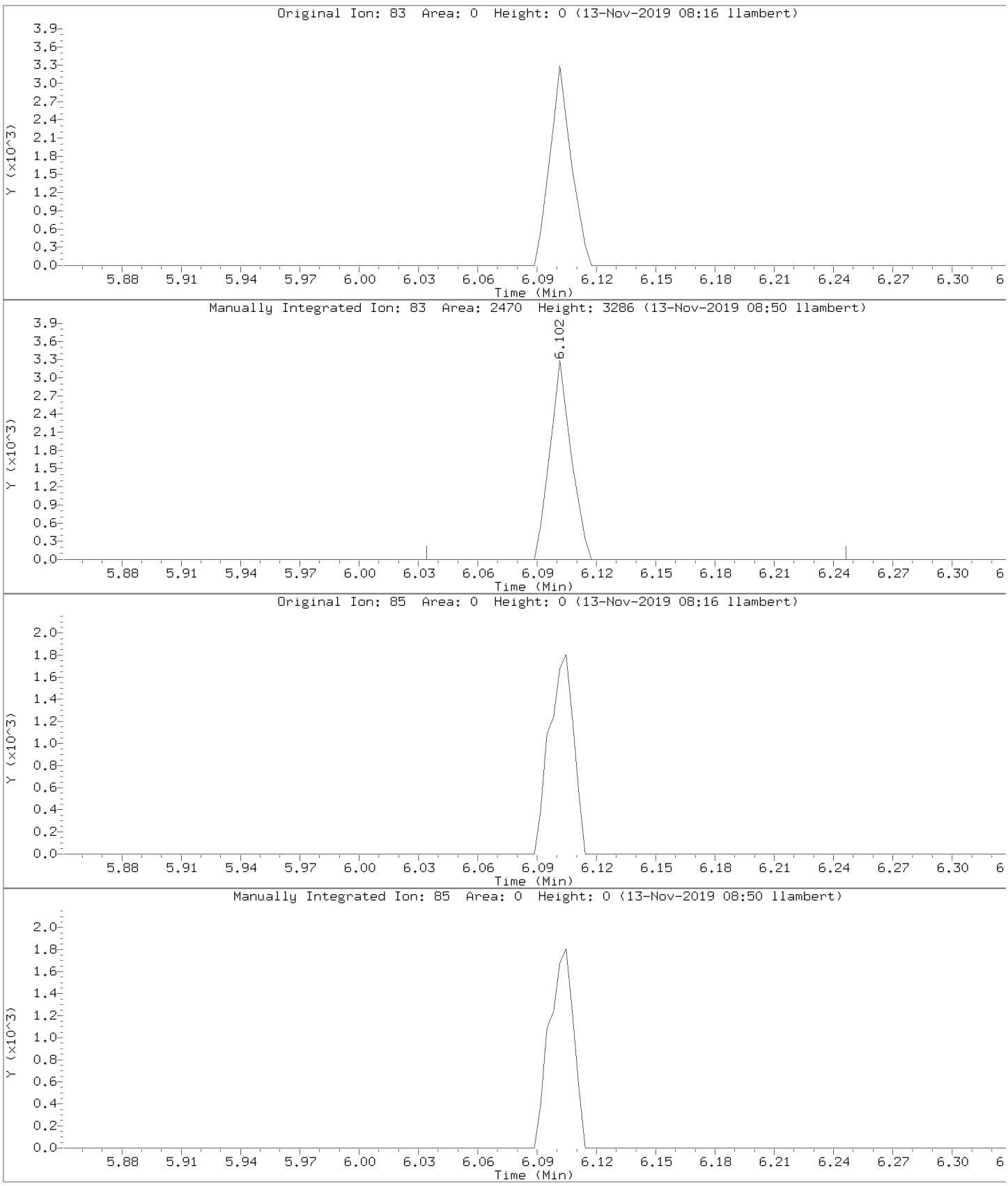
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 1,1,2,2-Tetrachloroethane Review Code: NI
CAS Number: 79-34-5



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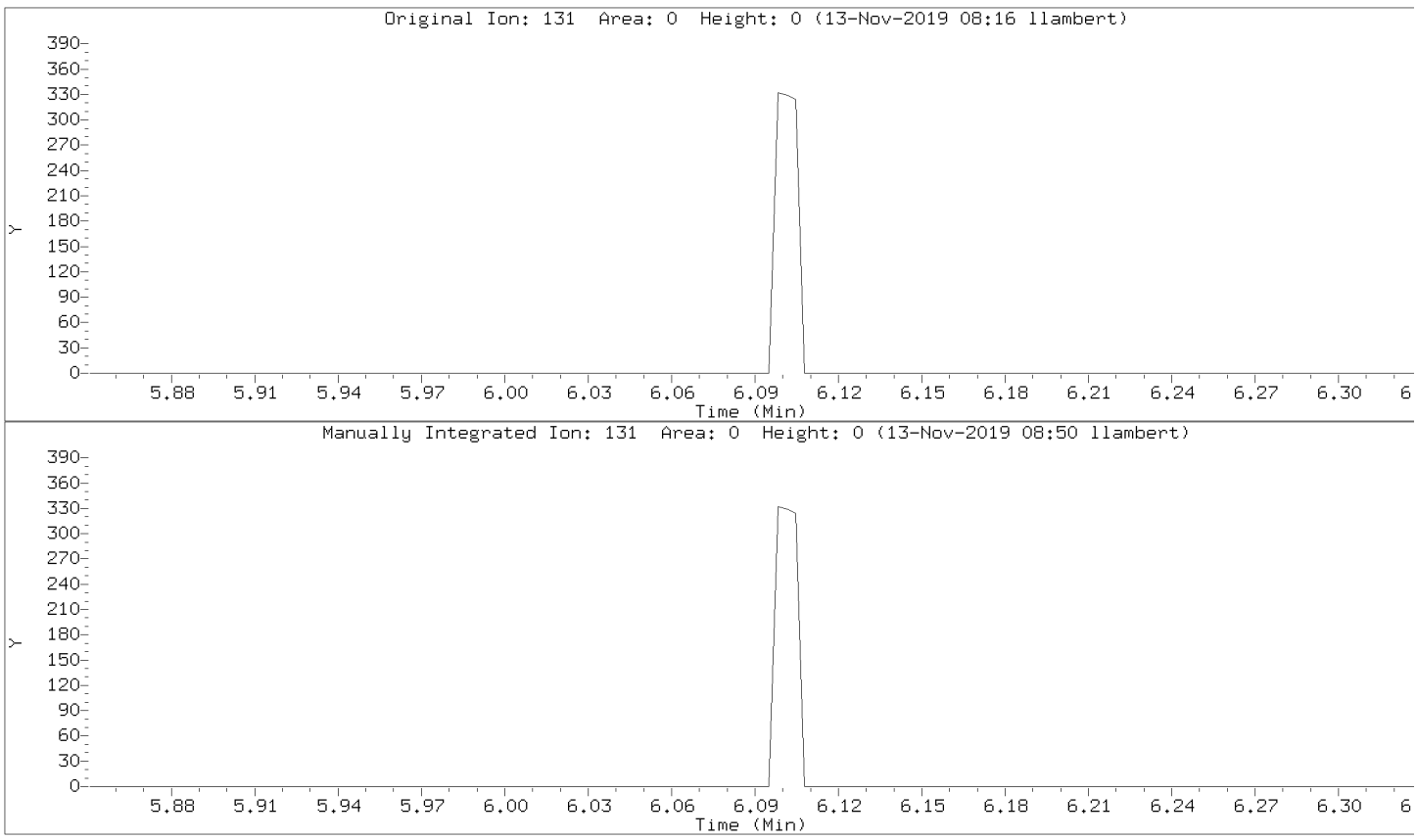
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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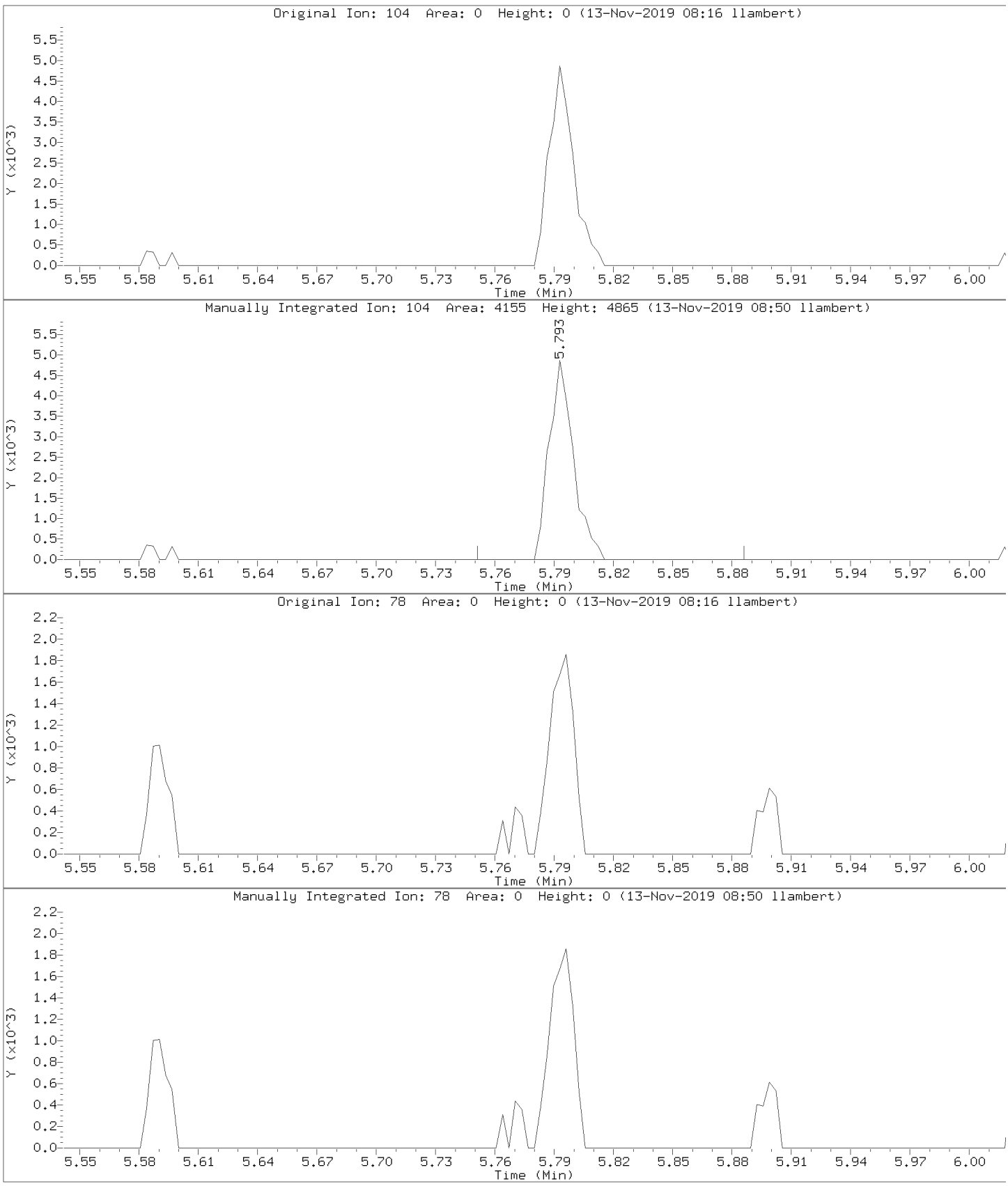
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Styrene Review Code: NI
CAS Number: 100-42-5



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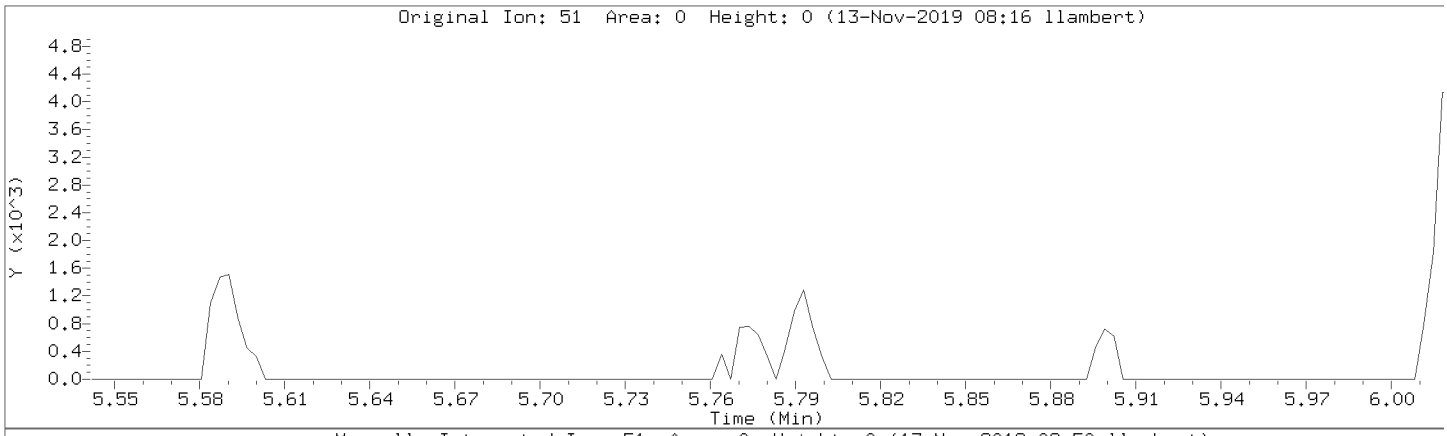
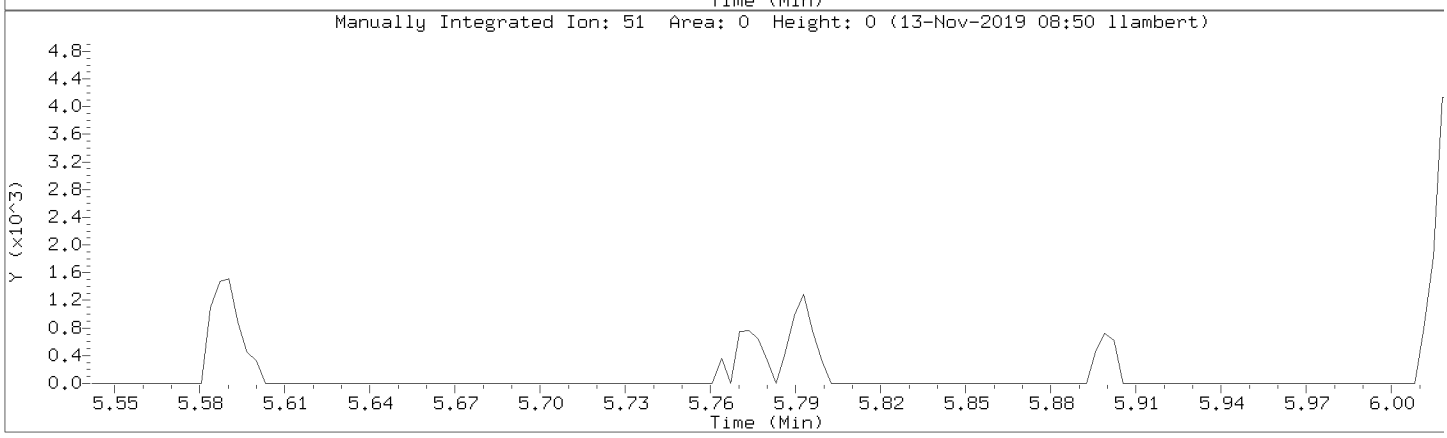
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1





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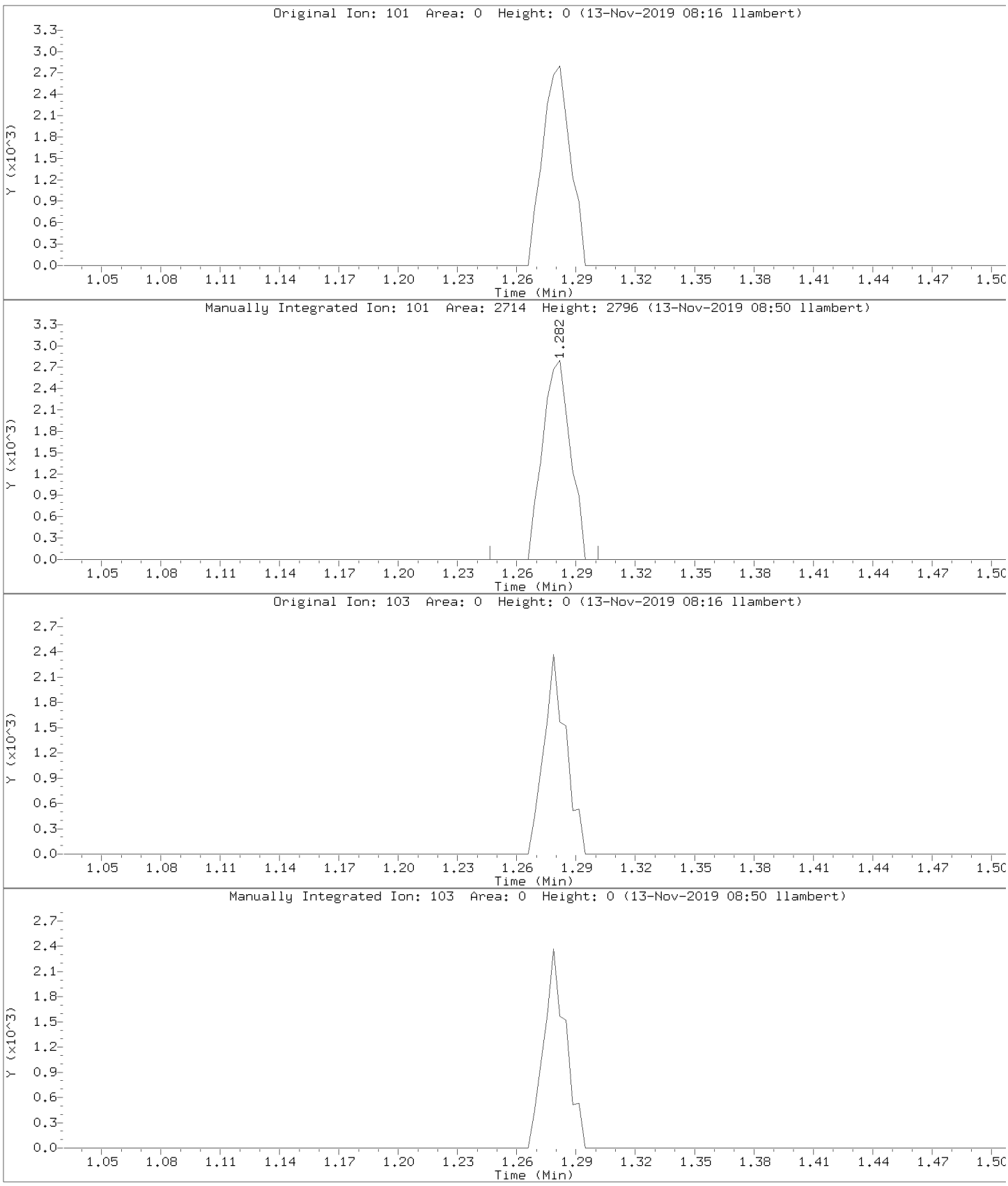
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Trichlorofluoromethane Review Code: NI
CAS Number: 75-69-4



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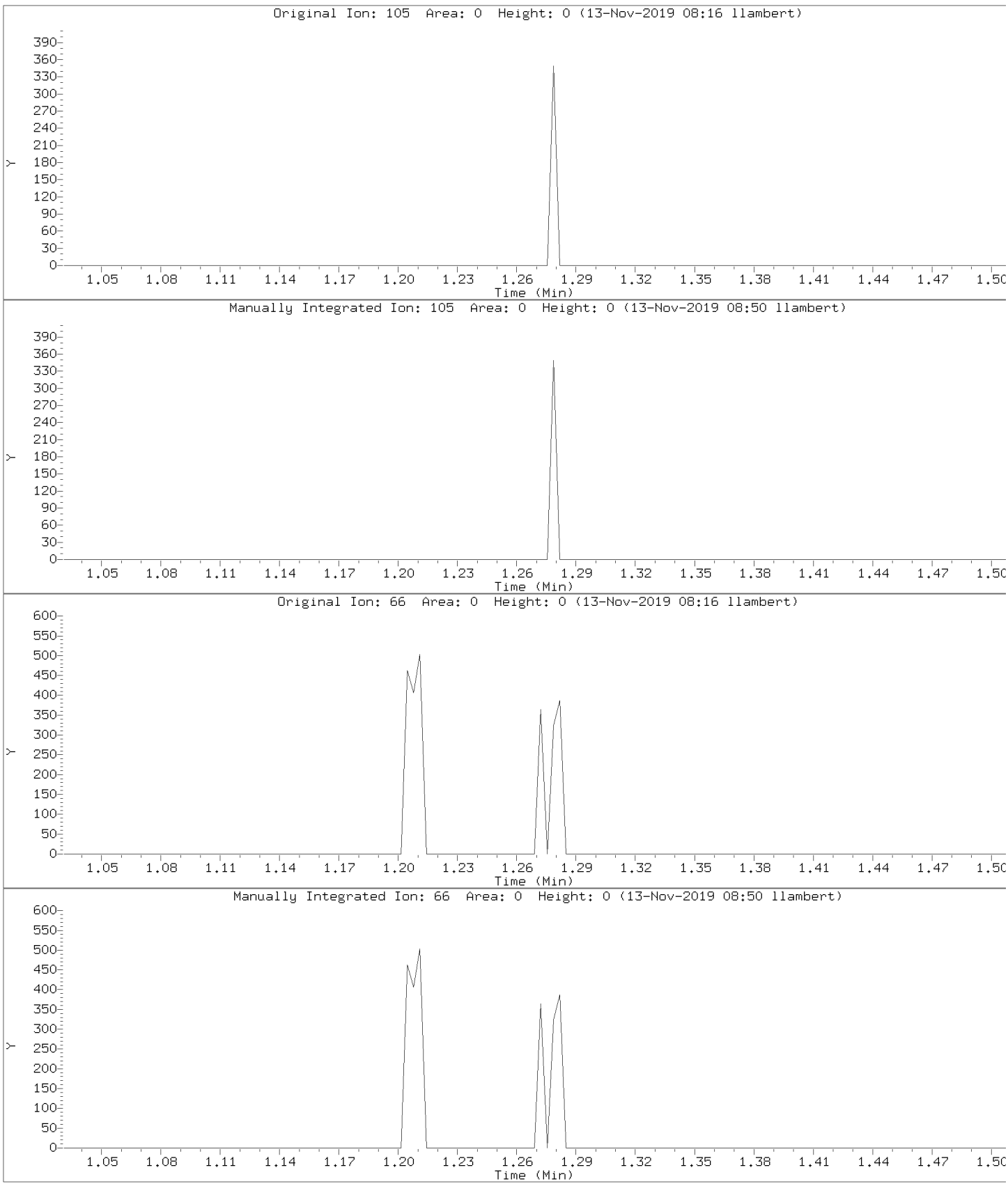
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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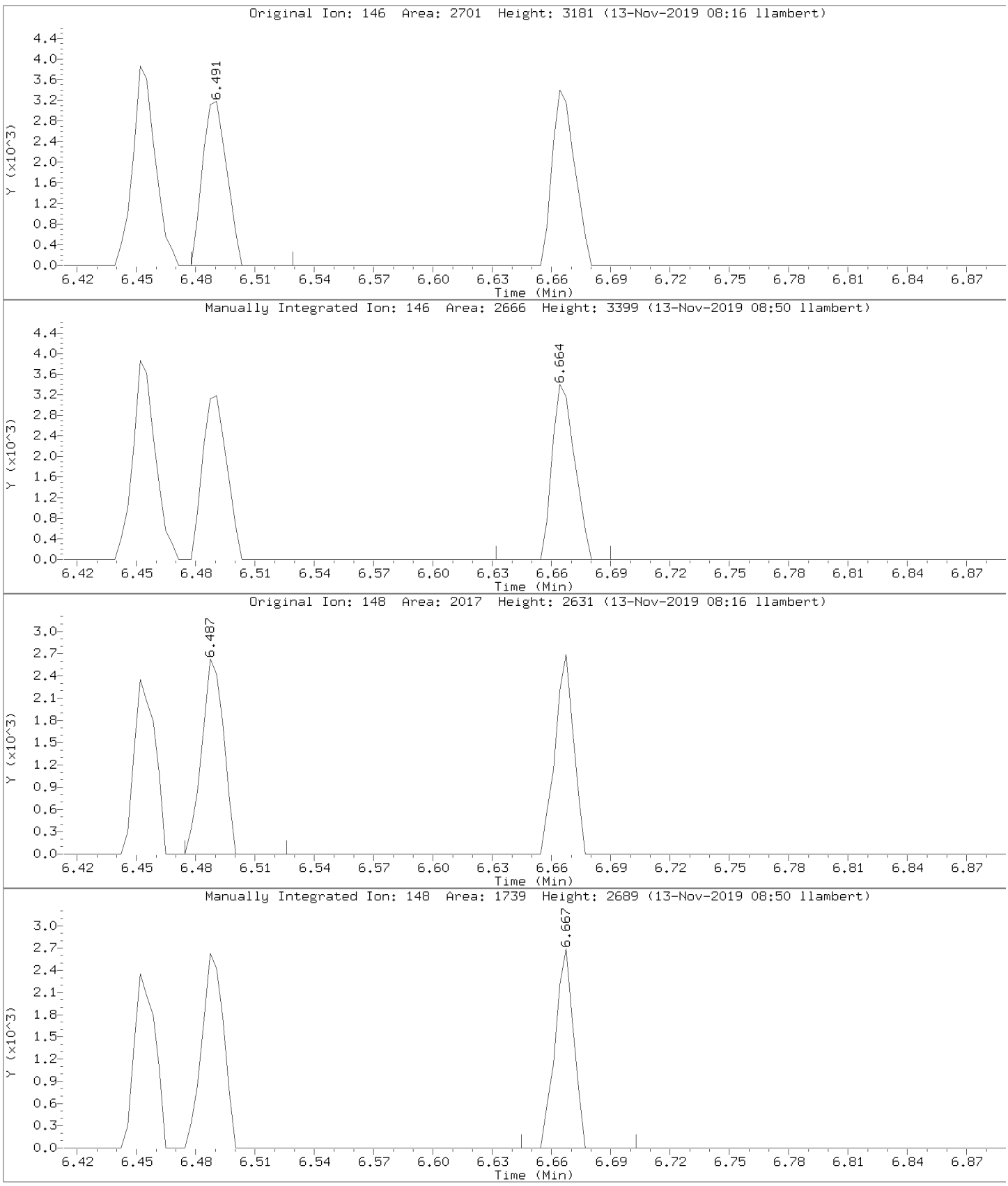
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 1,2-Dichlorobenzene Review Code: WP
CAS Number: 95-50-1



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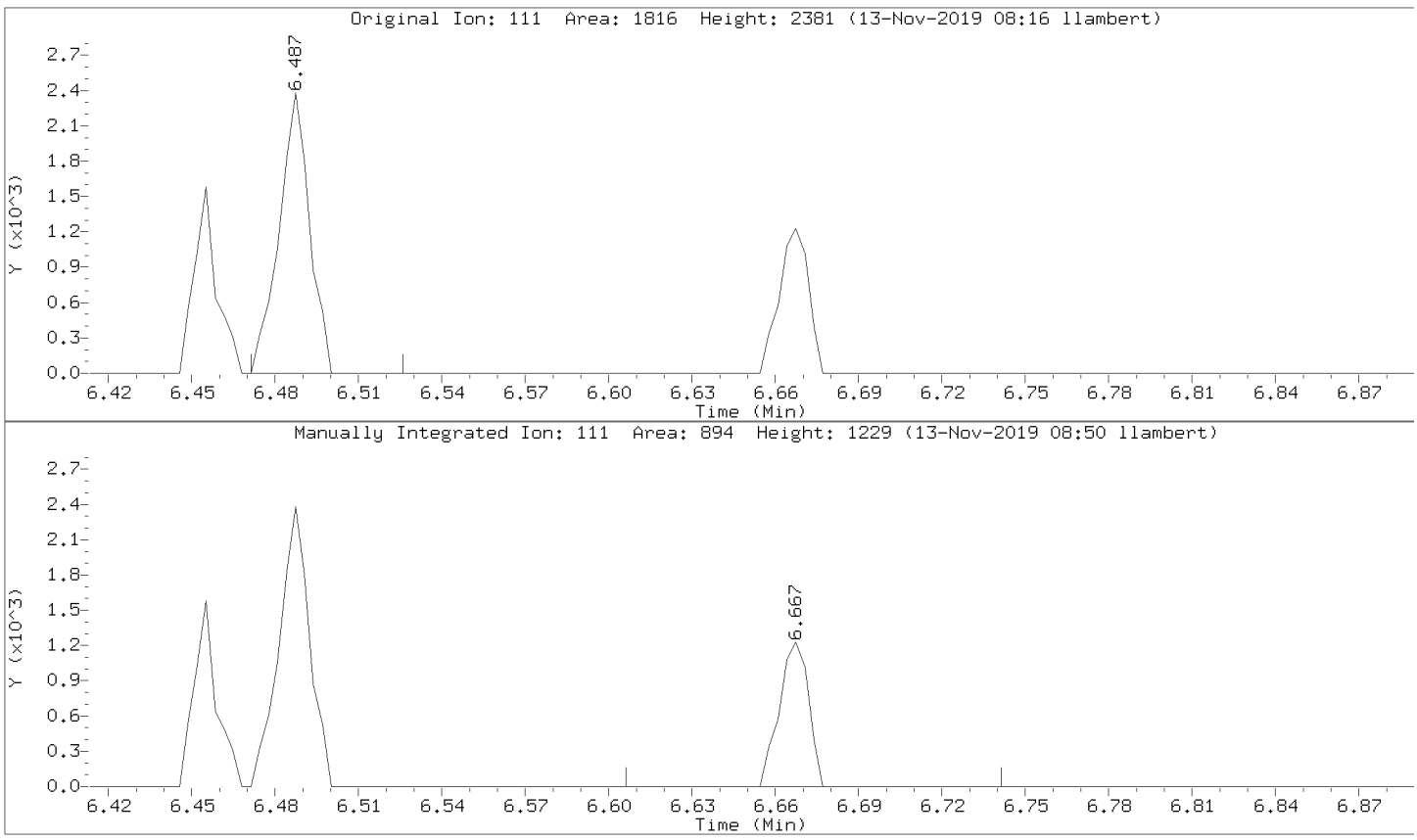
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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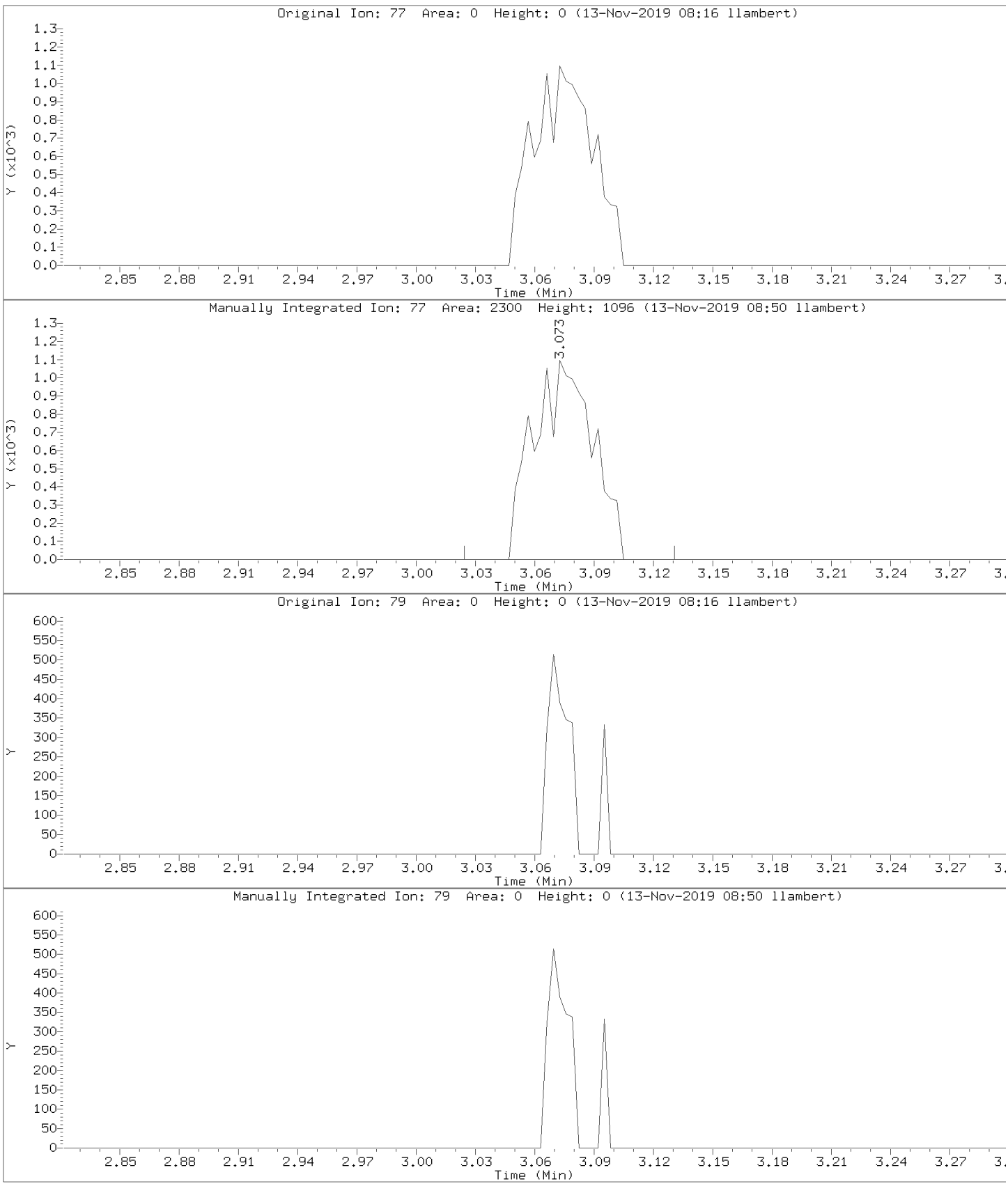
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 2,2-Dichloropropane Review Code: NI
CAS Number: 594-20-7



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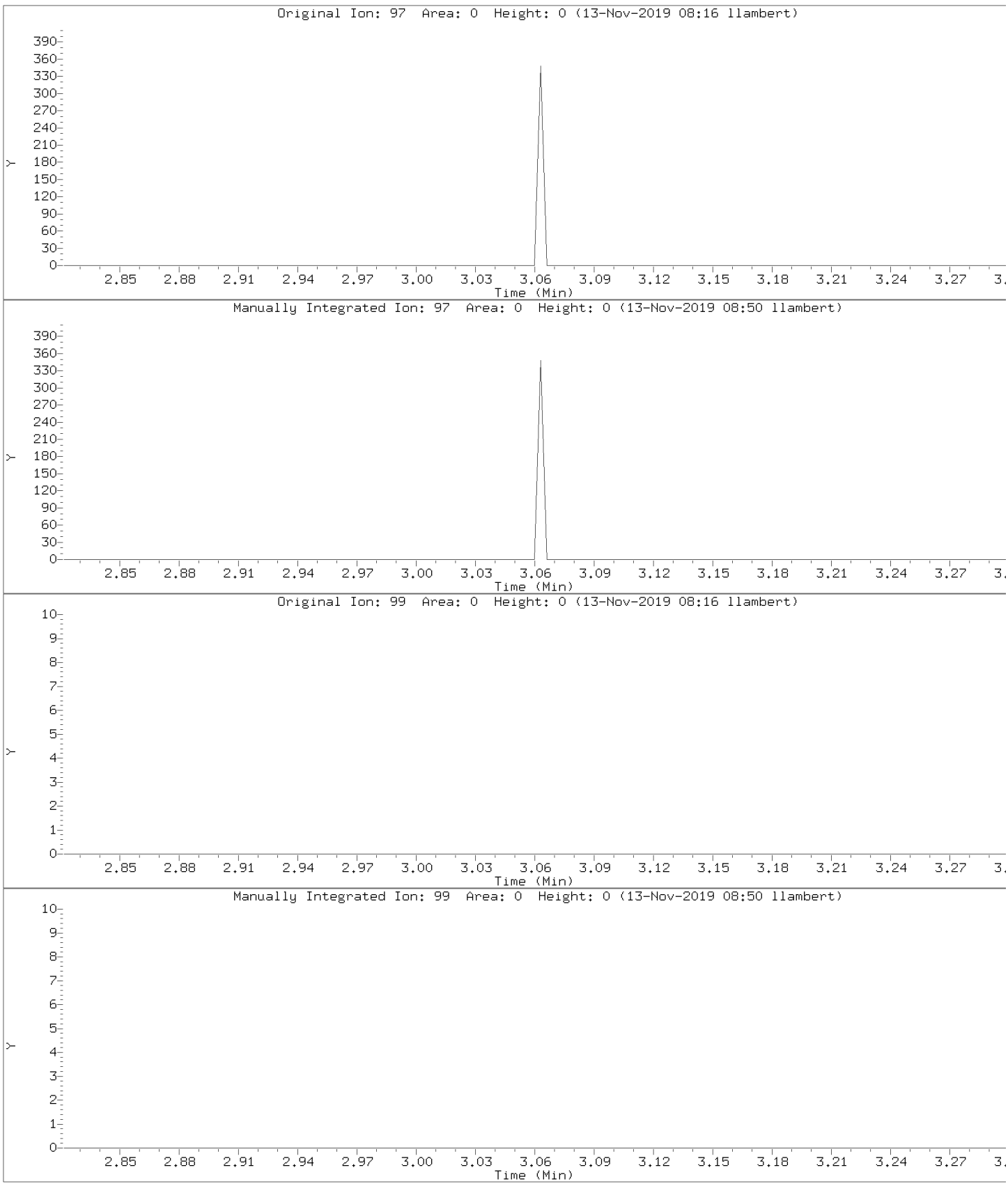
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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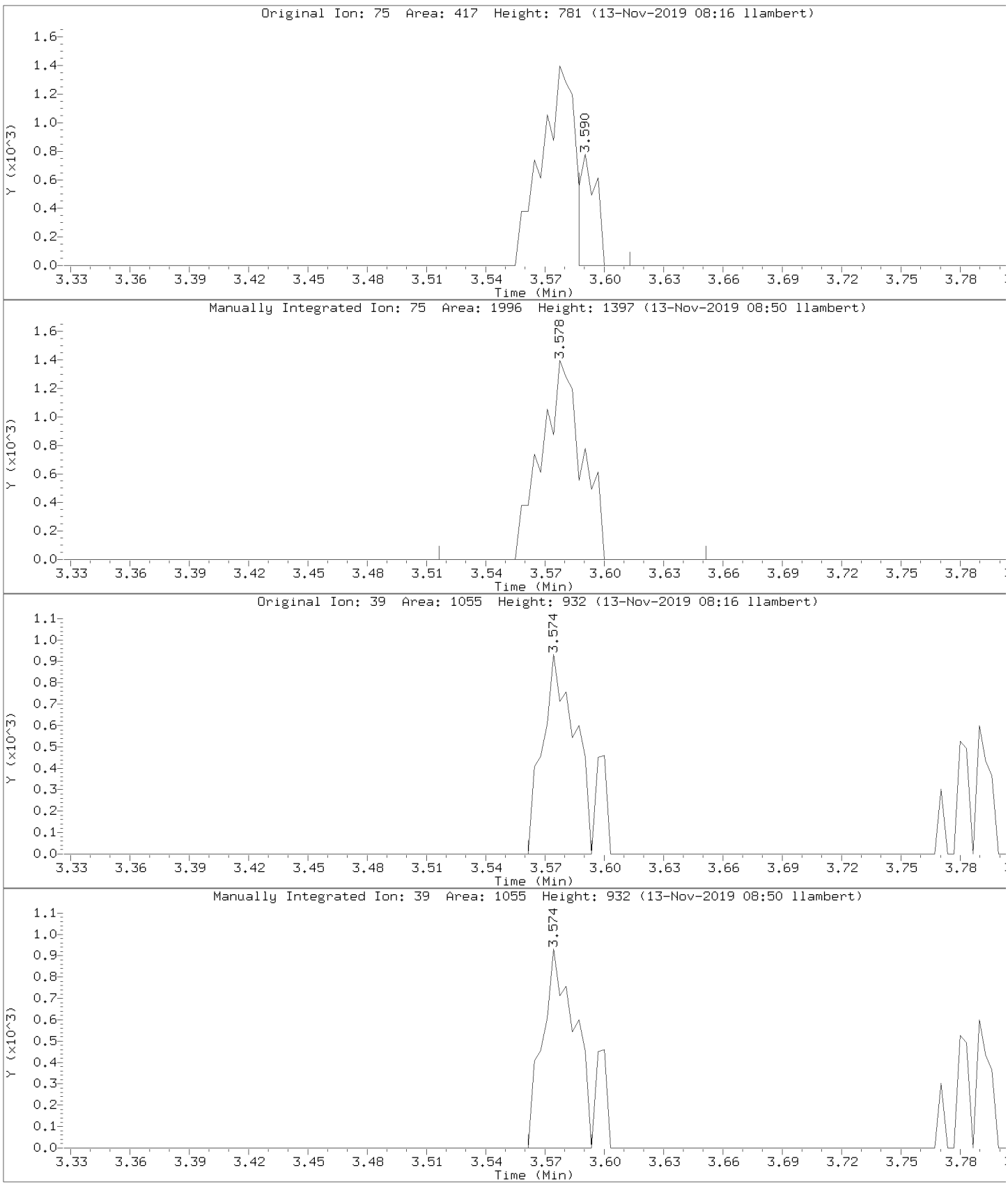
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 1,1-Dichloropropene Review Code: LT
CAS Number: 563-58-6



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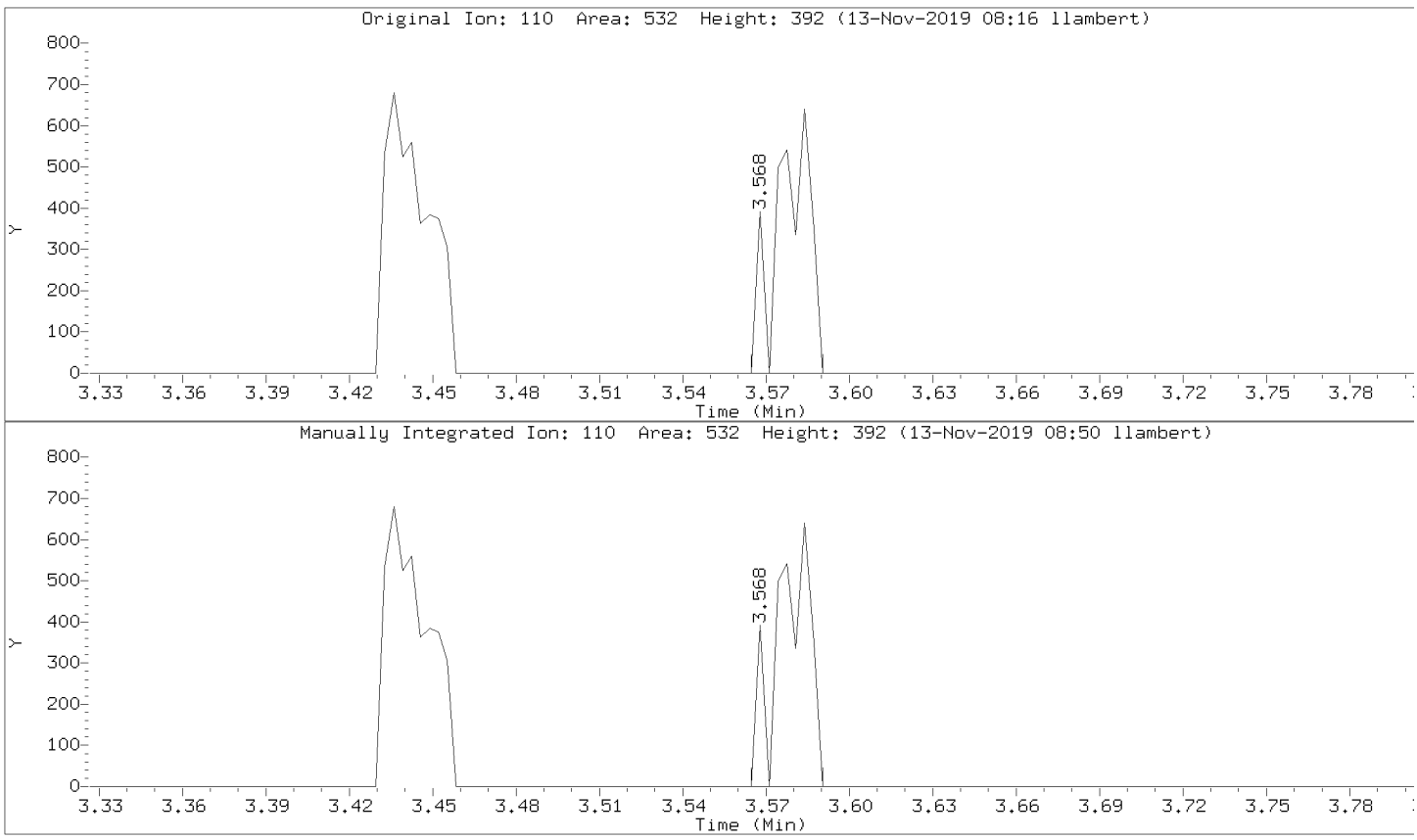
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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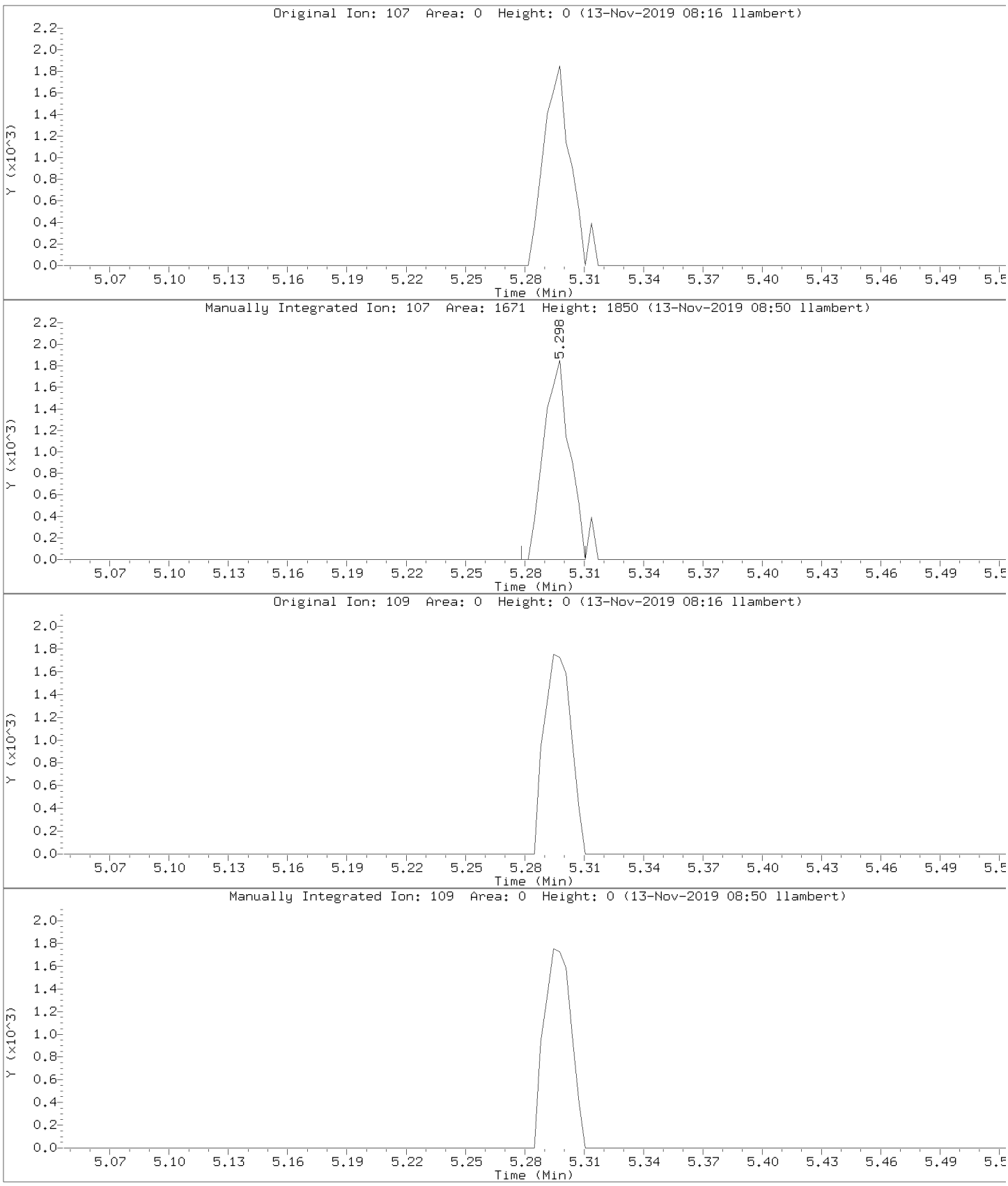
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 1,2-Dibromoethane (EDB) Review Code: NI
CAS Number: 106-93-4



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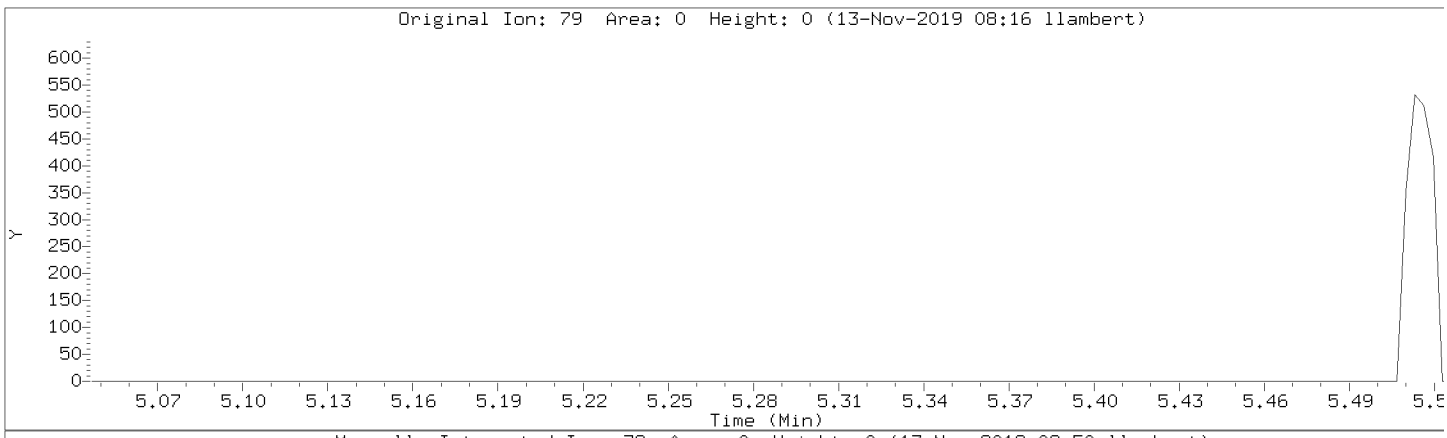
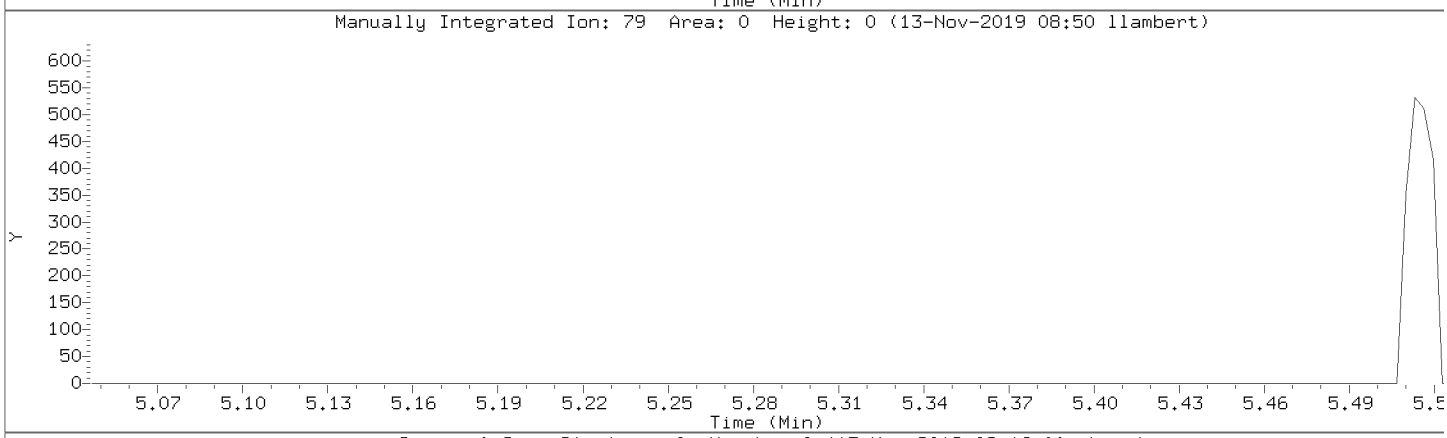
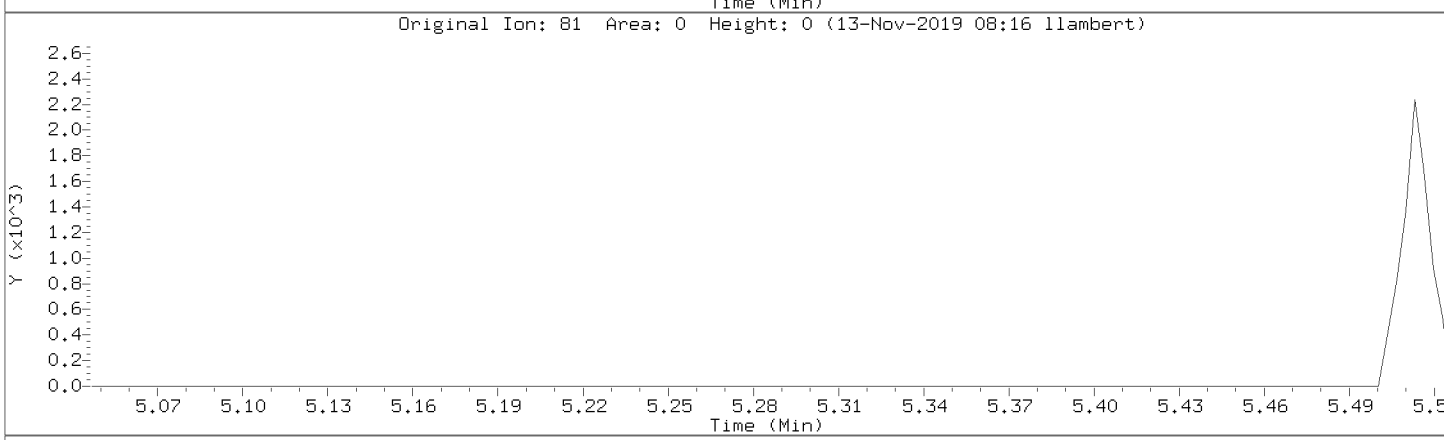
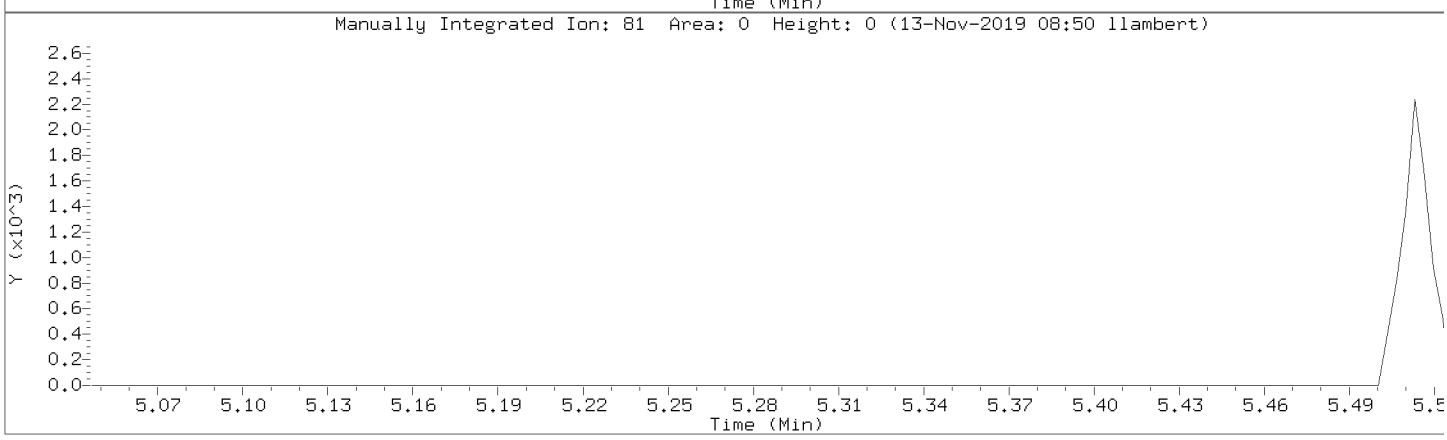
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1









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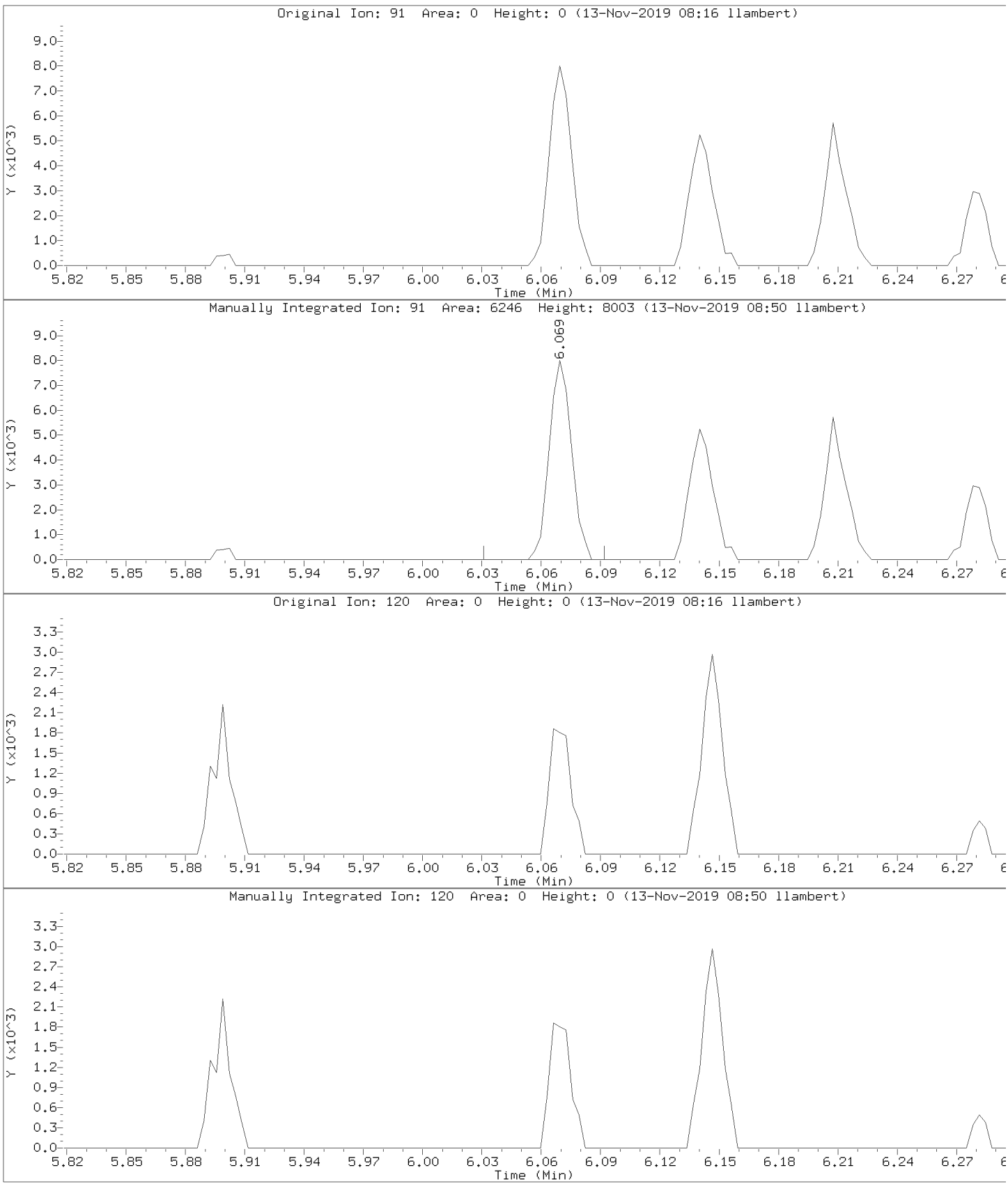
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: n-Propylbenzene Review Code: NI
CAS Number: 103-65-1



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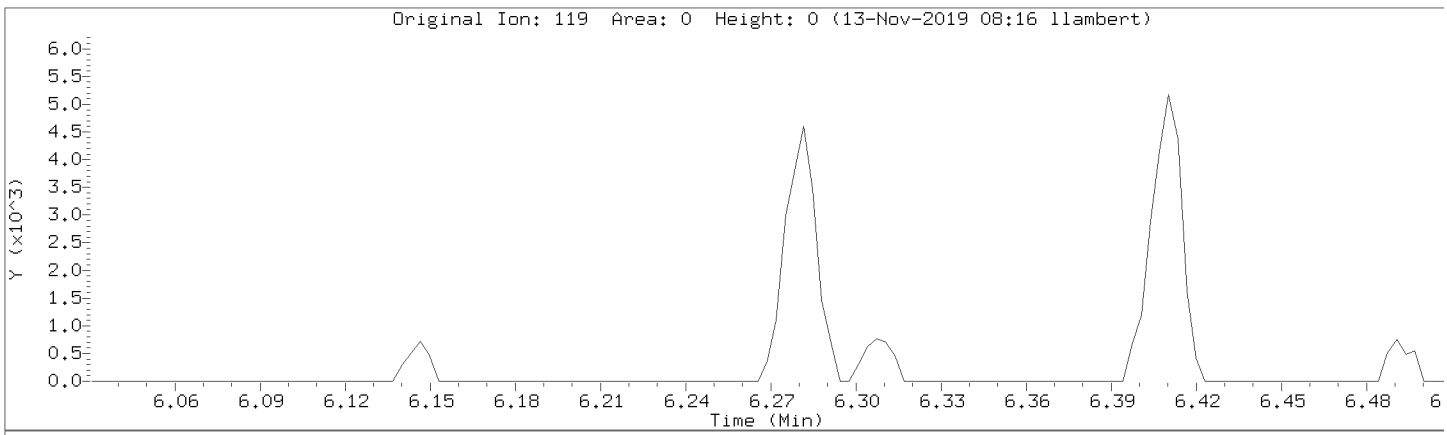
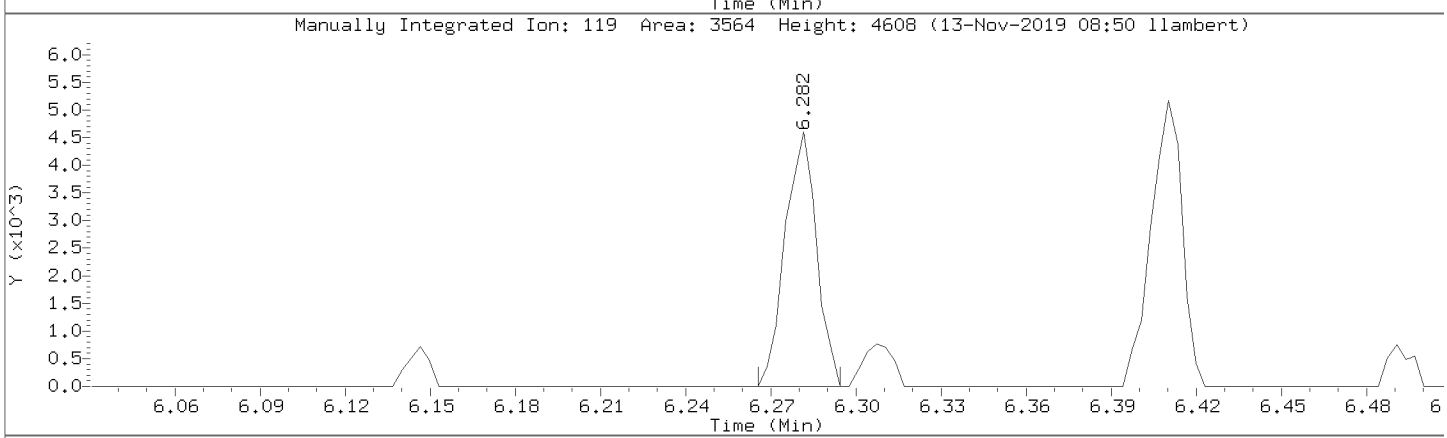
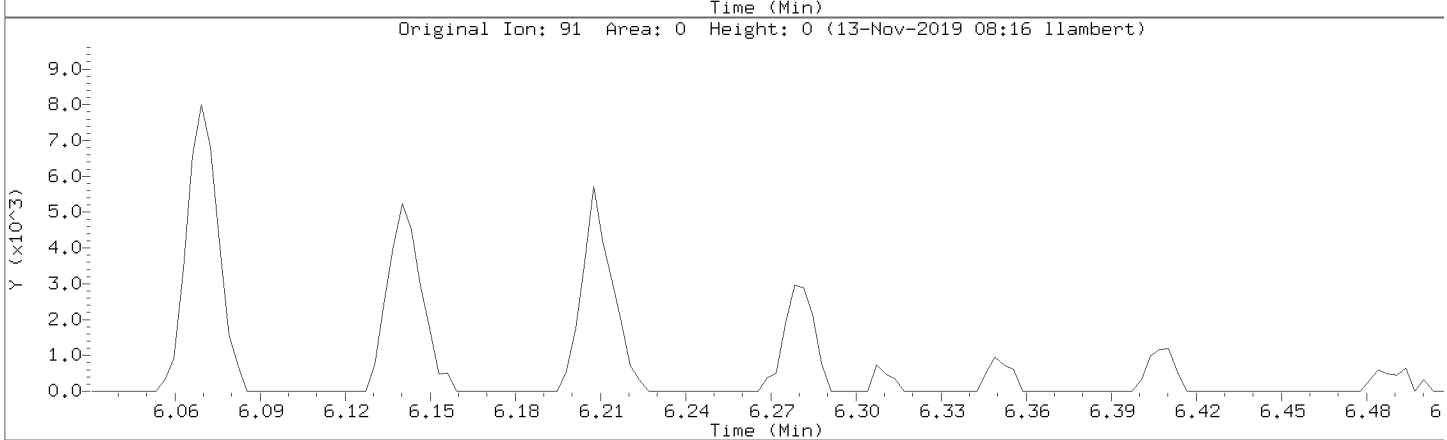
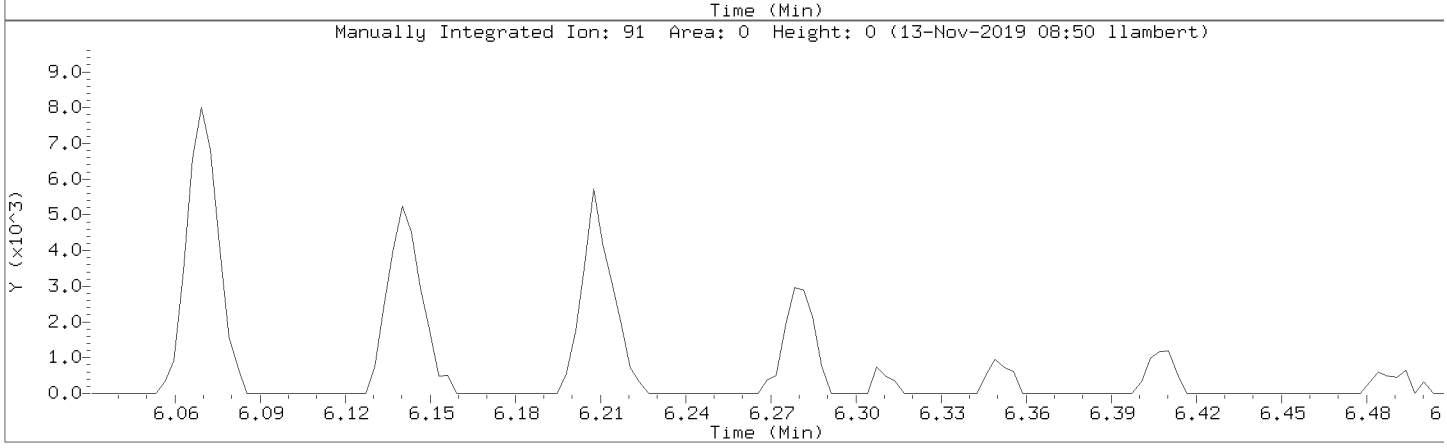
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: tert-Butylbenzene Review Code: NI
CAS Number: 98-06-6









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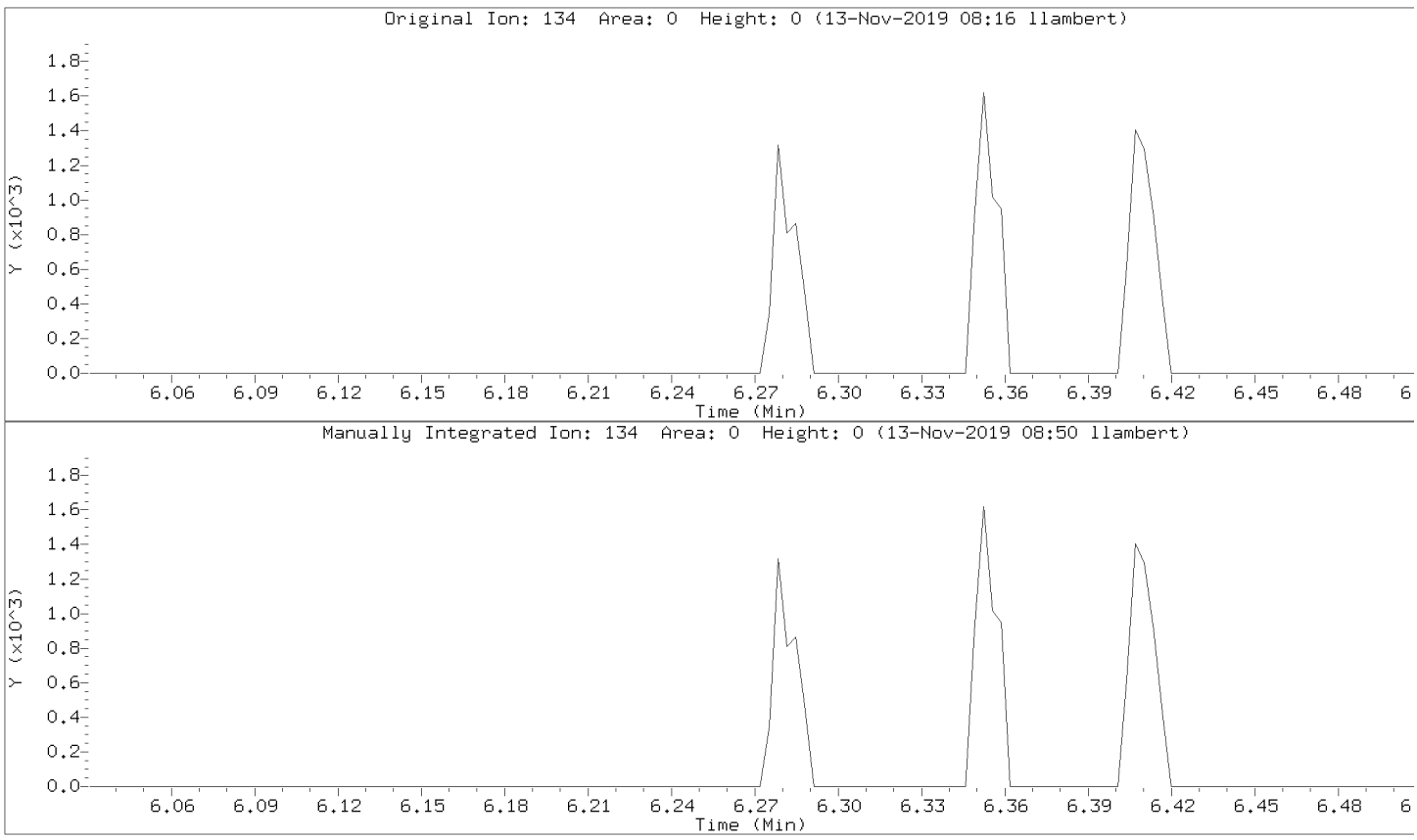
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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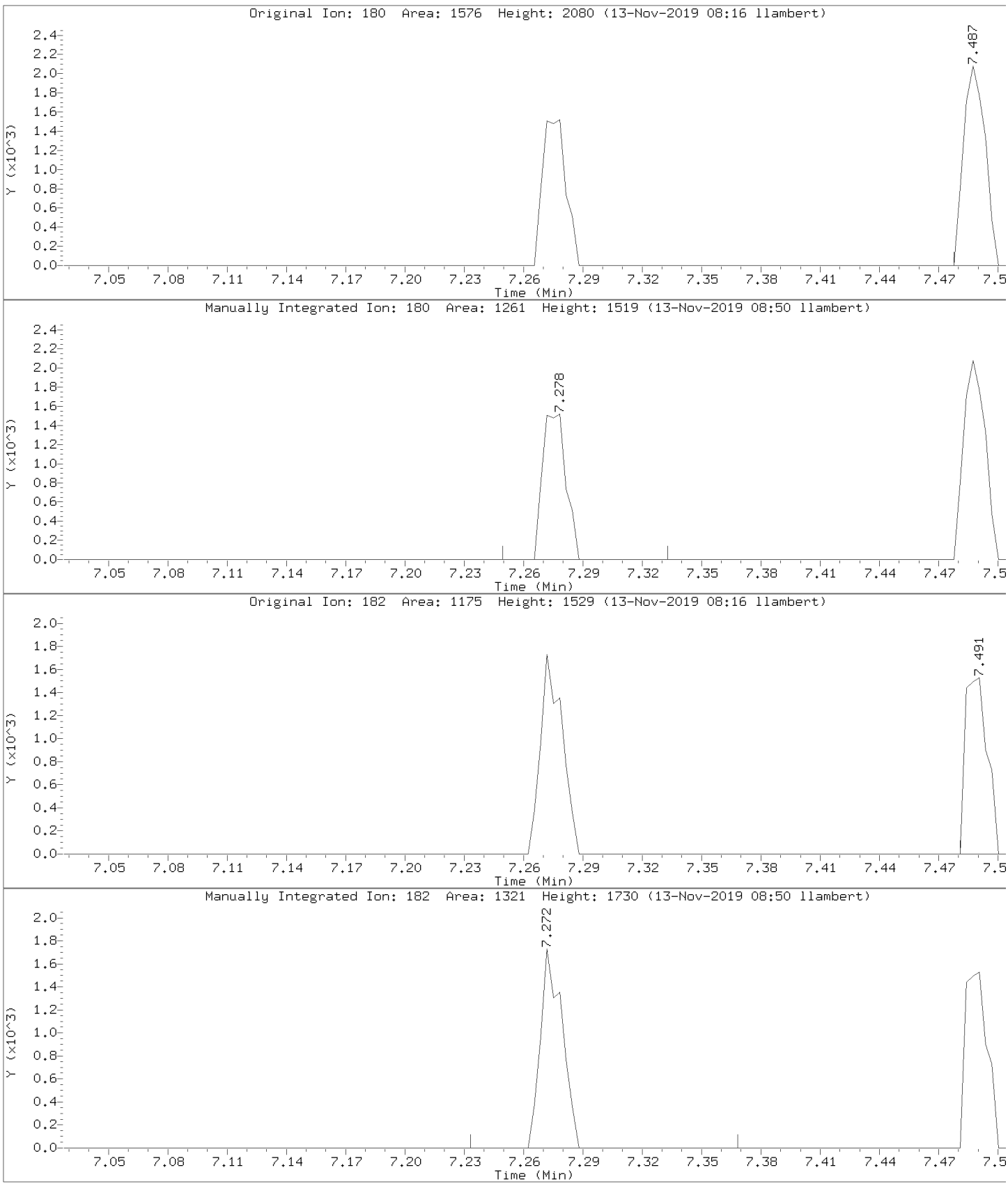
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 1,2,4-Trichlorobenzene Review Code: WP
CAS Number: 120-82-1



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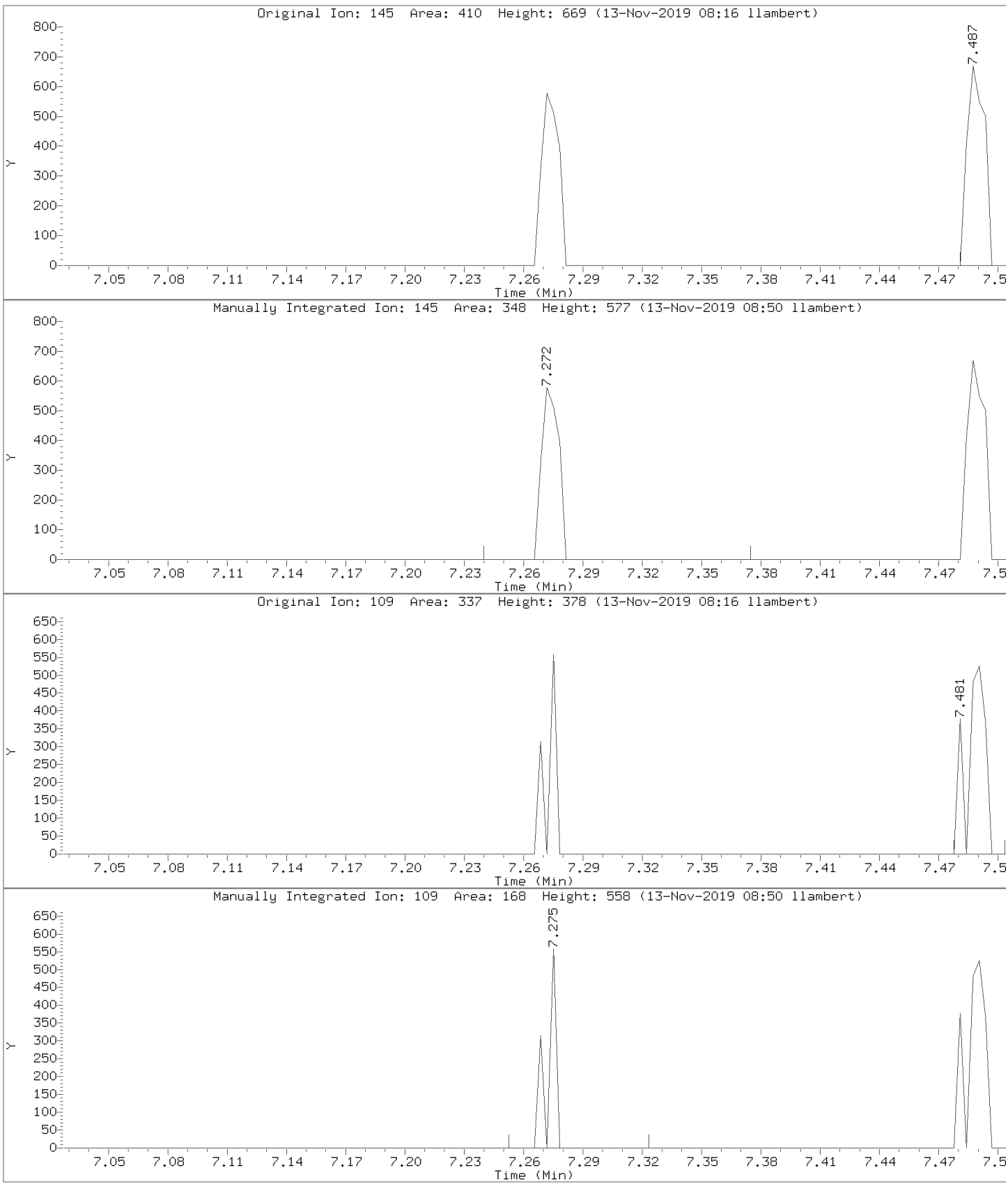
Lab Sample ID: CAL1



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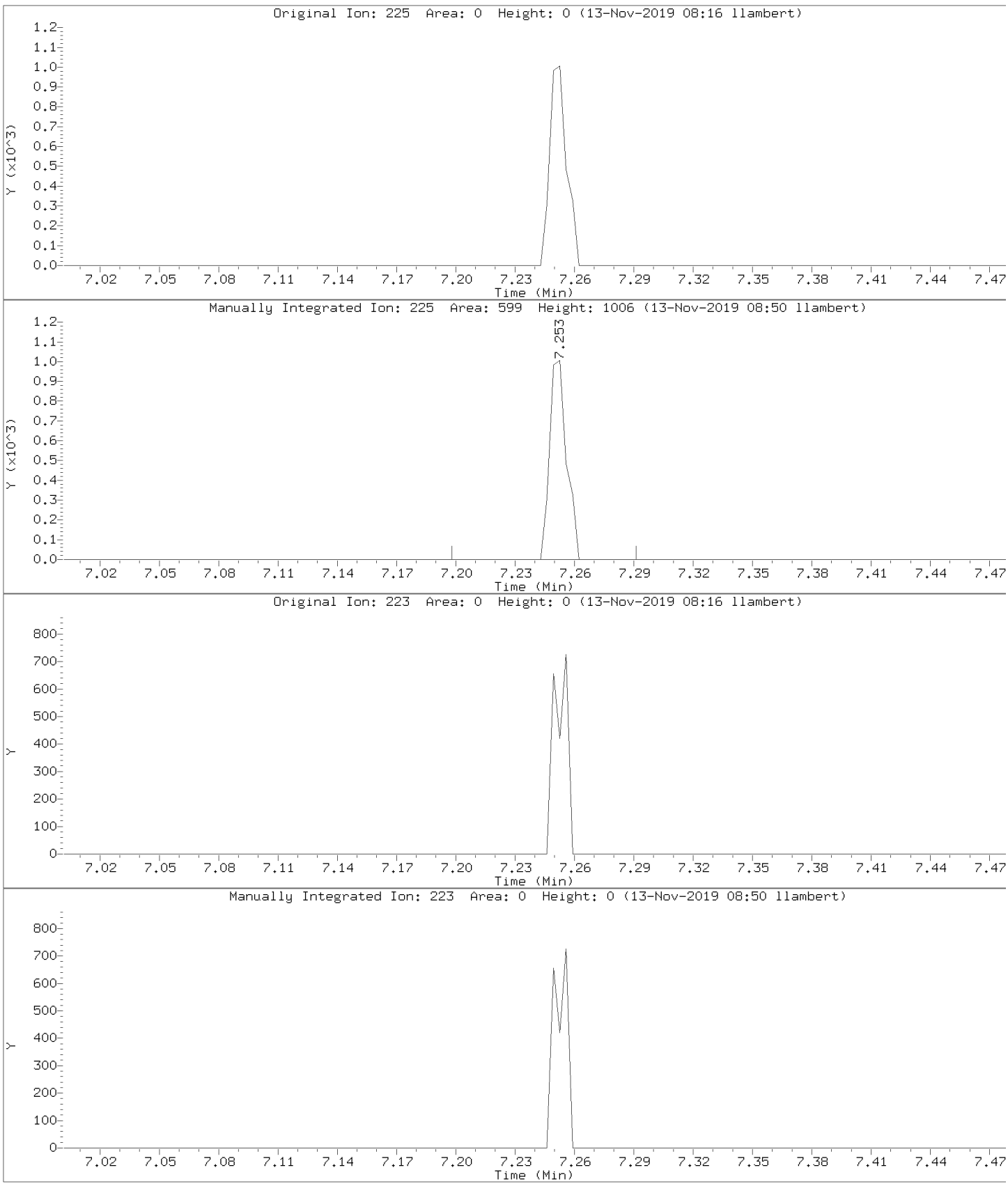
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Hexachloro-1,3-butadiene Review Code: WP
CAS Number: 87-68-3



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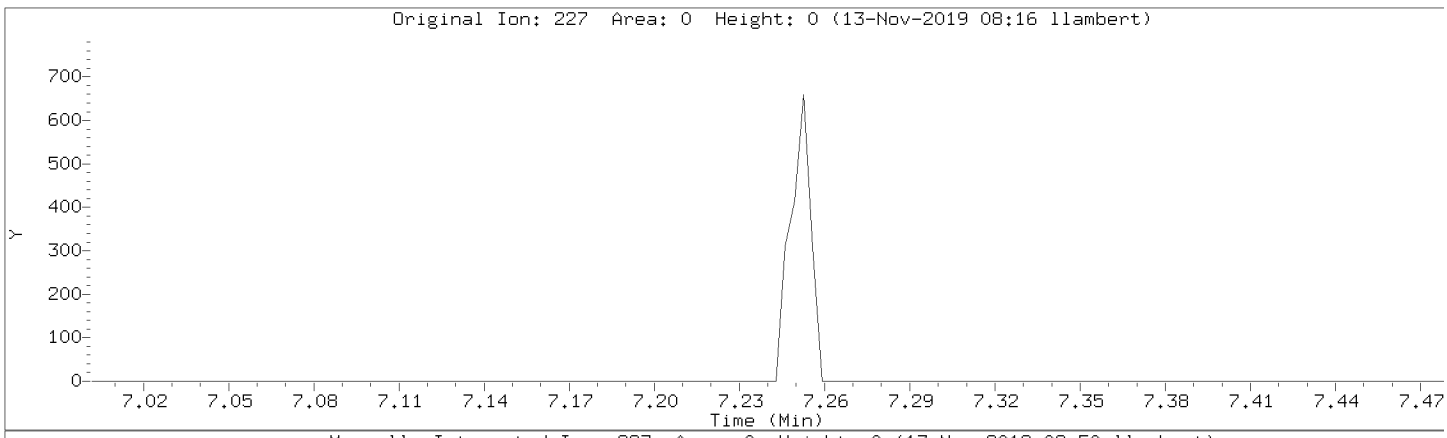
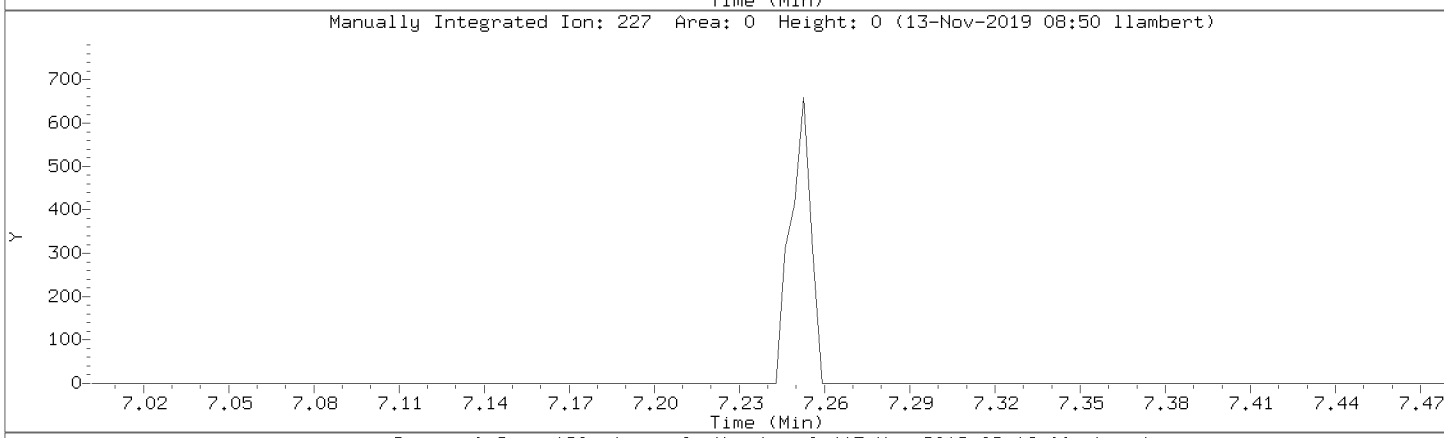
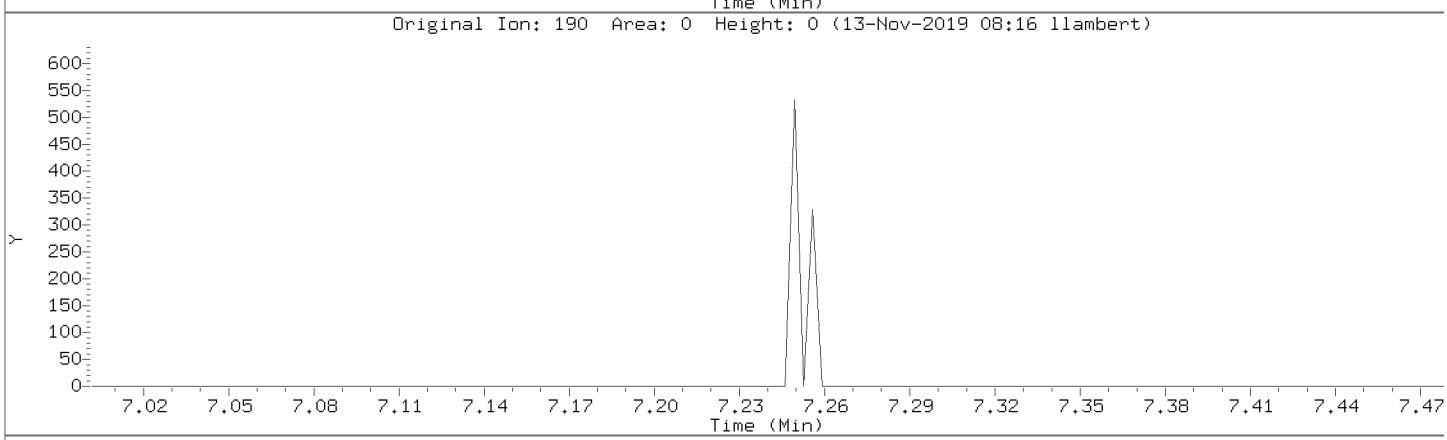
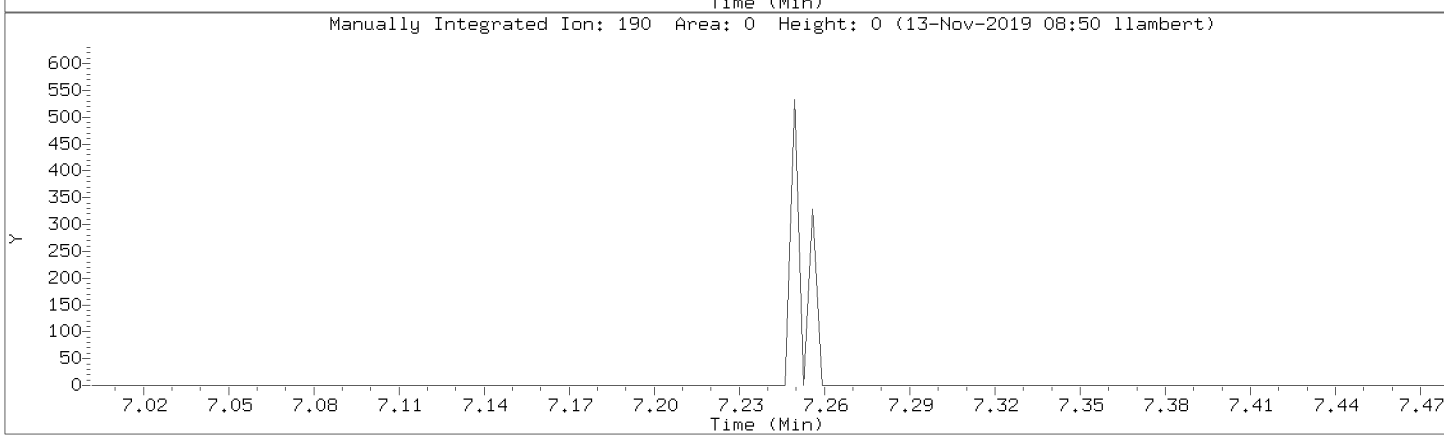
Instrument: 30mv7a.i
Lab Sample ID: CAL1









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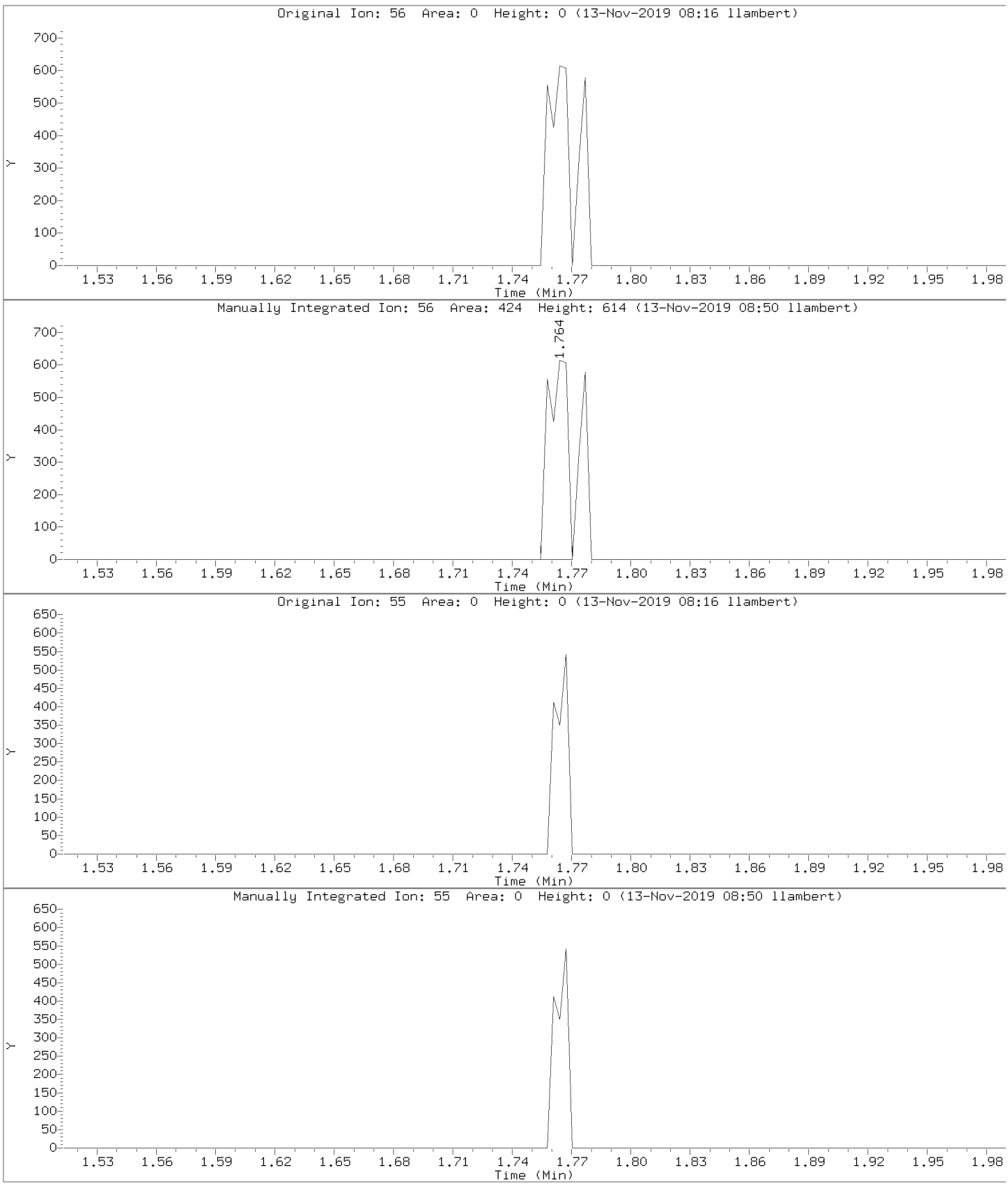
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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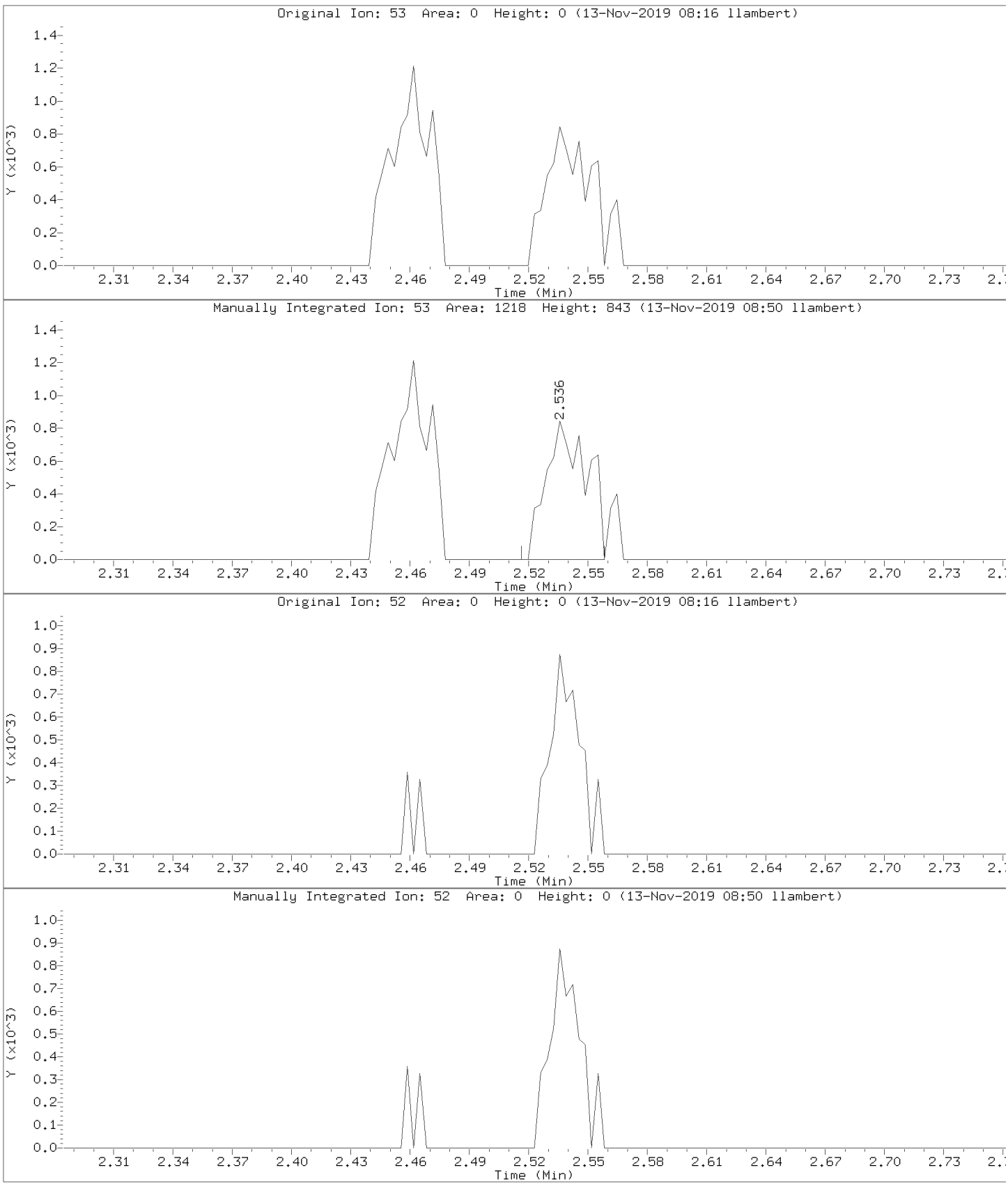
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Acrylonitrile Review Code: NI
CAS Number: 107-13-1



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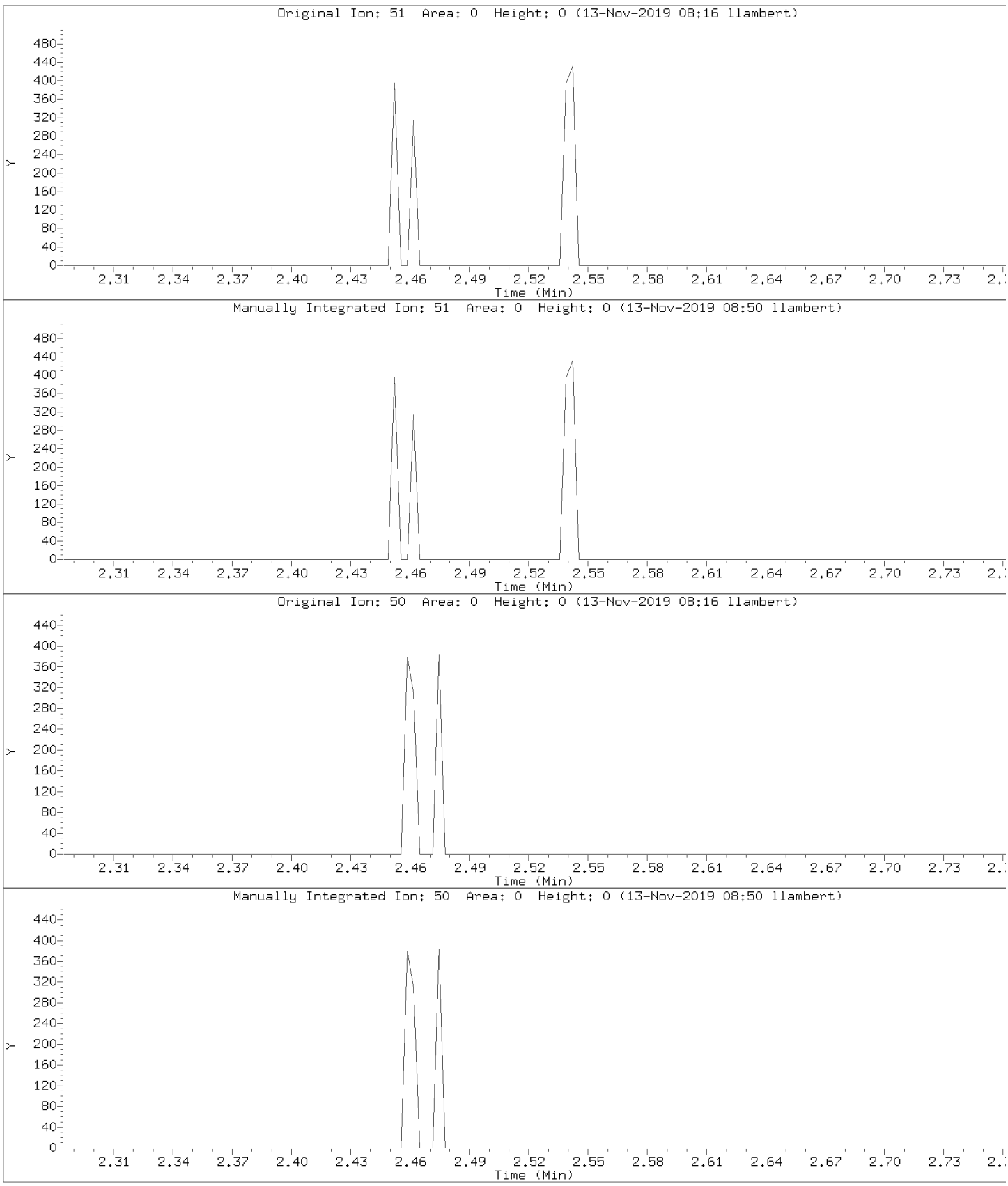
Lab Sample ID: CAL1



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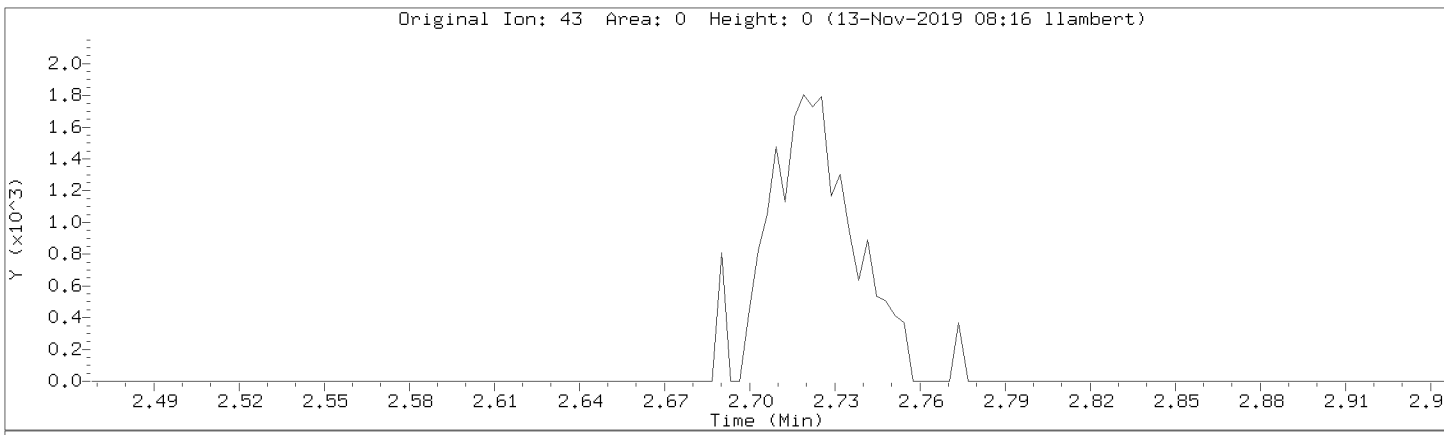
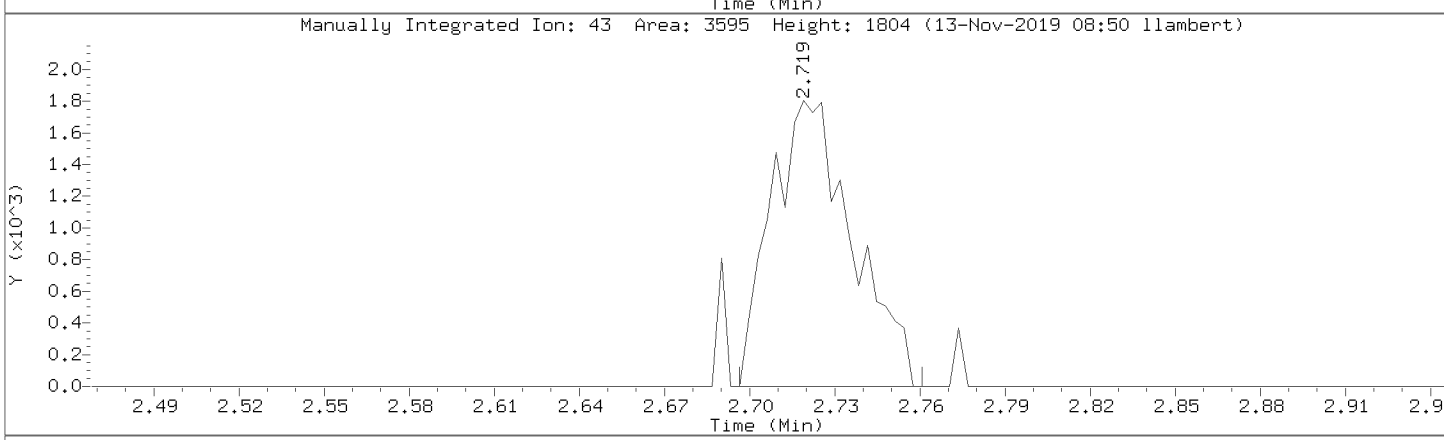
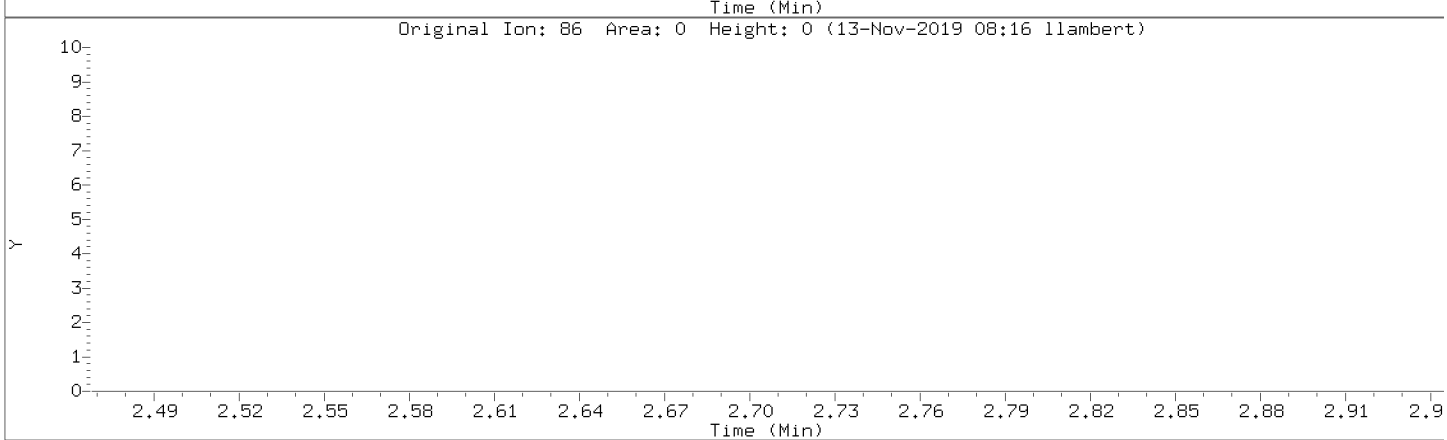
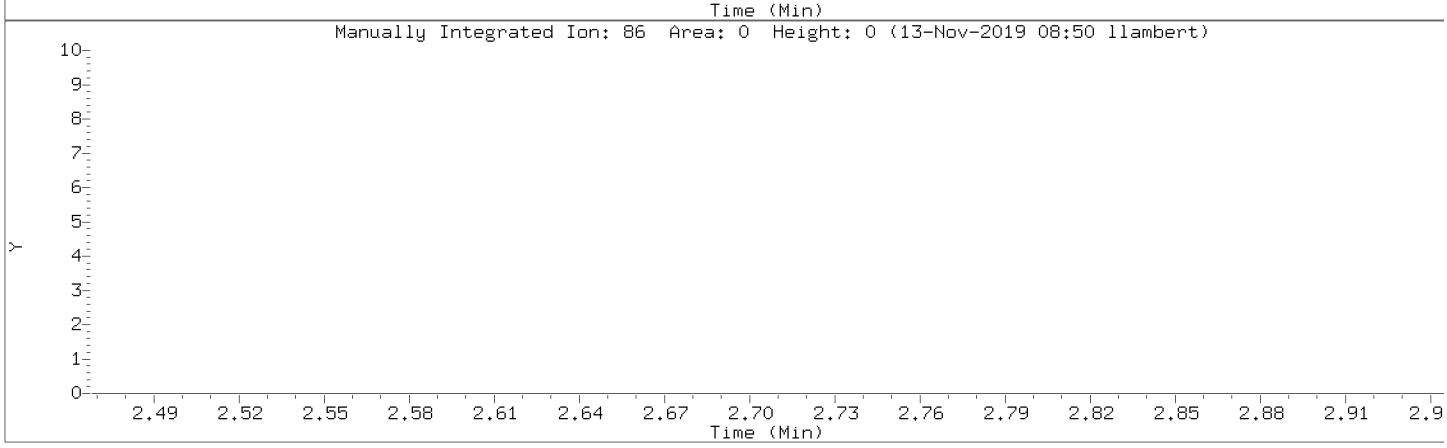
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Vinyl acetate Review Code: NI
CAS Number: 108-05-4









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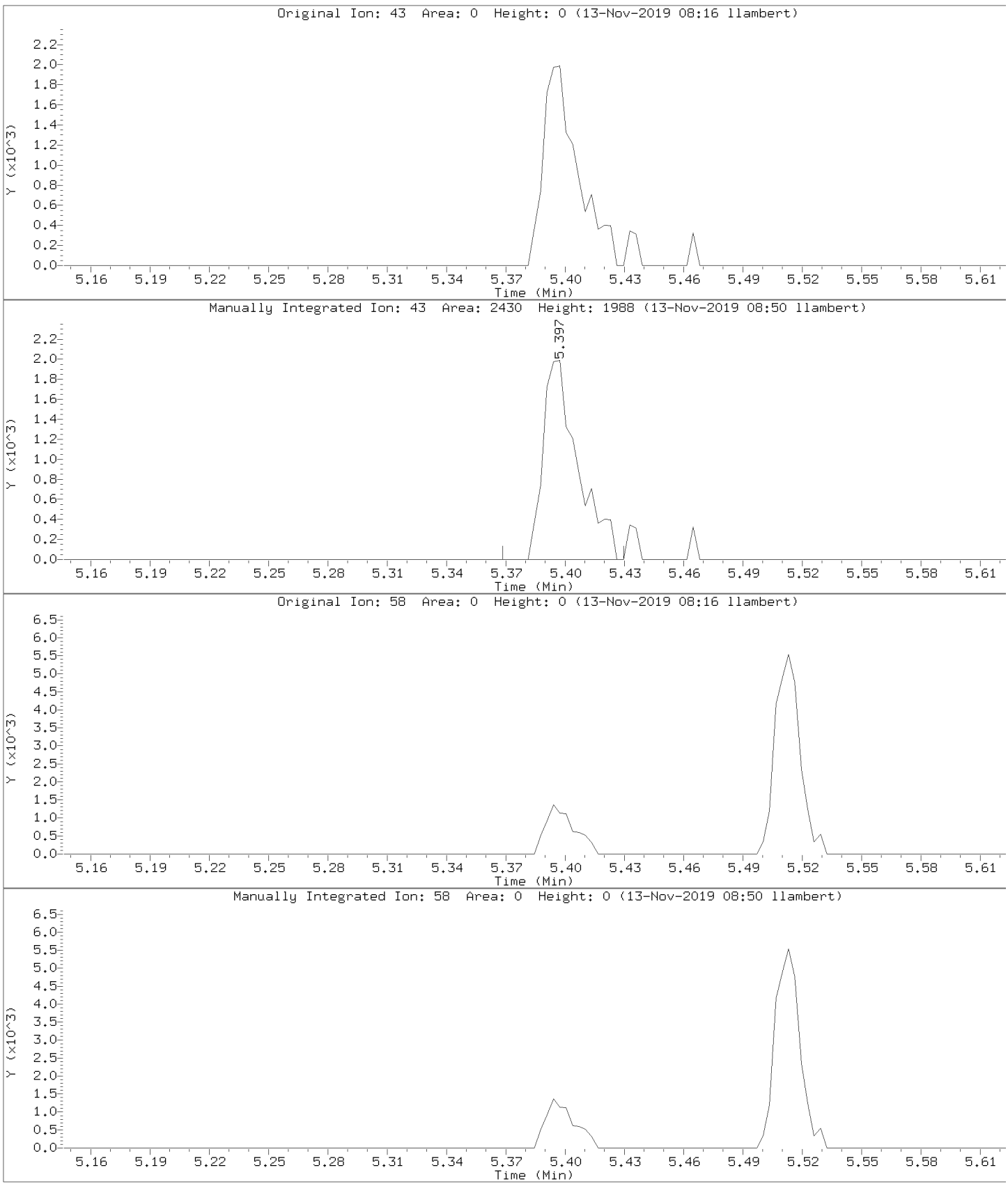
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 2-Hexanone Review Code: NI
CAS Number: 591-78-6



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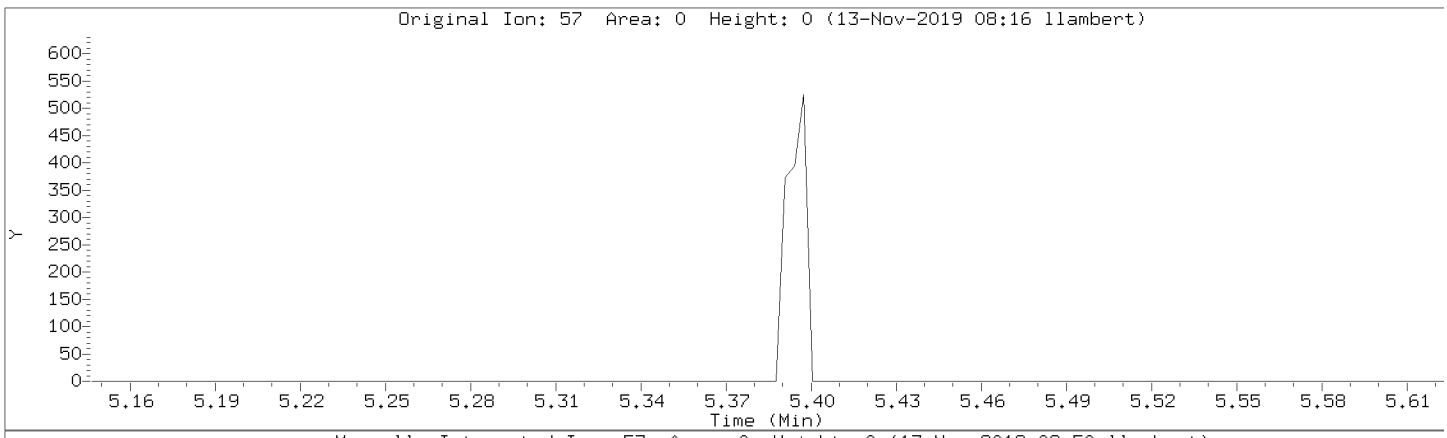
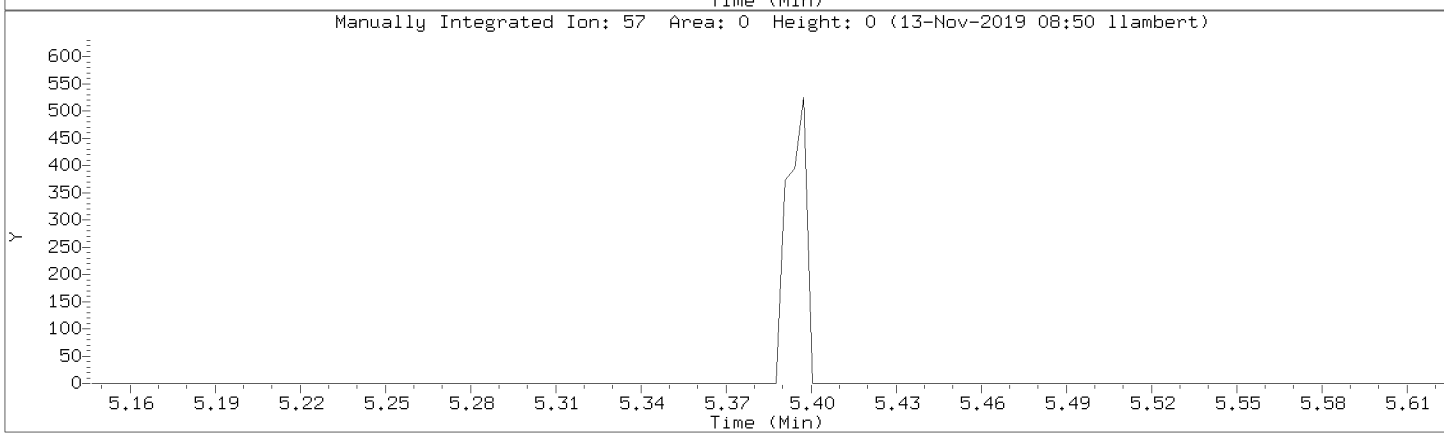
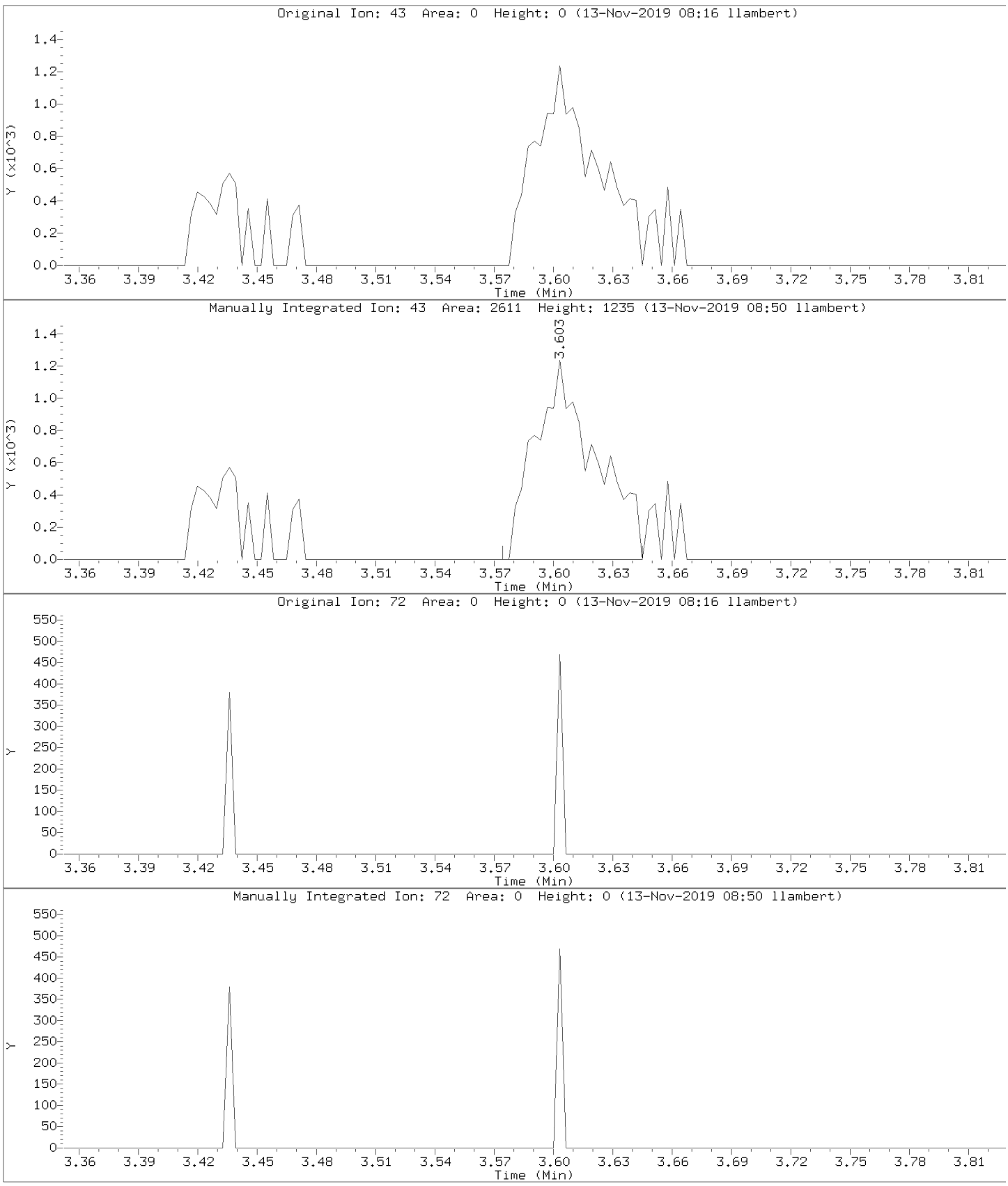
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1





Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 2-Butanone (MEK) Review Code: NI
CAS Number: 78-93-3



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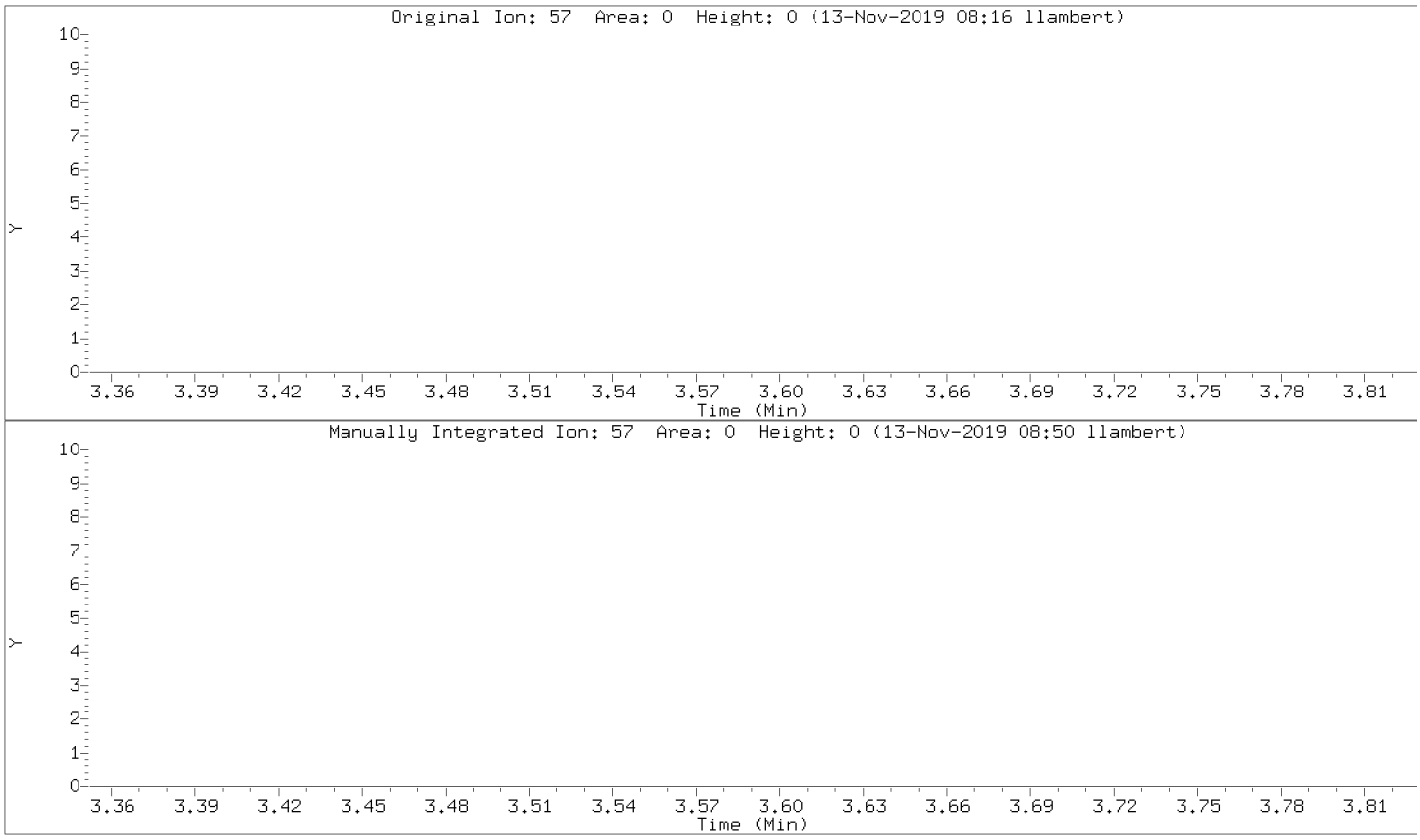
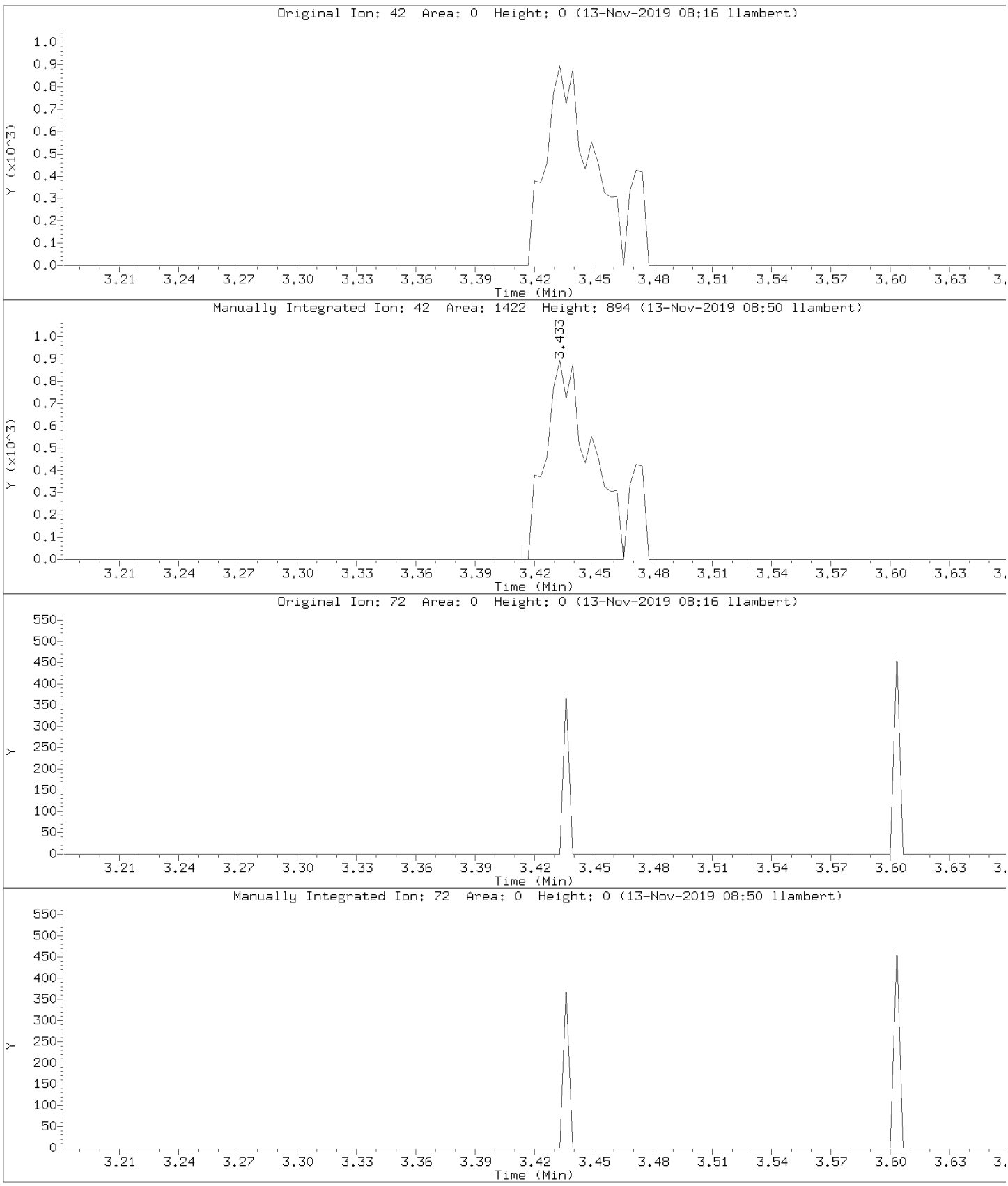
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Tetrahydrofuran Review Code: NI
CAS Number: 109-99-9



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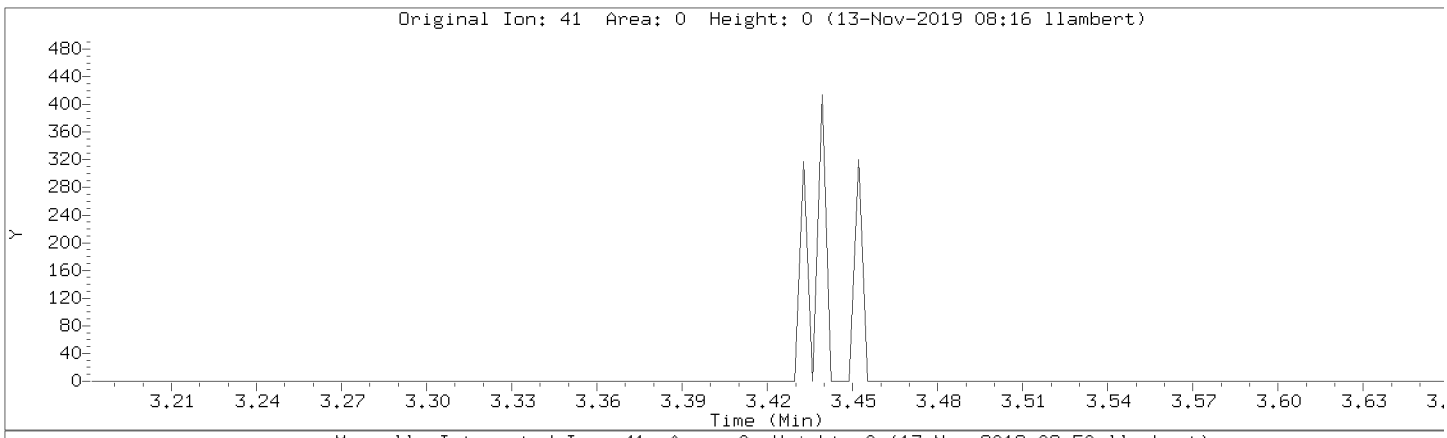
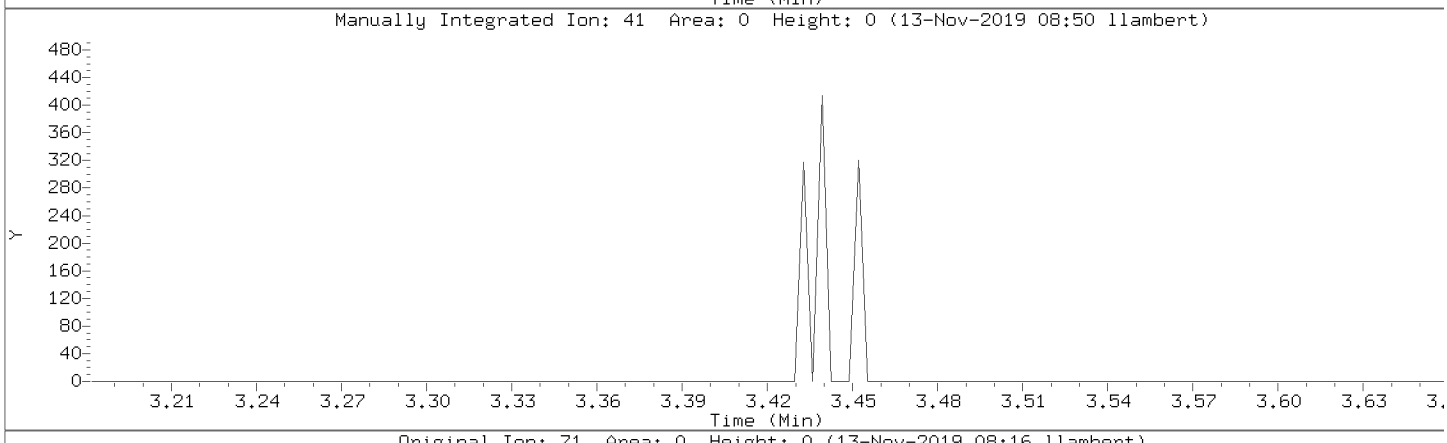
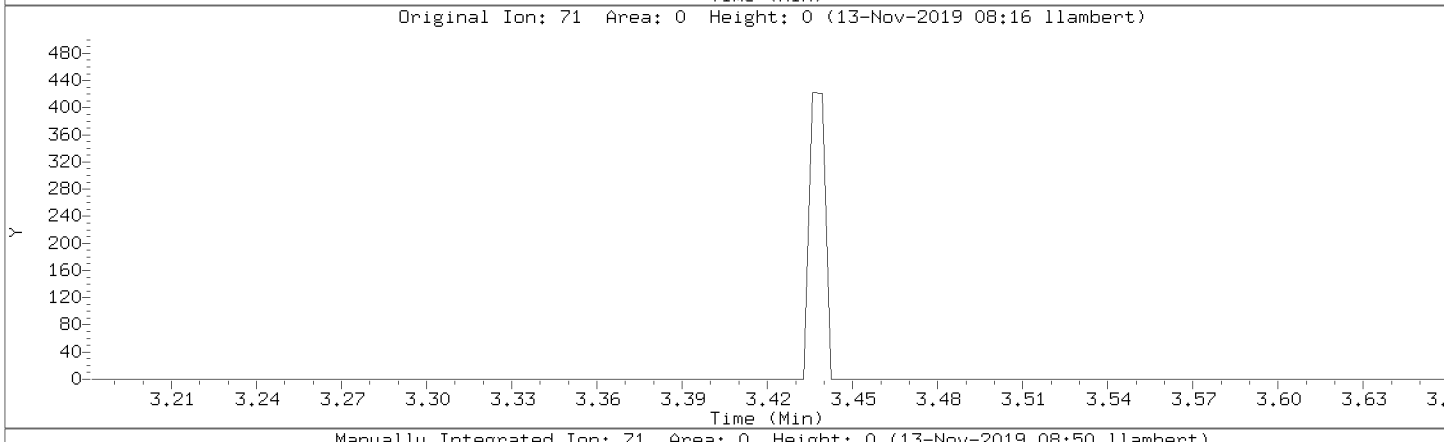
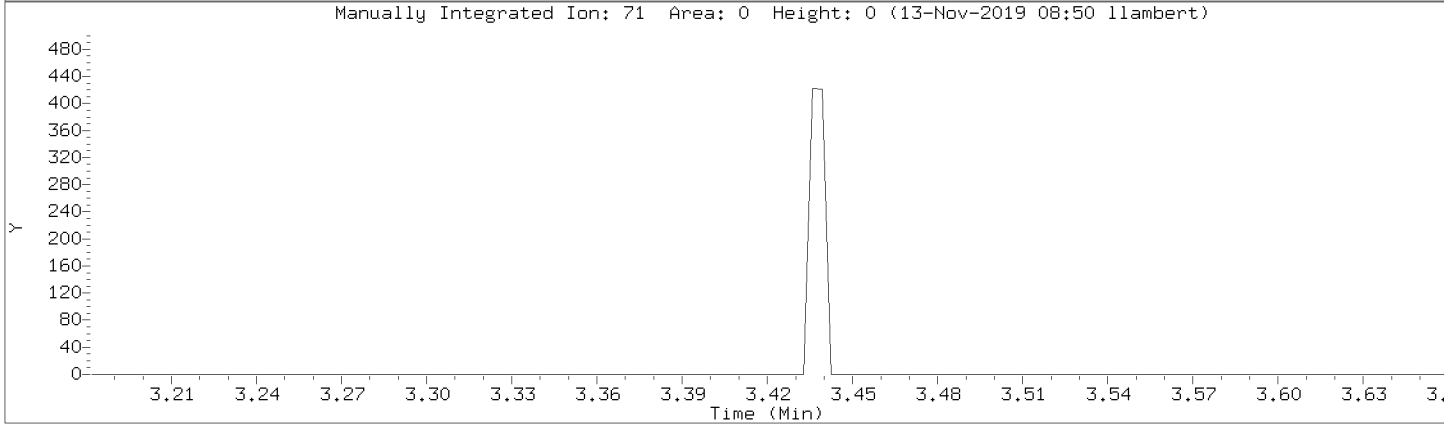
Instrument: 30mv7a.i
Lab Sample ID: CAL1



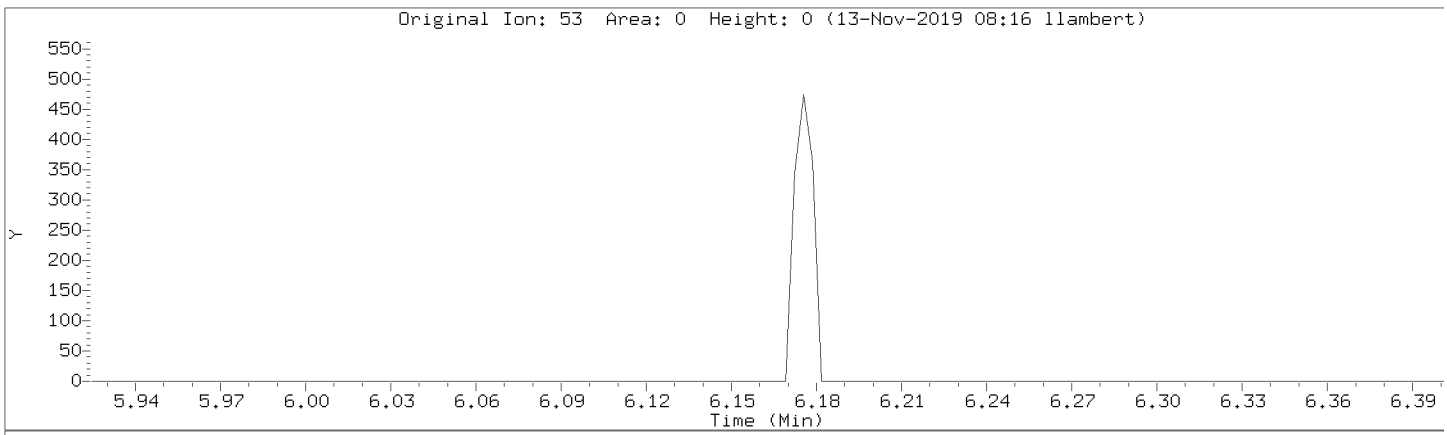


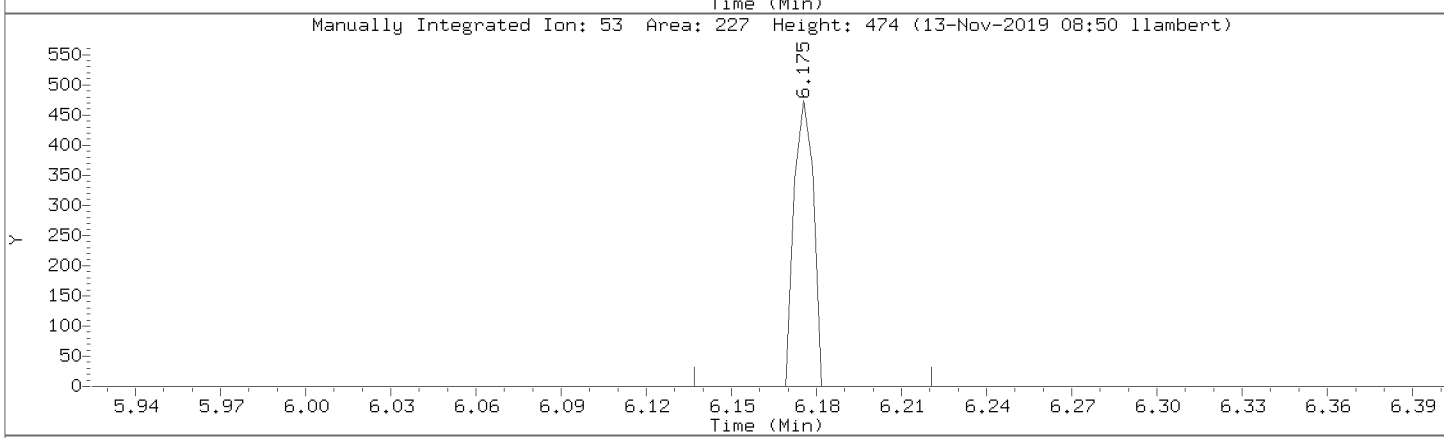


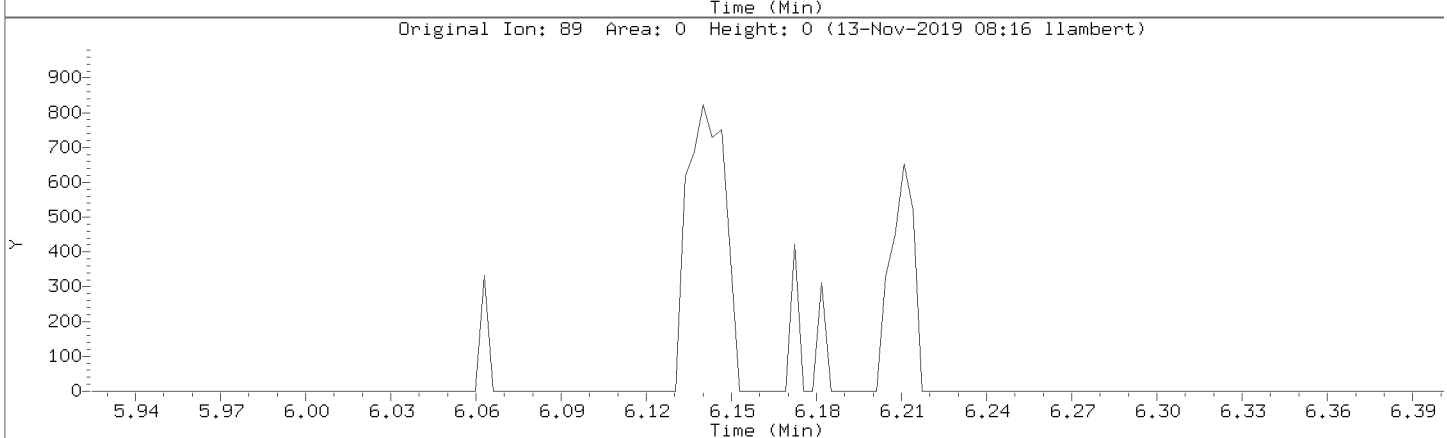


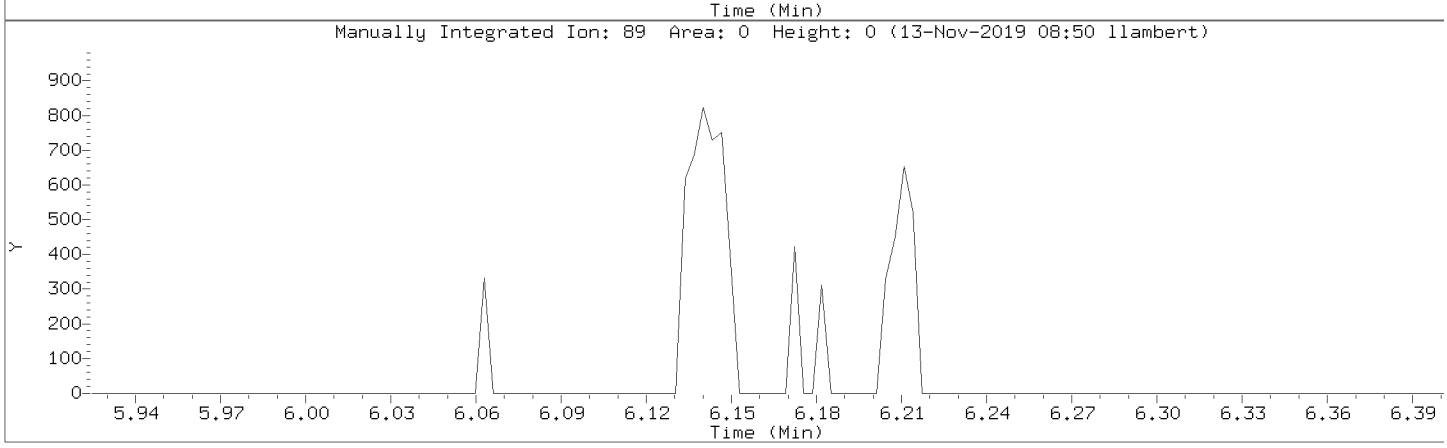
Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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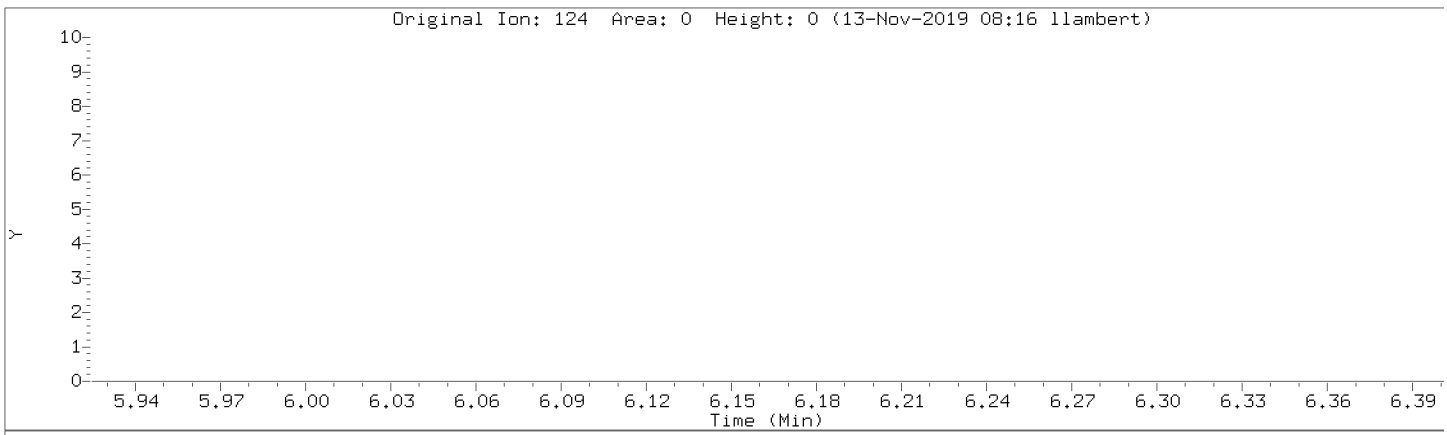
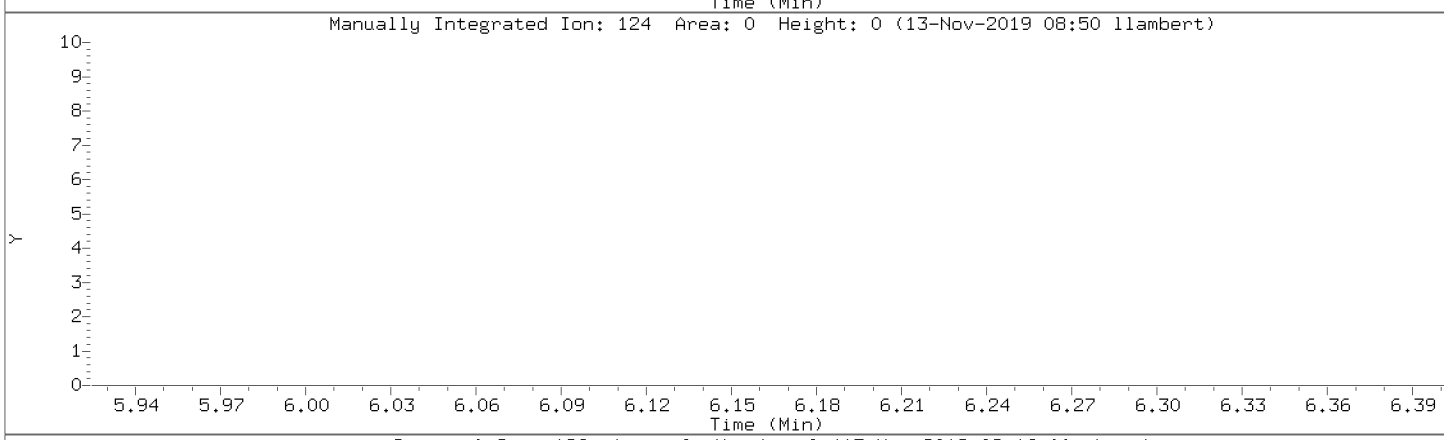
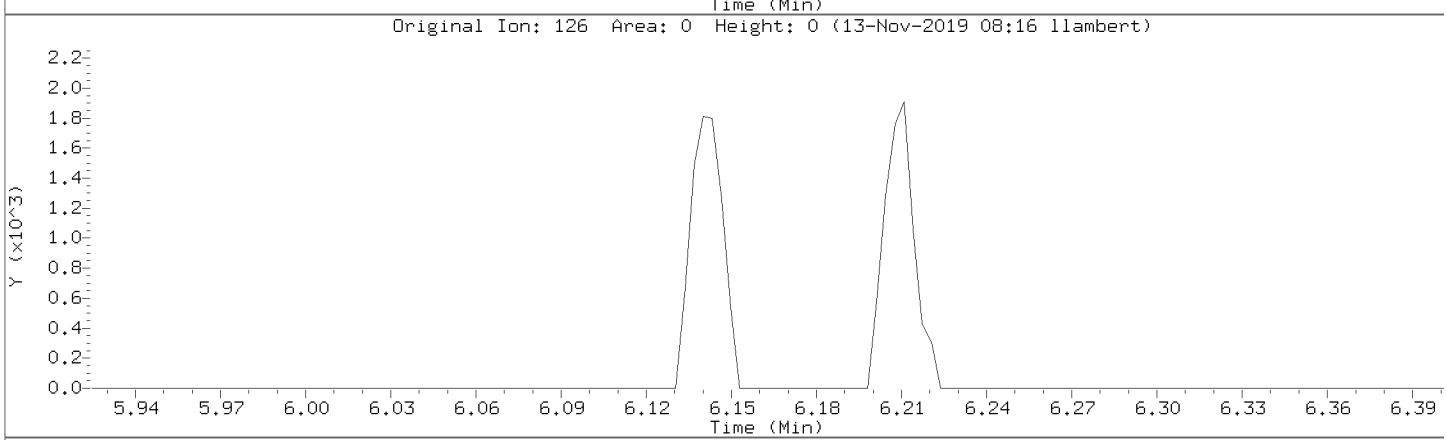
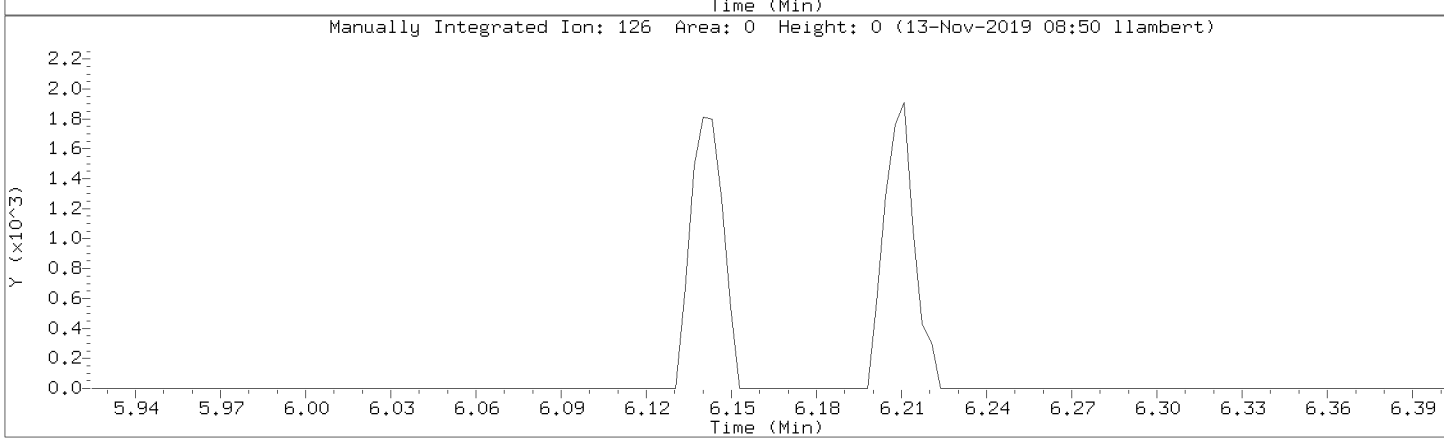
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1









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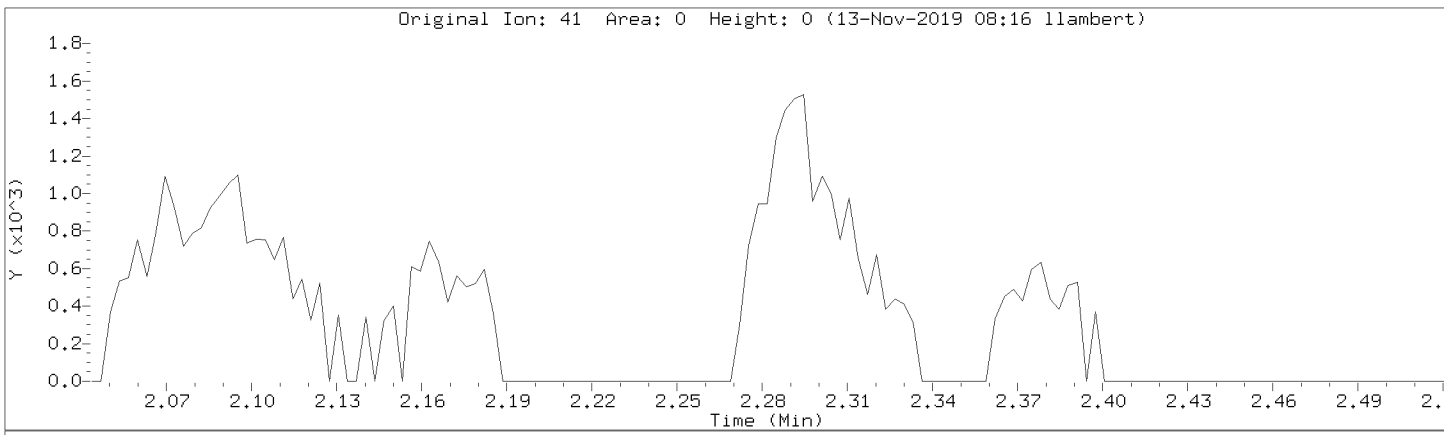
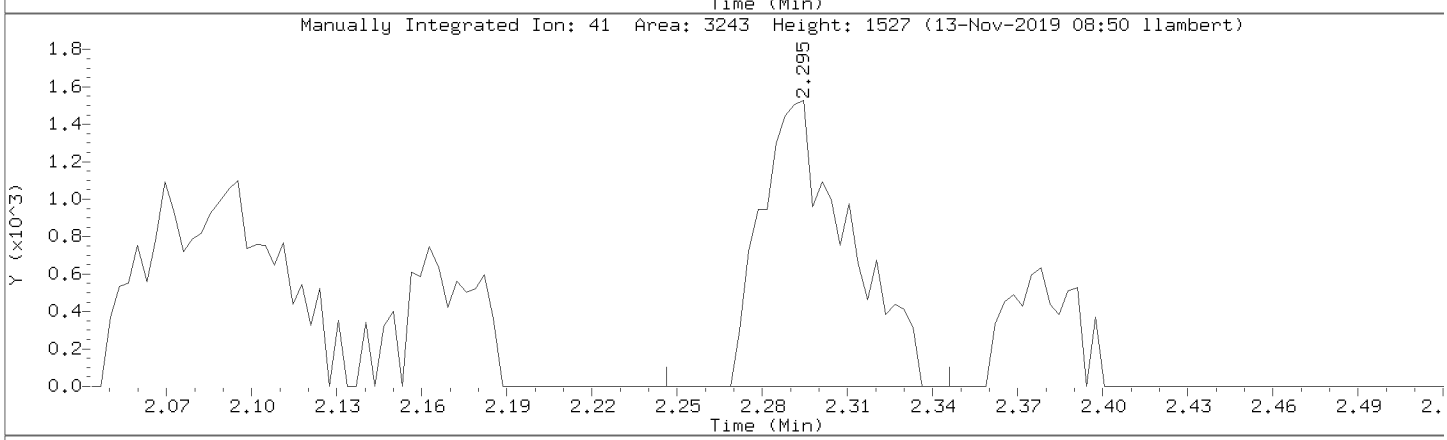
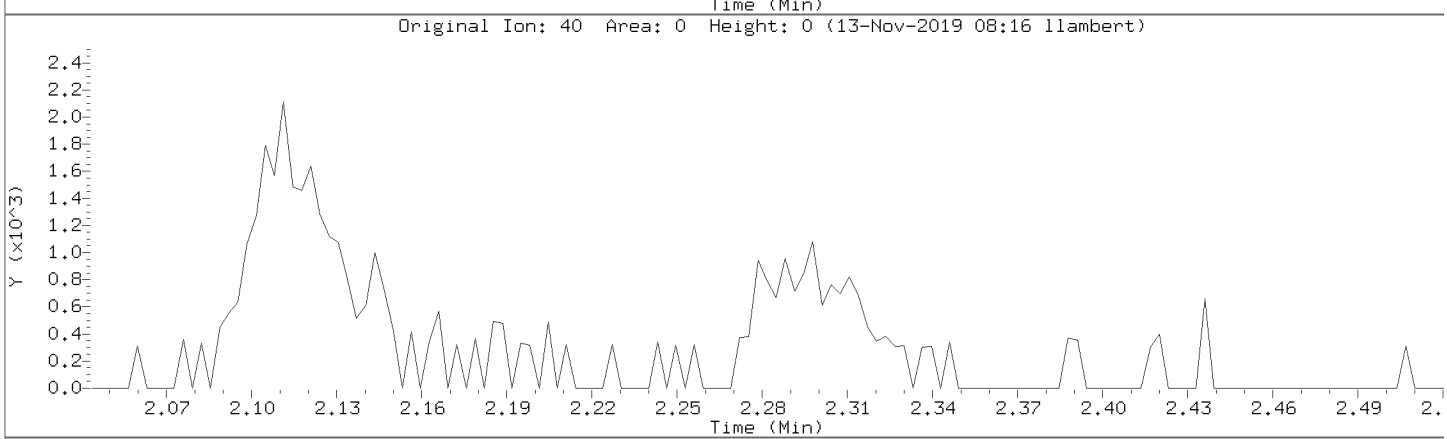
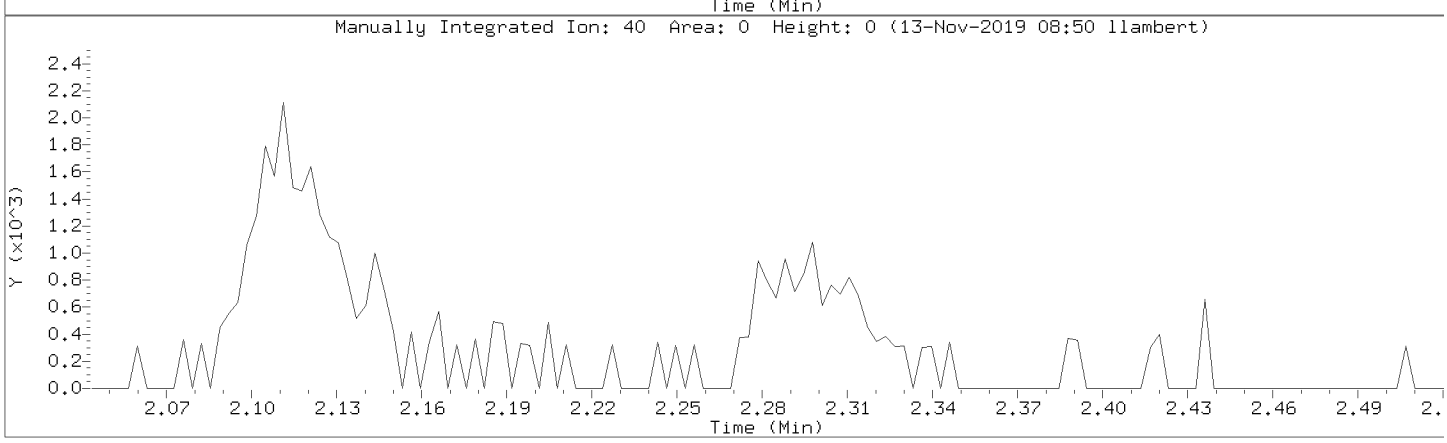
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Acetonitrile Review Code: NI
CAS Number: 75-05-8

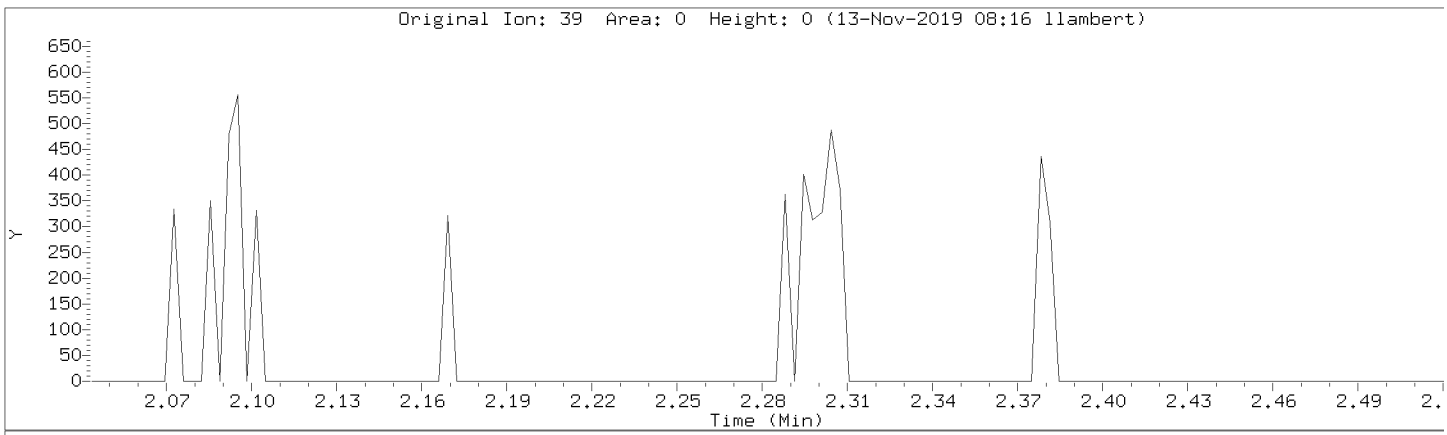


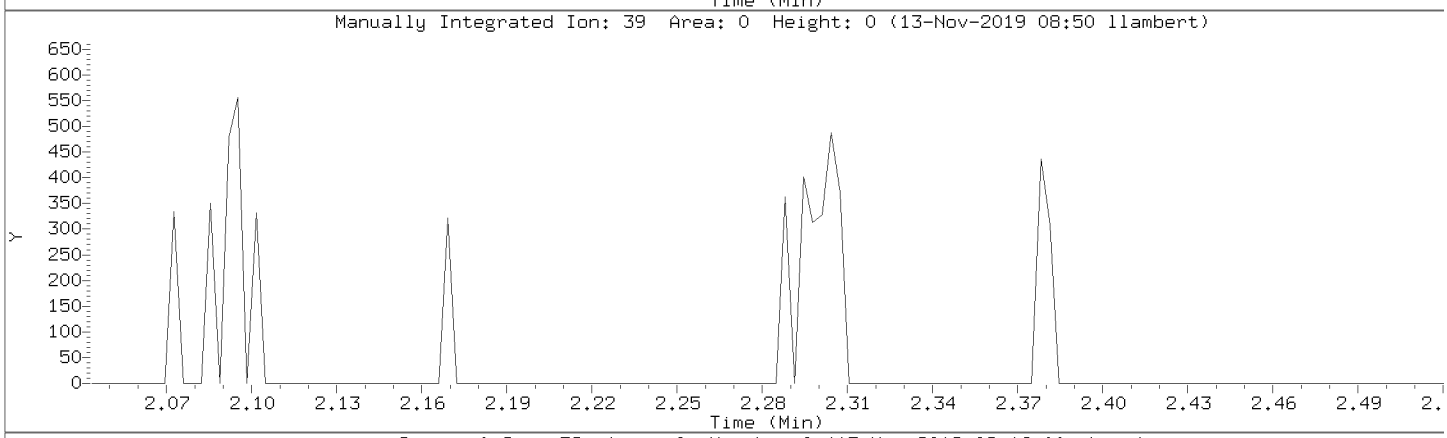


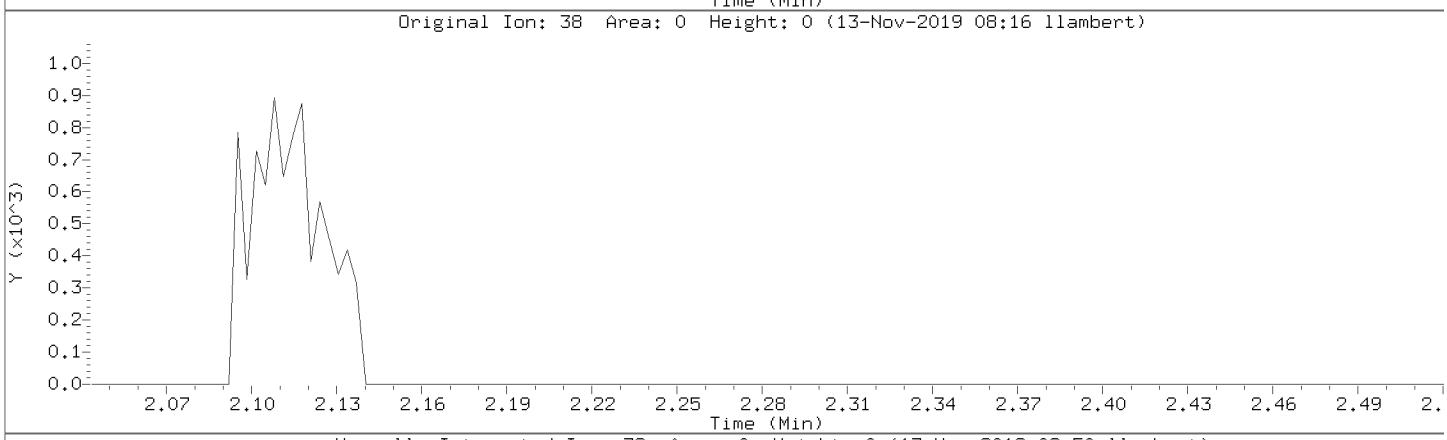


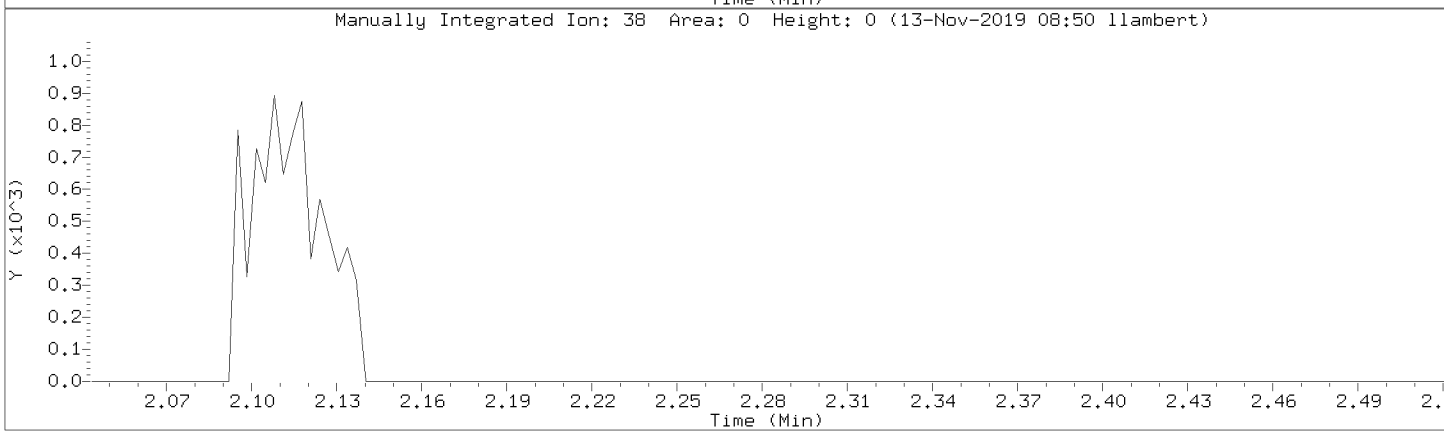


Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



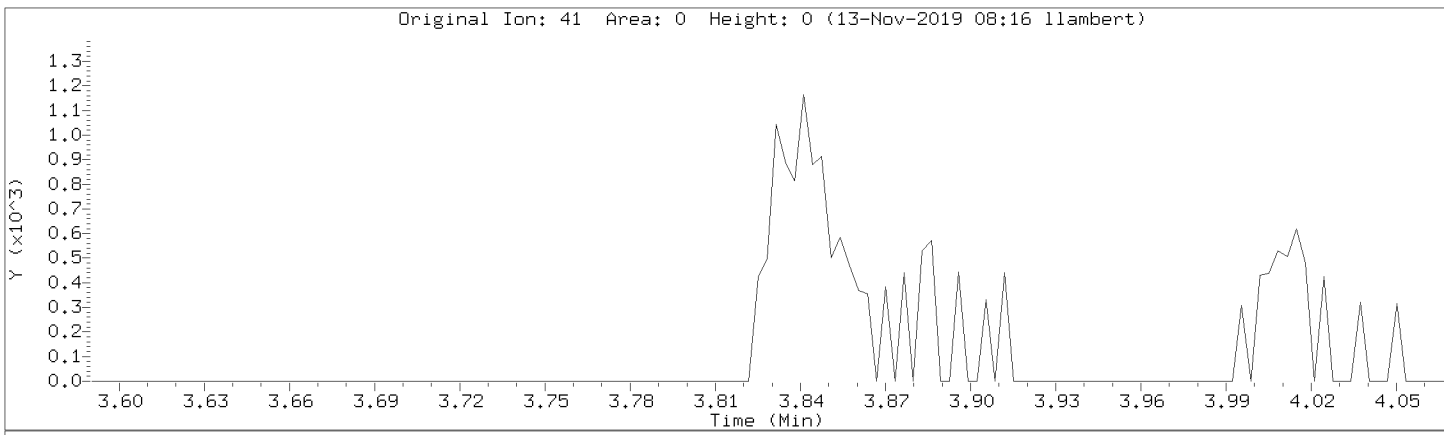


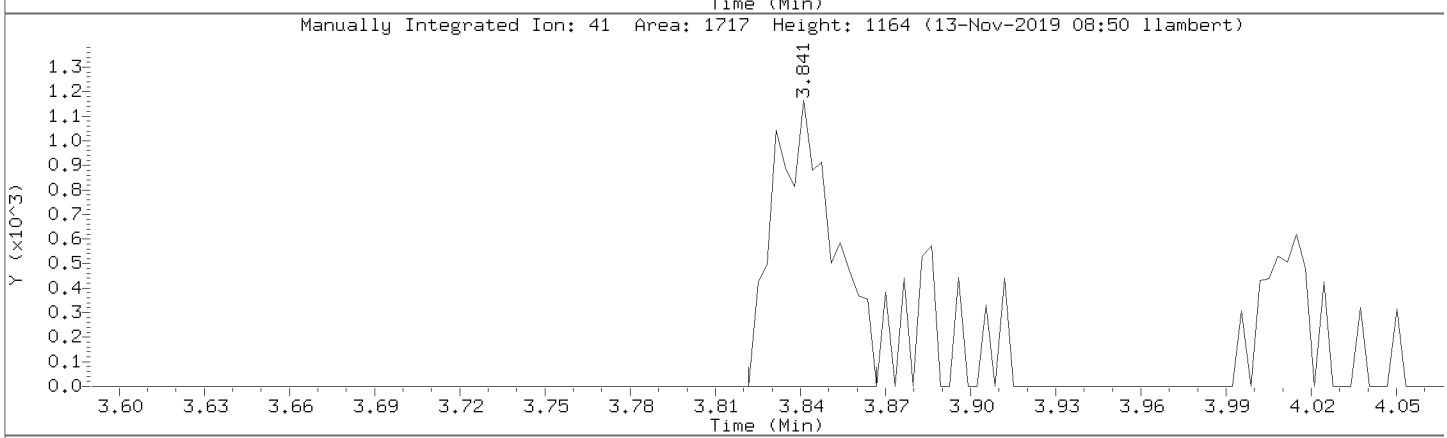


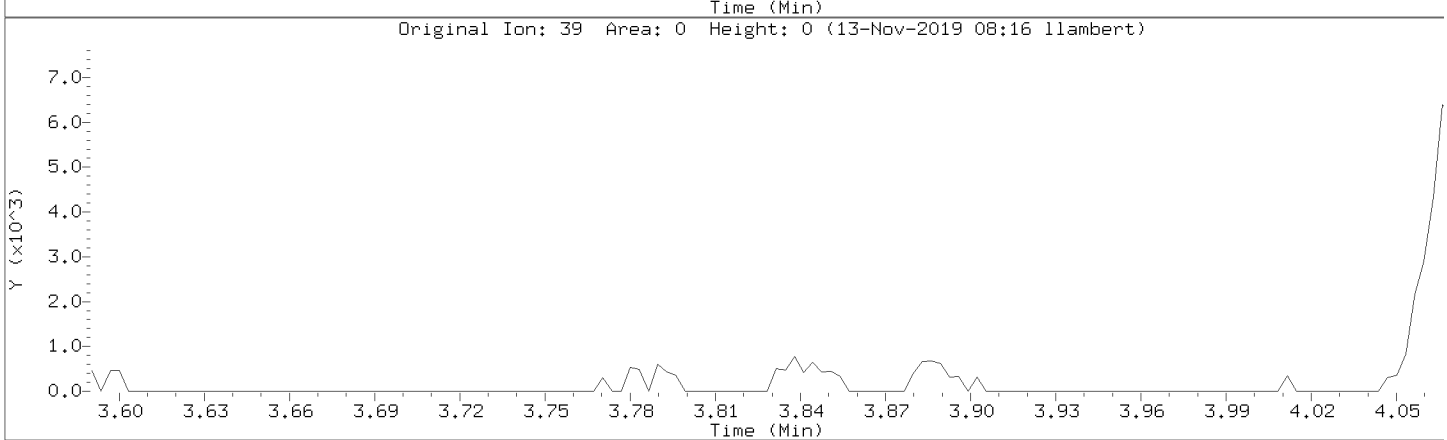


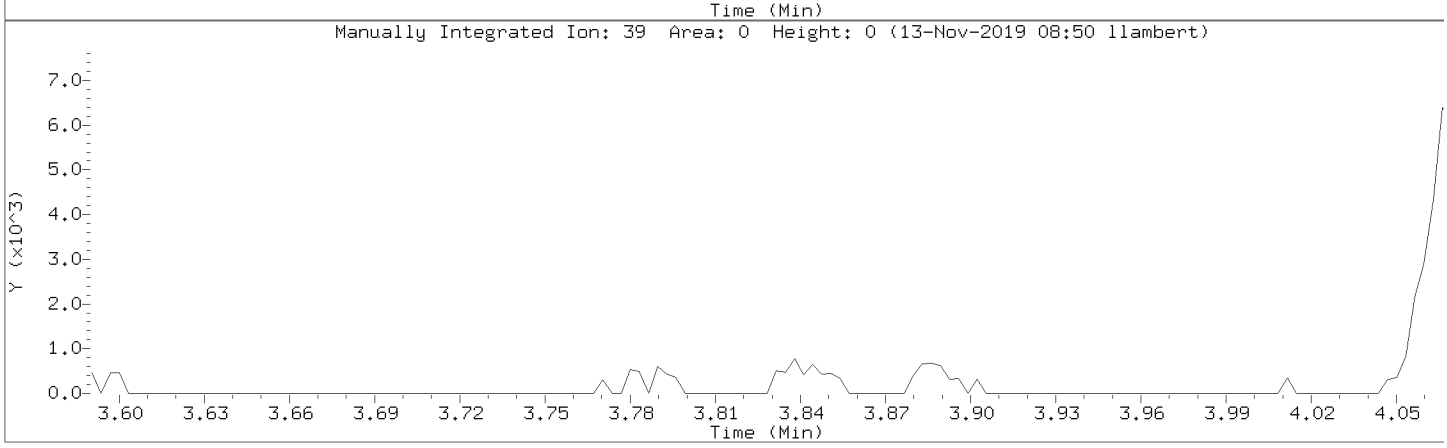
Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Methacrylonitrile Review Code: NI
CAS Number: 126-98-7









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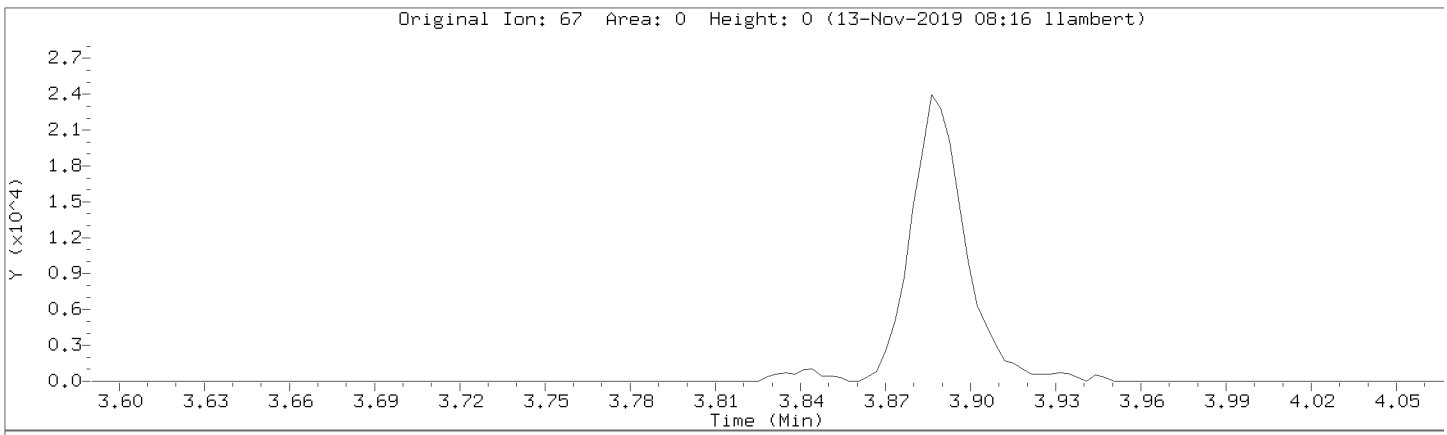
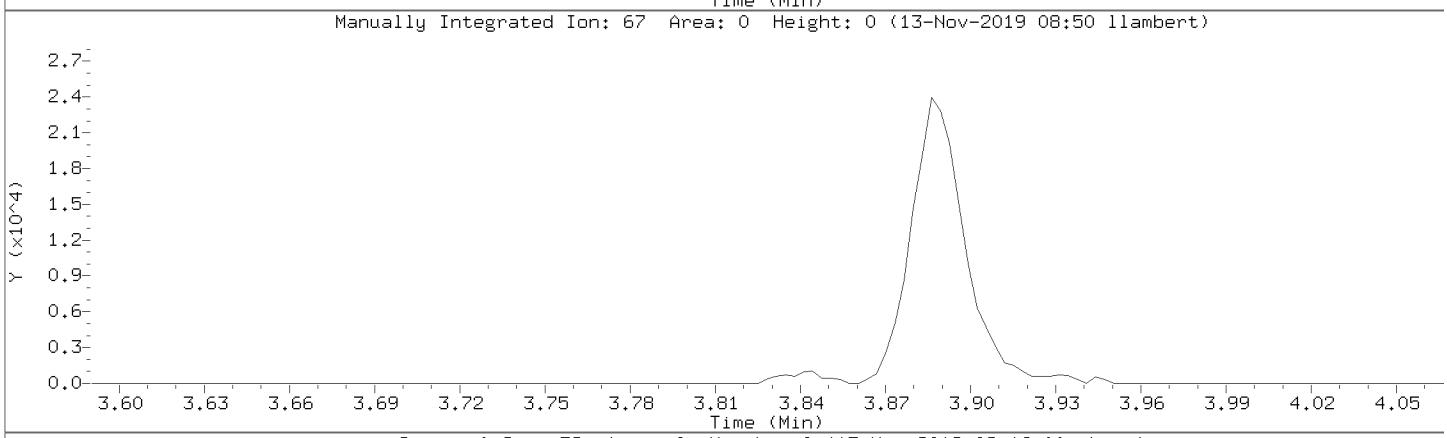
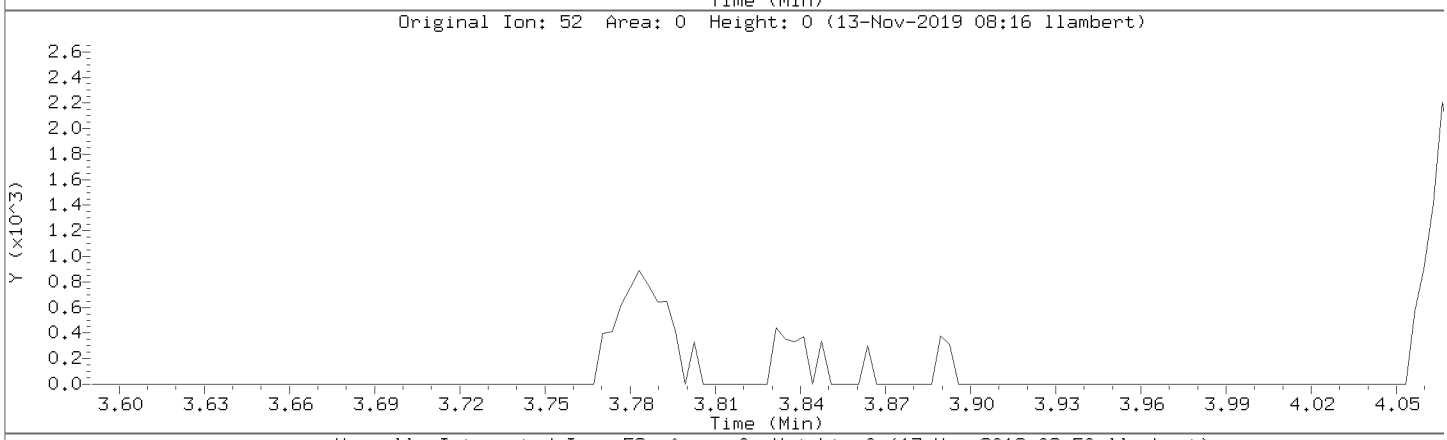
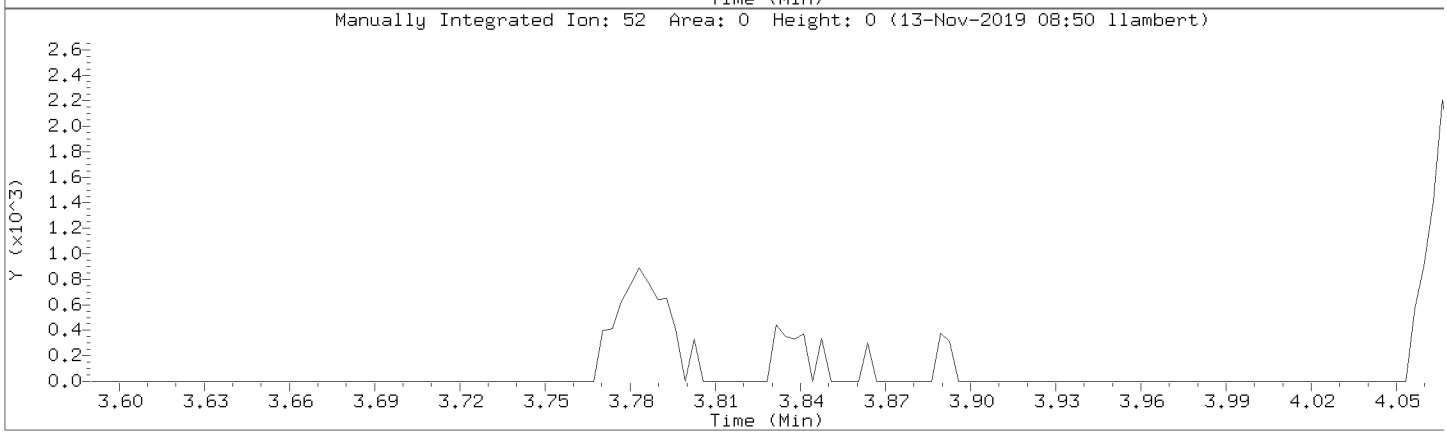
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1









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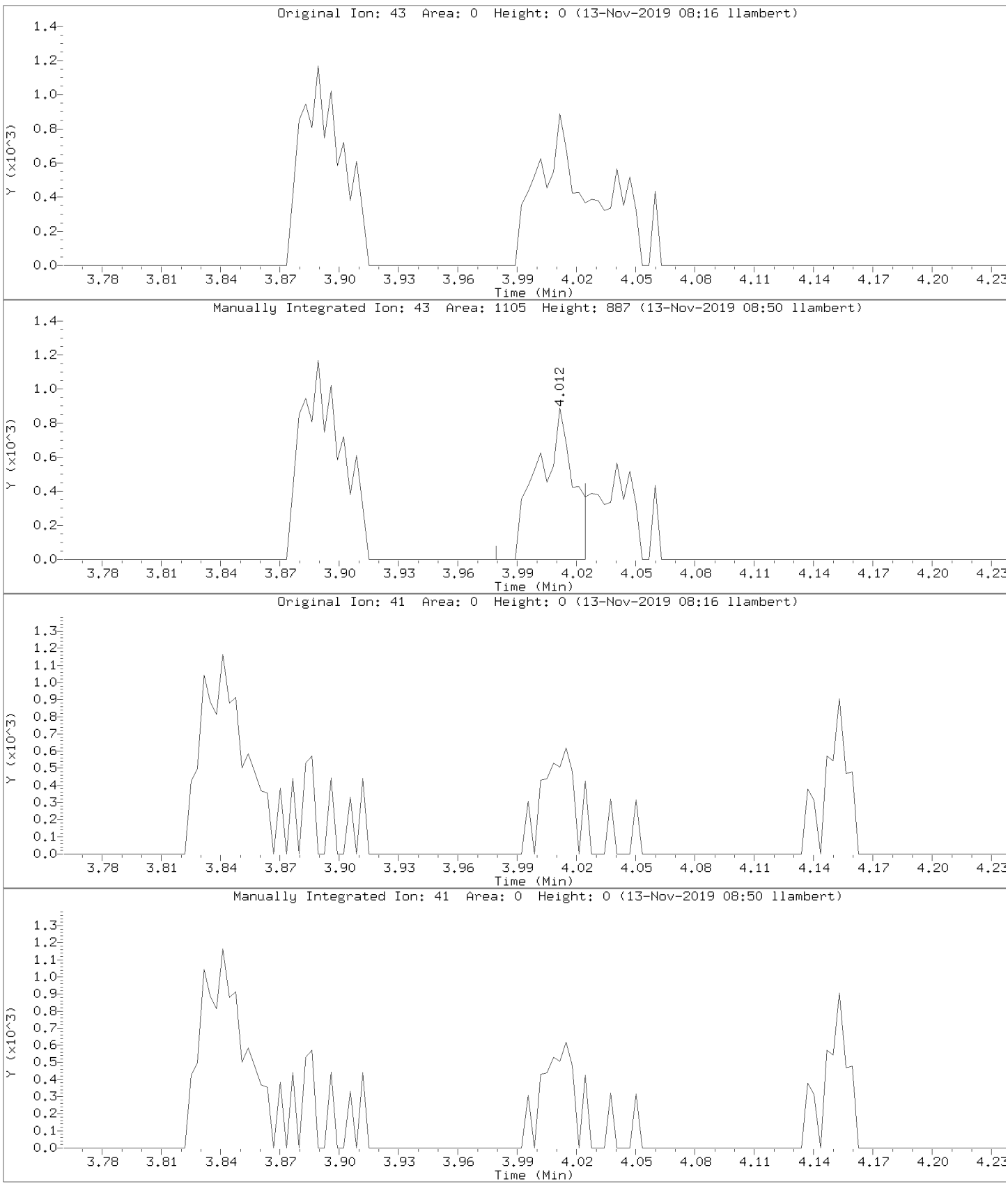
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Isobutanol Review Code: NI
CAS Number: 78-83-1



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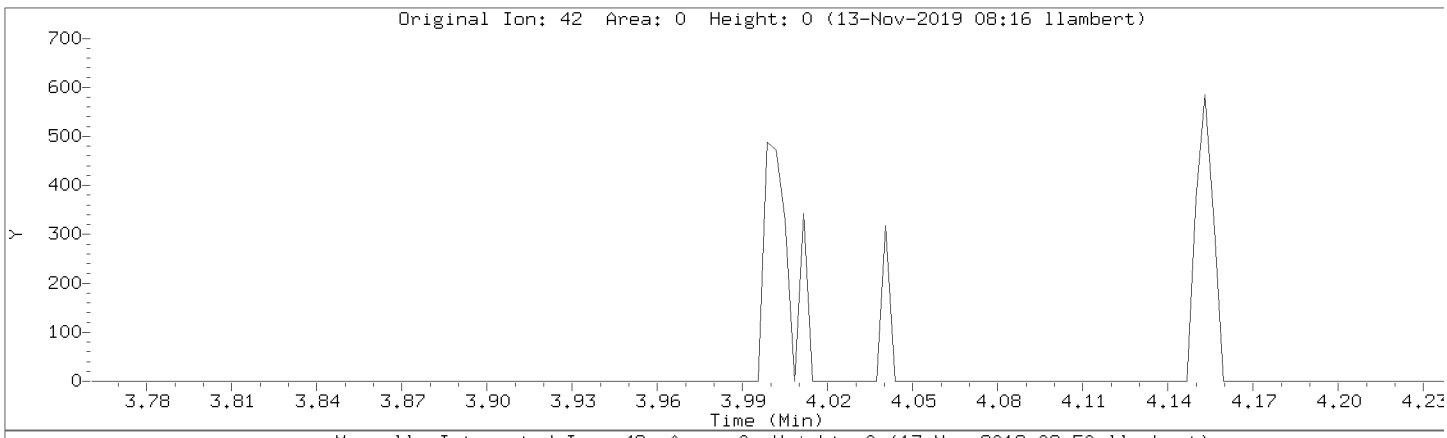
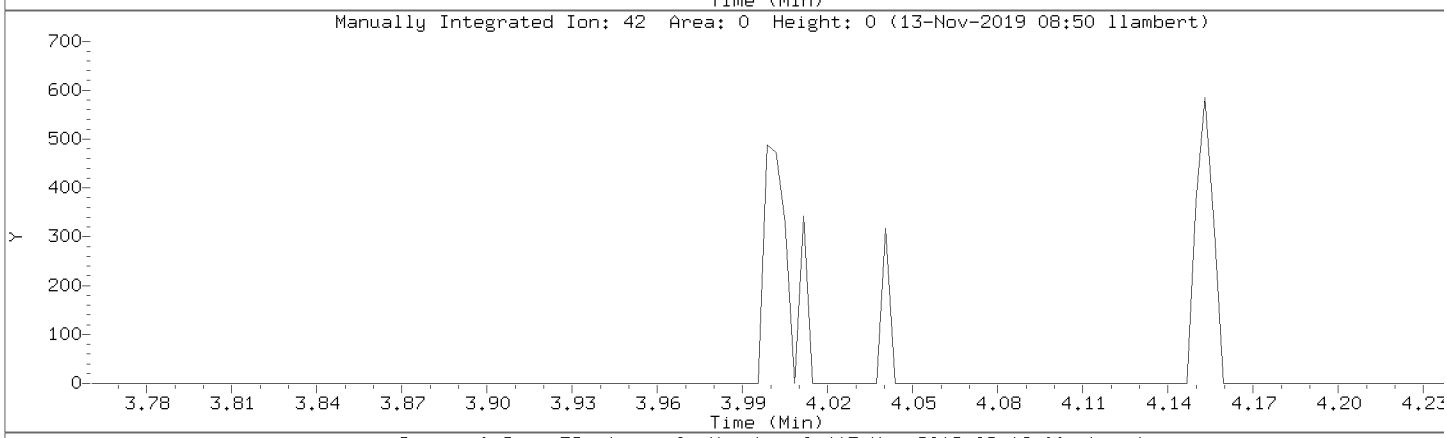
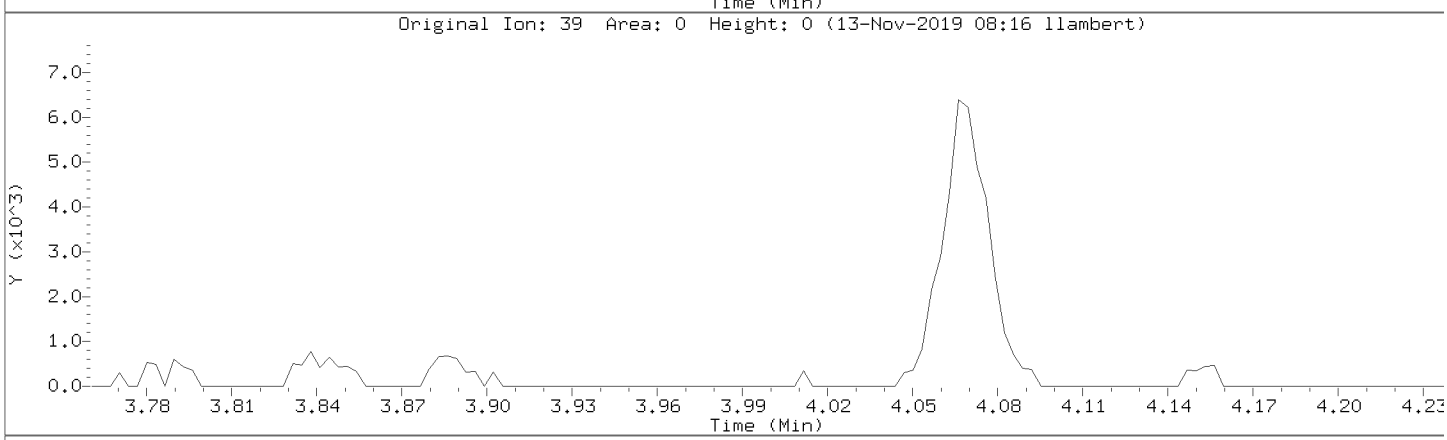
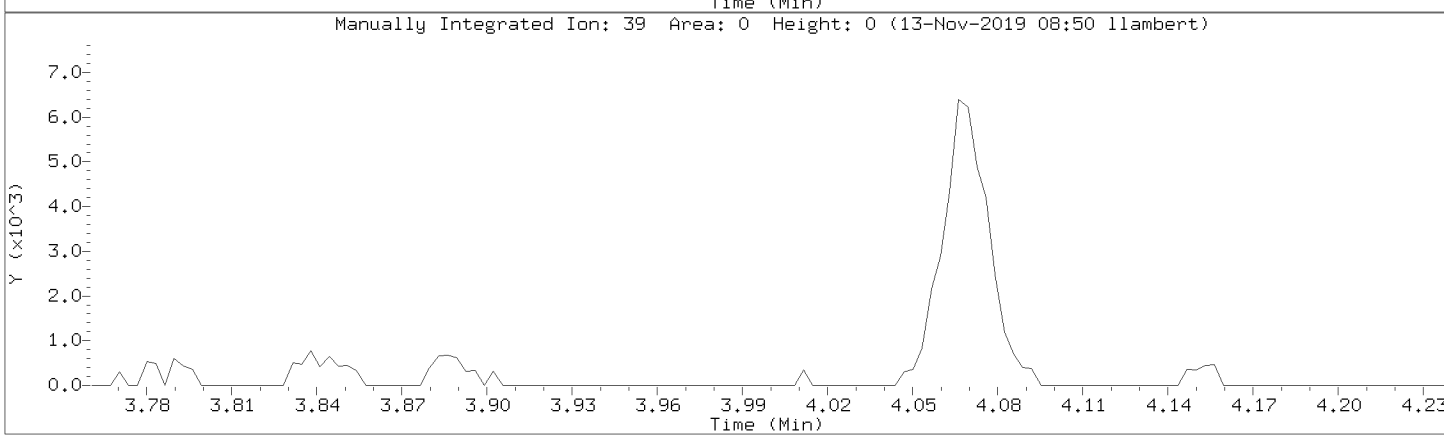
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1









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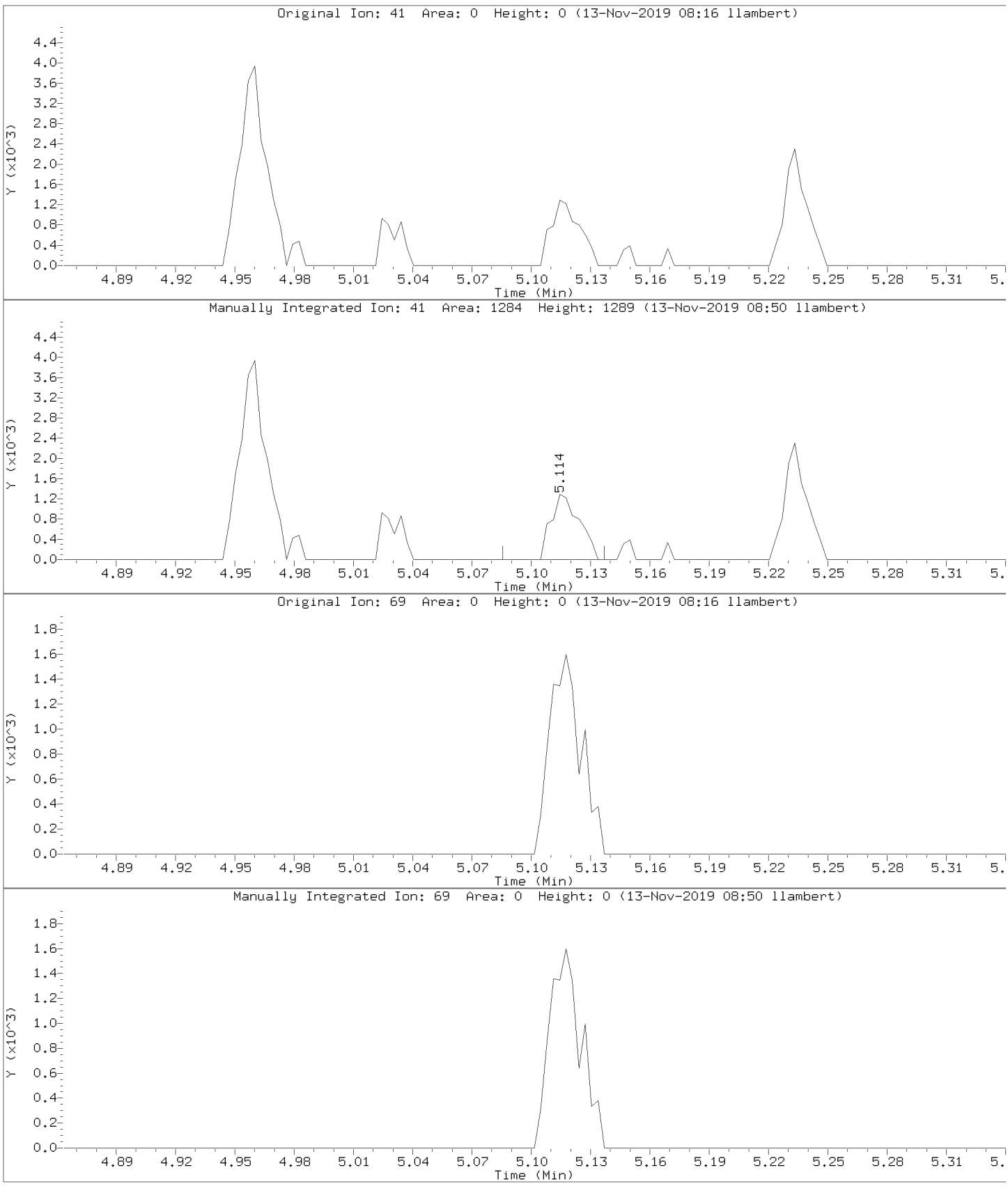
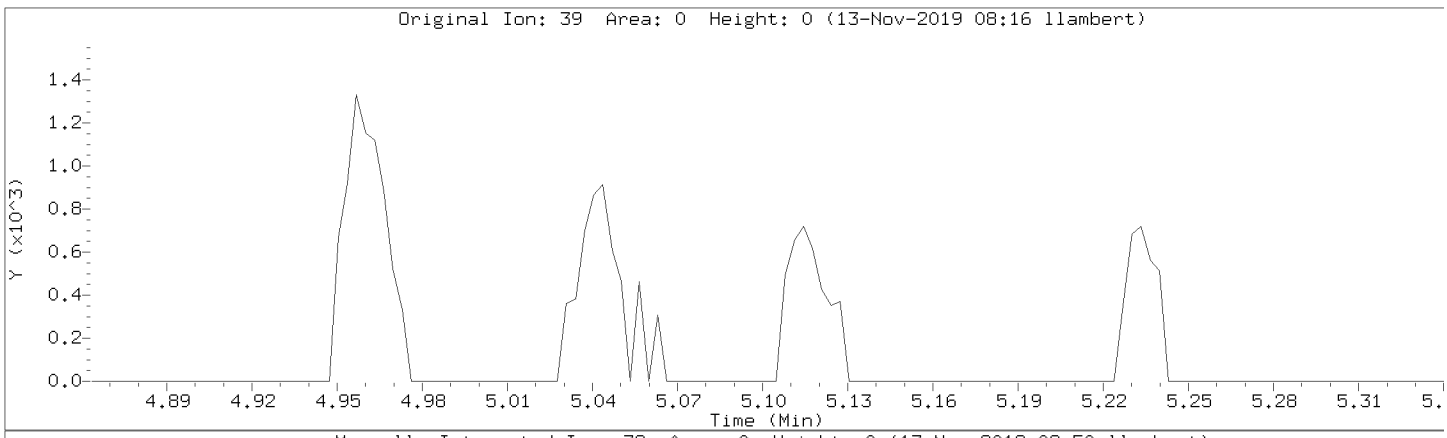
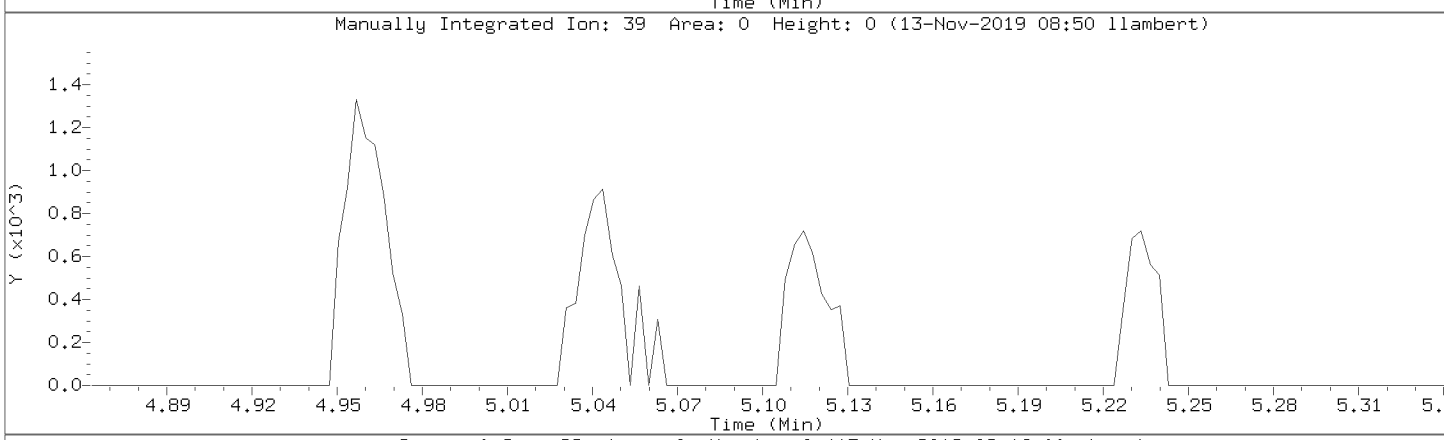
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

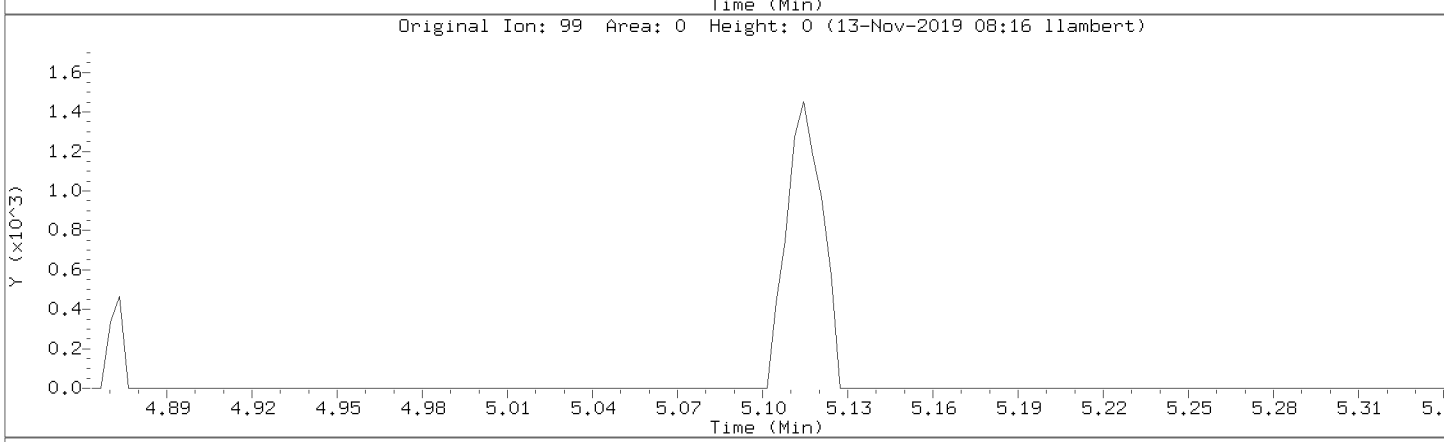
Compound: Ethyl methacrylate Review Code: NI
CAS Number: 97-63-2

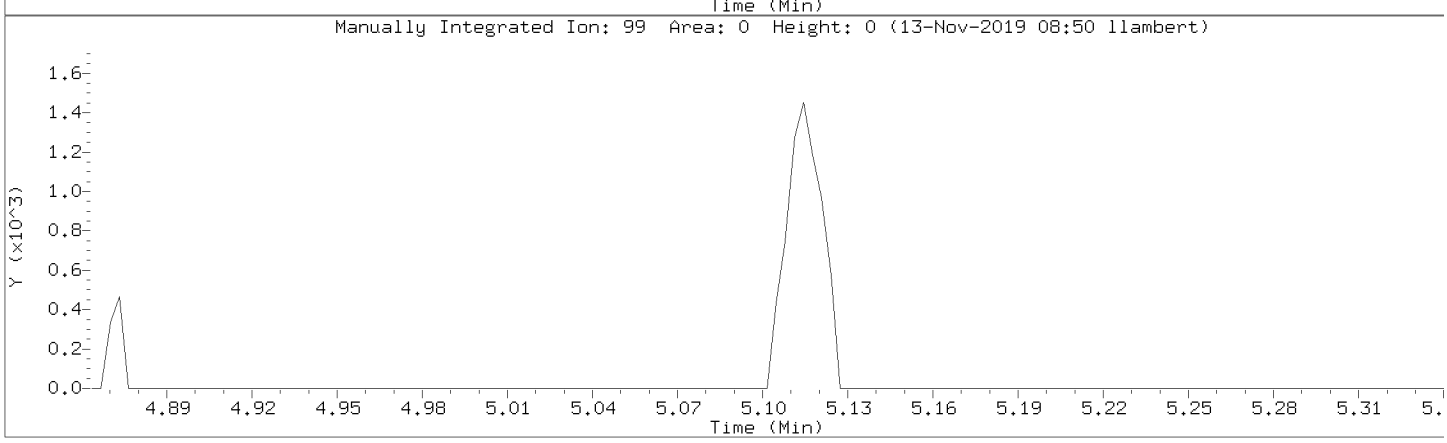


Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



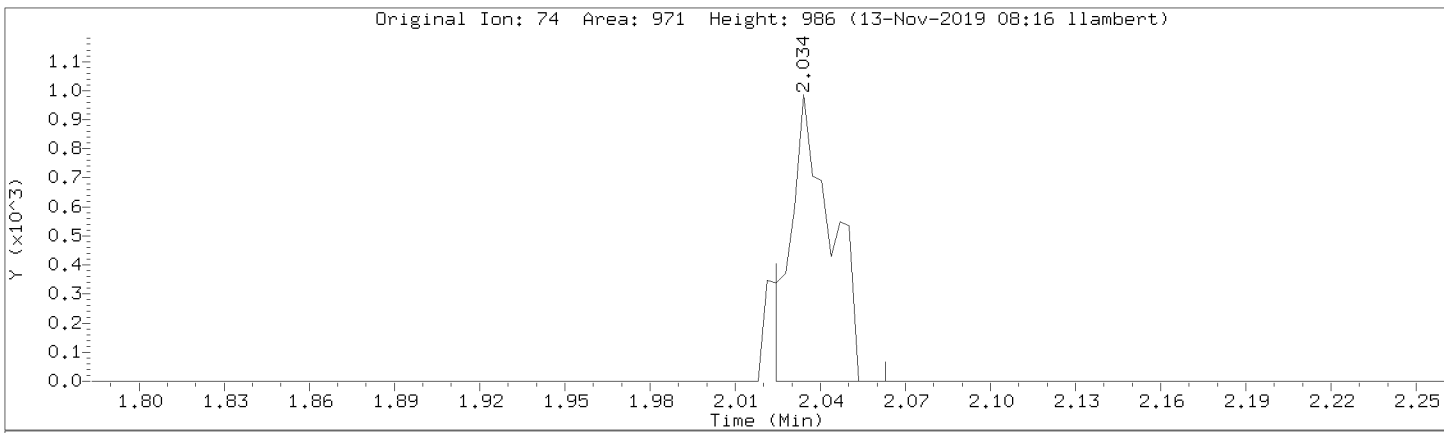


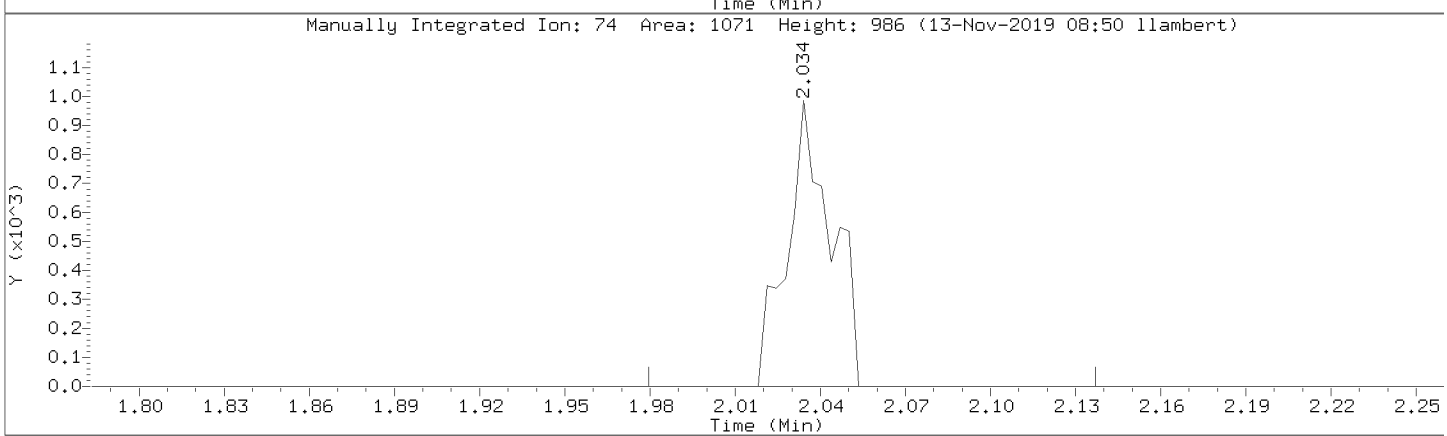


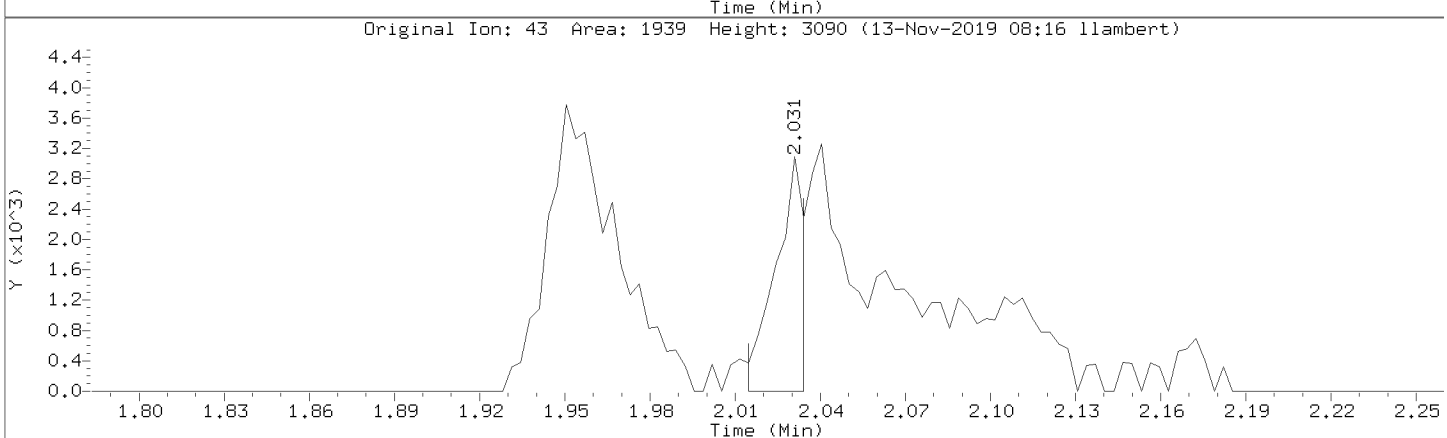


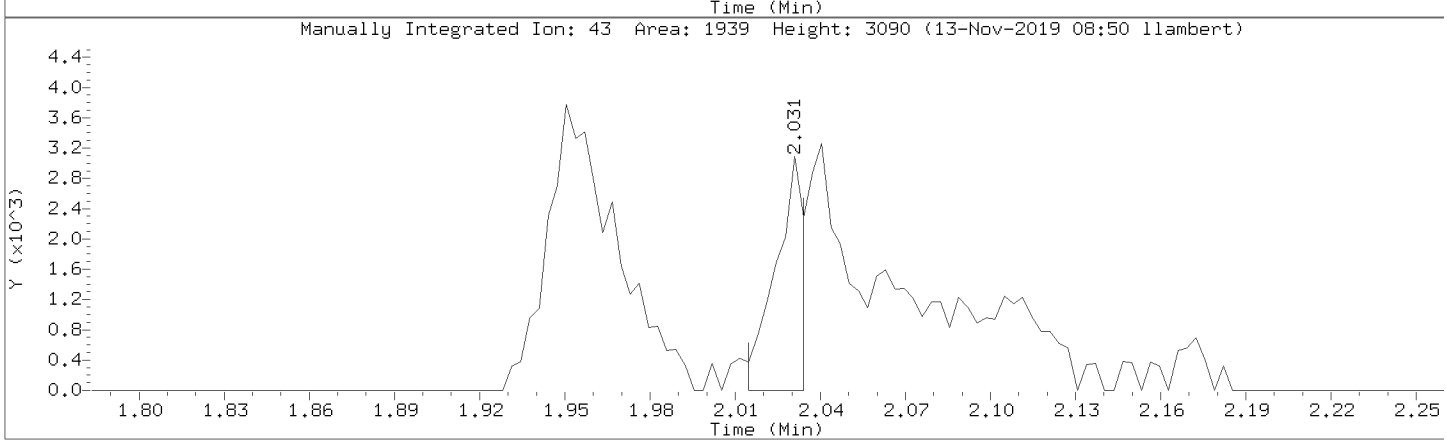
Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Methyl acetate Review Code: LT
CAS Number: 79-20-9



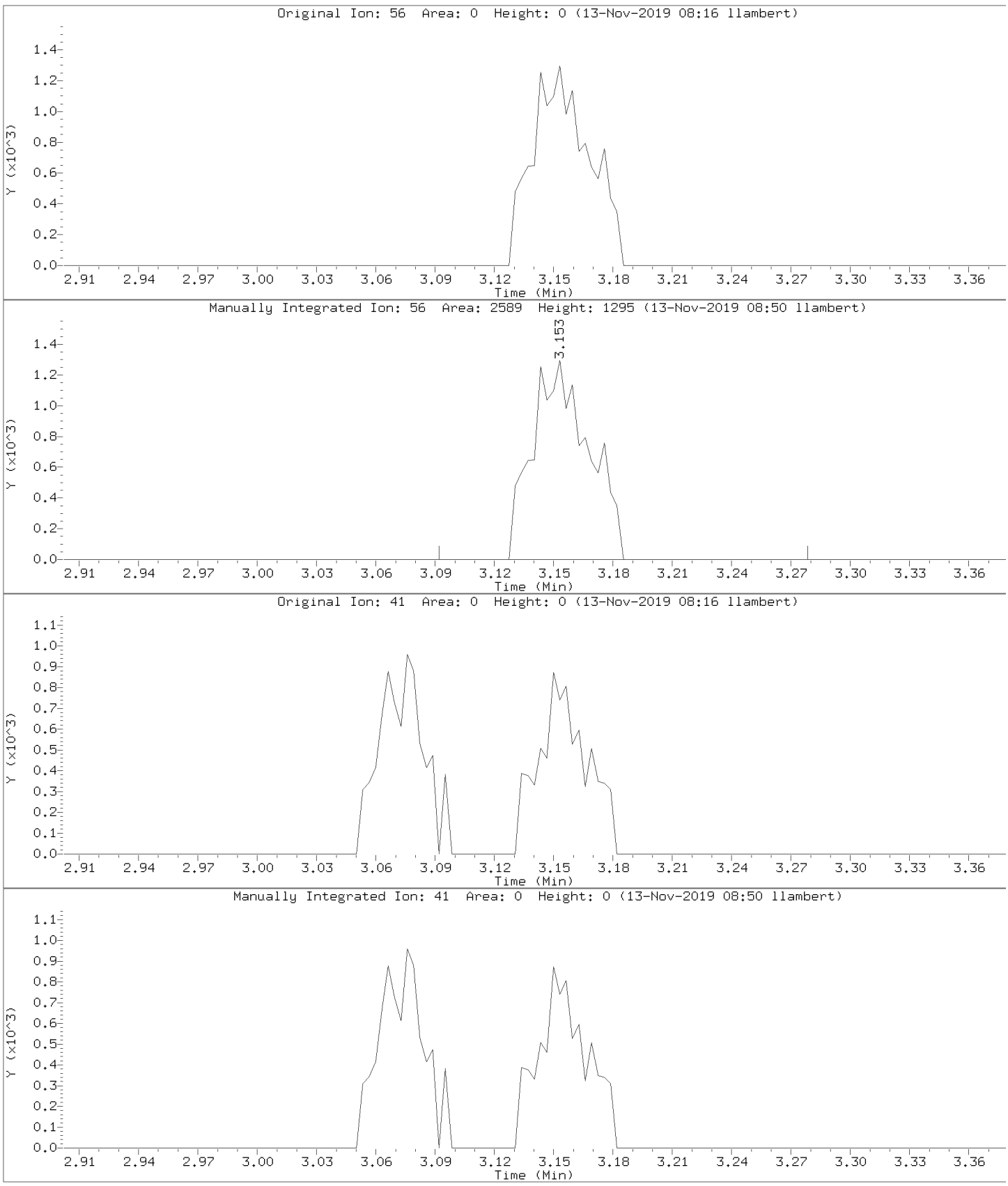






Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Cyclohexane Review Code: NI
CAS Number: 110-82-7



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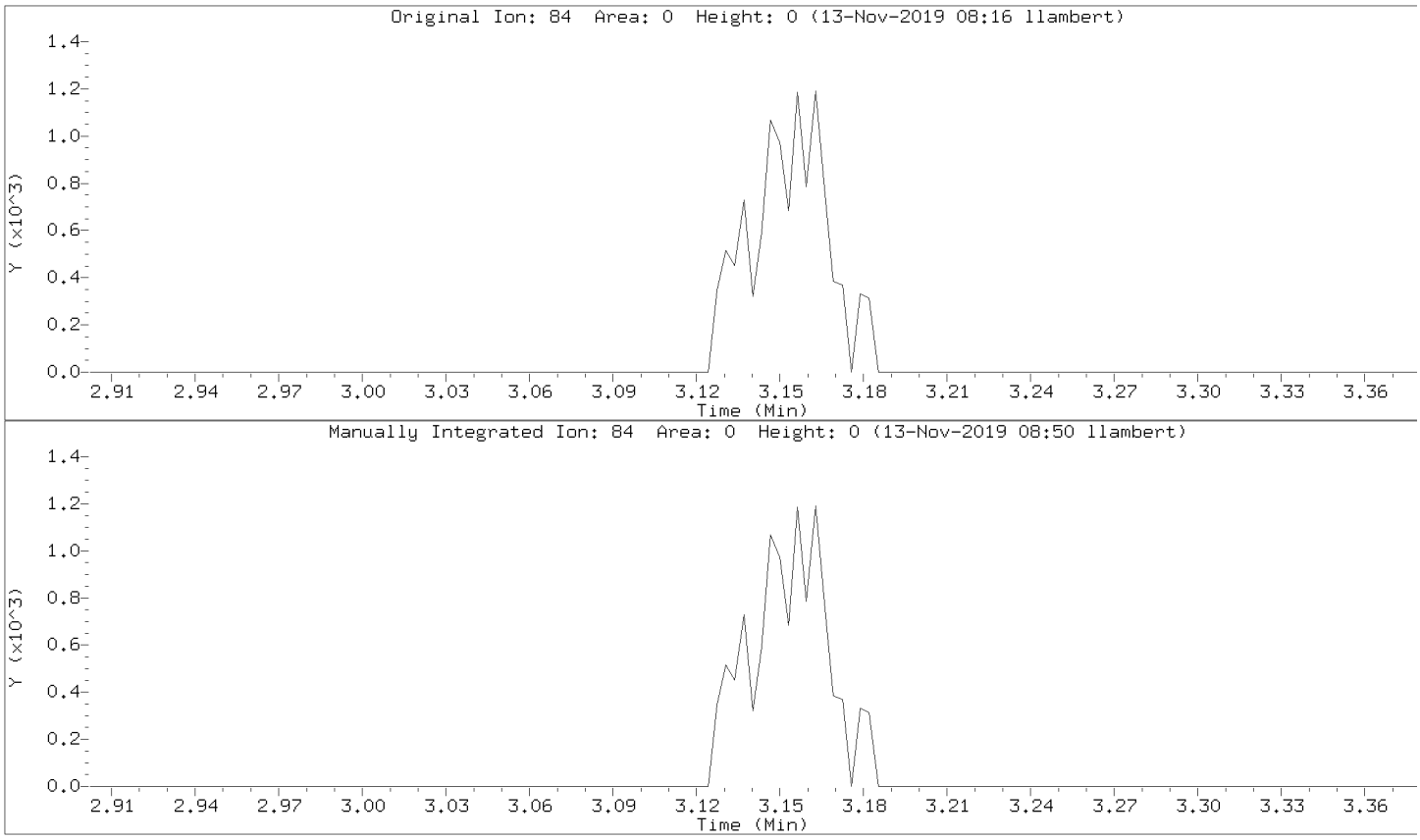
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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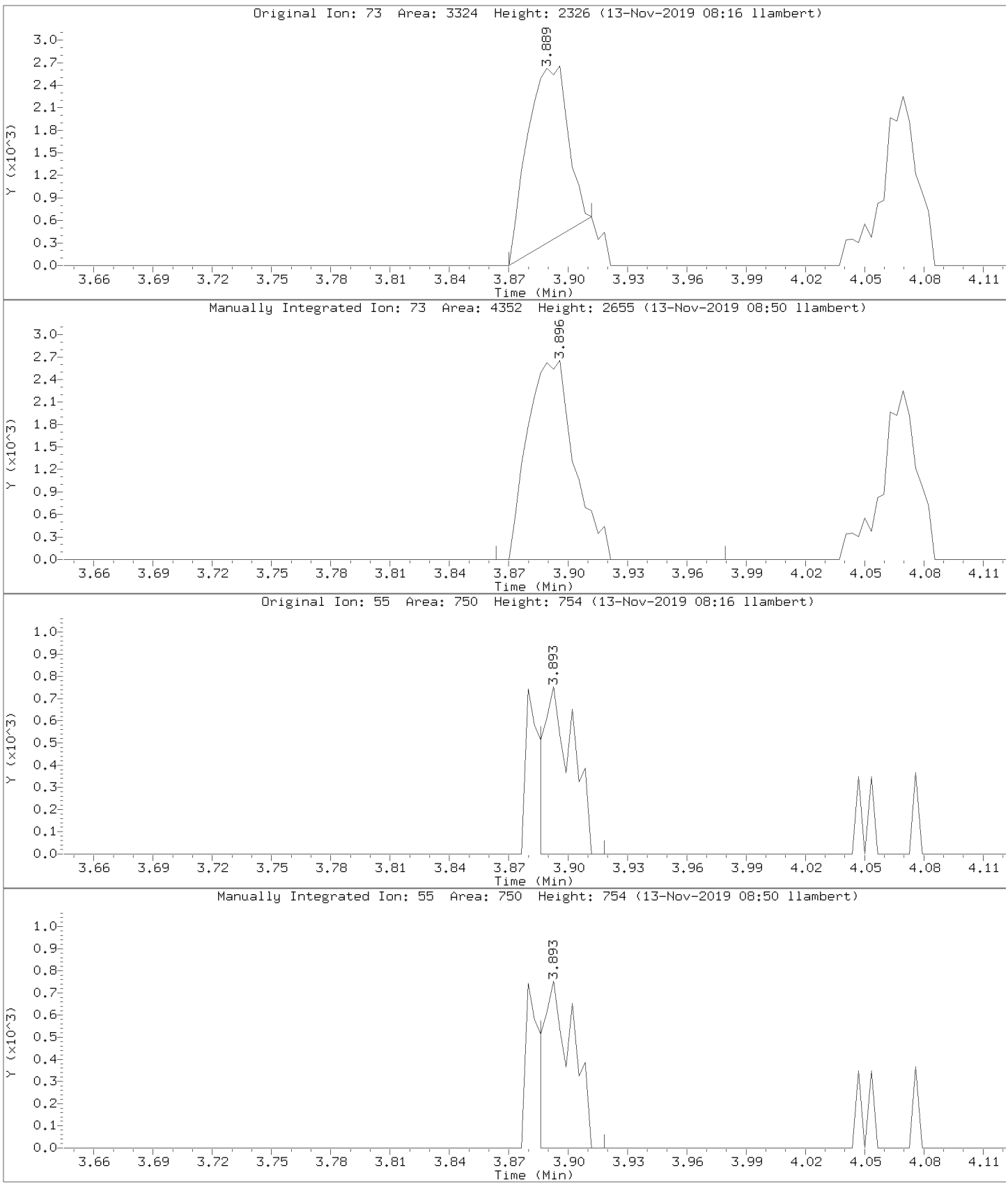
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: tert-Amylmethyl ether Review Code: NI
CAS Number: 994-05-8



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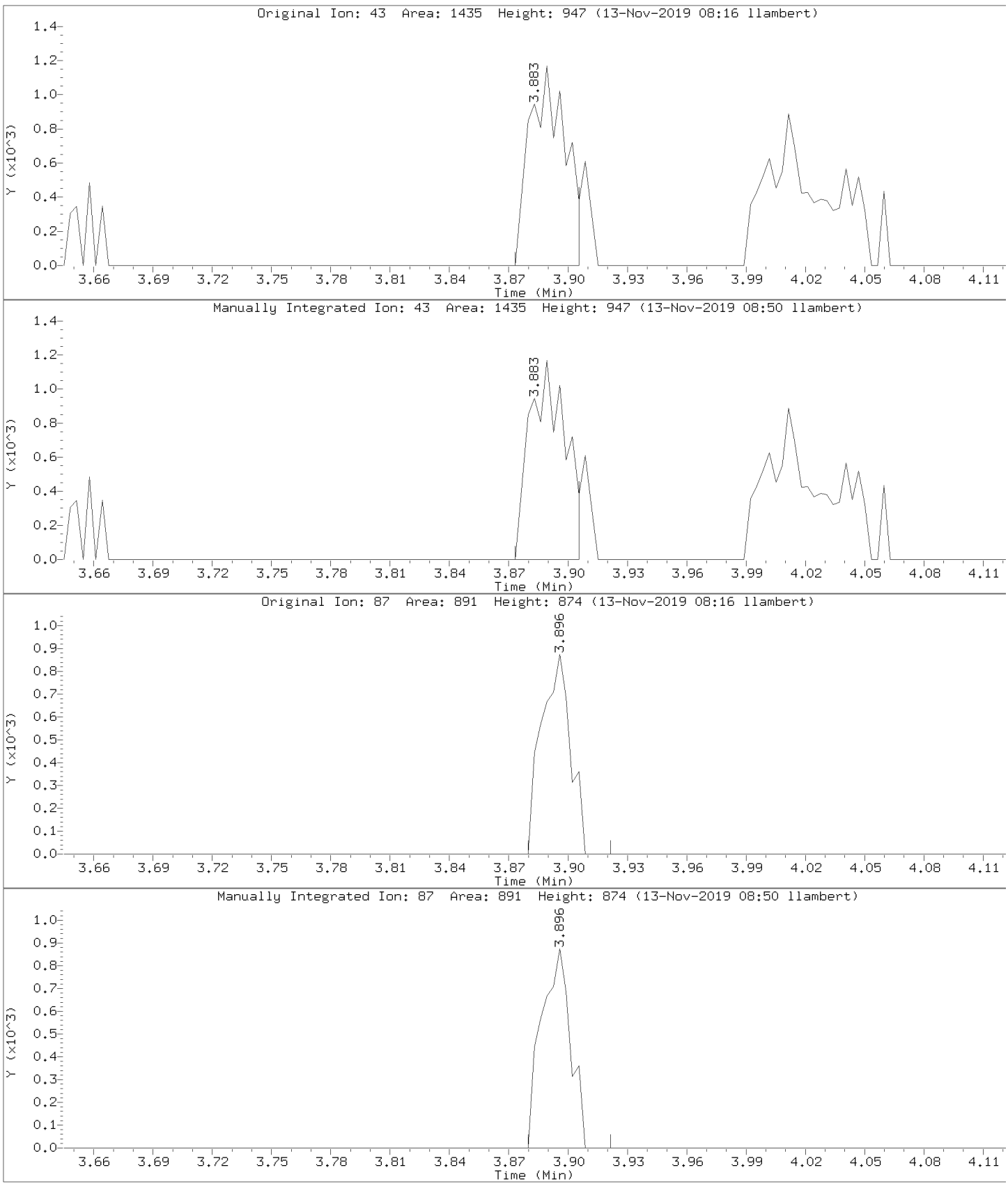
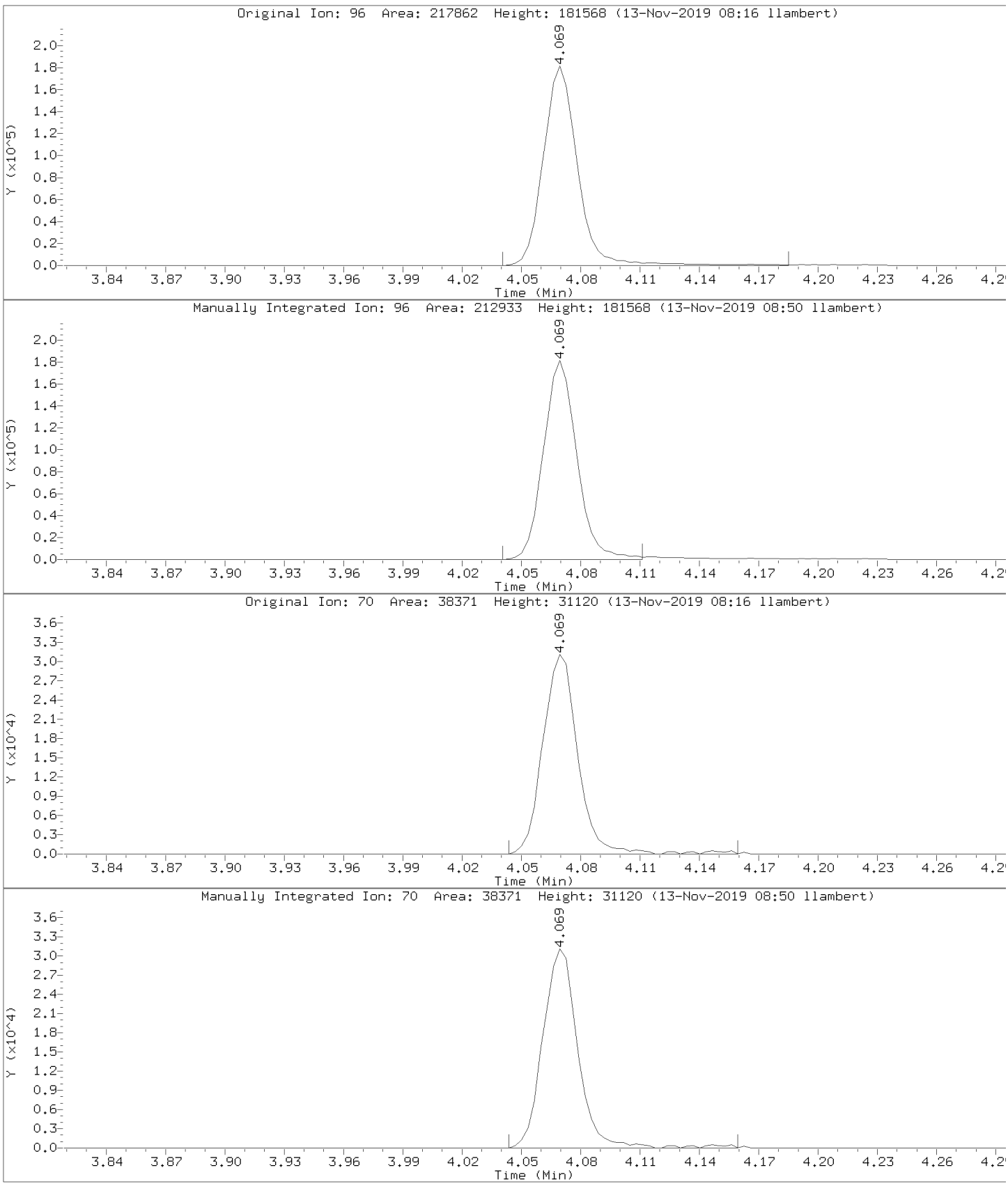
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



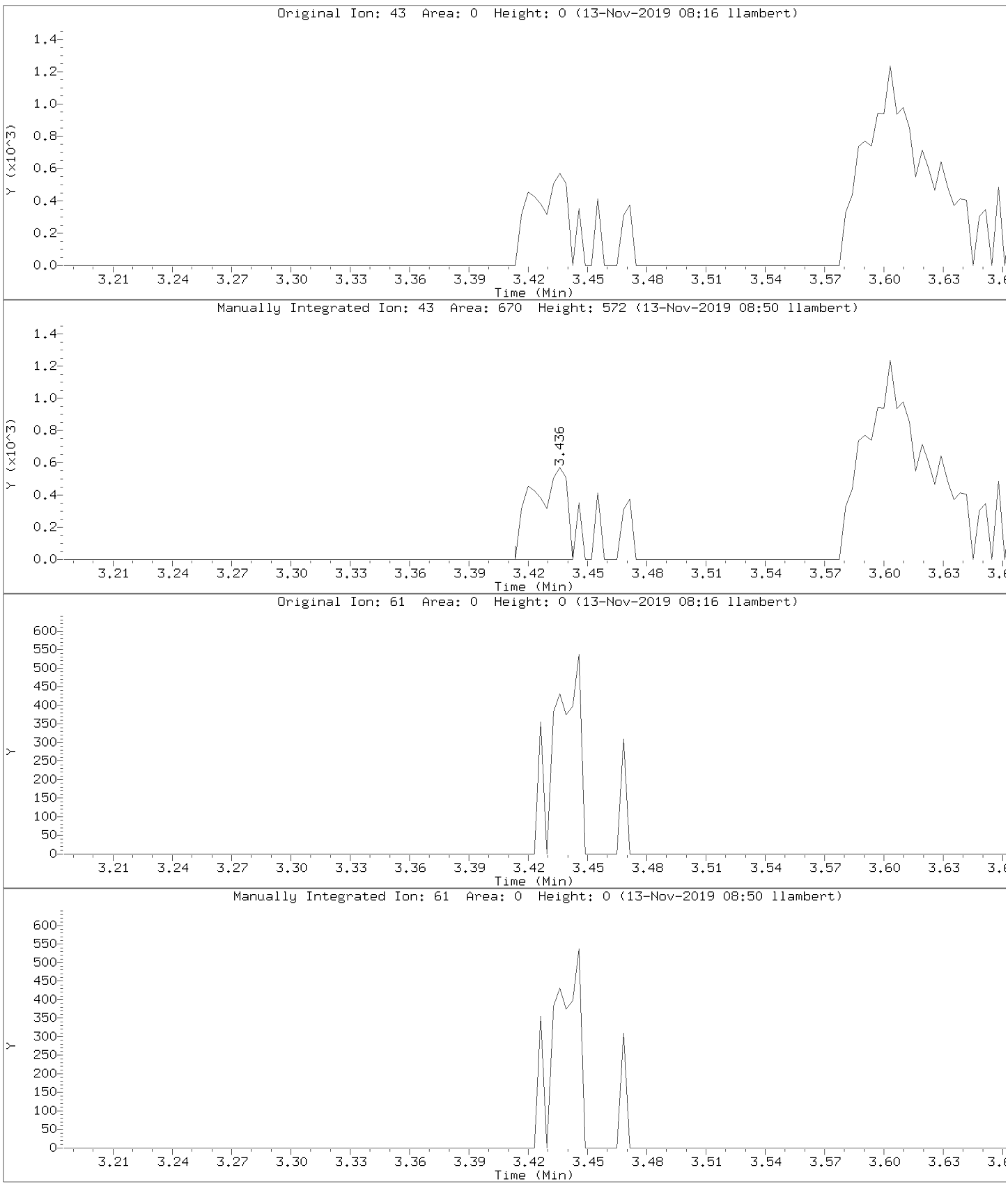
Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Fluorobenzene (IS) Review Code: GT
CAS Number: 462-06-6

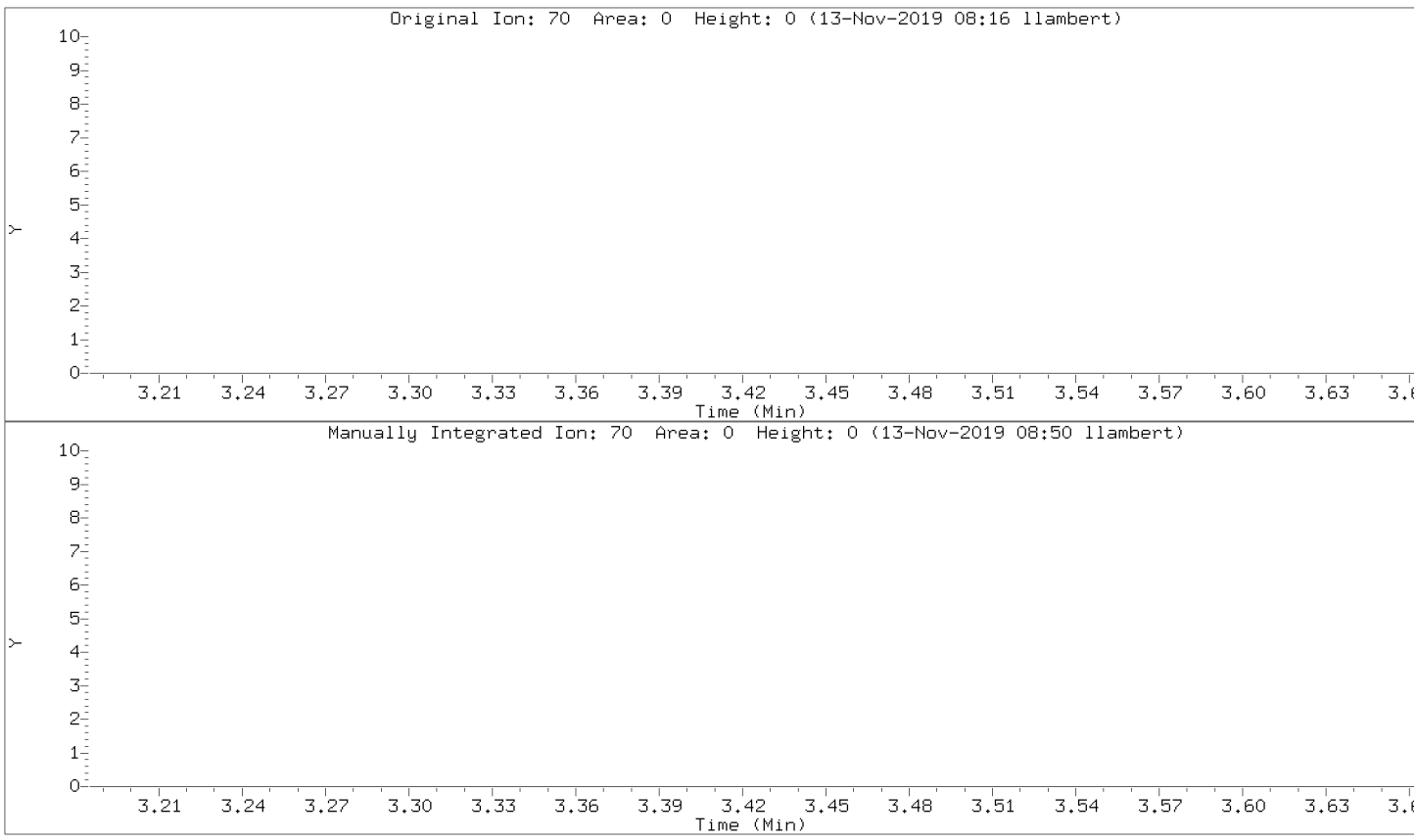


Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Ethyl acetate Review Code: NI
CAS Number: 141-78-6



Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112005.d
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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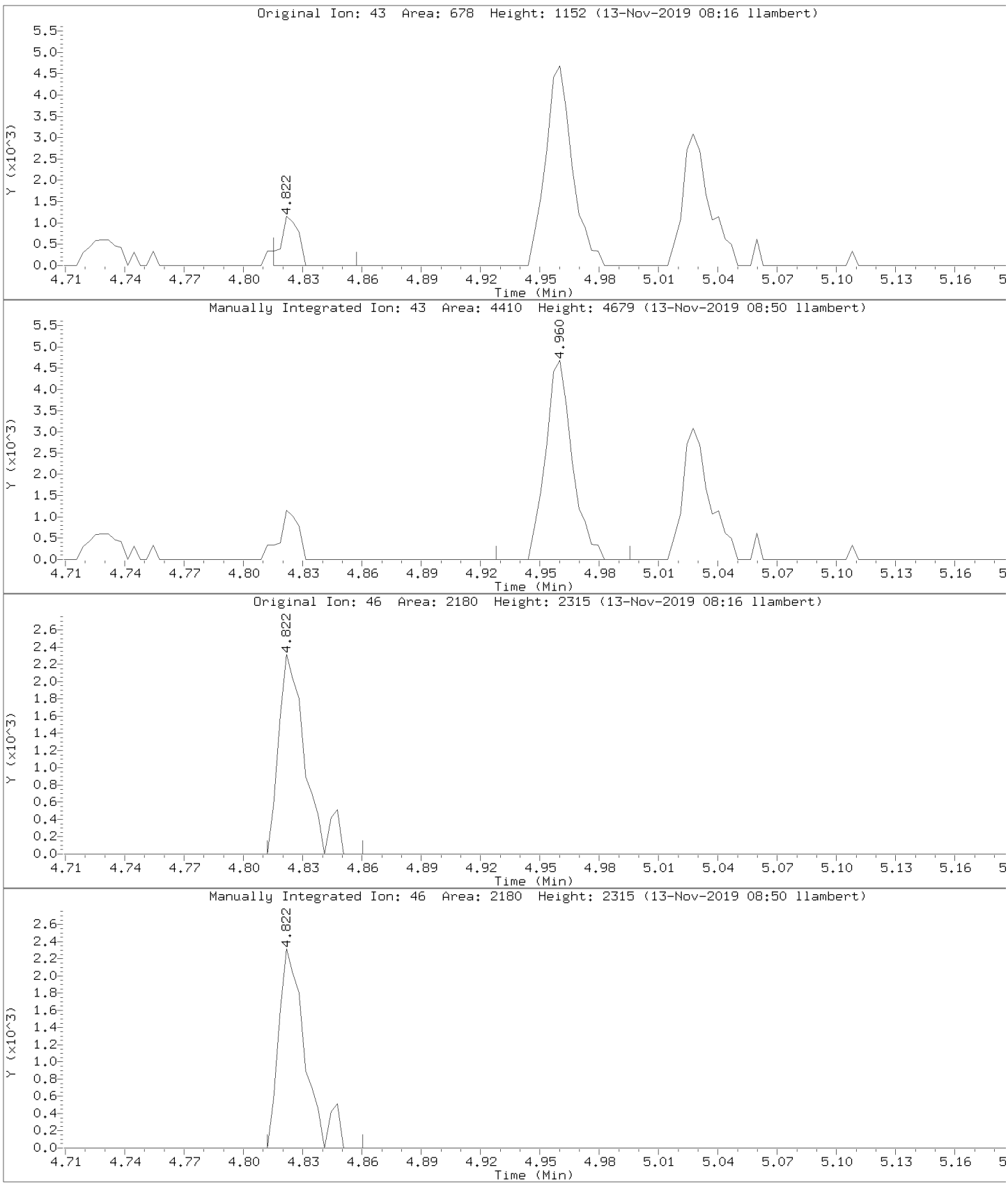
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9



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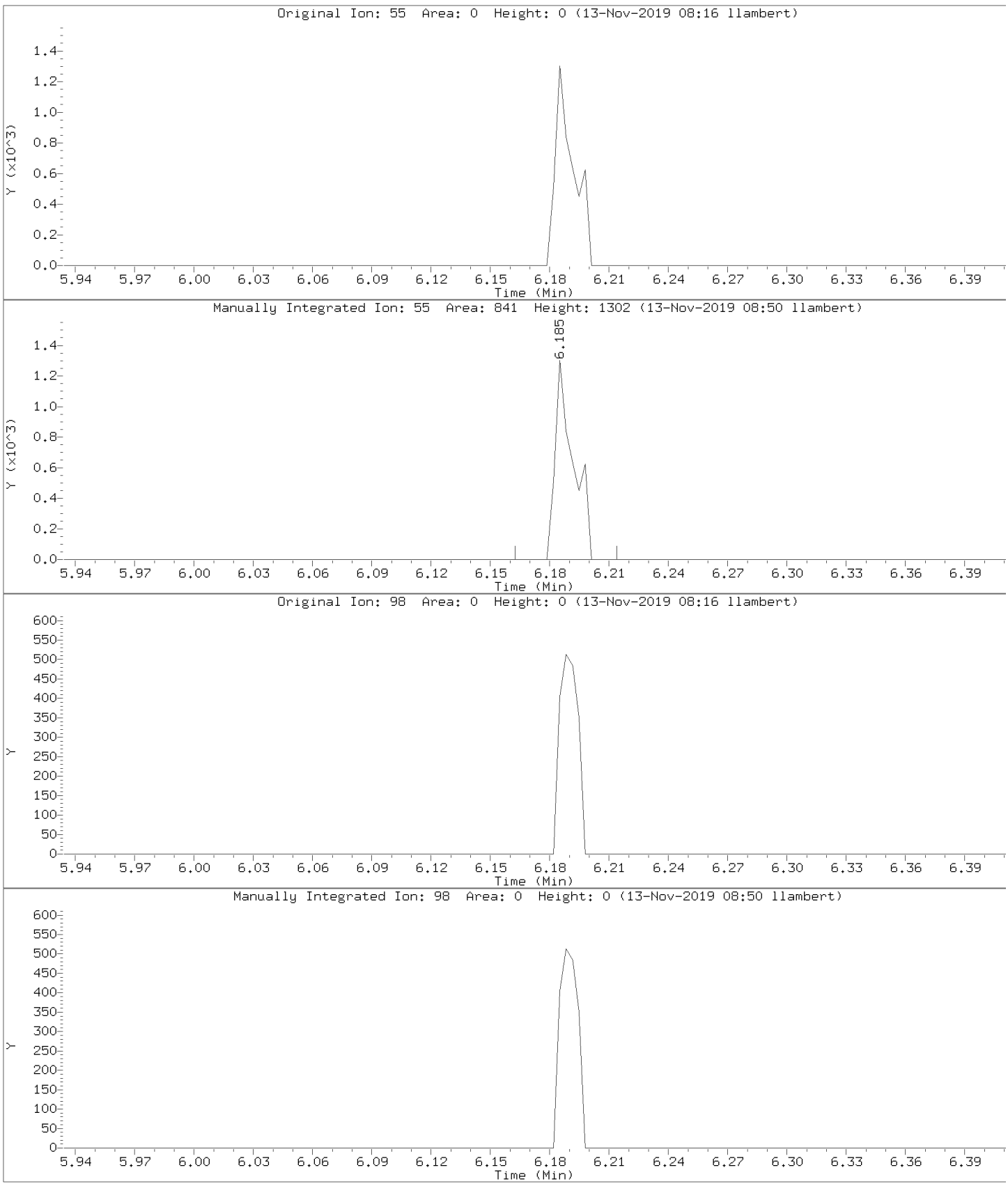
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: Cyclohexanone Review Code: NI
CAS Number: 108-94-1



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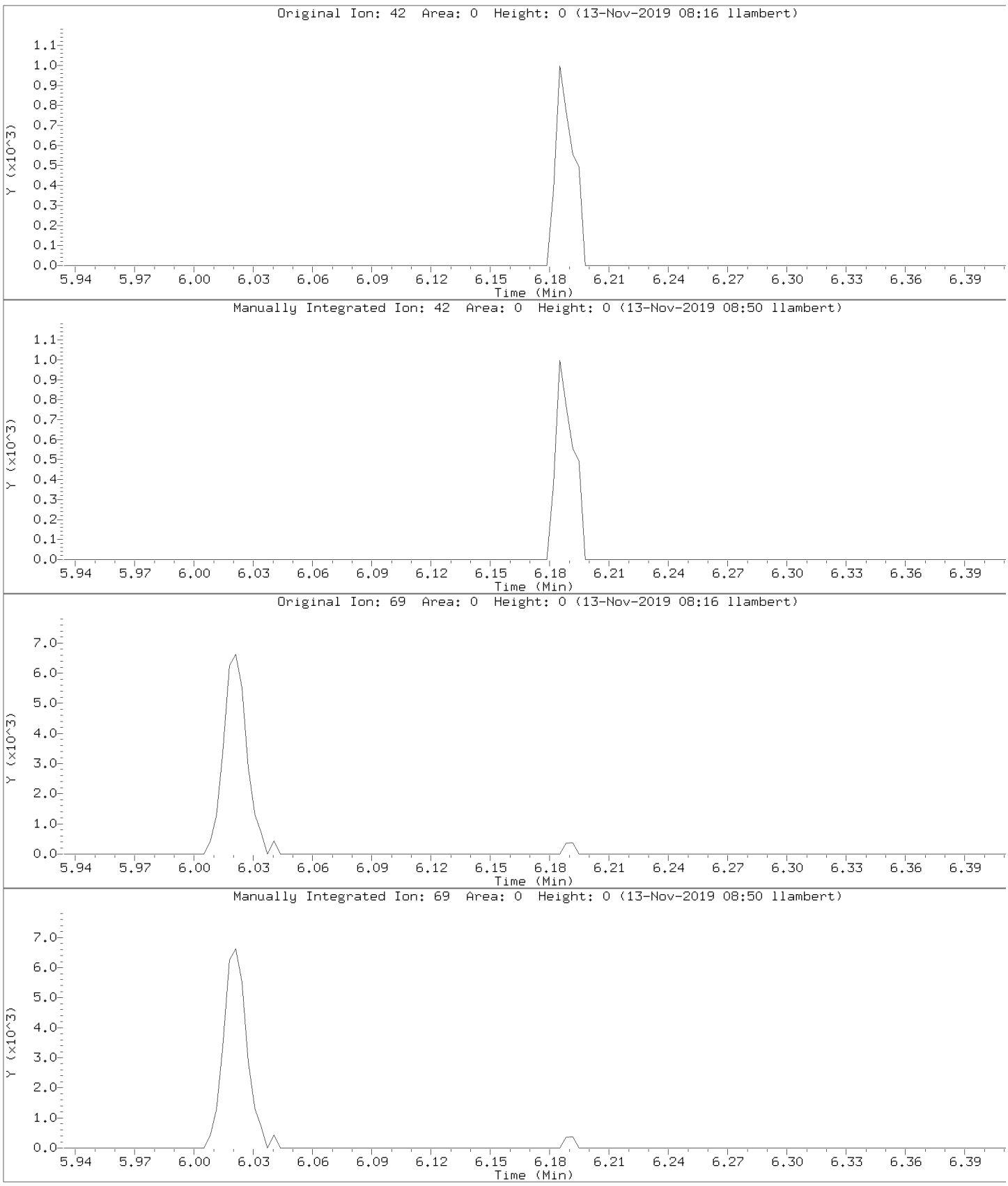
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



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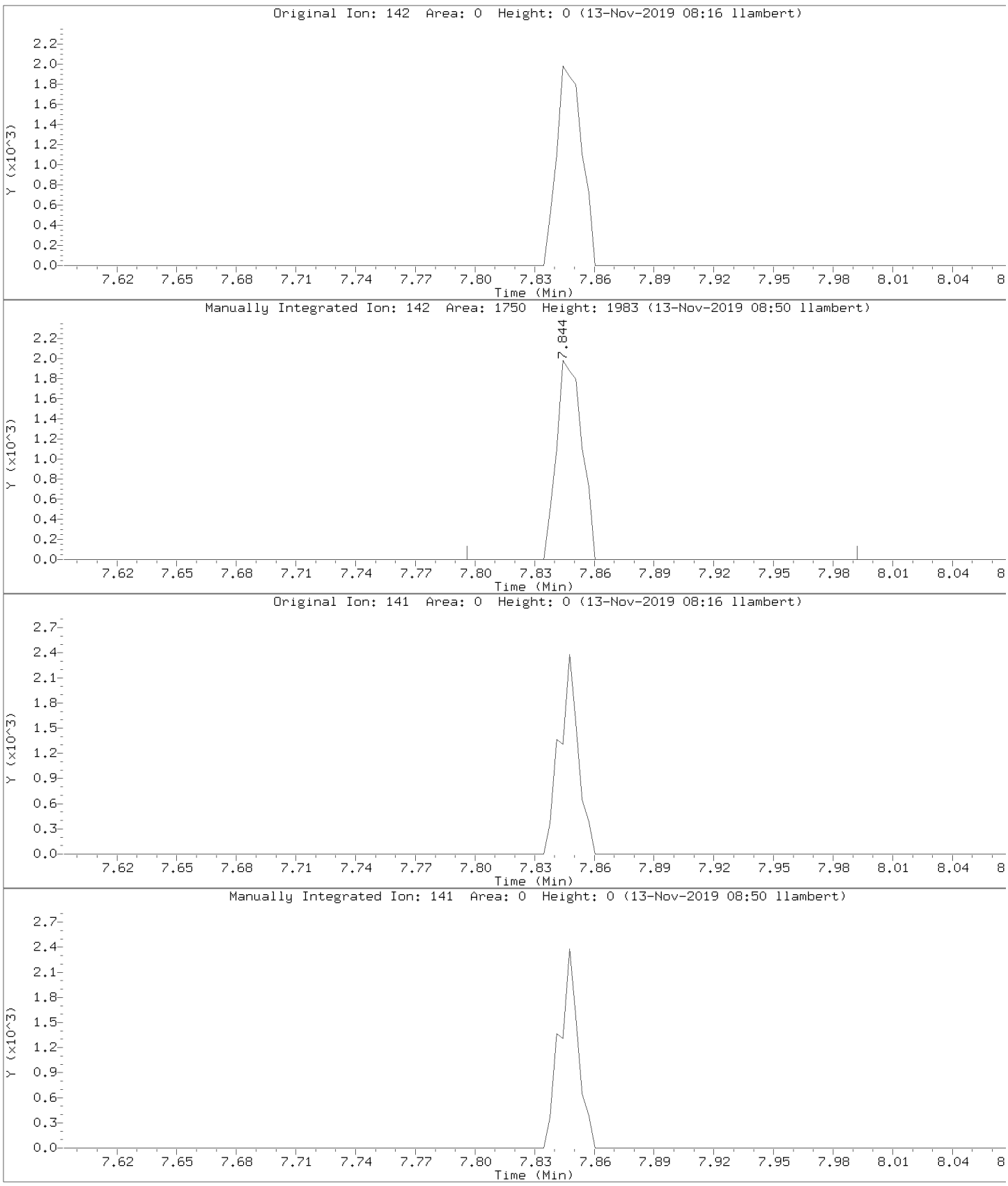
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1

Compound: 2-Methylnaphthalene Review Code: NI
CAS Number: 91-57-6



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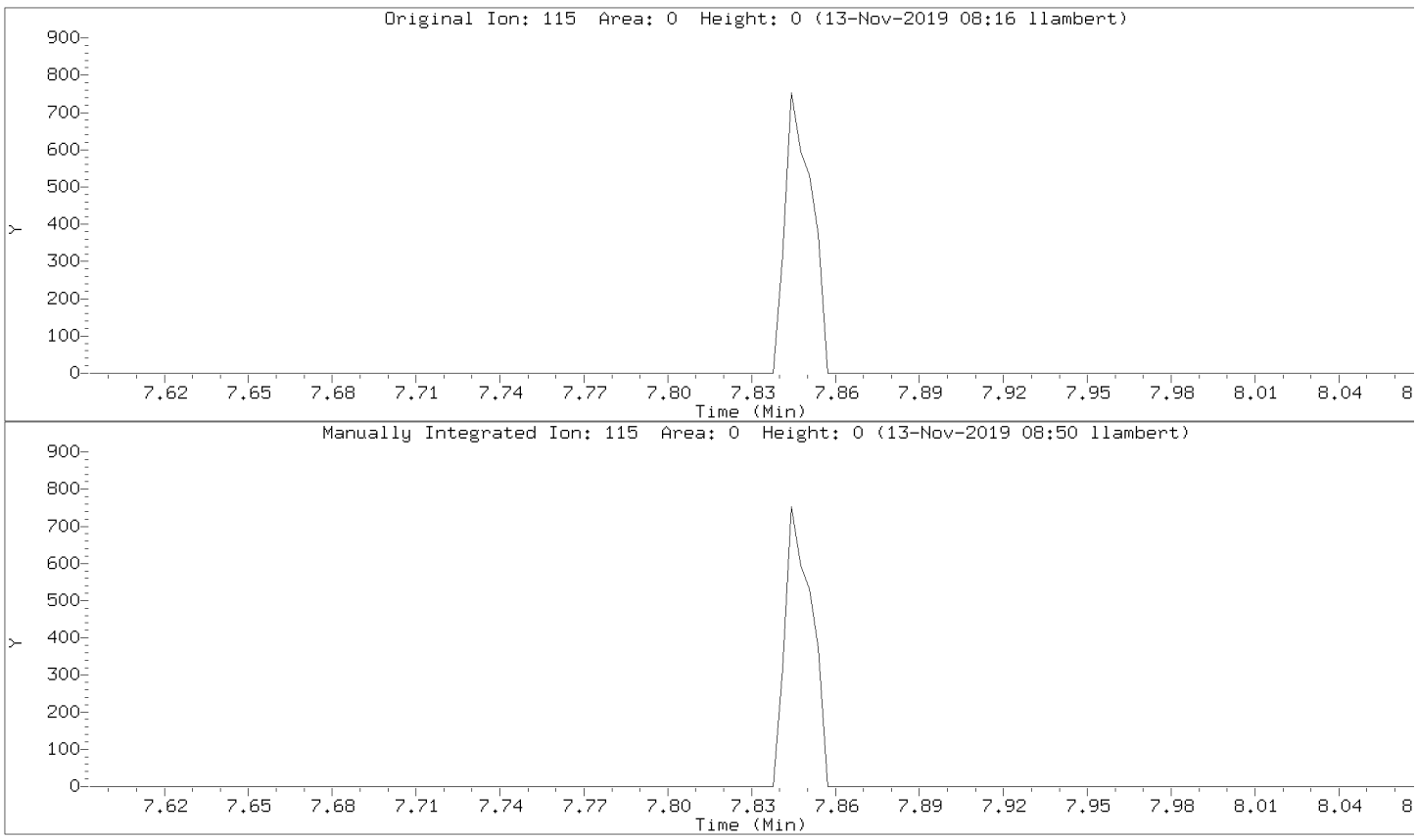
Injection Date: 12-NOV-2019 14:00
Instrument: 30mv7a.i
Lab Sample ID: CAL1



Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 12-NOV-2019 14:25
Operator : LEL Inst ID: 30mv7a.i
Smp Info : cal2, 105189:1
Misc Info : 47221,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:25 Cal File: 71112007.d
Als bottle: 7 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.847	0.851	(0.208)	8245	4.00000	3.78(Q)	
2	Chloromethane	50	0.950	0.951	(0.234)	11073	4.00000	3.76	
3	Vinyl chloride	62	0.989	0.989	(0.243)	10601	4.00000	4.15(Q)	
4	Bromomethane	94	1.147	1.147	(0.282)	2571	4.00000	3.78(Q)	
5	Chloroethane	64	1.208	1.208	(0.297)	4029	4.00000	4.95(Q)	
6	Trichlorofluoromethane	101	1.278	1.282	(0.314)	12917	4.00000	4.47(Q)	
7	Diethyl ether (Ethyl ether)	59	1.442	1.443	(0.355)	7554	4.00000	4.44	
8	Ethanol	46	1.529	1.571	(0.236)	645	40.0000	23.6(QM)	LT
9	1,1-Dichloroethene	61	1.555	1.555	(0.382)	12275	4.00000	4.11	
10	1,1,2-Trichlorotrifluoroethane	151	1.577	1.584	(0.388)	6113	4.00000	3.84	
11	Carbon disulfide	76	1.577	1.578	(0.388)	21362	4.00000	4.12	
12	Iodomethane	142	1.638	1.639	(0.403)	117	4.00000	0.410(aQM)	NI
13	Acrolein	56	1.764	1.764	(0.434)	3001	4.00000	4.43(Q)	
14	Allyl chloride	41	1.844	1.841	(0.453)	57968	20.0000	21.8	
15	Methylene Chloride	49	1.912	1.915	(0.470)	12409	4.00000	4.26(Q)	
16	Acetone	58	1.950	1.947	(0.479)	3525	4.00000	4.40	
17	trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	10977	4.00000	4.06	
18	Methyl acetate	74	2.031	2.033	(0.499)	4413	4.00000	4.48	
19	n-Hexane	86	2.066	2.063	(0.508)	1039	4.00000	3.52(QM)	NI
20	Methyl-tert-butyl ether	73	2.092	2.092	(0.514)	22584	4.00000	4.19(Q)	
21	tert-Butyl Alcohol	59	2.169	2.166	(0.533)	23394	20.0000	25.2(Q)	
22	Acetonitrile	41	2.288	2.295	(0.562)	14363	20.0000	23.4(Q)	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.381	2.385	(0.585)	23510	4.00000	4.06	
	24 Chloroprene	53	2.452	2.462	(0.603)	7958	4.00000	4.08	
	25 1,1-Dichloroethane	63	2.478	2.484	(0.609)	14138	4.00000	4.21(Q)	
	26 Acrylonitrile	53	2.536	2.536	(0.623)	6954	4.00000	4.38(Q)	
	27 Ethyl-tert-butyl ether	59	2.690	2.693	(0.661)	22168	4.00000	4.08	
	28 Vinyl acetate	43	2.712	2.719	(0.667)	19483	4.00000	4.00(Q)	
	29 cis-1,2-Dichloroethene	61	2.970	2.963	(0.730)	10548	4.00000	4.19	
	30 2,2-Dichloropropane	77	3.069	3.073	(0.754)	9956	4.00000	3.96	
	31 Cyclohexane	56	3.150	3.153	(0.774)	10496	4.00000	3.63	
	32 Bromochloromethane	130	3.163	3.163	(0.777)	5763	4.00000	4.52	
	33 Chloroform	83	3.249	3.253	(0.799)	12703	4.00000	4.03	
	34 Ethyl acetate	43	3.417	3.436	(0.840)	5480	4.00000	3.49(QM)	NI
	35 Carbon tetrachloride	117	3.368	3.359	(0.828)	10353	4.00000	4.06	
	36 Tetrahydrofuran	42	3.420	3.433	(0.840)	6611	4.00000	3.96(Q)	
$	37 Dibromofluoromethane (S)	111	3.442	3.439	(0.846)	57571	30.0000	29.7	
	38 1,1,1-Trichloroethane	97	3.445	3.452	(0.847)	10564	4.00000	3.82	
	39 2-Butanone (MEK)	43	3.593	3.603	(0.883)	12147	4.00000	4.58(aQ)	
	40 1,1-Dichloropropene	75	3.581	3.578	(0.880)	10013	4.00000	4.11(QM)	LT
	41 Benzene	78	3.786	3.783	(0.930)	29171	4.00000	4.02	
	42 Propionitrile	54	3.831	3.828	(0.942)	2909	4.00000	4.19(Q)	
	43 Methacrylonitrile	41	3.838	3.841	(0.943)	7853	4.00000	4.26(QM)	BA
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	18641	4.00000	4.05	
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	56069	30.0000	28.6	
	45 Isobutanol	43	3.998	4.011	(0.983)	4577	20.0000	14.9(QM)	GT
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	9862	4.00000	4.21	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	219819	30.0000		
	49 Methylcyclohexane	55	4.146	4.152	(1.019)	6115	4.00000	3.67(QM)	NI
	50 Trichloroethene	132	4.166	4.168	(1.024)	8228	4.00000	3.94	
	51 Dibromomethane	174	4.384	4.388	(1.077)	5902	4.00000	3.96	
	52 1,2-Dichloropropane	63	4.436	4.433	(1.090)	6938	4.00000	3.97	
	53 Bromodichloromethane	83	4.471	4.468	(1.099)	7852	4.00000	3.99	
	54 Methyl methacrylate	69	4.555	4.558	(1.119)	5963	4.00000	3.87	
	55 1,4-Dioxane (p-Dioxane)	88	4.574	4.578	(1.124)	1771	40.0000	35.6(Q)	
	56 2-Chloroethylvinyl ether	63	4.725	4.732	(1.161)	5289	4.00000	4.24(Q)	
	57 cis-1,3-Dichloropropene	75	4.748	4.741	(1.167)	9158	4.00000	3.69	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	188338	30.0000	28.1	
	59 Toluene	91	4.847	4.848	(0.879)	28804	4.00000	3.81	
	60 2-Nitropropane	43	4.960	4.960	(1.219)	20246	20.0000	18.6(Q)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.027	5.028	(1.235)	14244	4.00000	4.23(aQ)	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	7520	4.00000	3.67	
	63 trans-1,3-Dichloropropene	75	5.043	5.044	(0.915)	8879	4.00000	3.81	
	64 Ethyl methacrylate	41	5.114	5.114	(0.928)	6479	4.00000	4.00	
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	7205	4.00000	4.21	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	7140	4.00000	3.67	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	11686	4.00000	4.07	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	7764	4.00000	3.92(Q)	
	69 2-Hexanone	43	5.391	5.397	(0.978)	12199	4.00000	4.03(a)	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	155504	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	9044	4.00000	3.81	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	18637	4.00000	4.00	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.548	(1.006)	7093	4.00000	4.02(Q)	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	23449	8.00000	7.97	
	75 o-Xylene	106	5.770	5.770	(1.047)	11506	4.00000	4.03	
	76 Styrene	104	5.793	5.793	(1.051)	16004	4.00000	3.65	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 Bromoform	173	5.812	5.809	(0.896)	4824	4.00000	3.50	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	22559	4.00000	4.00	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	60188	30.0000	30.0	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	24714	4.00000	3.95	
	81 Bromobenzene	77	6.066	6.069	(0.936)	11840	4.00000	4.24	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	9694	4.00000	3.98	
	83 1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	18465	4.00000	4.19	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	6805	4.00000	4.54(Q)	
	85 1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	3487	4.00000	3.88(Q)	
	86 trans-1,4-Dichloro-2-butene	53	6.172	6.175	(0.952)	2394	4.00000	3.74(Q)	
	87 Cyclohexanone	55	6.188	6.185	(0.954)	4609	20.0000	17.3	
	88 4-Chlorotoluene	126	6.211	6.211	(0.958)	6437	4.00000	4.17	
	89 tert-Butylbenzene	119	6.281	6.282	(0.969)	14361	4.00000	4.00	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	18261	4.00000	4.13	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	19267	4.00000	3.98	
	92 p-Isopropyltoluene	119	6.410	6.410	(0.989)	16237	4.00000	3.94	
	93 1,3-Dichlorobenzene	146	6.455	6.452	(0.996)	10818	4.00000	3.96	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	64713	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	12173	4.00000	4.29	
	96 n-Butylbenzene	91	6.584	6.584	(1.015)	12865	4.00000	3.99	
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	6.667	6.664	(1.028)	10545	4.00000	4.01	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	3402	4.00000	3.68	
	103 1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	6442	4.00000	4.31	
	100 Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	2654	4.00000	4.00	
	101 1,2,4-Trichlorobenzene	180	7.272	7.278	(1.121)	5668	4.00000	4.14	
	102 Naphthalene	128	7.410	7.413	(1.143)	22376	4.00000	3.84	
	104 1,2,3-Trichlorobenzene	180	7.490	7.487	(1.155)	5611	4.00000	4.18	
	105 2-Methylnaphthalene	142	7.847	7.844	(1.210)	6188	4.00000	3.87	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	3.78	
74-87-3	Chloromethane	3.76	
75-01-4	Vinyl chloride	4.15	
74-83-9	Bromomethane	3.78	
75-00-3	Chloroethane	4.95	
75-69-4	Trichlorofluoromethane	4.47	
60-29-7	Diethyl ether (Ethyl ether)	4.44	
64-17-5	Ethanol	23.6	
75-35-4	1,1-Dichloroethene	4.11	
76-13-1	1,1,2-Trichlorotrifluoroetha	3.84	
75-15-0	Carbon disulfide	4.12	
74-88-4	Iodomethane	0.410	J
107-02-8	Acrolein	4.43	
107-05-1	Allyl chloride	21.8	
75-09-2	Methylene Chloride	4.26	
67-64-1	Acetone	4.40	
156-60-5	trans-1,2-Dichloroethene	4.06	
79-20-9	Methyl acetate	4.48	
110-54-3	n-Hexane	3.52	
1634-04-4	Methyl-tert-butyl ether	4.19	
75-65-0	tert-Butyl Alcohol	25.2	
75-05-8	Acetonitrile	23.4	
108-20-3	Diisopropyl ether	4.06	
126-99-8	Chloroprene	4.08	
75-34-3	1,1-Dichloroethane	4.21	
107-13-1	Acrylonitrile	4.38	
637-92-3	Ethyl-tert-butyl ether	4.08	
108-05-4	Vinyl acetate	4.00	
156-59-2	cis-1,2-Dichloroethene	4.19	
594-20-7	2,2-Dichloropropane	3.96	
110-82-7	Cyclohexane	3.63	
74-97-5	Bromochloromethane	4.52	
67-66-3	Chloroform	4.03	
141-78-6	Ethyl acetate	3.49	
56-23-5	Carbon tetrachloride	4.06	
109-99-9	Tetrahydrofuran	3.96	
71-55-6	1,1,1-Trichloroethane	3.82	
78-93-3	2-Butanone (MEK)	4.58	J
563-58-6	1,1-Dichloropropene	4.11	
71-43-2	Benzene	4.02	
107-12-0	Propionitrile	4.19	
126-98-7	Methacrylonitrile	4.26	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	4.05	
78-83-1	Isobutanol	14.9	
107-06-2	1,2-Dichloroethane	4.21	
108-87-2	Methylcyclohexane	3.67	
79-01-6	Trichloroethene	3.94	
74-95-3	Dibromomethane	3.96	
78-87-5	1,2-Dichloropropane	3.97	
75-27-4	Bromodichloromethane	3.99	
80-62-6	Methyl methacrylate	3.87	
123-91-1	1,4-Dioxane (p-Dioxane)	35.6	
110-75-8	2-Chloroethylvinyl ether	4.24	
10061-01-5	cis-1,3-Dichloropropene	3.69	
108-88-3	Toluene	3.81	
79-46-9	2-Nitropropane	18.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	4.23	J
127-18-4	Tetrachloroethene	3.67	
10061-02-6	trans-1,3-Dichloropropene	3.81	
97-63-2	Ethyl methacrylate	4.00	
79-00-5	1,1,2-Trichloroethane	4.21	
124-48-1	Dibromochloromethane	3.67	
142-28-9	1,3-Dichloropropane	4.07	
106-93-4	1,2-Dibromoethane (EDB)	3.92	
591-78-6	2-Hexanone	4.03	J
100-41-4	Ethylbenzene	3.81	
108-90-7	Chlorobenzene	4.00	
630-20-6	1,1,1,2-Tetrachloroethane	4.02	
7816-60-0	m&p-Xylene	7.97	
95-47-6	o-Xylene	4.03	
100-42-5	Styrene	3.65	
75-25-2	Bromoform	3.50	
98-82-8	Isopropylbenzene (Cumene)	4.00	
103-65-1	n-Propylbenzene	3.95	
108-86-1	Bromobenzene	4.24	
79-34-5	1,1,2,2-Tetrachloroethane	3.98	
108-67-8	1,3,5-Trimethylbenzene	4.19	
95-49-8	2-Chlorotoluene	4.54	
96-18-4	1,2,3-Trichloropropane	3.88	
110-57-6	trans-1,4-Dichloro-2-butene	3.74	
108-94-1	Cyclohexanone	17.3	
106-43-4	4-Chlorotoluene	4.17	
98-06-6	tert-Butylbenzene	4.00	
95-63-6	1,2,4-Trimethylbenzene	4.13	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Report Date: 13-Nov-2019 08:53

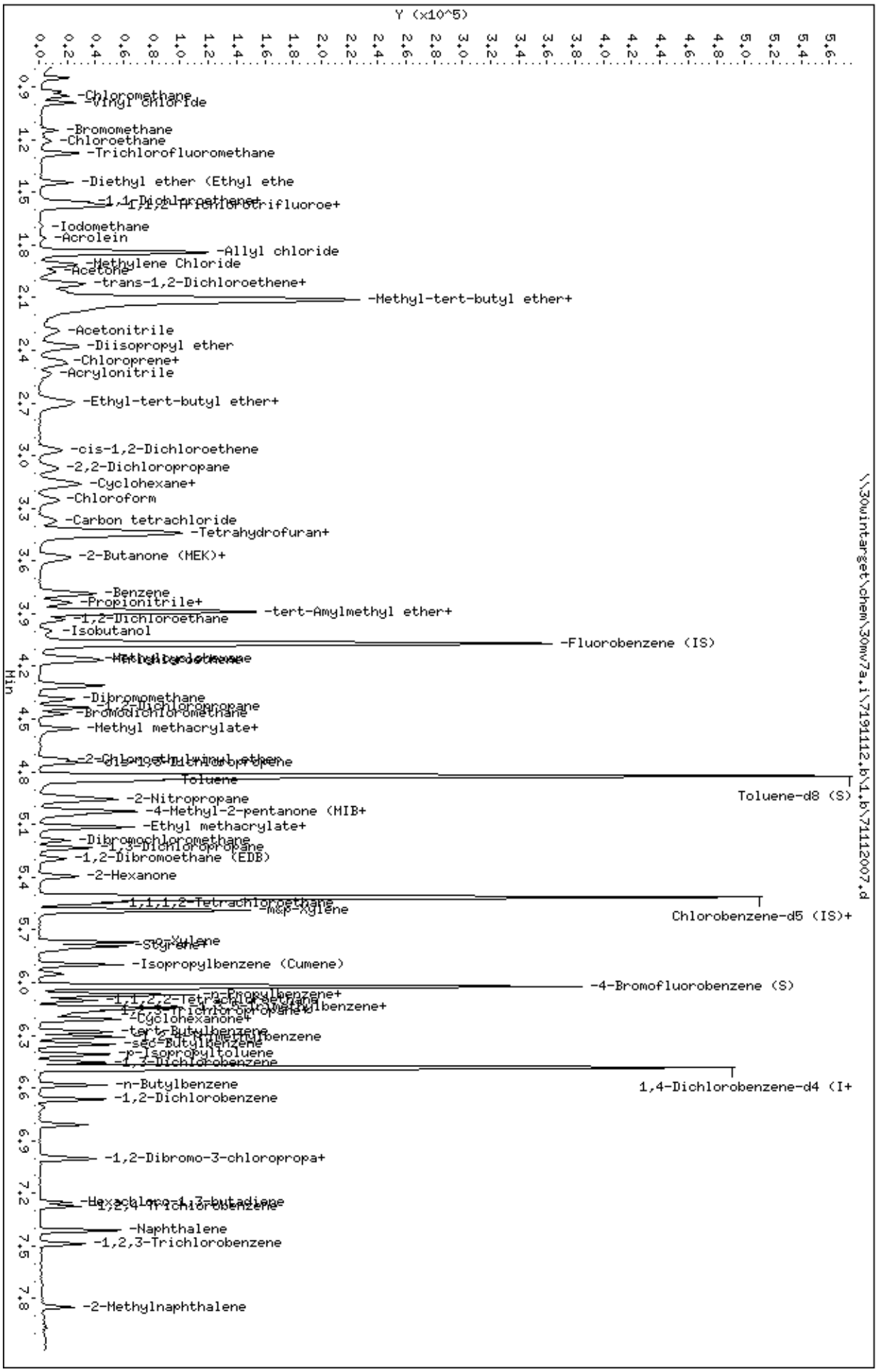
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	3.98	
99-87-6	p-Isopropyltoluene	3.94	
541-73-1	1,3-Dichlorobenzene	3.96	
106-46-7	1,4-Dichlorobenzene	4.29	
104-51-8	n-Butylbenzene	3.99	
95-50-1	1,2-Dichlorobenzene	4.01	
96-12-8	1,2-Dibromo-3-chloropropane	3.68	
108-70-3	1,3,5-Trichlorobenzene	4.31	
87-68-3	Hexachloro-1,3-butadiene	4.00	
120-82-1	1,2,4-Trichlorobenzene	4.14	
91-20-3	Naphthalene	3.84	
87-61-6	1,2,3-Trichlorobenzene	4.18	
91-57-6	2-Methylnaphthalene	3.87	
1868-53-7	Dibromofluoromethane (S)	29.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	28.6	
2037-26-5	Toluene-d8 (S)	28.1	
460-00-4	4-Bromofluorobenzene (S)	30.0	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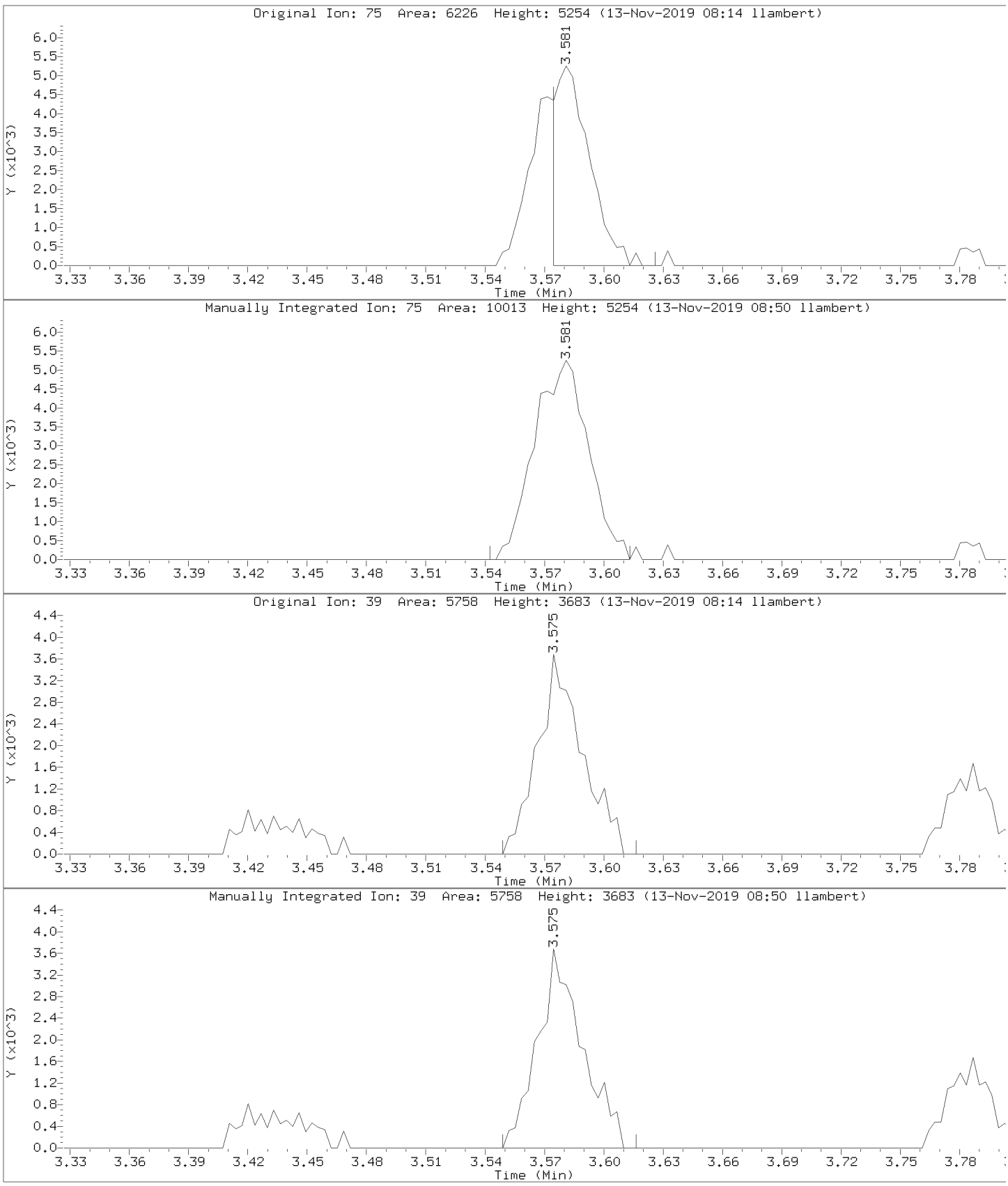
Date : 12-NOV-2019 14:25
Client ID: CAL2
Sample Info: CAL2, 10518911
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112007.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether+
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
Toluene
Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-4-Ethyltoluene+
-1,3,5-Trichlorobenzene+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112007.d
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: 1,1-Dichloropropene Review Code: LT
CAS Number: 563-58-6



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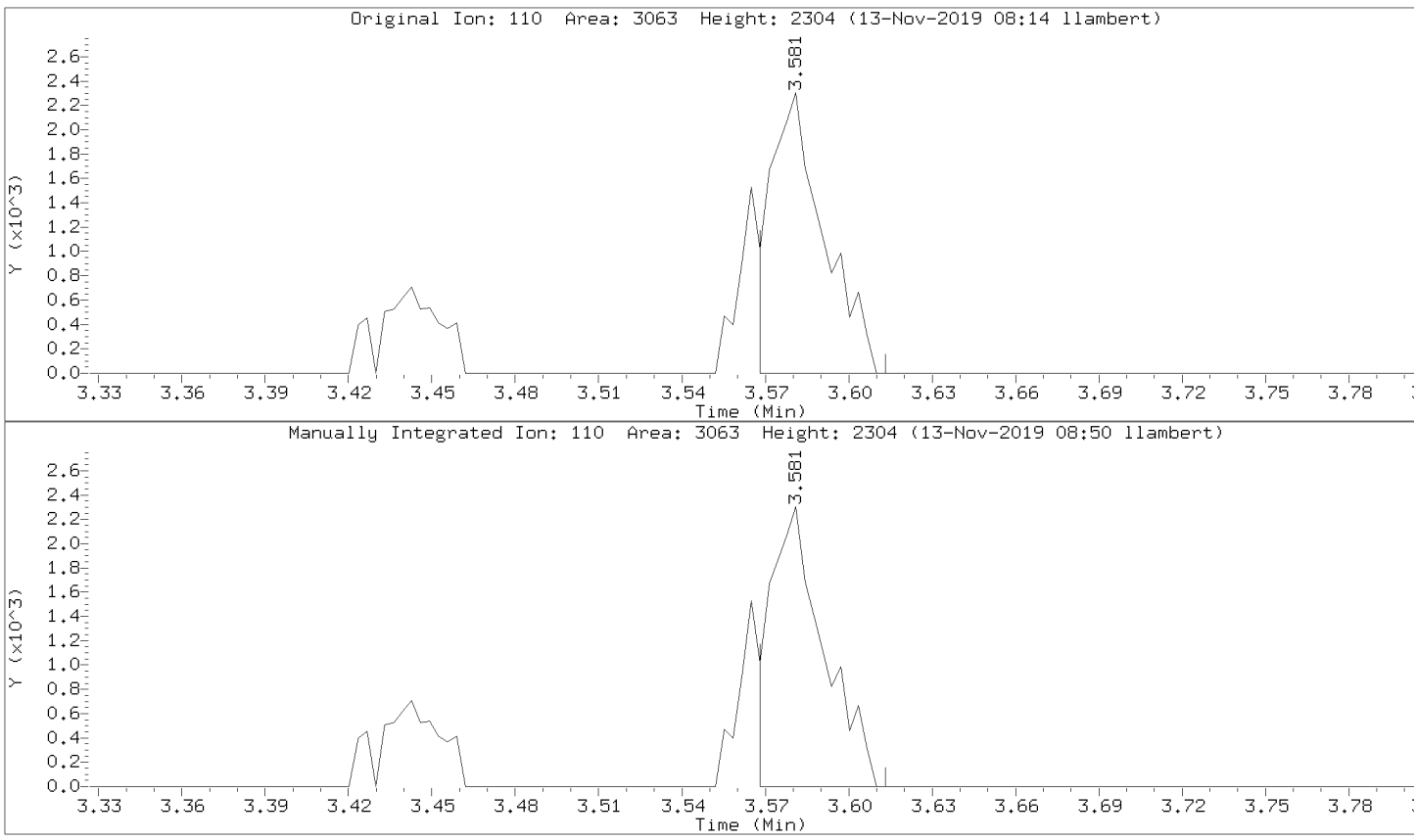
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2



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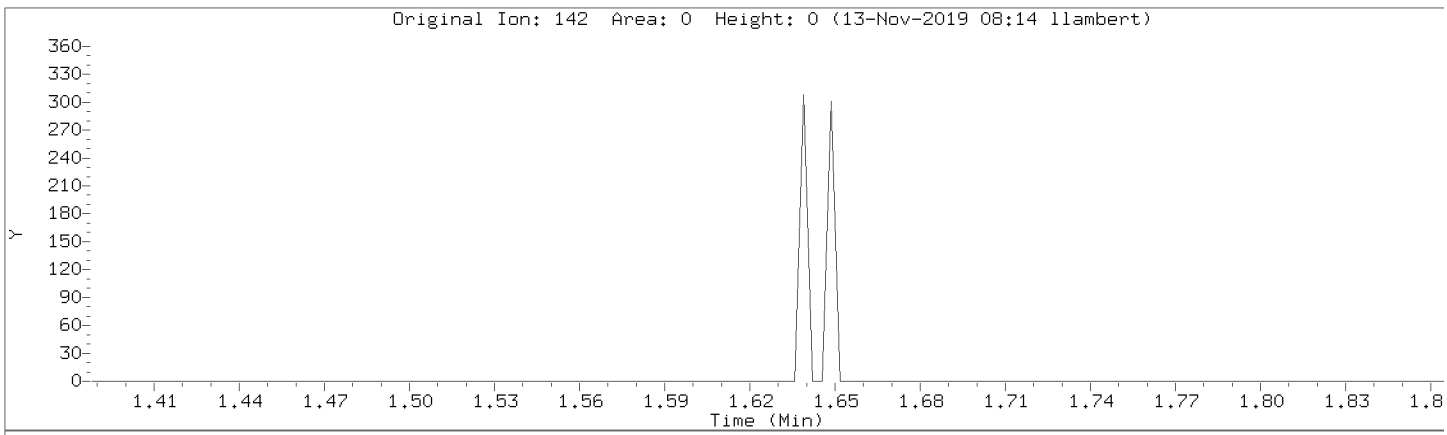
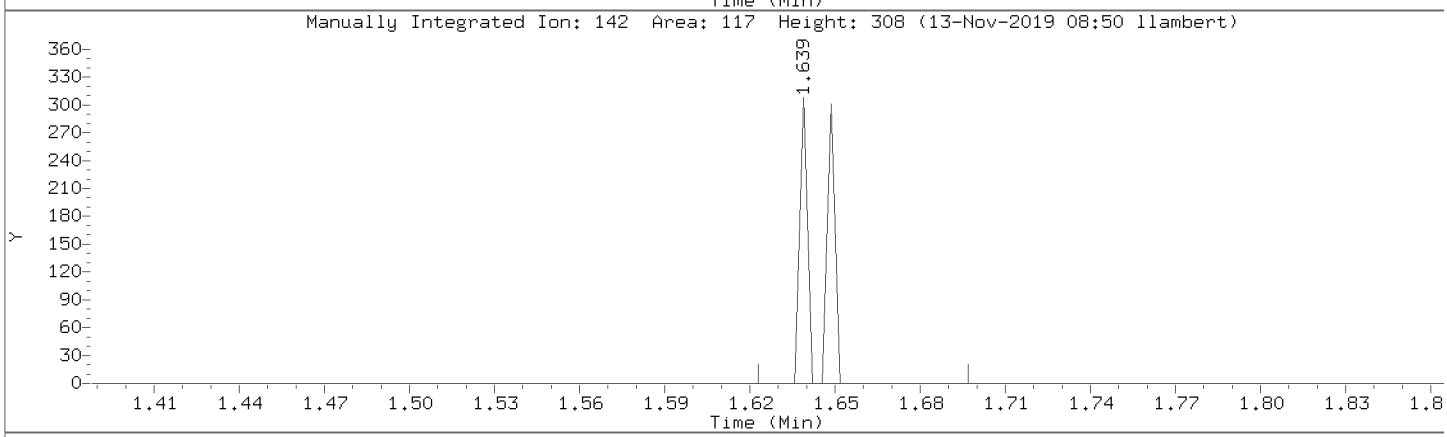
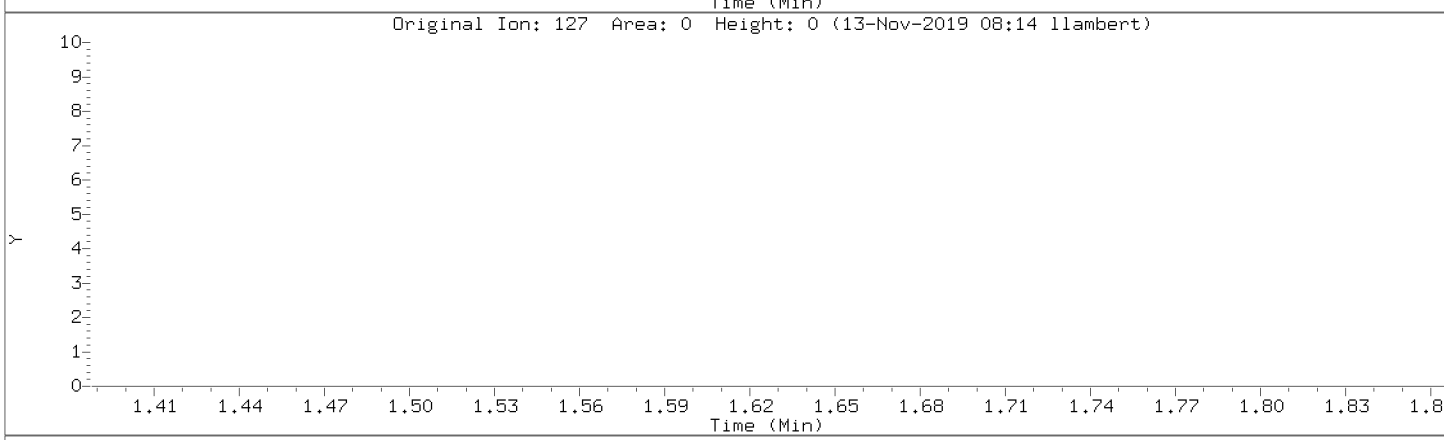
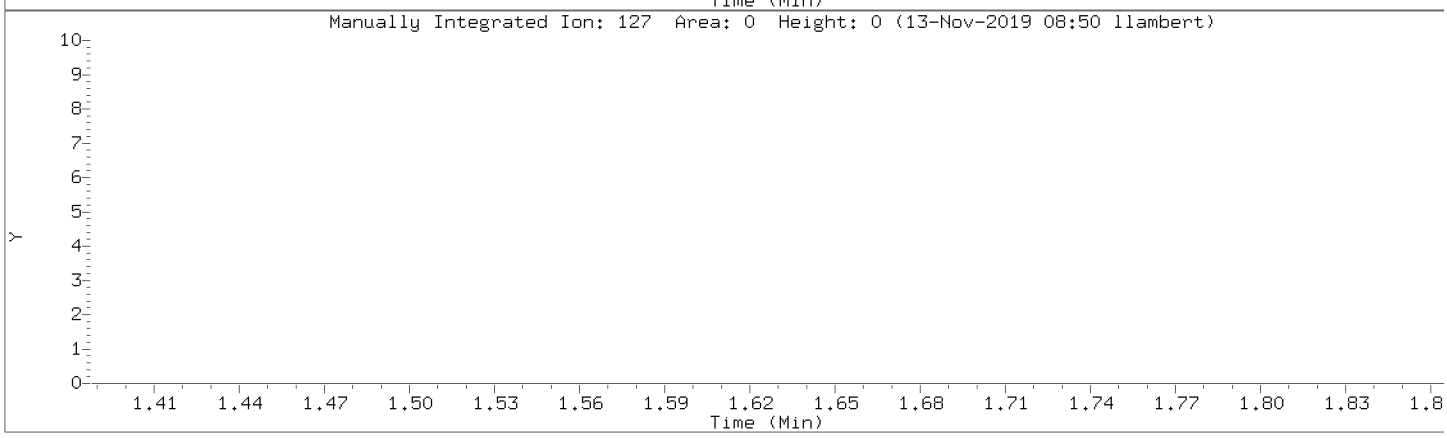
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4









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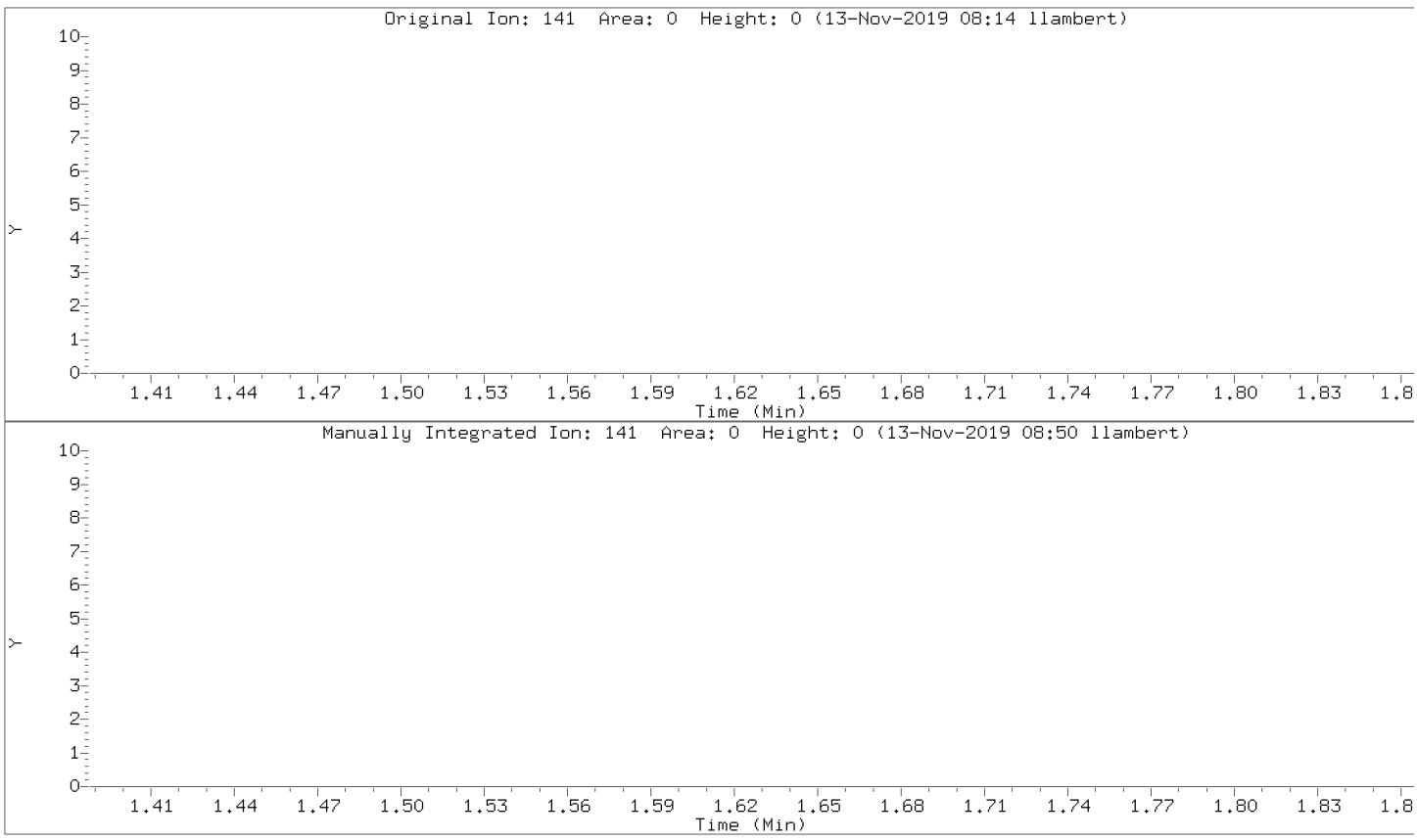
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2



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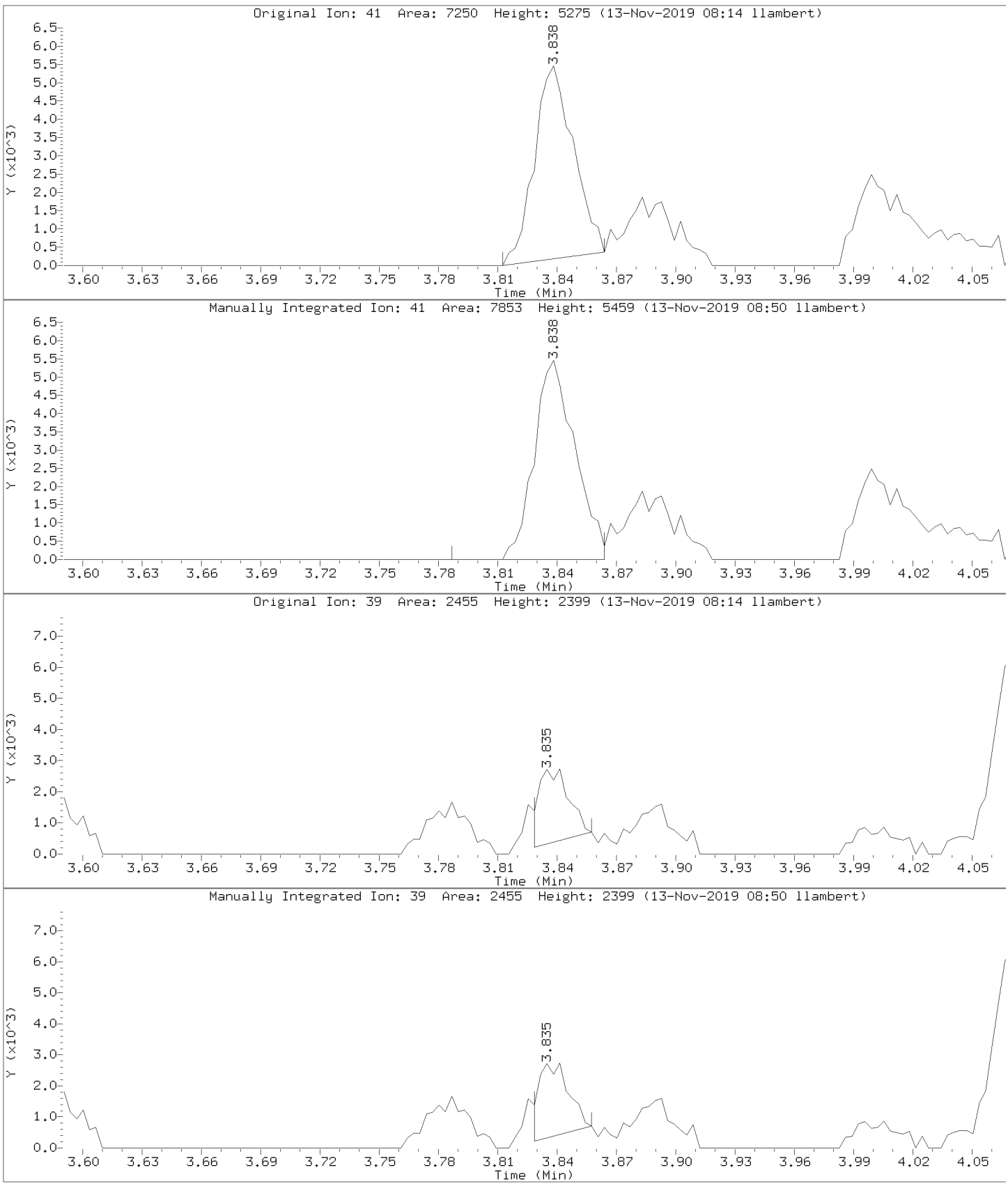
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: Methacrylonitrile Review Code: BA
CAS Number: 126-98-7



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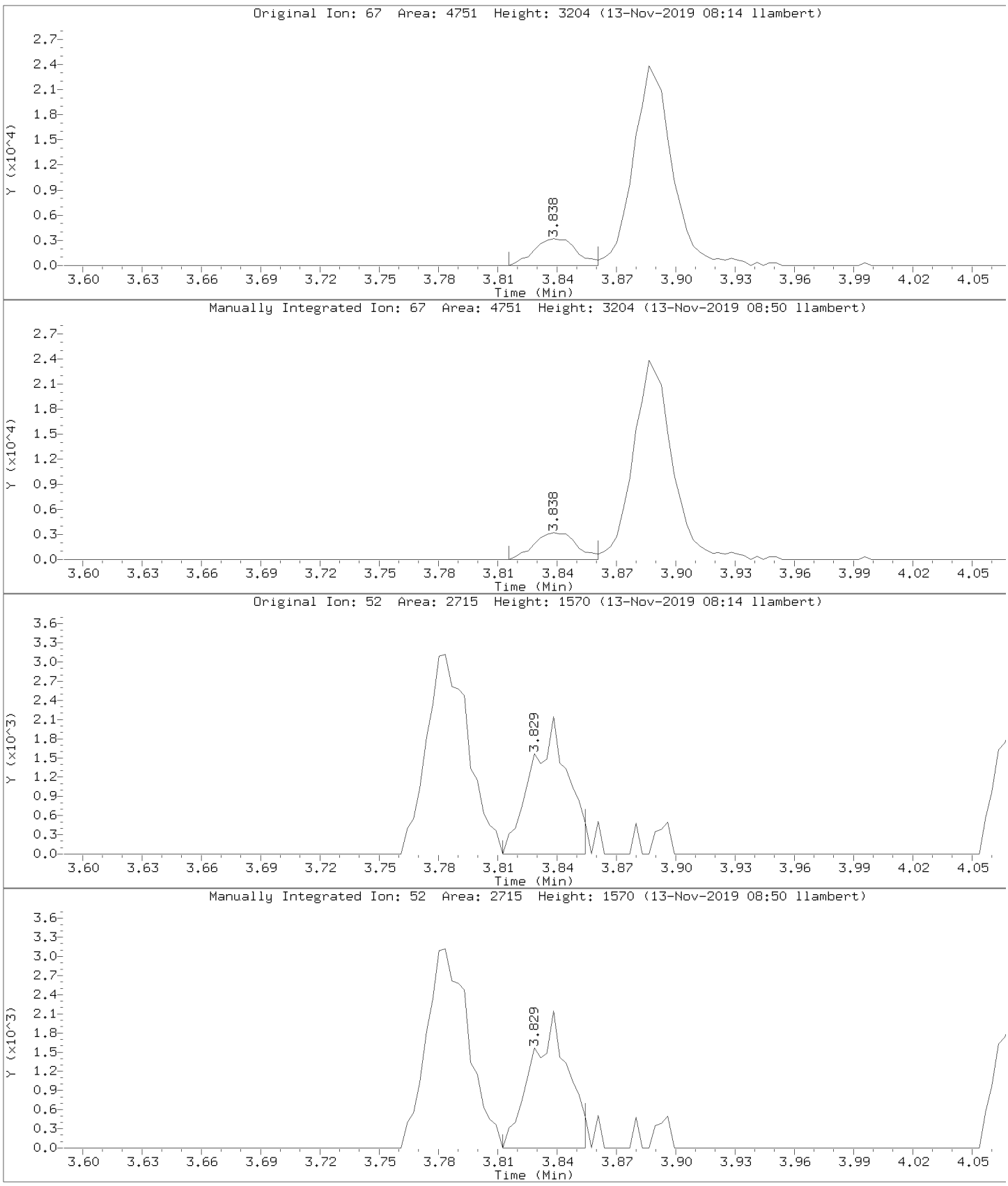
Instrument: 30mv7a.i
Lab Sample ID: CAL2



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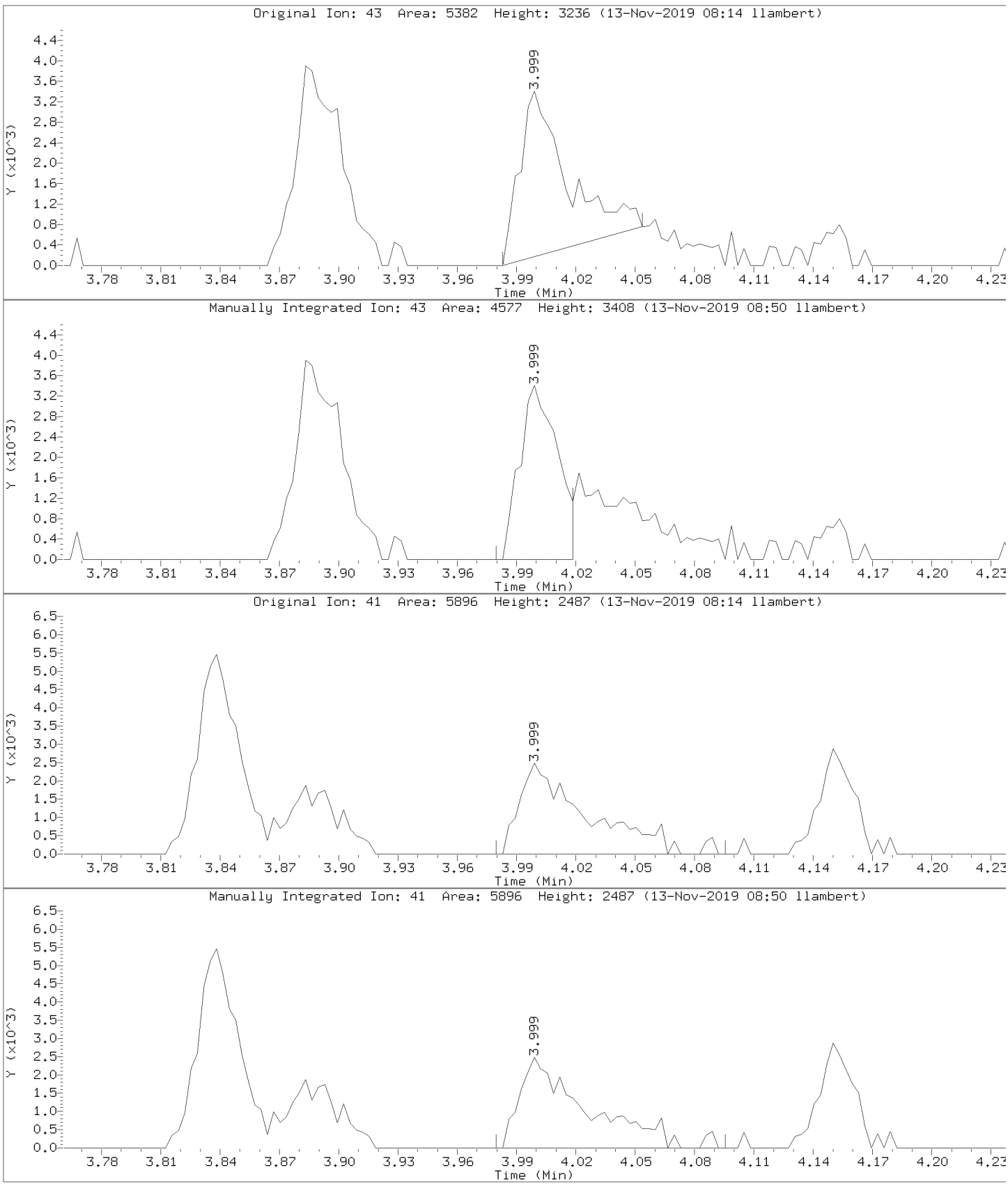
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: Isobutanol Review Code: GT
CAS Number: 78-83-1



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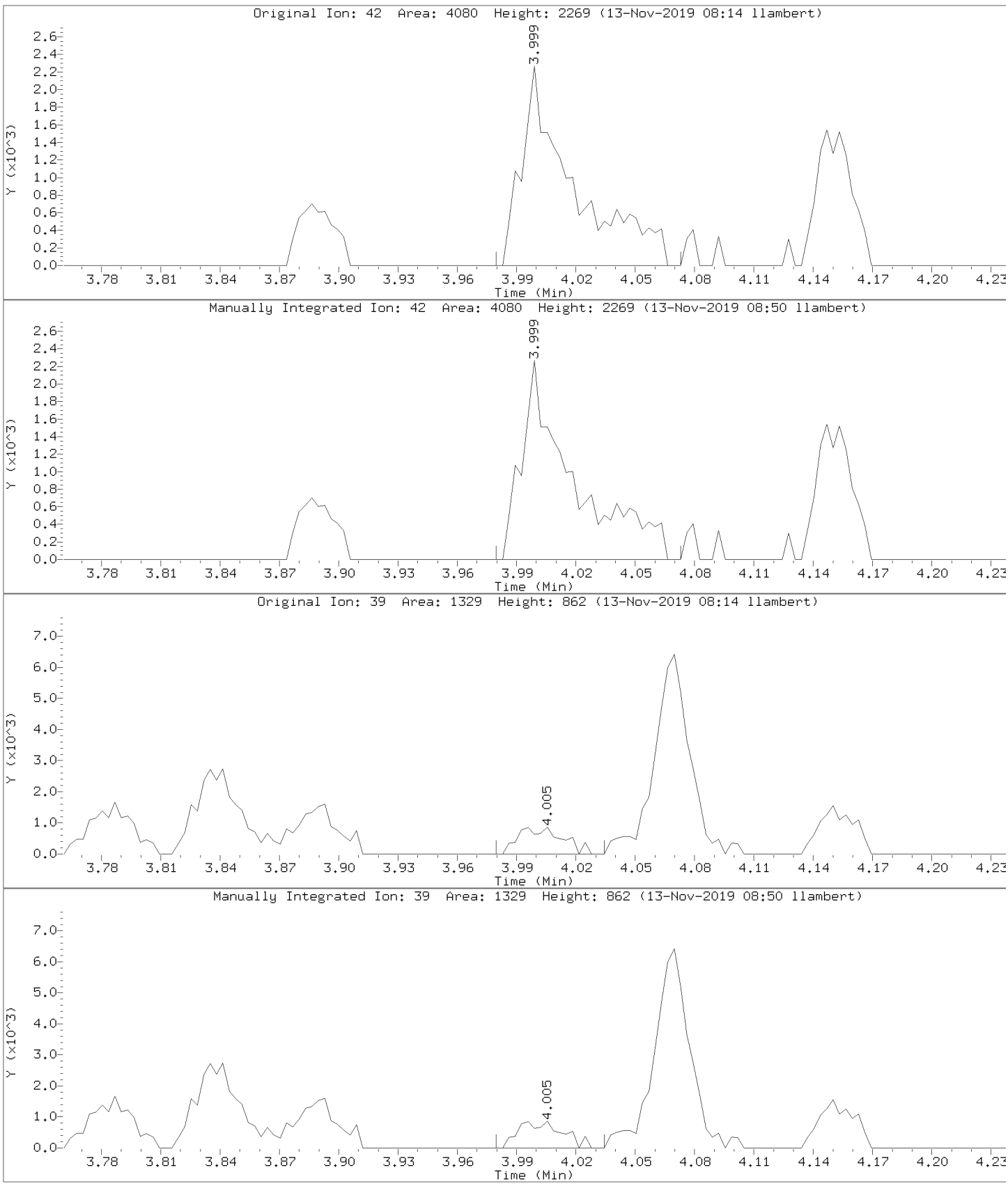
Lab Sample ID: CAL2



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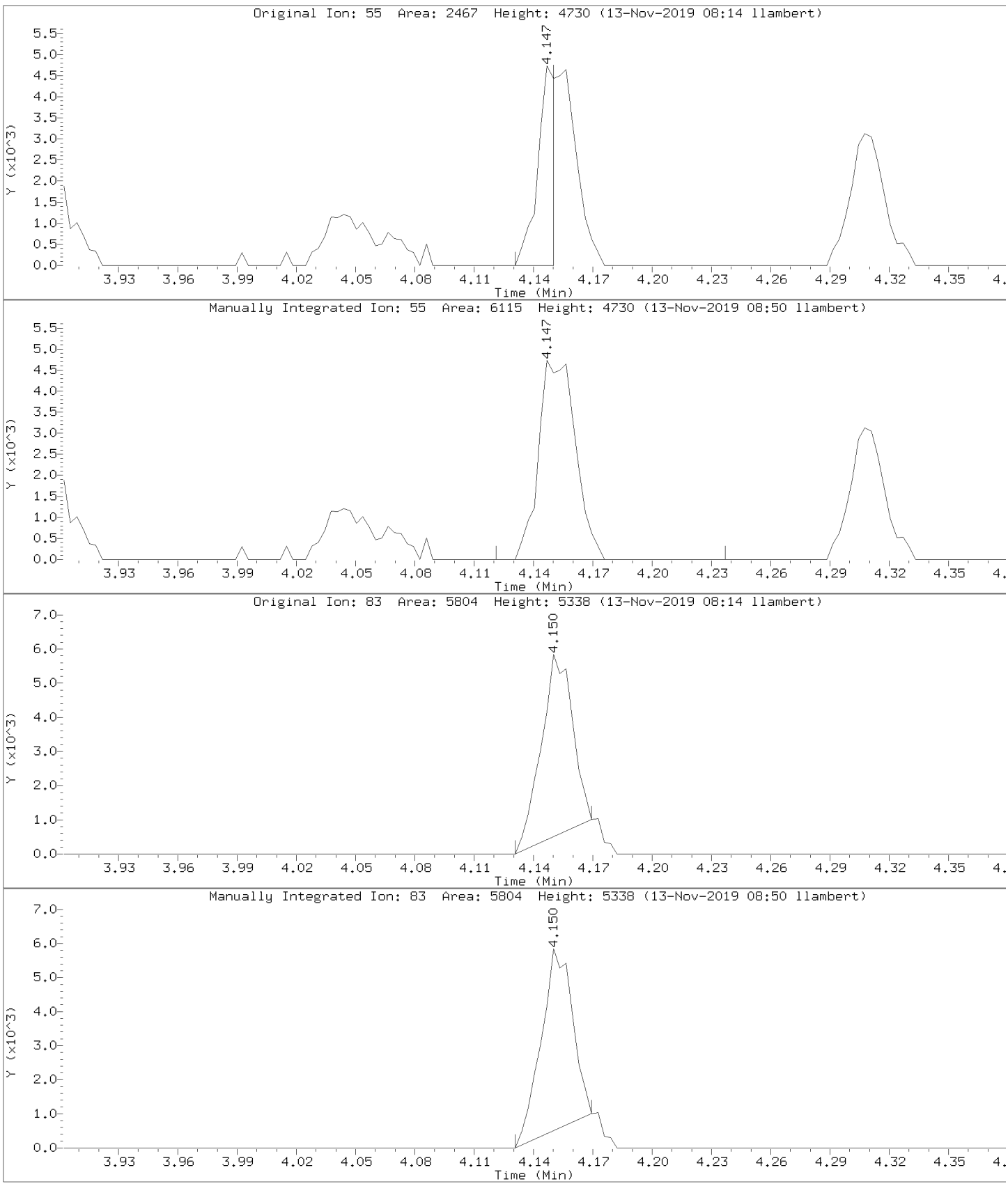
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: Methylcyclohexane Review Code: NI
CAS Number: 108-87-2



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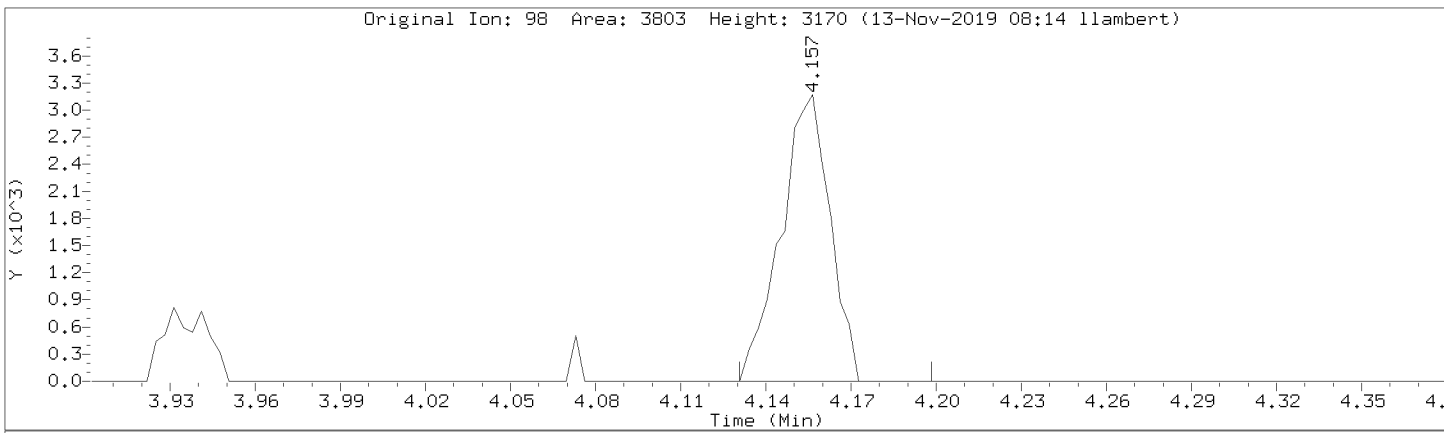
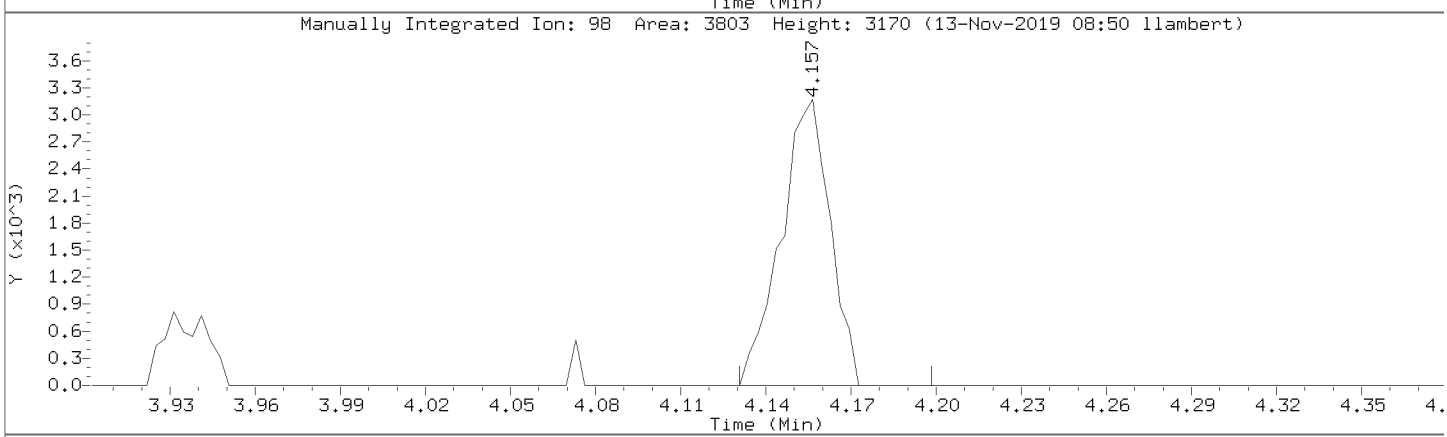
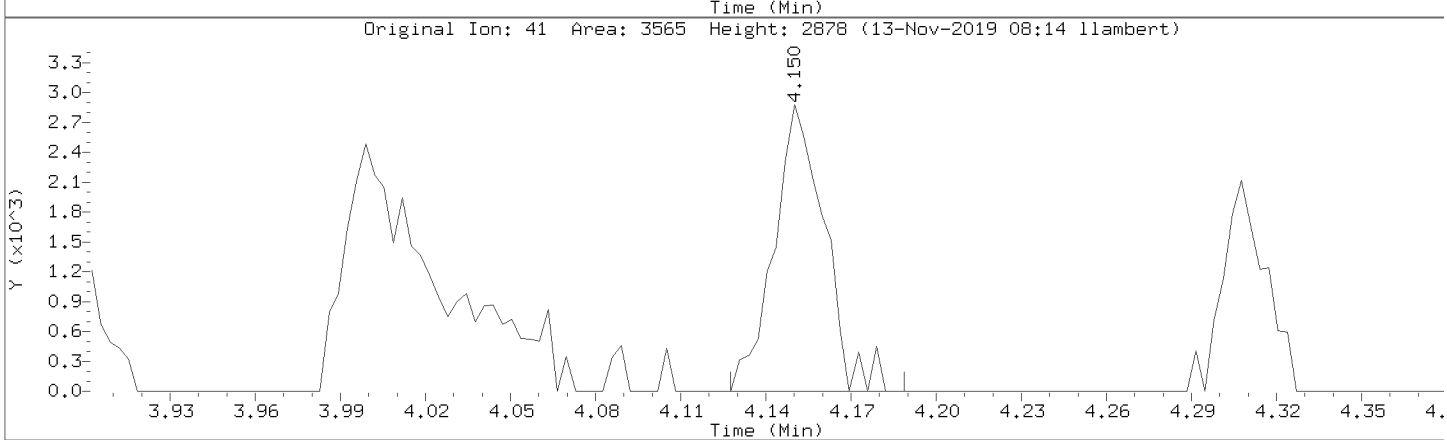
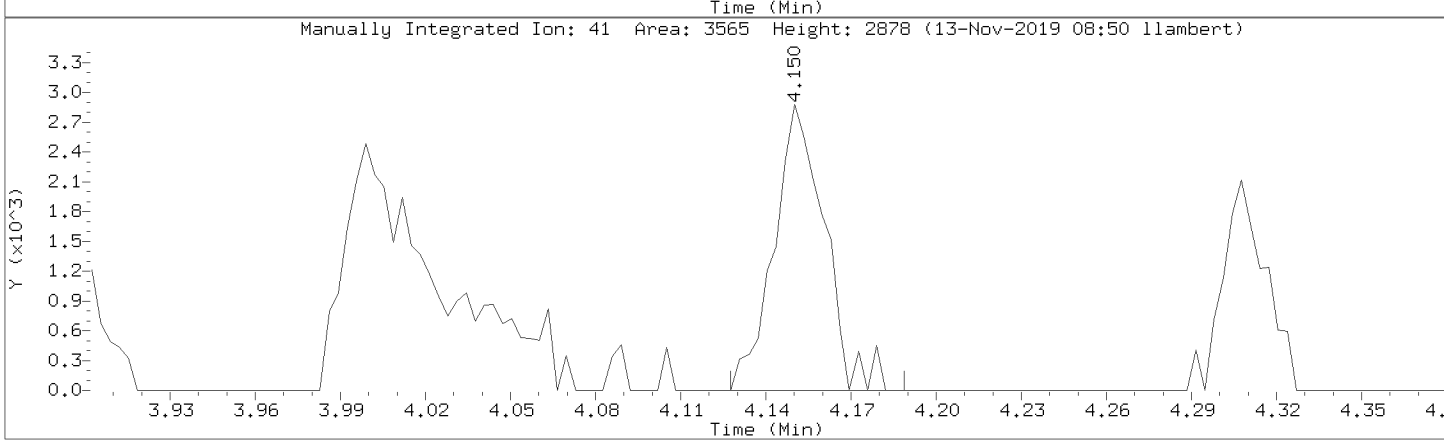
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2









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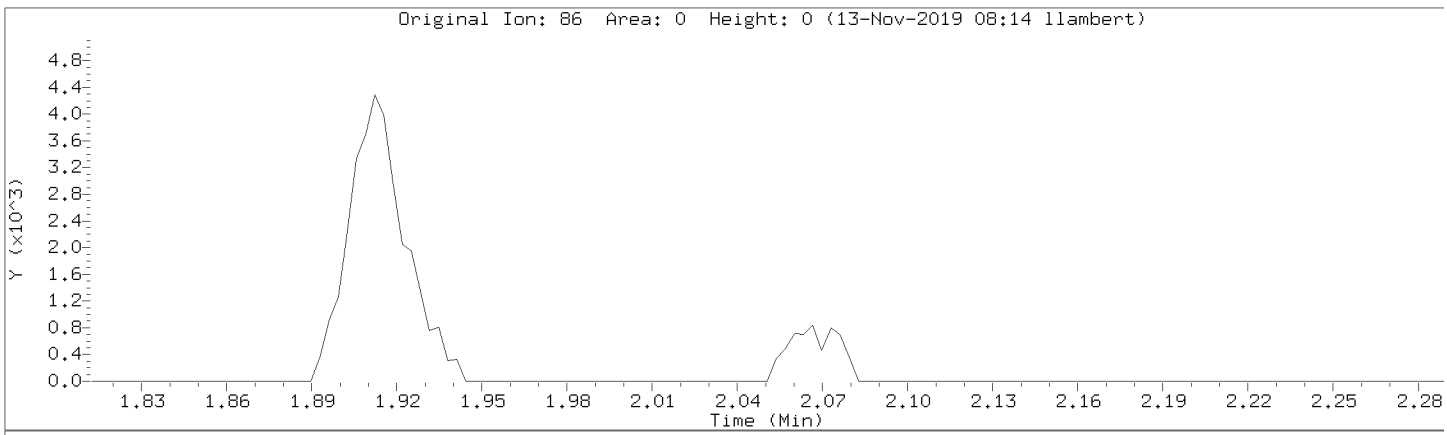
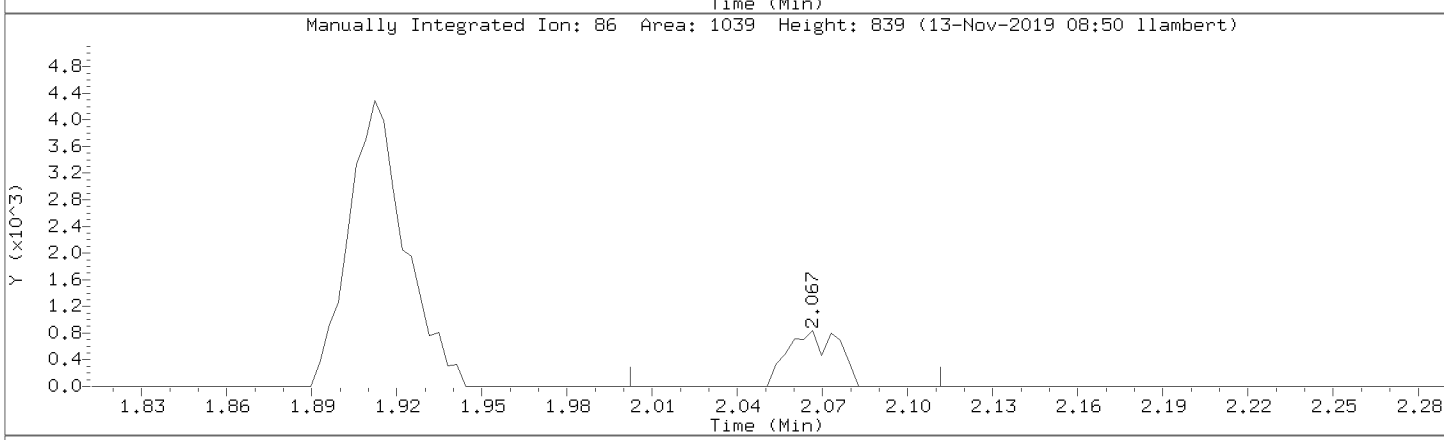
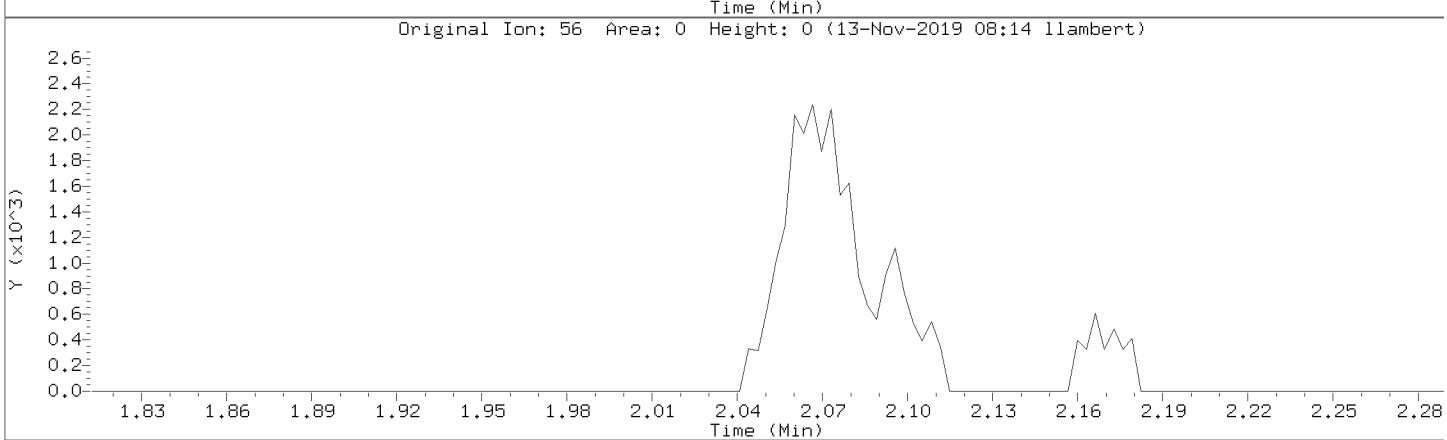
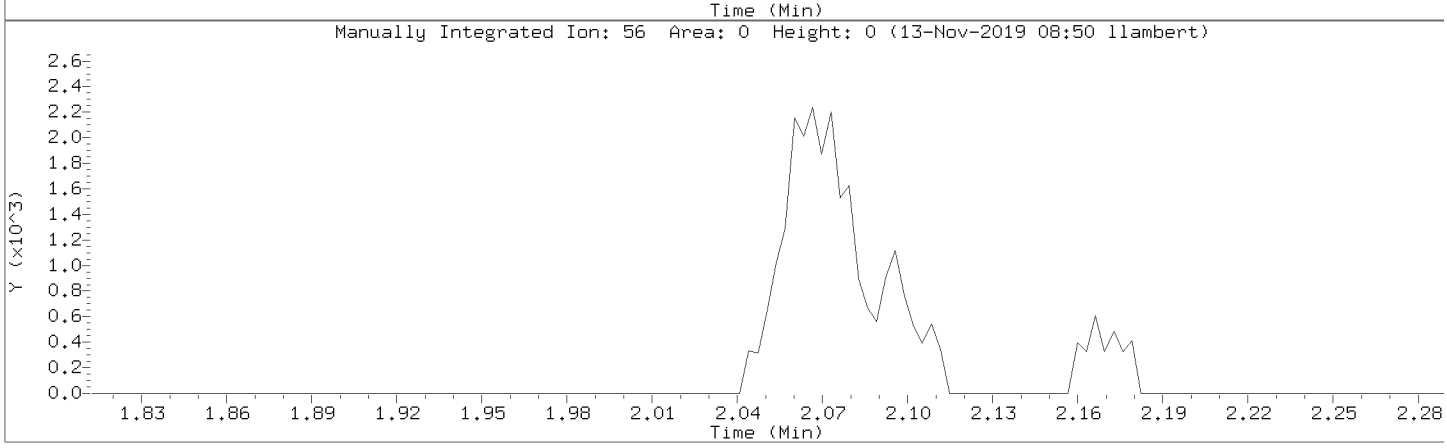
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: n-Hexane Review Code: NI
CAS Number: 110-54-3









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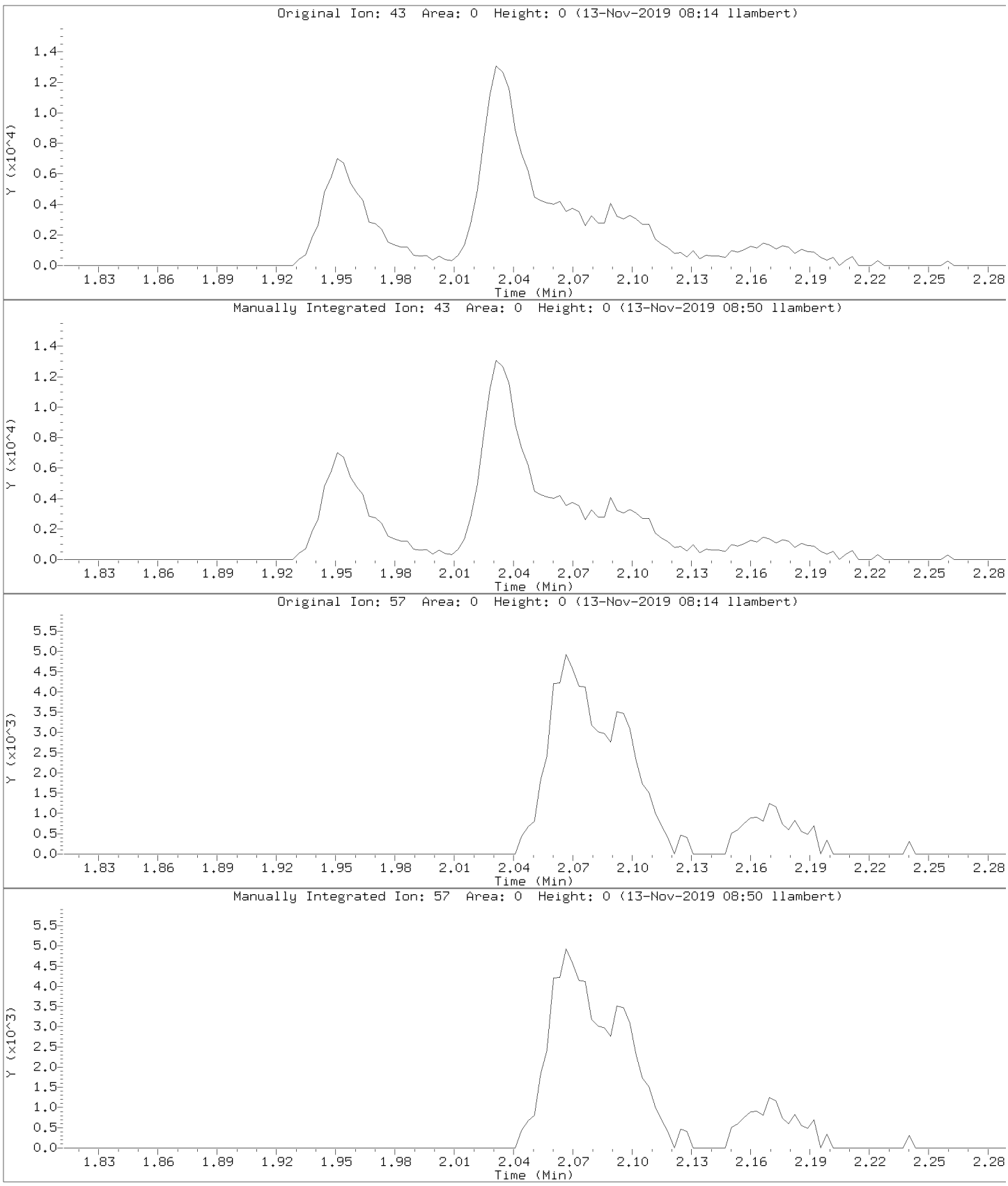
Instrument: 30mv7a.i
Lab Sample ID: CAL2



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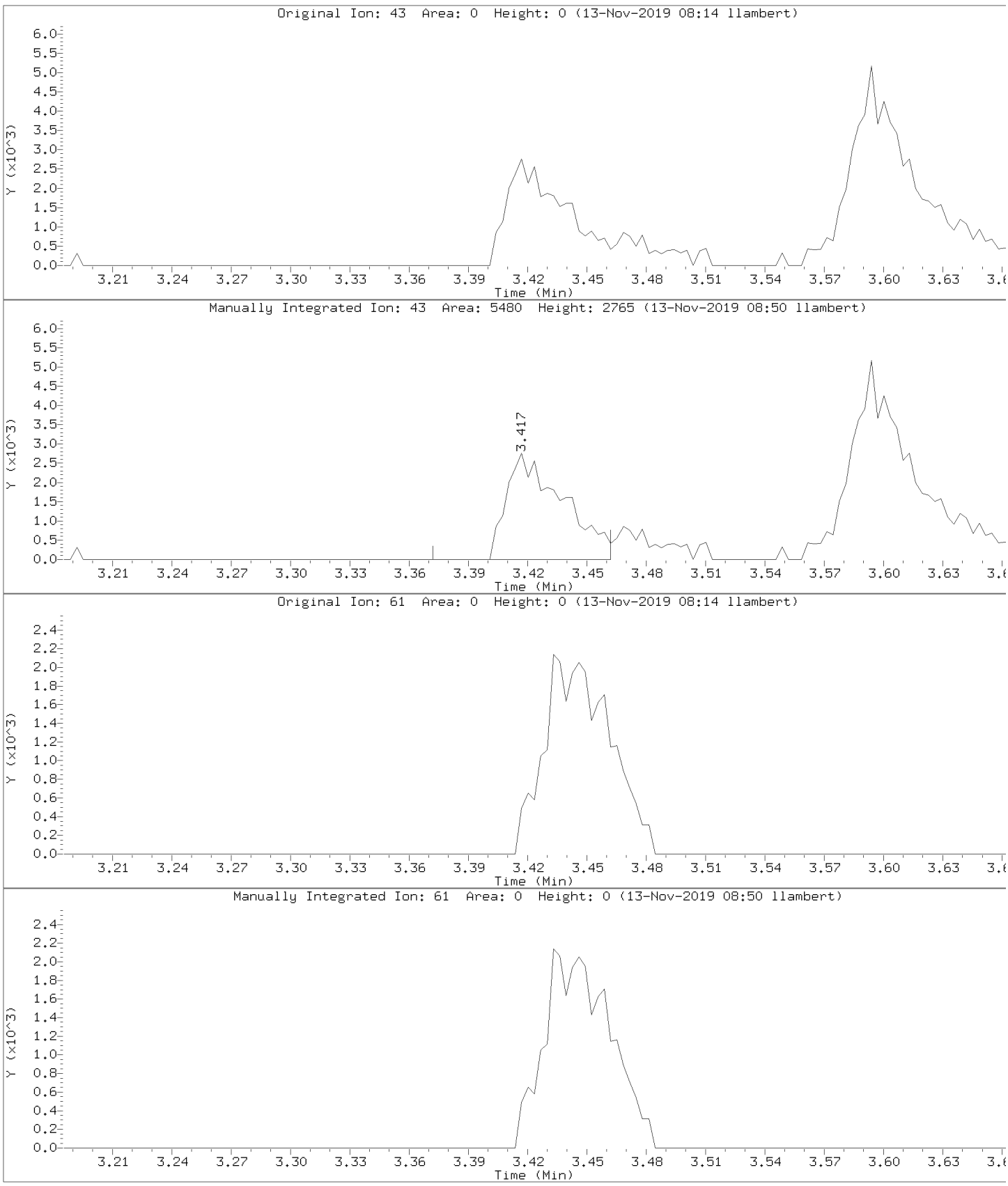
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: Ethyl acetate Review Code: NI
CAS Number: 141-78-6



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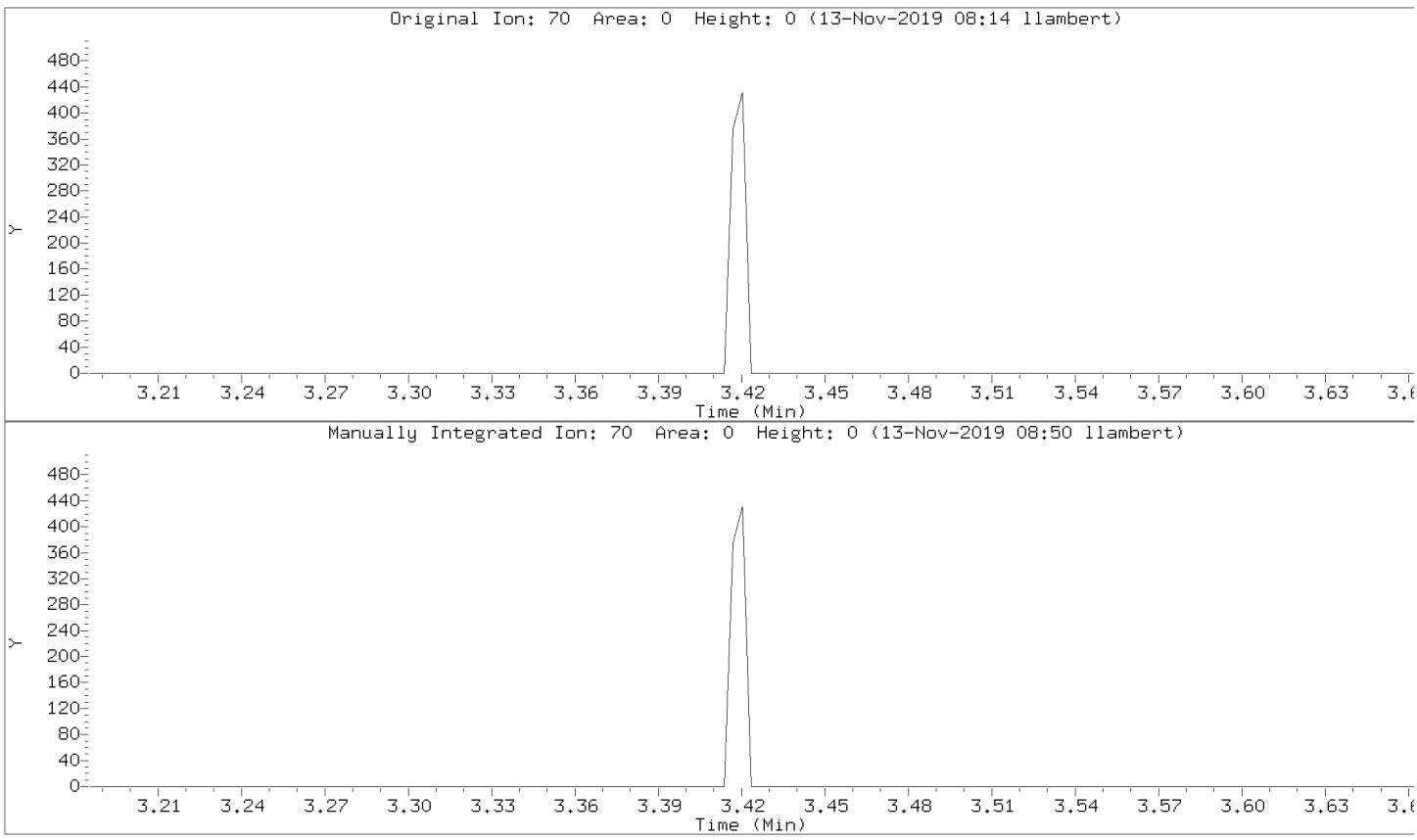
Instrument: 30mv7a.i
Lab Sample ID: CAL2



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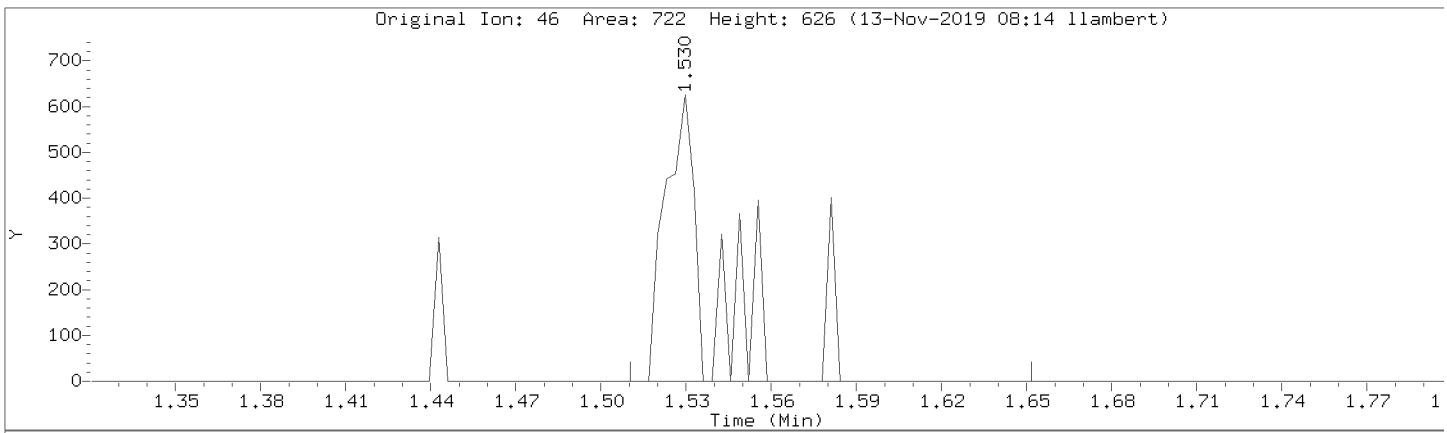
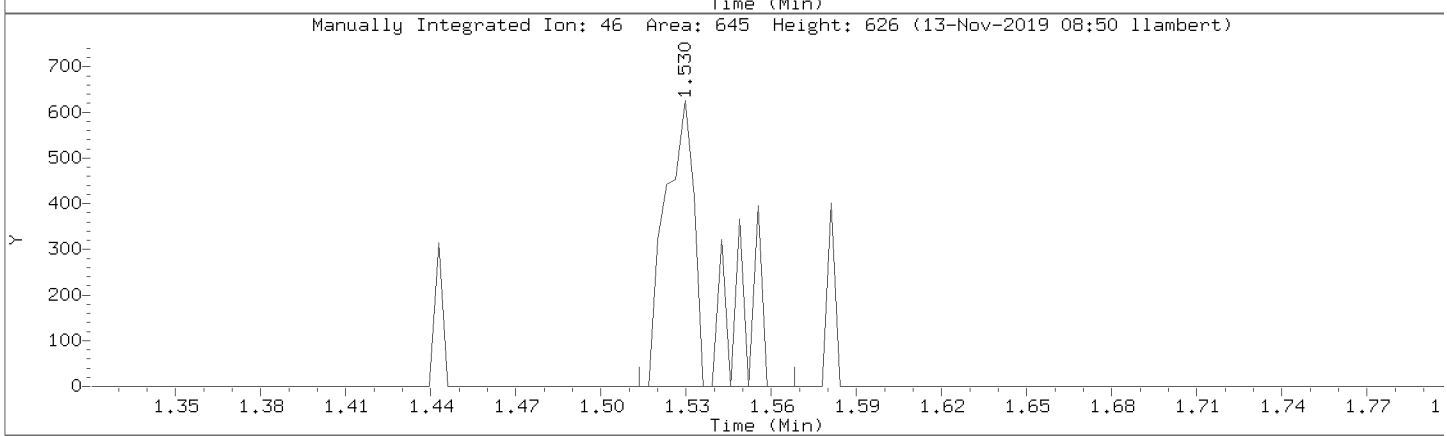
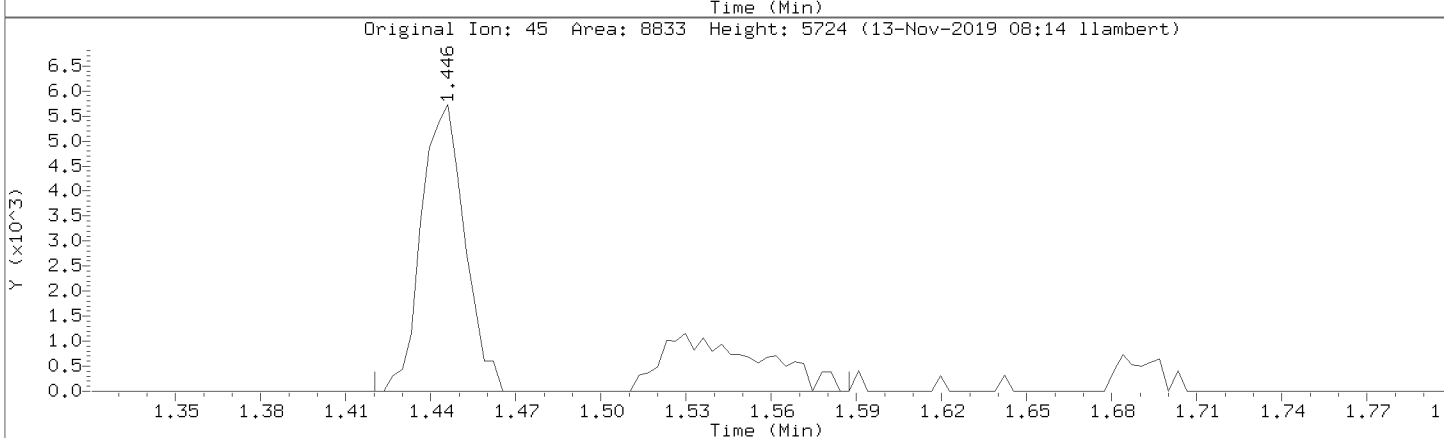
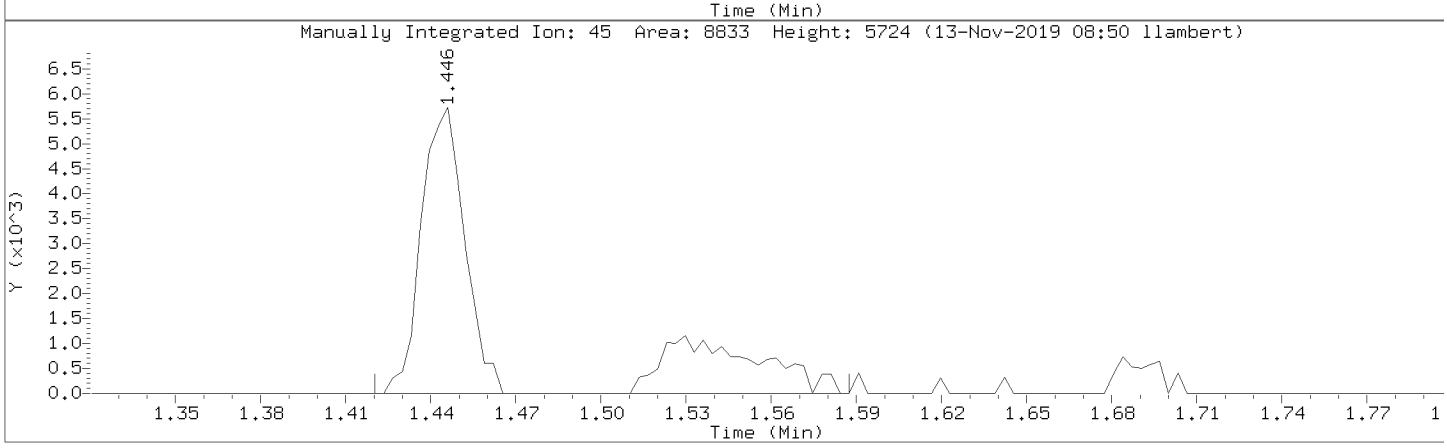
Injection Date: 12-NOV-2019 14:25
Instrument: 30mv7a.i
Lab Sample ID: CAL2

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5









Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 12-NOV-2019 14:49
Operator : LEL Inst ID: 30mv7a.i
Smp Info : cal3, 105190:1
Misc Info : 47221,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:49 Cal File: 71112009.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.847	0.851	(0.208)	21488	10.0000	9.91(Q)	
2 Chloromethane	50	0.950	0.951	(0.234)	24363	10.0000	9.76	
3 Vinyl chloride	62	0.989	0.989	(0.243)	23821	10.0000	9.60	
4 Bromomethane	94	1.147	1.147	(0.282)	5672	10.0000	9.94	
5 Chloroethane	64	1.208	1.208	(0.297)	8489	10.0000	10.9	
6 Trichlorofluoromethane	101	1.278	1.282	(0.314)	30727	10.0000	10.1	
7 Diethyl ether (Ethyl ether)	59	1.442	1.443	(0.355)	15006	10.0000	9.61	
8 Ethanol	46	1.532	1.571	(0.236)	2572	100.000	94.4	
9 1,1-Dichloroethene	61	1.558	1.555	(0.383)	28452	10.0000	9.98	
10 1,1,2-Trichlorotrifluoroethane	151	1.581	1.584	(0.388)	14638	10.0000	9.56	
11 Carbon disulfide	76	1.577	1.578	(0.388)	42624	10.0000	9.29	
12 Iodomethane	142	1.645	1.639	(0.404)	769	10.0000	2.85(QM)	NI
13 Acrolein	56	1.761	1.764	(0.433)	6463	10.0000	9.82	
14 Allyl chloride	41	1.841	1.841	(0.452)	123206	50.0000	47.6	
15 Methylene Chloride	49	1.915	1.915	(0.471)	24341	10.0000	10.4(QM)	LT
16 Acetone	58	1.954	1.947	(0.480)	6232	10.0000	10.7(M)	LT
17 trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	25088	10.0000	10.1	
18 Methyl acetate	74	2.031	2.033	(0.499)	8425	10.0000	9.67	
19 n-Hexane	86	2.069	2.063	(0.509)	2758	10.0000	9.90	
20 Methyl-tert-butyl ether	73	2.089	2.092	(0.513)	46854	10.0000	9.61(Q)	
21 tert-Butyl Alcohol	59	2.169	2.166	(0.533)	45050	50.0000	46.7	
22 Acetonitrile	41	2.288	2.295	(0.562)	27462	50.0000	49.6	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.375	2.385	(0.584)	48594	10.0000	9.28	
	24 Chloroprene	53	2.458	2.462	(0.604)	17234	10.0000	9.45	
	25 1,1-Dichloroethane	63	2.478	2.484	(0.609)	30908	10.0000	9.95(Q)	
	26 Acrylonitrile	53	2.532	2.536	(0.622)	14432	10.0000	9.57(Q)	
	27 Ethyl-tert-butyl ether	59	2.696	2.693	(0.663)	47061	10.0000	9.39	
	28 Vinyl acetate	43	2.712	2.719	(0.667)	42487	10.0000	9.26	
	29 cis-1,2-Dichloroethene	61	2.966	2.963	(0.729)	23634	10.0000	9.95	
	30 2,2-Dichloropropane	77	3.069	3.073	(0.754)	23841	10.0000	10.0	
	31 Cyclohexane	56	3.156	3.153	(0.776)	25747	10.0000	9.35	
	32 Bromochloromethane	130	3.166	3.163	(0.778)	12370	10.0000	9.97	
	33 Chloroform	83	3.256	3.253	(0.800)	28462	10.0000	9.78	
	34 Ethyl acetate	43	3.420	3.436	(0.840)	14414	10.0000	8.87(Q)	
	35 Carbon tetrachloride	117	3.375	3.359	(0.829)	22866	10.0000	9.83	
	36 Tetrahydrofuran	42	3.420	3.433	(0.840)	14919	10.0000	9.32	
$	37 Dibromofluoromethane (S)	111	3.439	3.439	(0.845)	57238	30.0000	30.1	
	38 1,1,1-Trichloroethane	97	3.445	3.452	(0.847)	26041	10.0000	10.0(Q)	
	39 2-Butanone (MEK)	43	3.593	3.603	(0.883)	21055	10.0000	8.96(aQ)	
	40 1,1-Dichloropropene	75	3.581	3.578	(0.880)	22686	10.0000	9.83(QM)	LT
	41 Benzene	78	3.783	3.783	(0.930)	65871	10.0000	9.82	
	42 Propionitrile	54	3.828	3.828	(0.941)	6325	10.0000	8.98(QM)	LT
	43 Methacrylonitrile	41	3.838	3.841	(0.943)	16199	10.0000	9.60(M)	LT
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	38117	10.0000	9.14	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.889	(0.955)	56903	30.0000	29.7	
	45 Isobutanol	43	3.998	4.011	(0.983)	10477	50.0000	40.5(QM)	GT
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	21432	10.0000	9.85(Q)	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	215622	30.0000	(M)	GT
	49 Methylcyclohexane	55	4.150	4.152	(1.020)	14289	10.0000	9.12	
	50 Trichloroethene	132	4.169	4.168	(1.024)	19400	10.0000	9.90	
	51 Dibromomethane	174	4.388	4.388	(1.078)	13793	10.0000	9.86	
	52 1,2-Dichloropropane	63	4.436	4.433	(1.090)	16346	10.0000	9.94	
	53 Bromodichloromethane	83	4.471	4.468	(1.099)	17554	10.0000	9.37	
	54 Methyl methacrylate	69	4.552	4.558	(1.119)	12612	10.0000	8.70	
	55 1,4-Dioxane (p-Dioxane)	88	4.574	4.578	(1.124)	4398	100.000	93.3(Q)	
	56 2-Chloroethylvinyl ether	63	4.728	4.732	(1.162)	12273	10.0000	9.48	
	57 cis-1,3-Dichloropropene	75	4.748	4.741	(1.167)	22072	10.0000	9.47	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	189841	30.0000	29.7	
	59 Toluene	91	4.847	4.848	(0.879)	65162	10.0000	9.59	
	60 2-Nitropropane	43	4.957	4.960	(1.218)	44048	50.0000	43.0	
	61 4-Methyl-2-pentanone (MIBK)	43	5.027	5.028	(1.235)	30351	10.0000	9.32(a)	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	18773	10.0000	9.93	
	63 trans-1,3-Dichloropropene	75	5.040	5.044	(0.914)	20069	10.0000	9.39	
	64 Ethyl methacrylate	41	5.111	5.114	(0.927)	14273	10.0000	9.64	
	65 1,1,2-Trichloroethane	97	5.111	5.118	(0.927)	15520	10.0000	9.88	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	16550	10.0000	9.38	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	26361	10.0000	9.96	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	17618	10.0000	9.63	
	69 2-Hexanone	43	5.394	5.397	(0.978)	24843	10.0000	8.96(a)	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	148012	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	22570	10.0000	10.0	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	42328	10.0000	9.93	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.548	(1.006)	15270	10.0000	9.60(Q)	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	52271	20.0000	19.4	
	75 o-Xylene	106	5.770	5.770	(1.047)	25685	10.0000	9.85	
	76 Styrene	104	5.793	5.793	(1.051)	37665	10.0000	9.40	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 Bromoform	173	5.809	5.809	(0.896)	11669	10.0000	8.92	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	52563	10.0000	9.73	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	60006	30.0000	29.7	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	59295	10.0000	9.82	
	81 Bromobenzene	77	6.066	6.069	(0.936)	25510	10.0000	9.77	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	22297	10.0000	9.73	
	83 1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	40735	10.0000	9.60	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	13661	10.0000	9.77	
	85 1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	8139	10.0000	9.59	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.952)	5070	10.0000	8.10	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	10038	50.0000	37.0	
	88 4-Chlorotoluene	126	6.207	6.211	(0.957)	14273	10.0000	9.68	
	89 tert-Butylbenzene	119	6.281	6.282	(0.969)	33727	10.0000	9.78	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	40365	10.0000	9.58	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	45261	10.0000	9.74	
	92 p-Isopropyltoluene	119	6.407	6.410	(0.988)	38457	10.0000	9.71	
	93 1,3-Dichlorobenzene	146	6.455	6.452	(0.996)	24922	10.0000	9.78	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	64308	30.0000		
	95 1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	26876	10.0000	9.93	
	96 n-Butylbenzene	91	6.584	6.584	(1.015)	29418	10.0000	9.61	
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	24473	10.0000	9.85	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	8096	10.0000	9.21	
	103 1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	13745	10.0000	9.90	
	100 Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	6351	10.0000	9.85	
	101 1,2,4-Trichlorobenzene	180	7.275	7.278	(1.122)	12487	10.0000	9.64	
	102 Naphthalene	128	7.410	7.413	(1.143)	50134	10.0000	9.18	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	12137	10.0000	9.81	
	105 2-Methylnaphthalene	142	7.847	7.844	(1.210)	14254	10.0000	9.31	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
NI: Indicates that the peak was not integrated at all by the computer software.
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	9.91	
74-87-3	Chloromethane	9.76	
75-01-4	Vinyl chloride	9.60	
74-83-9	Bromomethane	9.94	
75-00-3	Chloroethane	10.9	
75-69-4	Trichlorofluoromethane	10.1	
60-29-7	Diethyl ether (Ethyl ether)	9.61	
64-17-5	Ethanol	94.4	
75-35-4	1,1-Dichloroethene	9.98	
76-13-1	1,1,2-Trichlorotrifluoroetha	9.56	
75-15-0	Carbon disulfide	9.29	
74-88-4	Iodomethane	2.85	
107-02-8	Acrolein	9.82	
107-05-1	Allyl chloride	47.6	
75-09-2	Methylene Chloride	10.4	
67-64-1	Acetone	10.7	
156-60-5	trans-1,2-Dichloroethene	10.1	
79-20-9	Methyl acetate	9.67	
110-54-3	n-Hexane	9.90	
1634-04-4	Methyl-tert-butyl ether	9.61	
75-65-0	tert-Butyl Alcohol	46.7	
75-05-8	Acetonitrile	49.6	
108-20-3	Diisopropyl ether	9.28	
126-99-8	Chloroprene	9.45	
75-34-3	1,1-Dichloroethane	9.95	
107-13-1	Acrylonitrile	9.57	
637-92-3	Ethyl-tert-butyl ether	9.39	
108-05-4	Vinyl acetate	9.26	
156-59-2	cis-1,2-Dichloroethene	9.95	
594-20-7	2,2-Dichloropropane	10.0	
110-82-7	Cyclohexane	9.35	
74-97-5	Bromochloromethane	9.97	
67-66-3	Chloroform	9.78	
141-78-6	Ethyl acetate	8.87	
56-23-5	Carbon tetrachloride	9.83	
109-99-9	Tetrahydrofuran	9.32	
71-55-6	1,1,1-Trichloroethane	10.0	
78-93-3	2-Butanone (MEK)	8.96	J
563-58-6	1,1-Dichloropropene	9.83	
71-43-2	Benzene	9.82	
107-12-0	Propionitrile	8.98	
126-98-7	Methacrylonitrile	9.60	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	9.14	
78-83-1	Isobutanol	40.5	
107-06-2	1,2-Dichloroethane	9.85	
108-87-2	Methylcyclohexane	9.12	
79-01-6	Trichloroethene	9.90	
74-95-3	Dibromomethane	9.86	
78-87-5	1,2-Dichloropropane	9.94	
75-27-4	Bromodichloromethane	9.37	
80-62-6	Methyl methacrylate	8.70	
123-91-1	1,4-Dioxane (p-Dioxane)	93.3	
110-75-8	2-Chloroethylvinyl ether	9.48	
10061-01-5	cis-1,3-Dichloropropene	9.47	
108-88-3	Toluene	9.59	
79-46-9	2-Nitropropane	43.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	9.32	J
127-18-4	Tetrachloroethene	9.93	
10061-02-6	trans-1,3-Dichloropropene	9.39	
97-63-2	Ethyl methacrylate	9.64	
79-00-5	1,1,2-Trichloroethane	9.88	
124-48-1	Dibromochloromethane	9.38	
142-28-9	1,3-Dichloropropane	9.96	
106-93-4	1,2-Dibromoethane (EDB)	9.63	
591-78-6	2-Hexanone	8.96	J
100-41-4	Ethylbenzene	10.0	
108-90-7	Chlorobenzene	9.93	
630-20-6	1,1,1,2-Tetrachloroethane	9.60	
7816-60-0	m&p-Xylene	19.4	
95-47-6	o-Xylene	9.85	
100-42-5	Styrene	9.40	
75-25-2	Bromoform	8.92	
98-82-8	Isopropylbenzene (Cumene)	9.73	
103-65-1	n-Propylbenzene	9.82	
108-86-1	Bromobenzene	9.77	
79-34-5	1,1,2,2-Tetrachloroethane	9.73	
108-67-8	1,3,5-Trimethylbenzene	9.60	
95-49-8	2-Chlorotoluene	9.77	
96-18-4	1,2,3-Trichloropropane	9.59	
110-57-6	trans-1,4-Dichloro-2-butene	8.10	
108-94-1	Cyclohexanone	37.0	
106-43-4	4-Chlorotoluene	9.68	
98-06-6	tert-Butylbenzene	9.78	
95-63-6	1,2,4-Trimethylbenzene	9.58	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Report Date: 13-Nov-2019 08:53

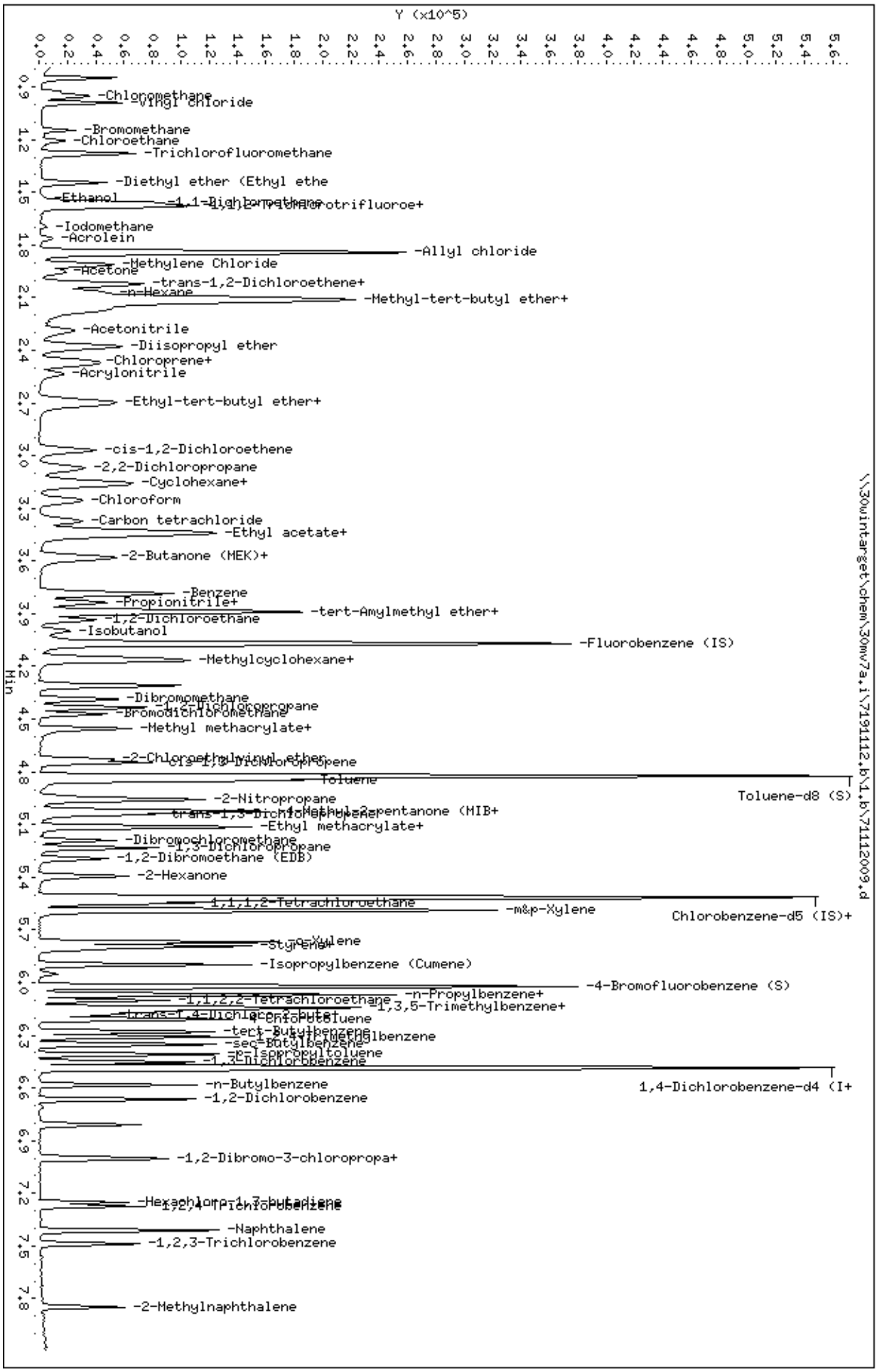
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	9.74	
99-87-6	p-Isopropyltoluene	9.71	
541-73-1	1,3-Dichlorobenzene	9.78	
106-46-7	1,4-Dichlorobenzene	9.93	
104-51-8	n-Butylbenzene	9.61	
95-50-1	1,2-Dichlorobenzene	9.85	
96-12-8	1,2-Dibromo-3-chloropropane	9.21	
108-70-3	1,3,5-Trichlorobenzene	9.90	
87-68-3	Hexachloro-1,3-butadiene	9.85	
120-82-1	1,2,4-Trichlorobenzene	9.64	
91-20-3	Naphthalene	9.18	
87-61-6	1,2,3-Trichlorobenzene	9.81	
91-57-6	2-Methylnaphthalene	9.31	
1868-53-7	Dibromofluoromethane (S)	30.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.7	
2037-26-5	Toluene-d8 (S)	29.7	
460-00-4	4-Bromofluorobenzene (S)	29.7	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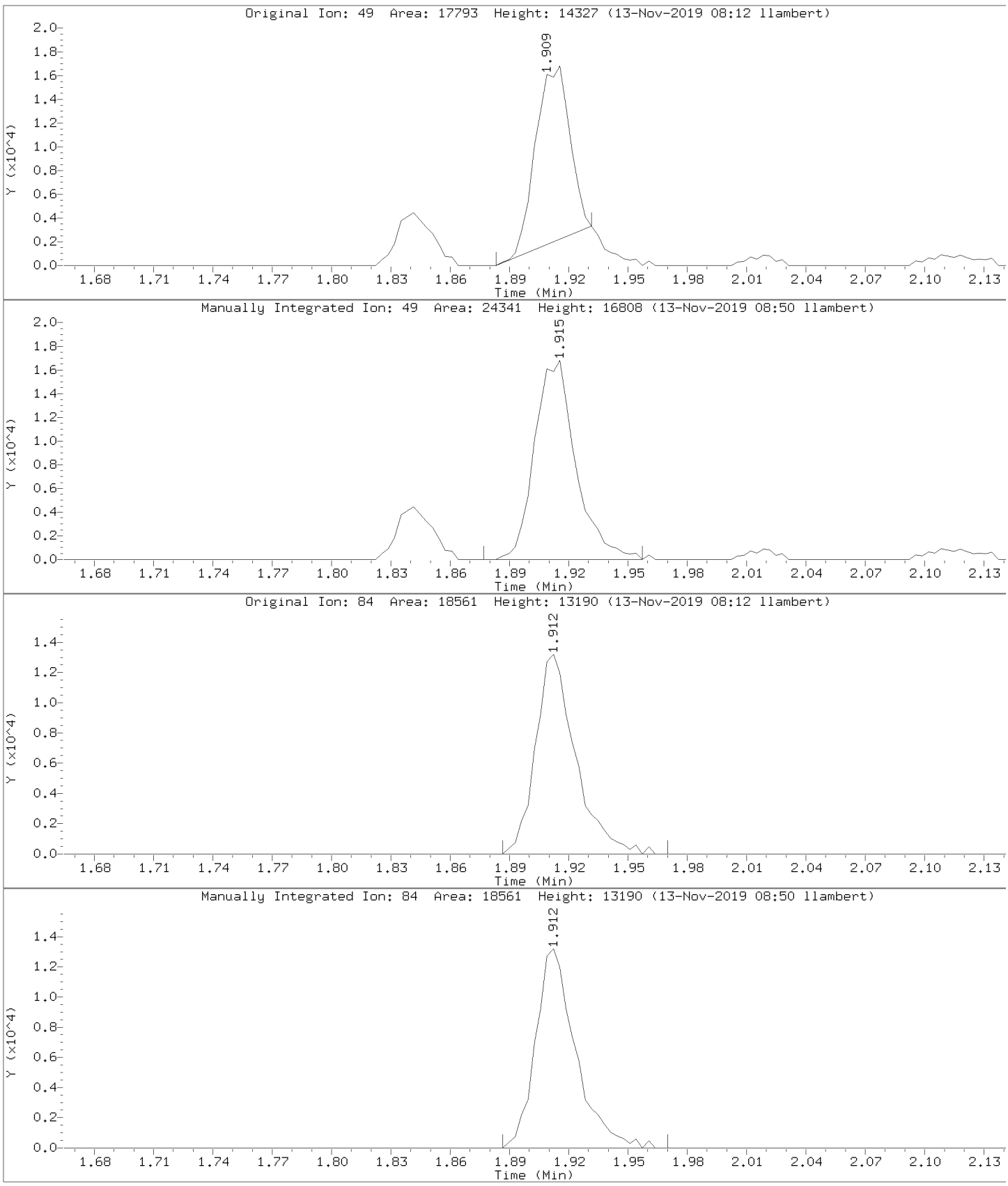
Date : 12-NOV-2019 14:49
Client ID: CAL3
Sample Info: CAL3, 10519:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112009.d
Y (x10^5)
Min
-Chloromethane
-Vinyl Chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1-Dichloroethene
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether+
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
Toluene
Toluene-d8 (S)
-2-Nitropropane
trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-1,1,2,2-Tetrachloroethane
-n-Propylbenzene+
-1,3,5-Trimethylbenzene+
-trans-1,4-Dichloro-2-butene
-2-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112009.d
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: Methylene Chloride Review Code: LT
CAS Number: 75-09-2



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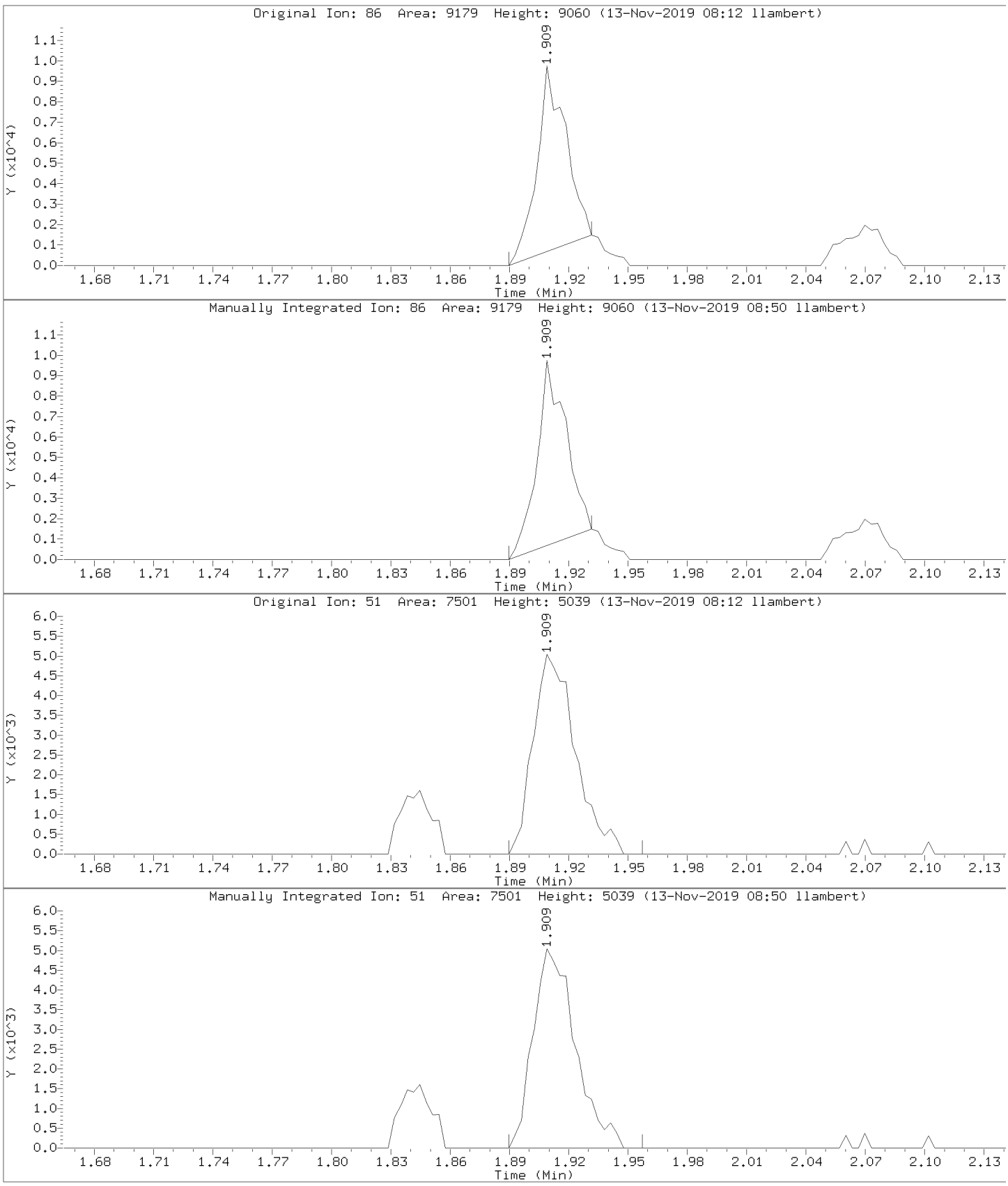
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3



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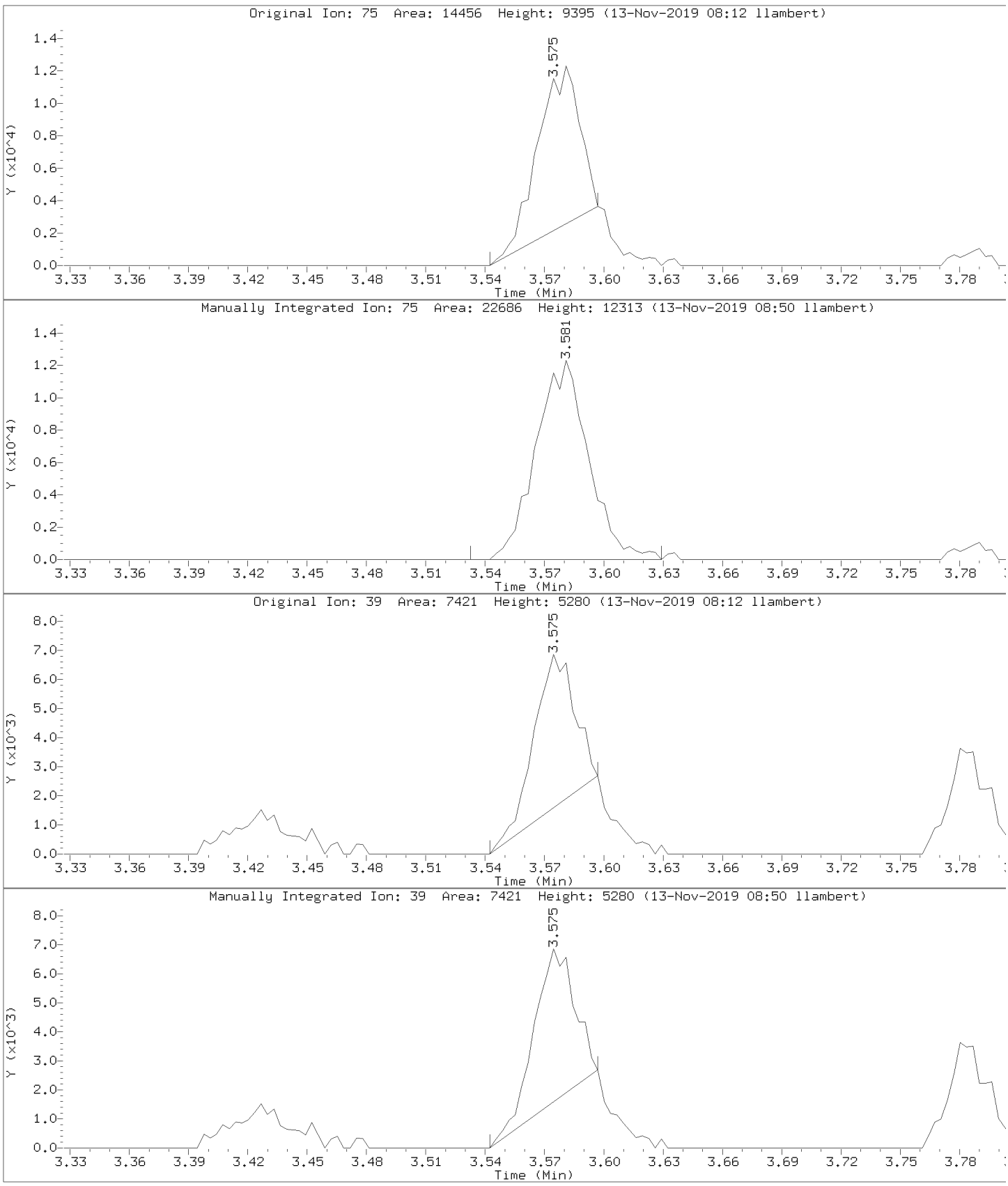
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: 1,1-Dichloropropene Review Code: LT
CAS Number: 563-58-6



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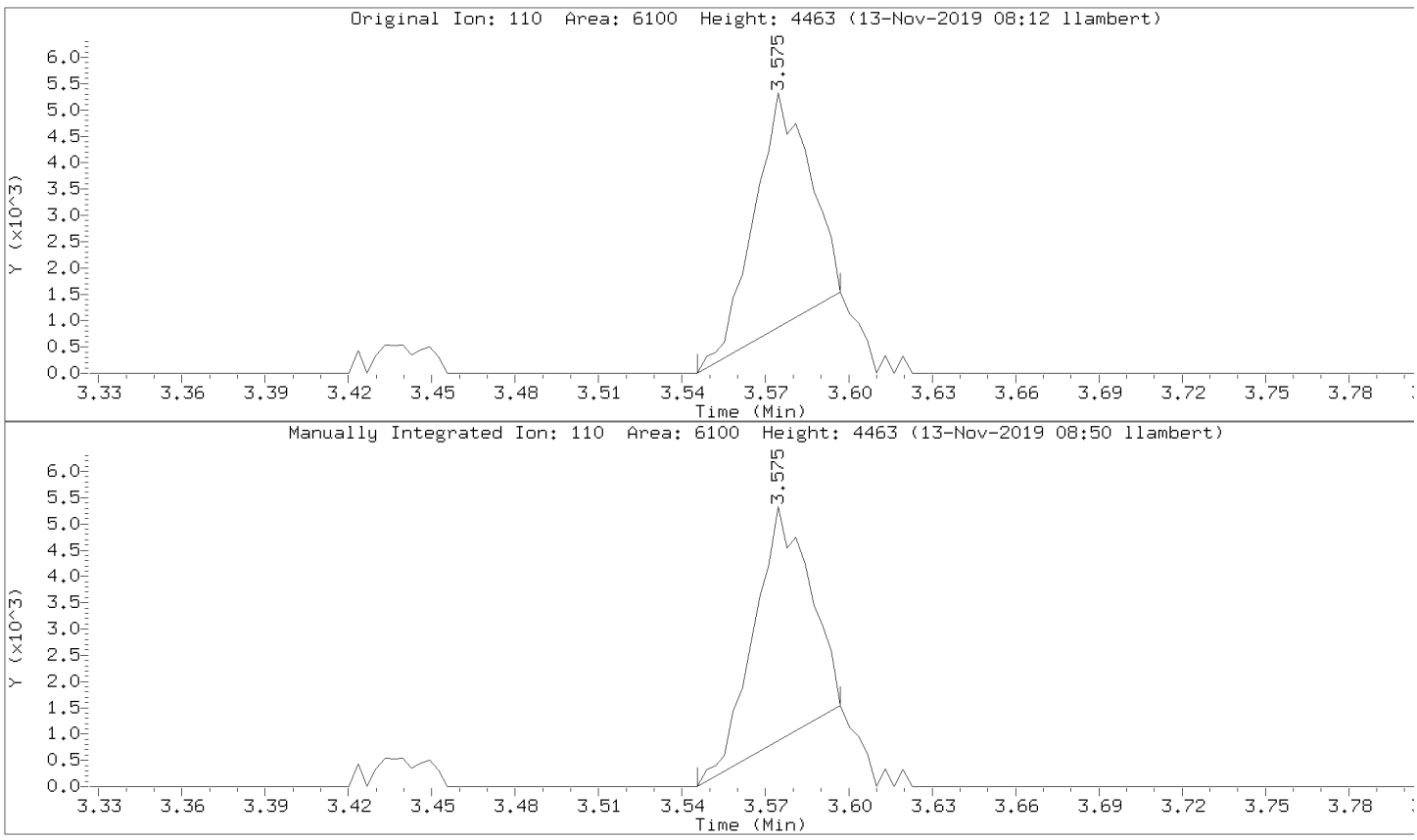
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3



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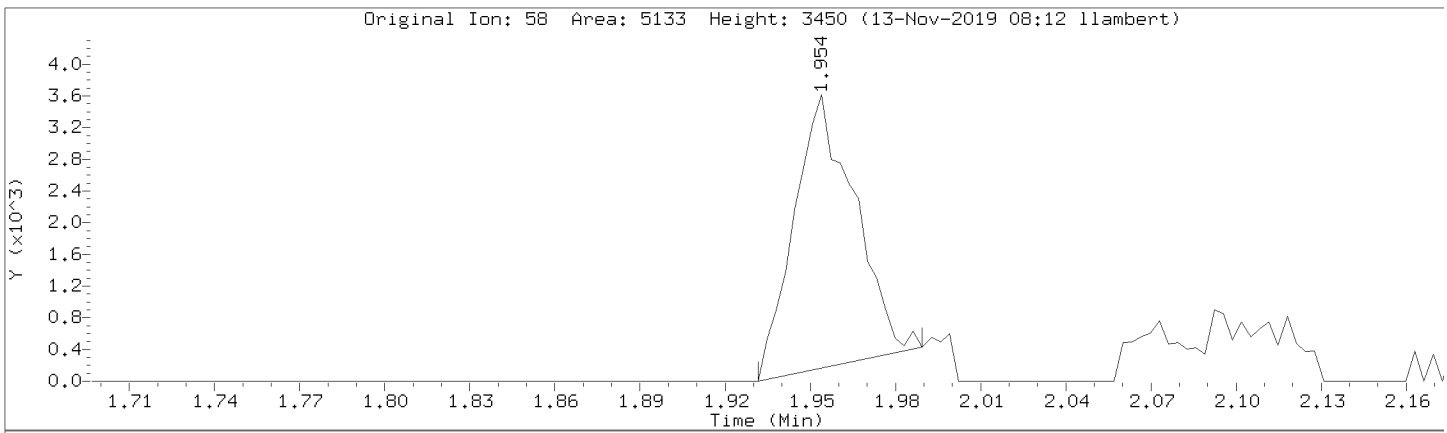
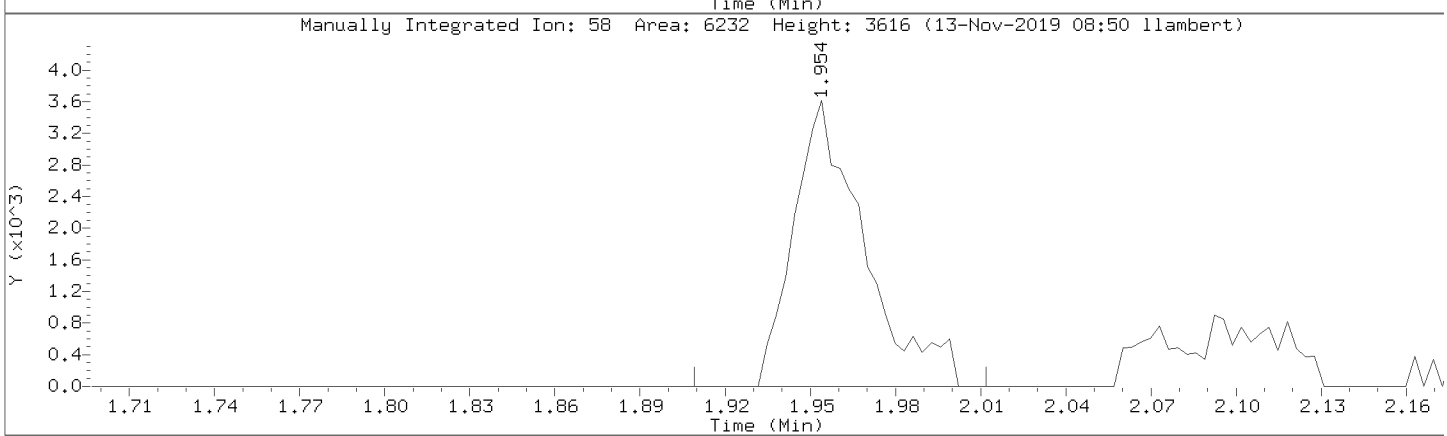
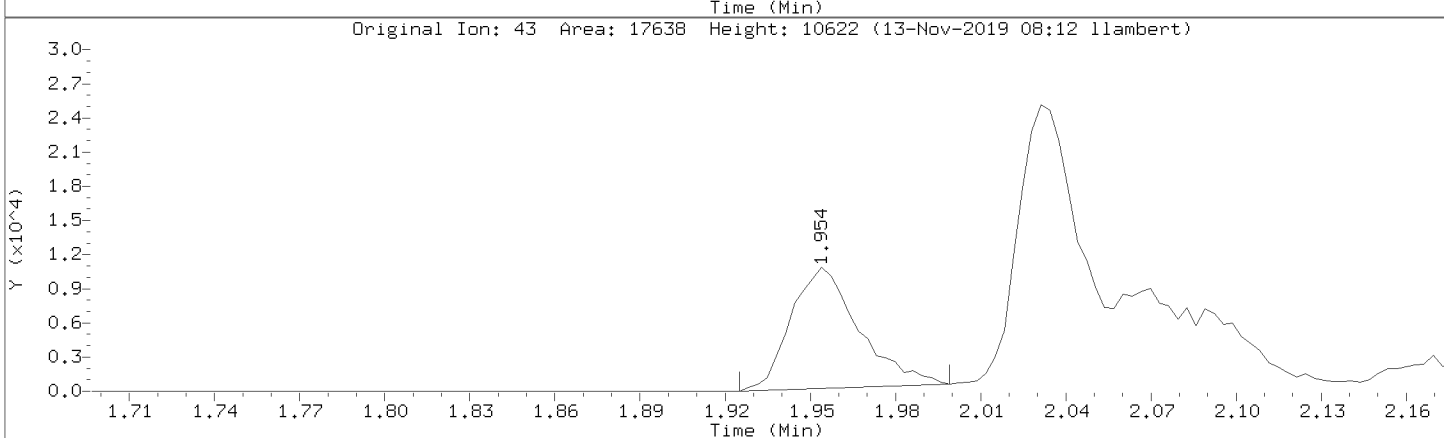
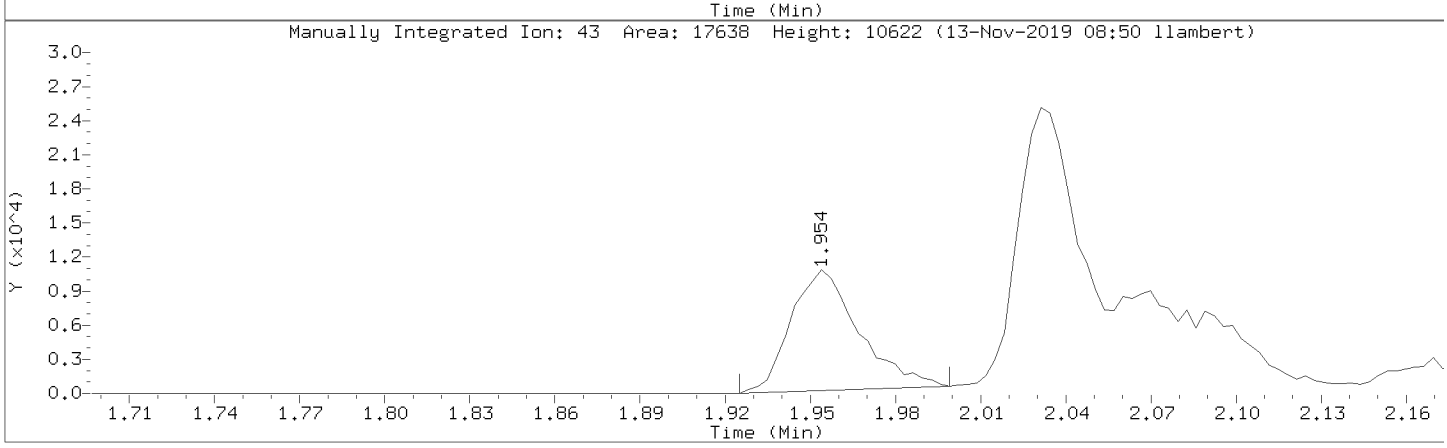
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: Acetone Review Code: LT
CAS Number: 67-64-1









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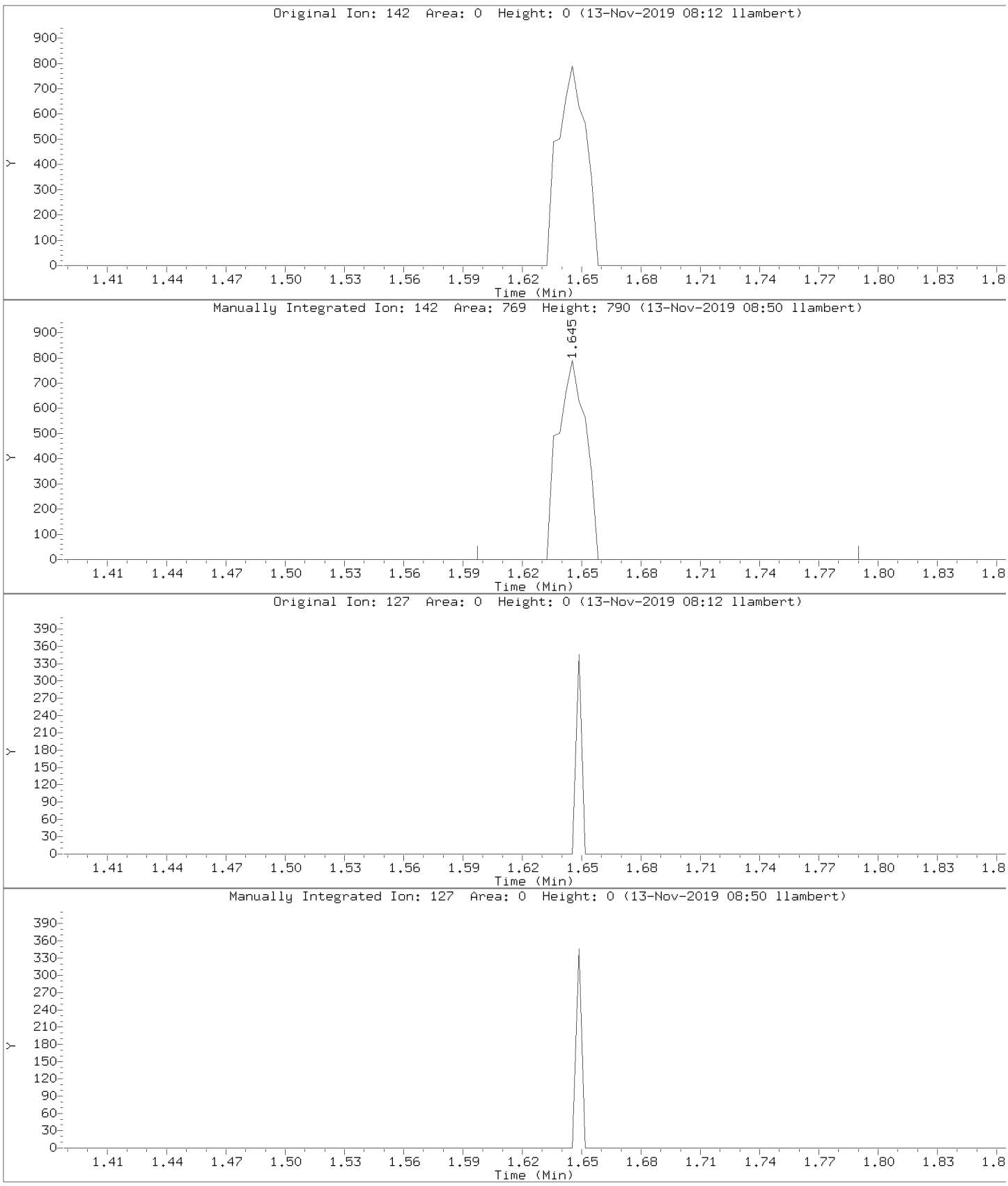
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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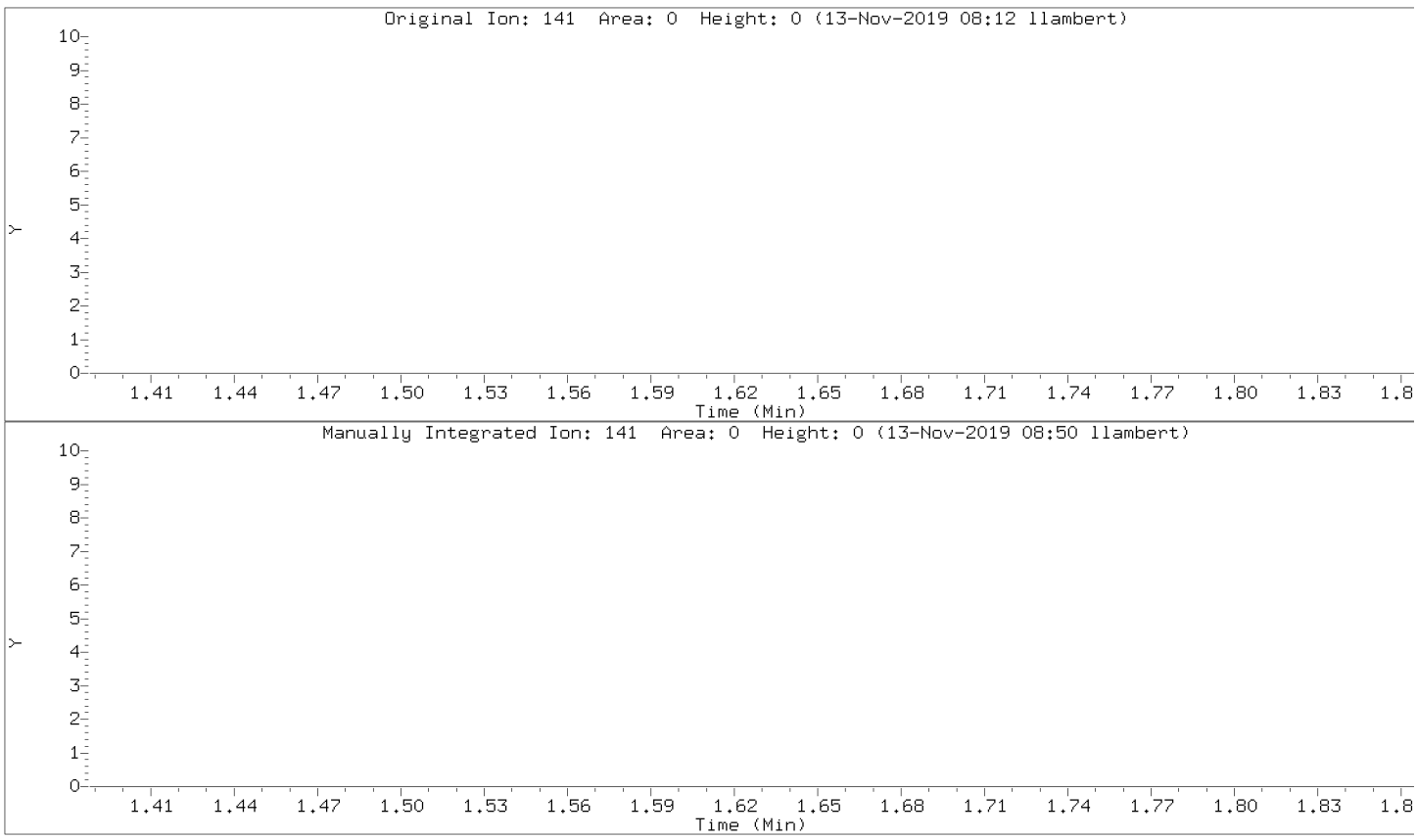
Instrument: 30mv7a.i
Lab Sample ID: CAL3



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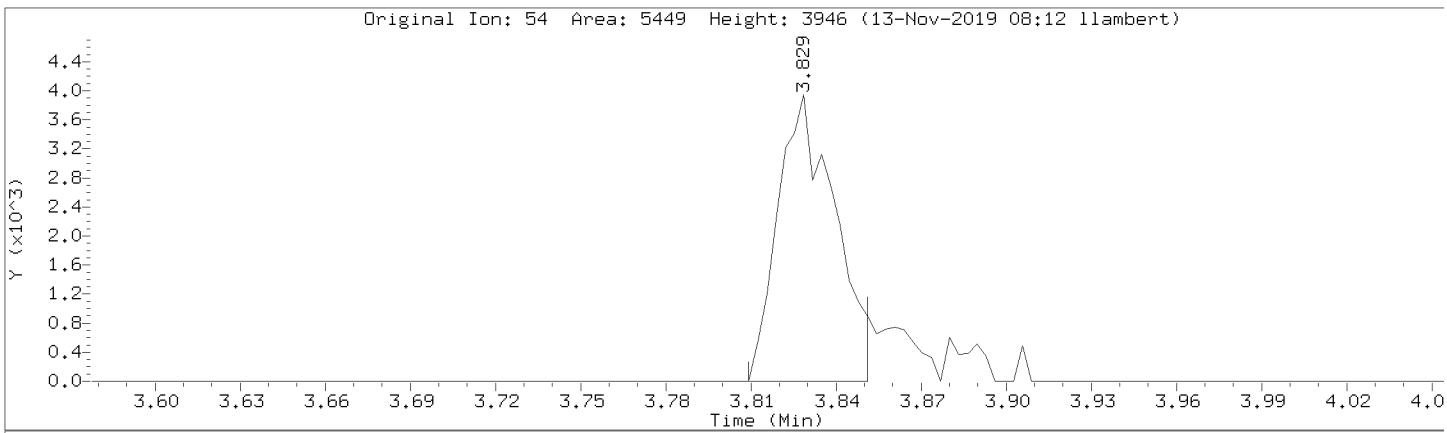
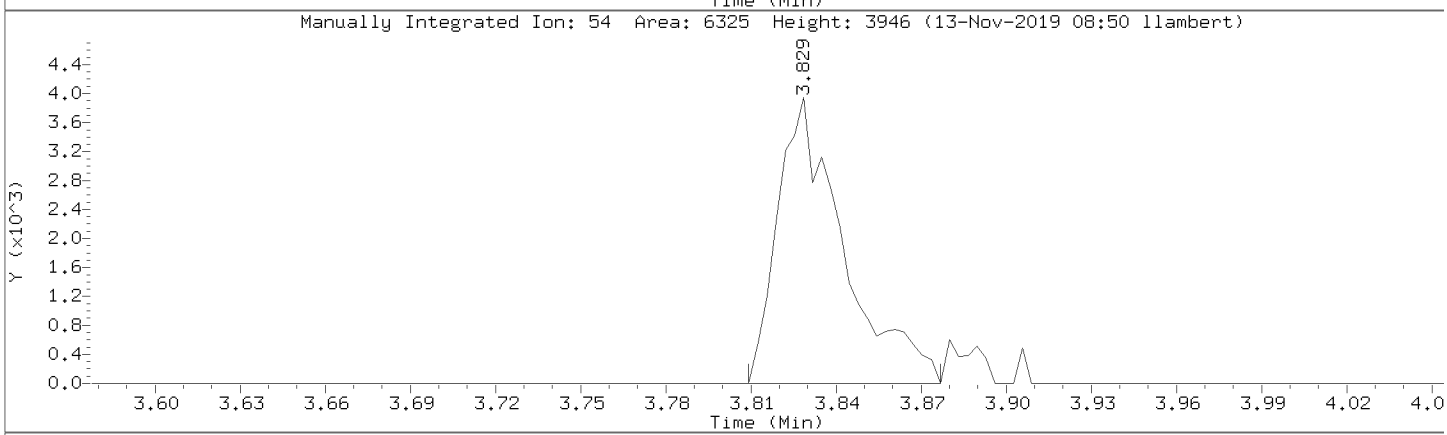
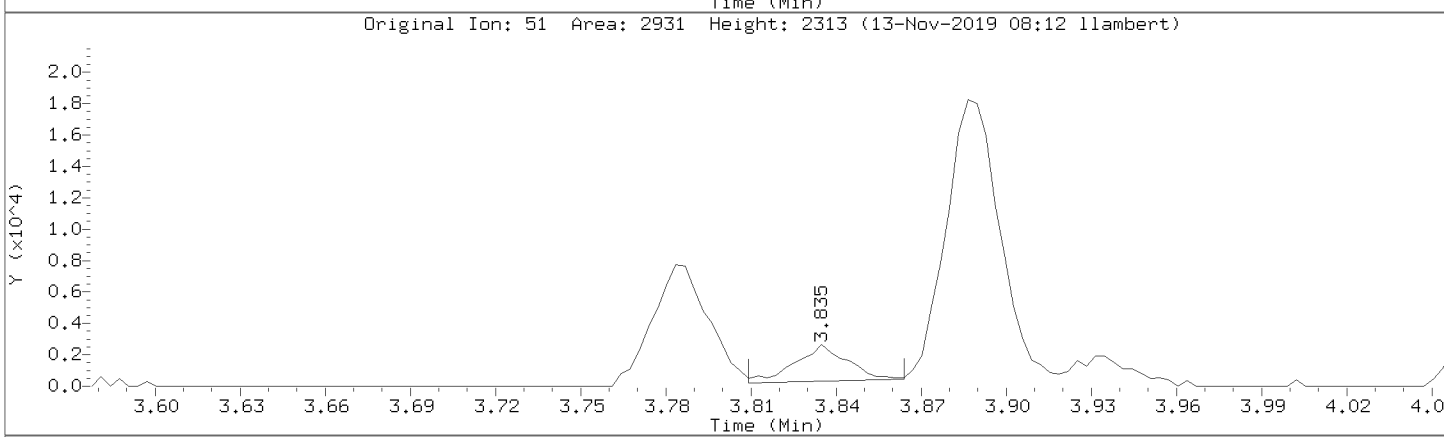
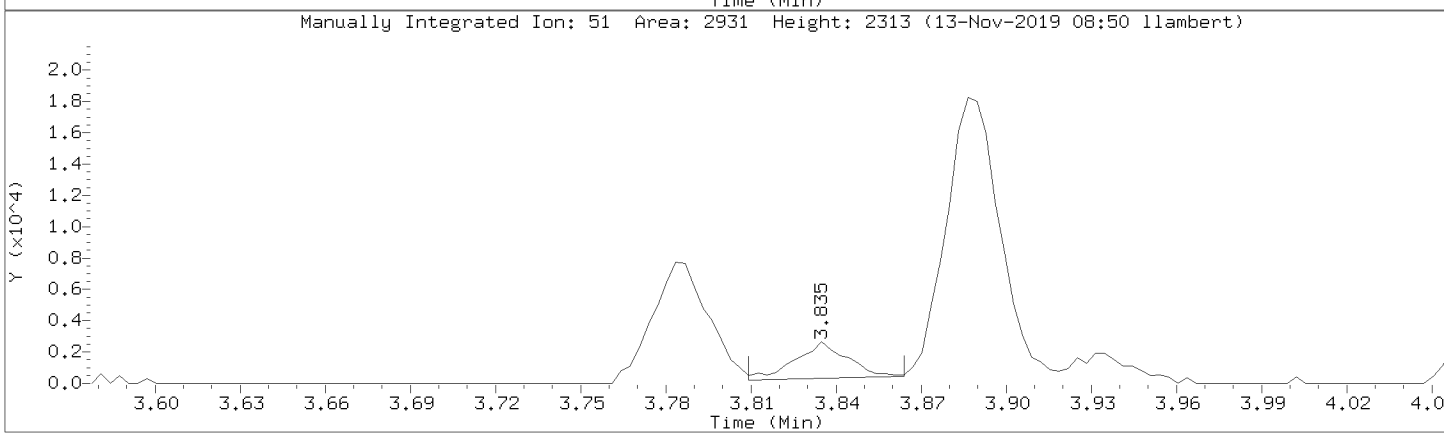
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0









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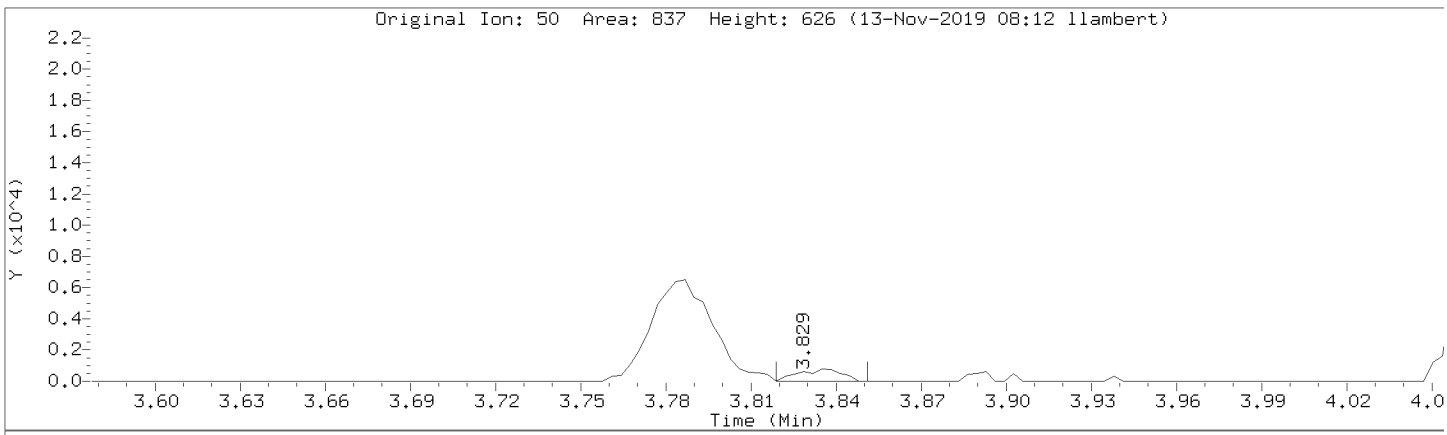
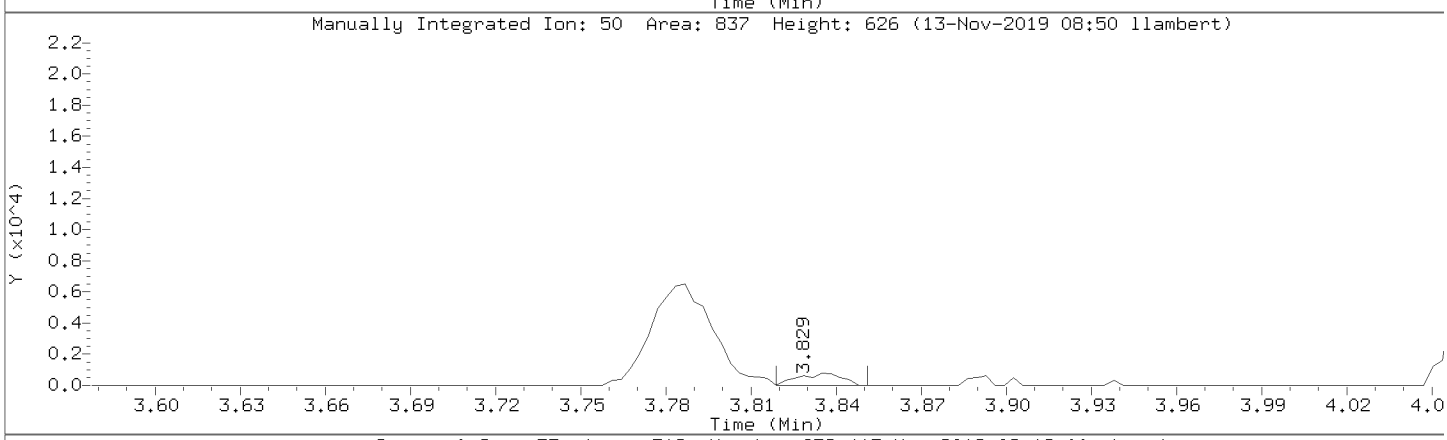
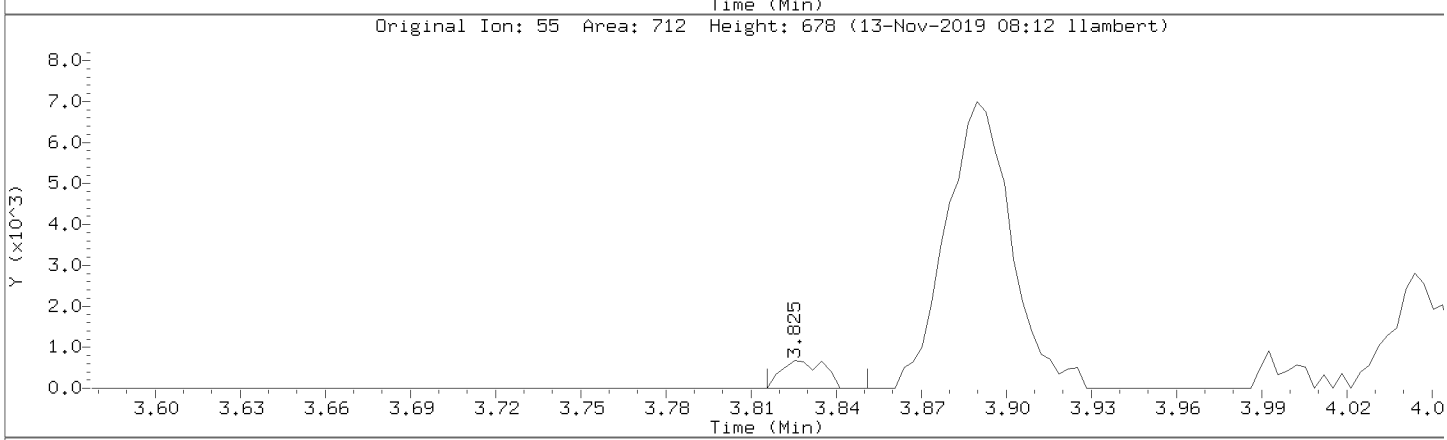
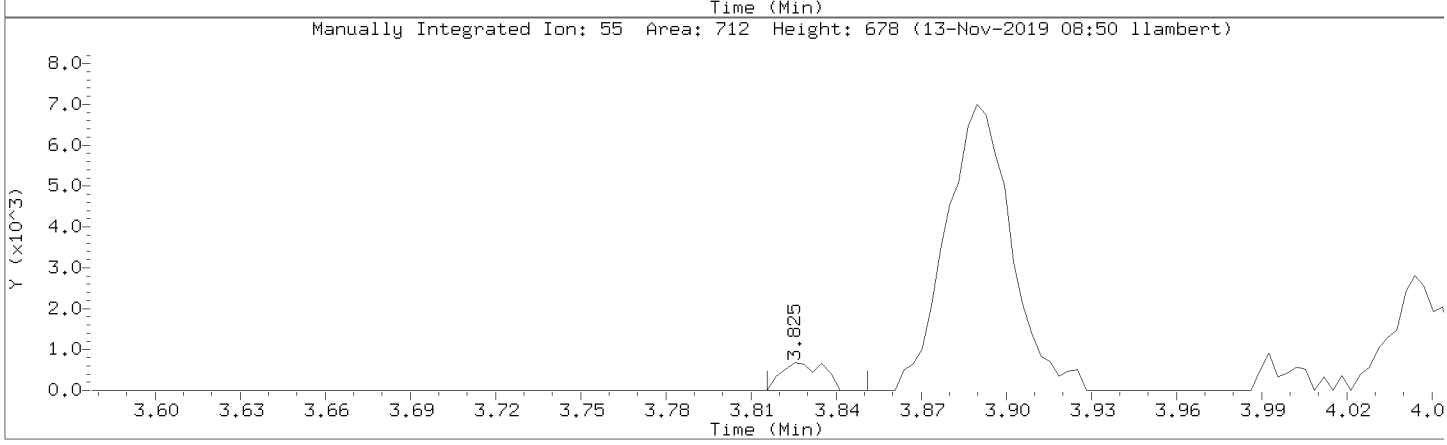
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3









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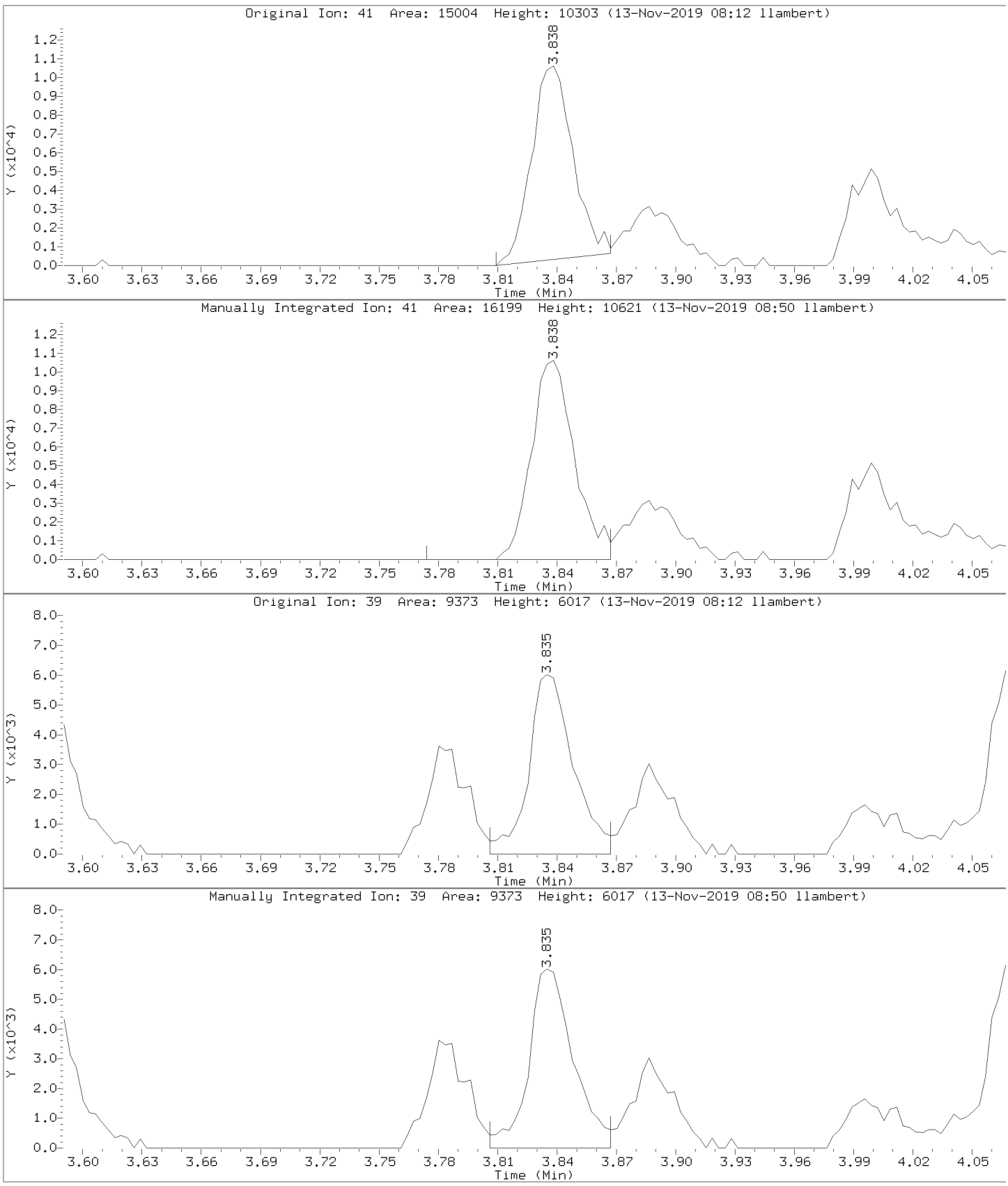
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: Methacrylonitrile Review Code: LT
CAS Number: 126-98-7



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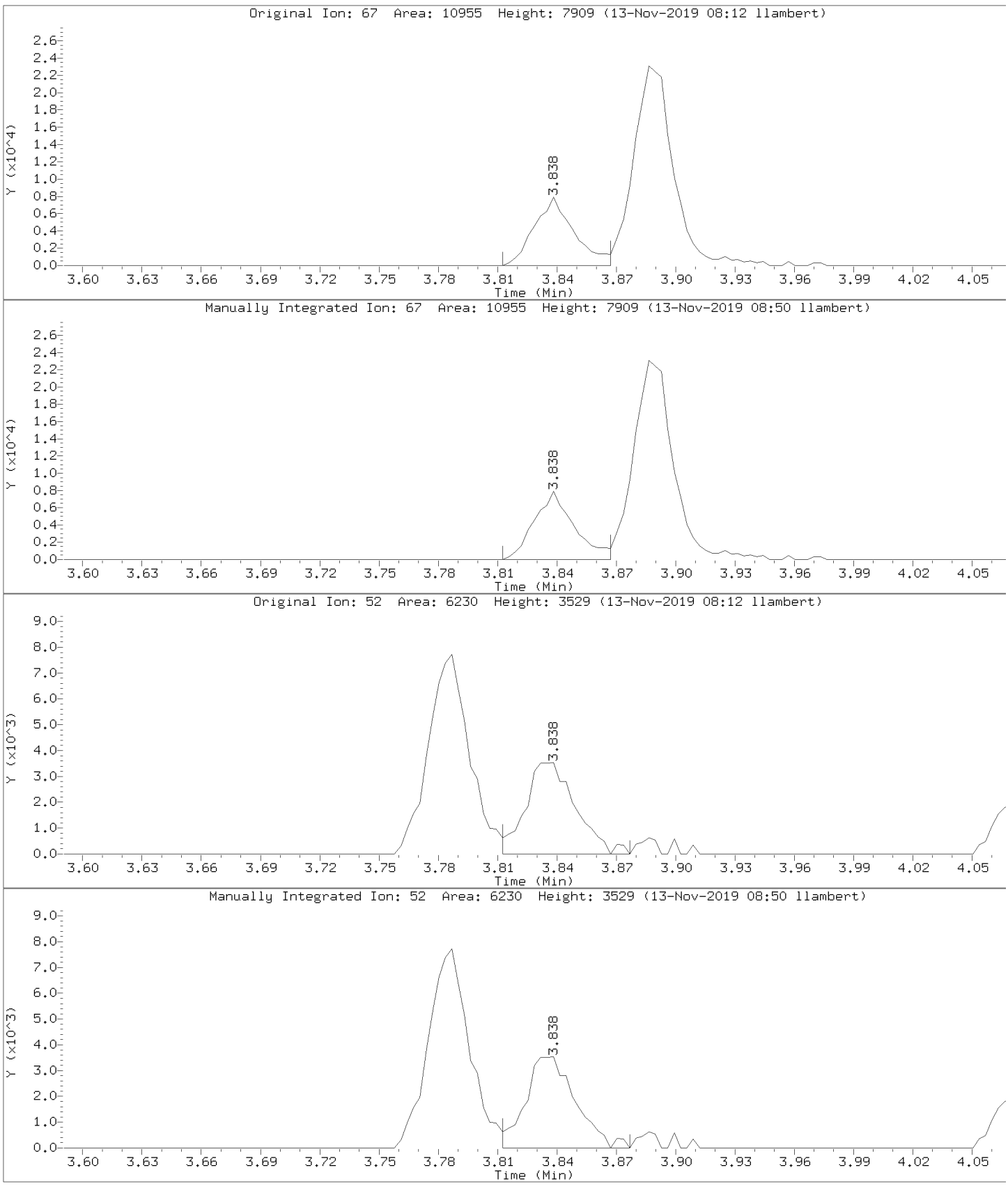
Lab Sample ID: CAL3



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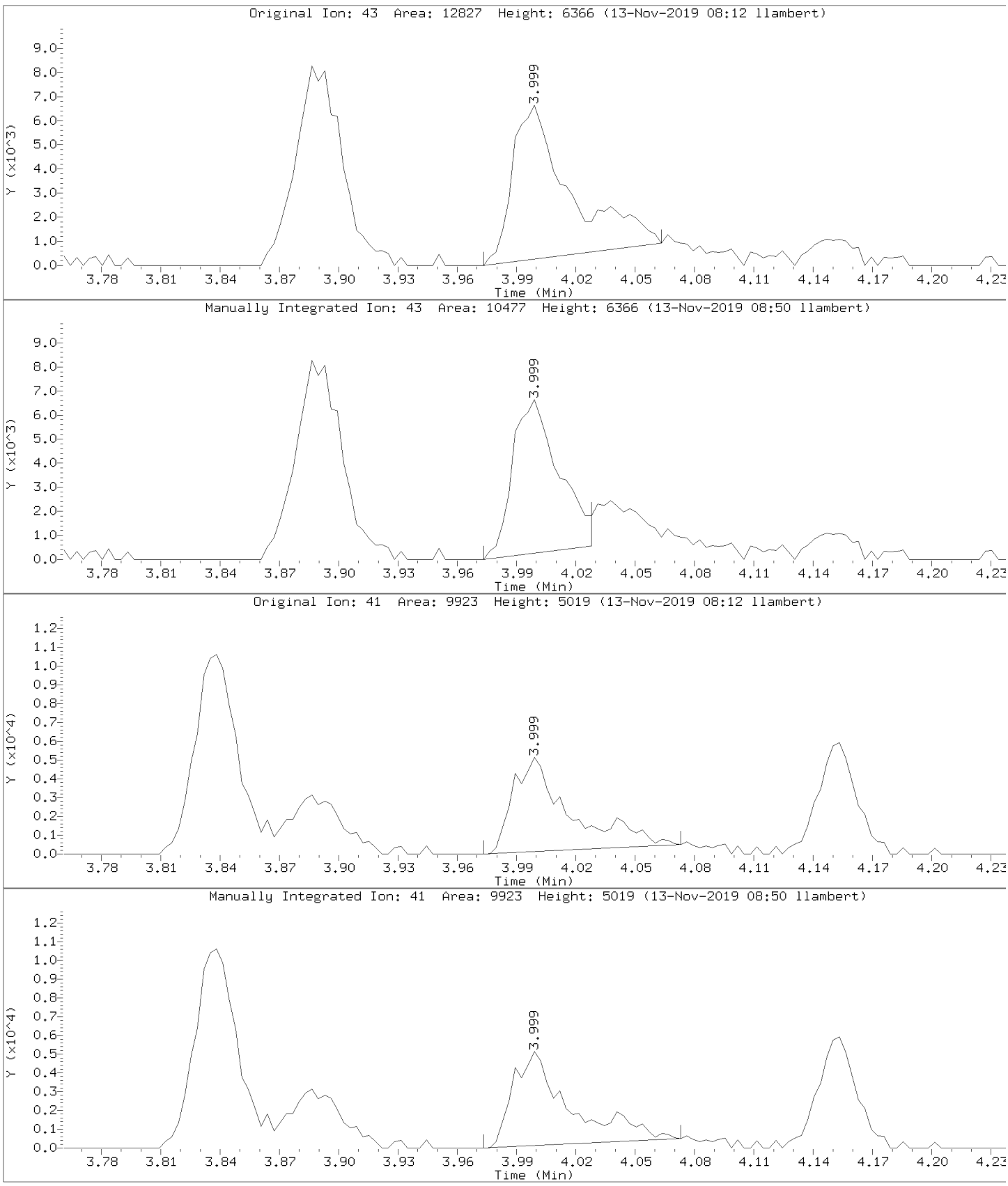
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: Isobutanol Review Code: GT
CAS Number: 78-83-1



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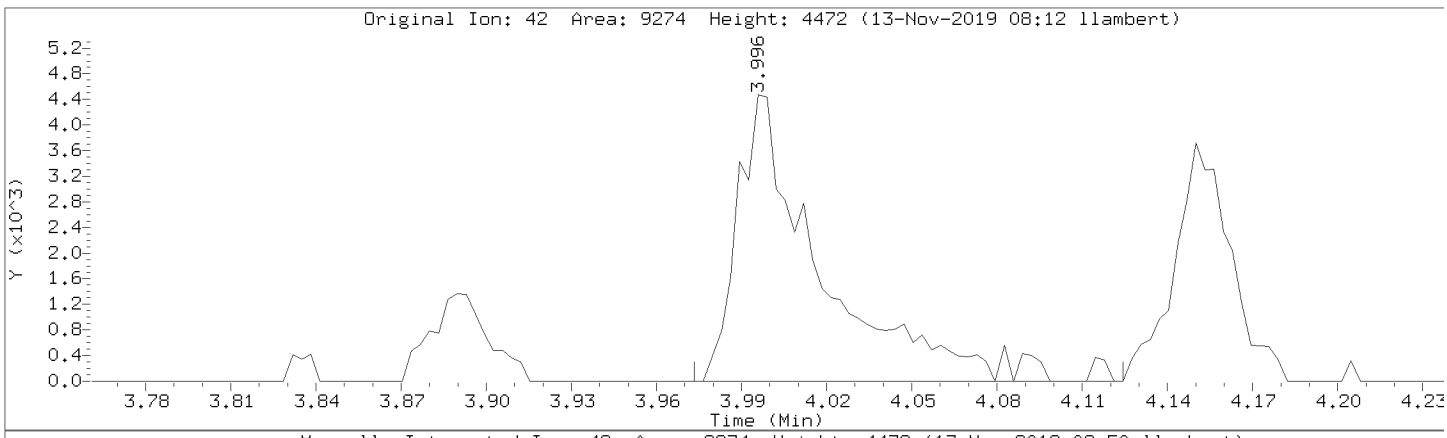
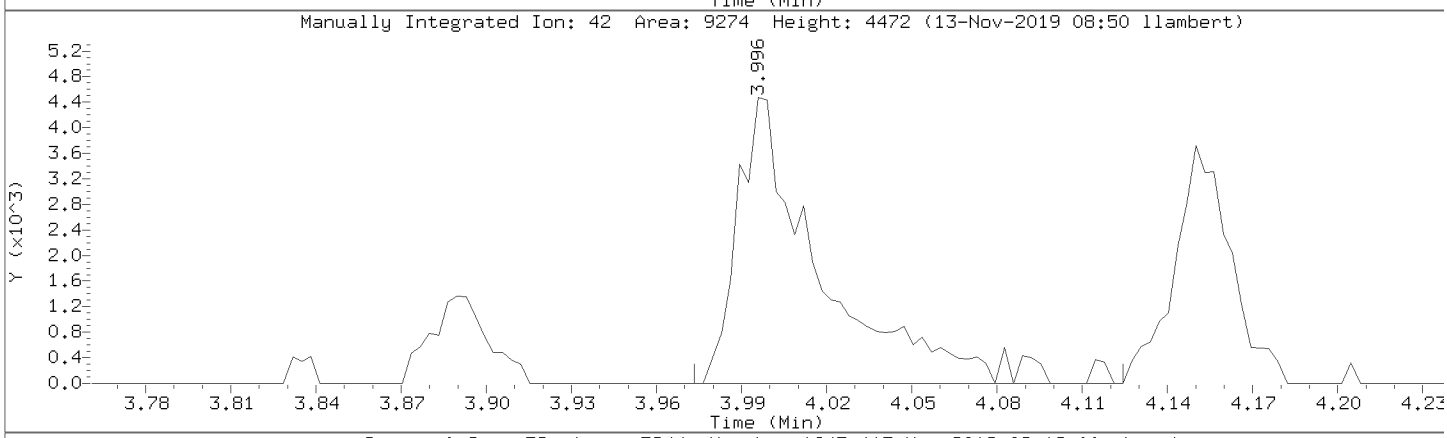
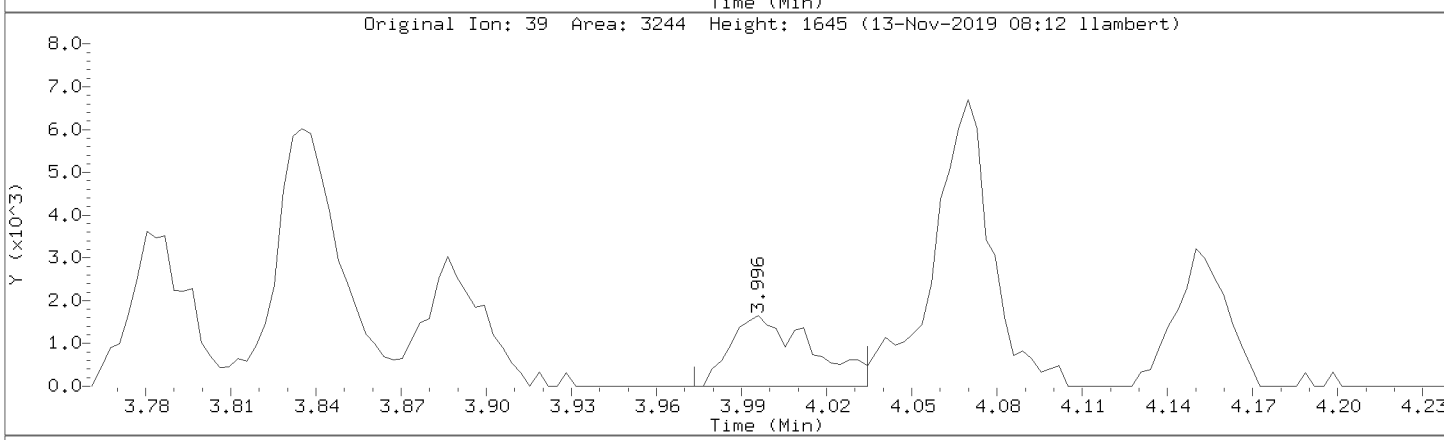
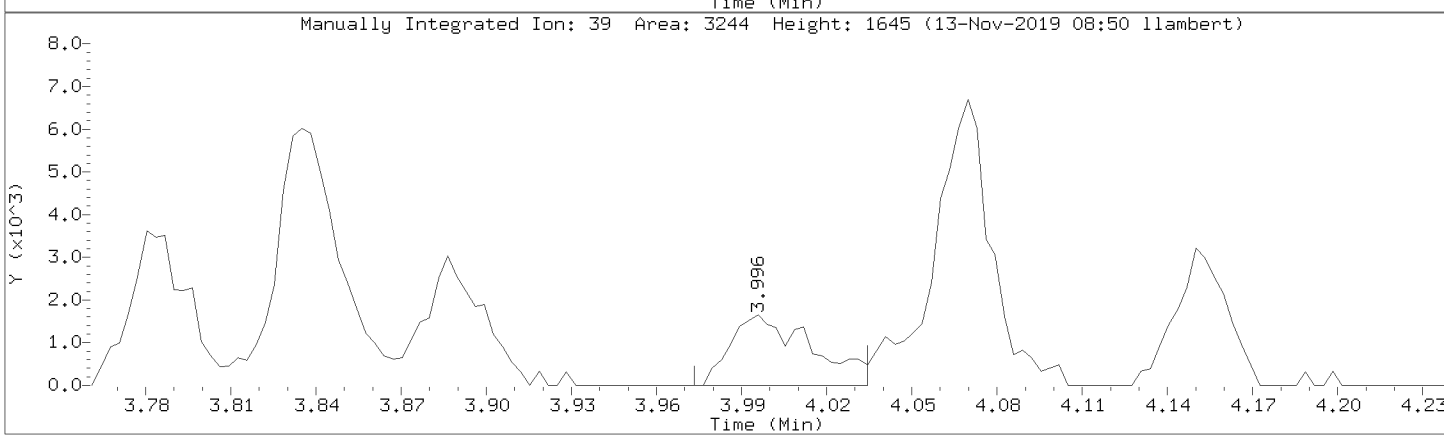
Instrument: 30mv7a.i
Lab Sample ID: CAL3









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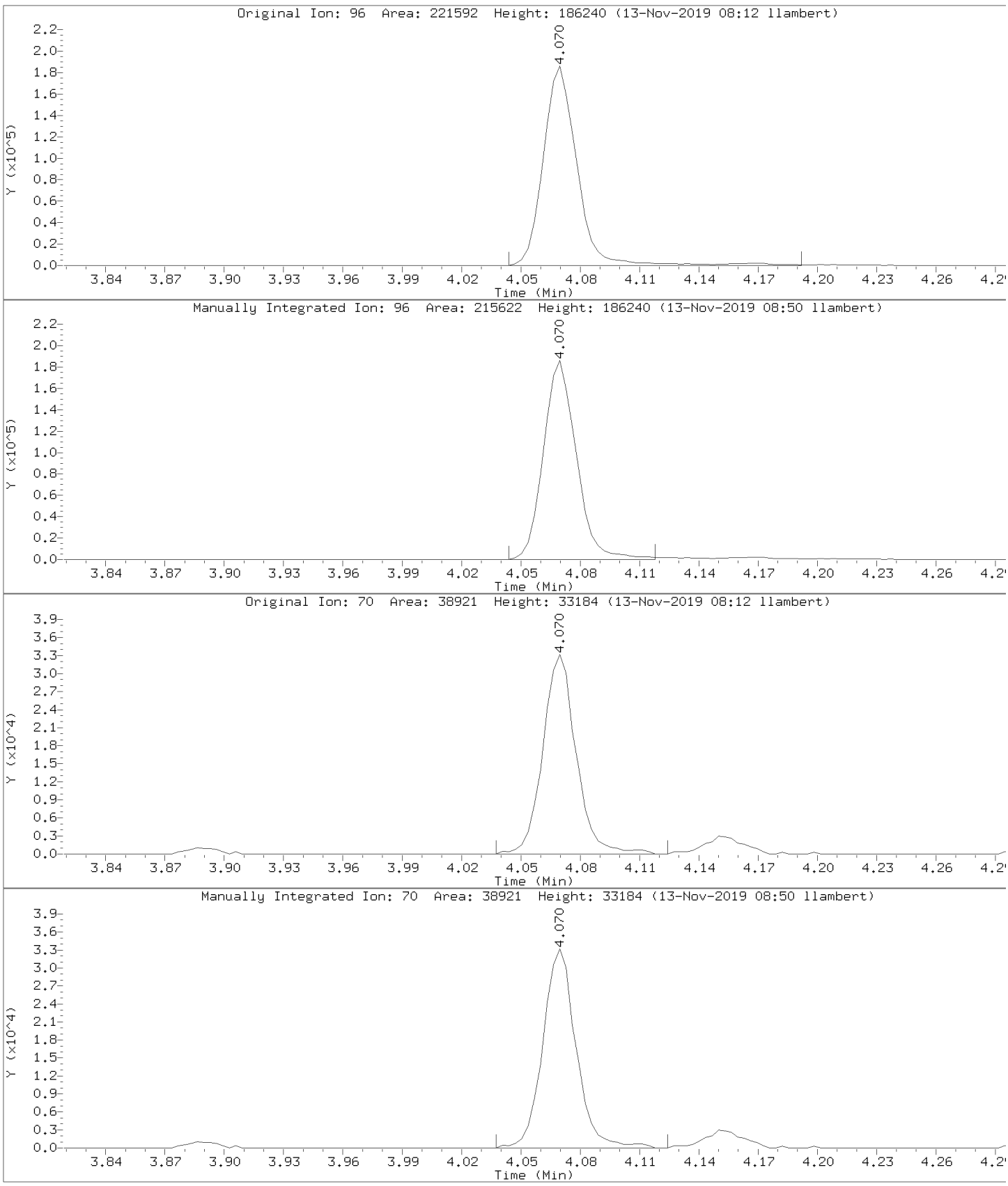
Injection Date: 12-NOV-2019 14:49
Instrument: 30mv7a.i
Lab Sample ID: CAL3

Compound: Fluorobenzene (IS) Review Code: GT
CAS Number: 462-06-6



Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 12-NOV-2019 15:14
Operator : LEL Inst ID: 30mv7a.i
Smp Info : cal4, 105191:1
Misc Info : 47221,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:14 Cal File: 71112011.d
Als bottle: 11 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.848	0.851	(0.208)	40205	20.0000	18.0(Q)	
2	Chloromethane	50	0.950	0.951	(0.234)	46851	20.0000	18.0	
3	Vinyl chloride	62	0.989	0.989	(0.243)	47002	20.0000	18.1	
4	Bromomethane	94	1.147	1.147	(0.282)	10596	20.0000	18.0	
5	Chloroethane	64	1.204	1.208	(0.296)	15478	20.0000	20.2	
6	Trichlorofluoromethane	101	1.278	1.282	(0.314)	57268	20.0000	18.4	
7	Diethyl ether (Ethyl ether)	59	1.442	1.443	(0.355)	28755	20.0000	17.6	
8	Ethanol	46	1.539	1.571	(0.237)	5184	200.000	182(M)	LT
9	1,1-Dichloroethene	61	1.558	1.555	(0.383)	52442	20.0000	17.9	
10	1,1,2-Trichlorotrifluoroethane	151	1.577	1.584	(0.388)	28504	20.0000	17.7	
11	Carbon disulfide	76	1.577	1.578	(0.388)	86171	20.0000	17.6	
12	Iodomethane	142	1.638	1.639	(0.403)	4053	20.0000	10.8(Q)	
13	Acrolein	56	1.761	1.764	(0.433)	12019	20.0000	17.6	
14	Allyl chloride	41	1.841	1.841	(0.452)	243404	100.000	89.6	
15	Methylene Chloride	49	1.912	1.915	(0.470)	42785	20.0000	18.2	
16	Acetone	58	1.954	1.947	(0.480)	11128	20.0000	19.3	
17	trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	45531	20.0000	17.8	
18	Methyl acetate	74	2.031	2.033	(0.499)	16050	20.0000	17.6	
19	n-Hexane	86	2.069	2.063	(0.509)	5196	20.0000	18.1	
20	Methyl-tert-butyl ether	73	2.092	2.092	(0.514)	91432	20.0000	17.9(Q)	
21	tert-Butyl Alcohol	59	2.166	2.166	(0.532)	89931	100.000	88.0	
22	Acetonitrile	41	2.288	2.295	(0.562)	51582	100.000	90.4	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.378	2.385	(0.584)	99315	20.0000	17.8	
	24 Chloroprene	53	2.462	2.462	(0.605)	34450	20.0000	17.9	
	25 1,1-Dichloroethane	63	2.481	2.484	(0.610)	56668	20.0000	17.7	
	26 Acrylonitrile	53	2.532	2.536	(0.622)	30044	20.0000	19.0	
	27 Ethyl-tert-butyl ether	59	2.690	2.693	(0.661)	94998	20.0000	17.9	
	28 Vinyl acetate	43	2.712	2.719	(0.667)	87131	20.0000	17.8	
	29 cis-1,2-Dichloroethene	61	2.970	2.963	(0.730)	43880	20.0000	17.9	
	30 2,2-Dichloropropane	77	3.069	3.073	(0.754)	43425	20.0000	17.8	
	31 Cyclohexane	56	3.153	3.153	(0.775)	51760	20.0000	17.7	
	32 Bromochloromethane	130	3.163	3.163	(0.777)	23727	20.0000	18.6(M)	LT
	33 Chloroform	83	3.256	3.253	(0.800)	53485	20.0000	17.7	
	34 Ethyl acetate	43	3.413	3.436	(0.839)	31192	20.0000	17.7	
	35 Carbon tetrachloride	117	3.375	3.359	(0.829)	41549	20.0000	17.2	
	36 Tetrahydrofuran	42	3.423	3.433	(0.841)	30678	20.0000	18.0	
$	37 Dibromofluoromethane (S)	111	3.439	3.439	(0.845)	58781	30.0000	30.1	
	38 1,1,1-Trichloroethane	97	3.449	3.452	(0.848)	46298	20.0000	17.4	
	39 2-Butanone (MEK)	43	3.590	3.603	(0.882)	46766	20.0000	18.4	
	40 1,1-Dichloropropene	75	3.581	3.578	(0.880)	42226	20.0000	17.7	
	41 Benzene	78	3.783	3.783	(0.930)	123163	20.0000	17.7	
	42 Propionitrile	54	3.825	3.828	(0.940)	14046	20.0000	18.5(Q)	
	43 Methacrylonitrile	41	3.838	3.841	(0.943)	31036	20.0000	17.6	
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	78111	20.0000	17.5(Q)	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.889	(0.955)	58984	30.0000	29.8	
	45 Isobutanol	43	3.995	4.011	(0.982)	25002	100.000	85.9(Q)	
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	40273	20.0000	17.9	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	221445	30.0000		
	49 Methylcyclohexane	55	4.153	4.152	(1.021)	30311	20.0000	18.0	
	50 Trichloroethene	132	4.166	4.168	(1.024)	35131	20.0000	17.4	
	51 Dibromomethane	174	4.388	4.388	(1.078)	25800	20.0000	17.8	
	52 1,2-Dichloropropane	63	4.436	4.433	(1.090)	30035	20.0000	17.7	
	53 Bromodichloromethane	83	4.468	4.468	(1.098)	34820	20.0000	17.6	
	54 Methyl methacrylate	69	4.552	4.558	(1.119)	27928	20.0000	17.6	
	55 1,4-Dioxane (p-Dioxane)	88	4.571	4.578	(1.123)	9006	200.000	180	
	56 2-Chloroethylvinyl ether	63	4.725	4.732	(1.161)	23112	20.0000	16.9	
	57 cis-1,3-Dichloropropene	75	4.748	4.741	(1.167)	41848	20.0000	17.0	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	196136	30.0000	30.2	
	59 Toluene	91	4.847	4.848	(0.879)	126790	20.0000	18.1	
	60 2-Nitropropane	43	4.960	4.960	(1.219)	95738	100.000	85.1	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.028	(1.235)	61252	20.0000	17.7	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	34730	20.0000	18.1	
	63 trans-1,3-Dichloropropene	75	5.040	5.044	(0.914)	39147	20.0000	17.6	
	64 Ethyl methacrylate	41	5.111	5.114	(0.927)	26469	20.0000	17.3	
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	29245	20.0000	18.3	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	32299	20.0000	17.5	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	47621	20.0000	17.7	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	33616	20.0000	17.8	
	69 2-Hexanone	43	5.391	5.397	(0.978)	52295	20.0000	17.7	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	149832	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	41641	20.0000	18.3	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	78260	20.0000	18.1	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.548	(1.006)	28998	20.0000	17.6	
	74 m&p-Xylene	106	5.587	5.590	(1.013)	99092	40.0000	35.9	
	75 o-Xylene	106	5.770	5.770	(1.047)	47797	20.0000	18.0	
	76 Styrene	104	5.793	5.793	(1.051)	73380	20.0000	17.6	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 Bromoform	173	5.809	5.809	(0.896)	23845	20.0000	17.0	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	98480	20.0000	17.6	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	61689	30.0000	29.8	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	109608	20.0000	17.7	
	81 Bromobenzene	77	6.066	6.069	(0.936)	47785	20.0000	17.7	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	41800	20.0000	17.7	
	83 1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	78168	20.0000	17.7	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	25238	20.0000	17.5(Q)	
	85 1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	15686	20.0000	17.8	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.952)	11737	20.0000	16.8	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	27521	100.000	88.0	
	88 4-Chlorotoluene	126	6.207	6.211	(0.957)	26900	20.0000	17.6	
	89 tert-Butylbenzene	119	6.281	6.282	(0.969)	62471	20.0000	17.6	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	78236	20.0000	17.8	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	85906	20.0000	17.9	
	92 p-Isopropyltoluene	119	6.410	6.410	(0.989)	71531	20.0000	17.5	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	46614	20.0000	17.7	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	65555	30.0000		
	95 1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	48824	20.0000	17.6	
	96 n-Butylbenzene	91	6.584	6.584	(1.015)	55880	20.0000	17.6	
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	45032	20.0000	17.6	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	15971	20.0000	17.2	
	103 1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	25054	20.0000	17.6	
	100 Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	11940	20.0000	18.0	
	101 1,2,4-Trichlorobenzene	180	7.275	7.278	(1.122)	24015	20.0000	17.9	
	102 Naphthalene	128	7.410	7.413	(1.143)	100886	20.0000	17.4	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	23304	20.0000	18.3	
	105 2-Methylnaphthalene	142	7.847	7.844	(1.210)	28982	20.0000	18.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	18.0	
74-87-3	Chloromethane	18.0	
75-01-4	Vinyl chloride	18.1	
74-83-9	Bromomethane	18.0	
75-00-3	Chloroethane	20.2	
75-69-4	Trichlorofluoromethane	18.4	
60-29-7	Diethyl ether (Ethyl ether)	17.6	
64-17-5	Ethanol	182	
75-35-4	1,1-Dichloroethene	17.9	
76-13-1	1,1,2-Trichlorotrifluoroetha	17.7	
75-15-0	Carbon disulfide	17.6	
74-88-4	Iodomethane	10.8	
107-02-8	Acrolein	17.6	
107-05-1	Allyl chloride	89.6	
75-09-2	Methylene Chloride	18.2	
67-64-1	Acetone	19.3	
156-60-5	trans-1,2-Dichloroethene	17.8	
79-20-9	Methyl acetate	17.6	
110-54-3	n-Hexane	18.1	
1634-04-4	Methyl-tert-butyl ether	17.9	
75-65-0	tert-Butyl Alcohol	88.0	
75-05-8	Acetonitrile	90.4	
108-20-3	Diisopropyl ether	17.8	
126-99-8	Chloroprene	17.9	
75-34-3	1,1-Dichloroethane	17.7	
107-13-1	Acrylonitrile	19.0	
637-92-3	Ethyl-tert-butyl ether	17.9	
108-05-4	Vinyl acetate	17.8	
156-59-2	cis-1,2-Dichloroethene	17.9	
594-20-7	2,2-Dichloropropane	17.8	
110-82-7	Cyclohexane	17.7	
74-97-5	Bromochloromethane	18.6	
67-66-3	Chloroform	17.7	
141-78-6	Ethyl acetate	17.7	
56-23-5	Carbon tetrachloride	17.2	
109-99-9	Tetrahydrofuran	18.0	
71-55-6	1,1,1-Trichloroethane	17.4	
78-93-3	2-Butanone (MEK)	18.4	
563-58-6	1,1-Dichloropropene	17.7	
71-43-2	Benzene	17.7	
107-12-0	Propionitrile	18.5	
126-98-7	Methacrylonitrile	17.6	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	17.5	
78-83-1	Isobutanol	85.9	
107-06-2	1,2-Dichloroethane	17.9	
108-87-2	Methylcyclohexane	18.0	
79-01-6	Trichloroethene	17.4	
74-95-3	Dibromomethane	17.8	
78-87-5	1,2-Dichloropropane	17.7	
75-27-4	Bromodichloromethane	17.6	
80-62-6	Methyl methacrylate	17.6	
123-91-1	1,4-Dioxane (p-Dioxane)	180	
110-75-8	2-Chloroethylvinyl ether	16.9	
10061-01-5	cis-1,3-Dichloropropene	17.0	
108-88-3	Toluene	18.1	
79-46-9	2-Nitropropane	85.1	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.7	
127-18-4	Tetrachloroethene	18.1	
10061-02-6	trans-1,3-Dichloropropene	17.6	
97-63-2	Ethyl methacrylate	17.3	
79-00-5	1,1,2-Trichloroethane	18.3	
124-48-1	Dibromochloromethane	17.5	
142-28-9	1,3-Dichloropropane	17.7	
106-93-4	1,2-Dibromoethane (EDB)	17.8	
591-78-6	2-Hexanone	17.7	
100-41-4	Ethylbenzene	18.3	
108-90-7	Chlorobenzene	18.1	
630-20-6	1,1,1,2-Tetrachloroethane	17.6	
7816-60-0	m&p-Xylene	35.9	
95-47-6	o-Xylene	18.0	
100-42-5	Styrene	17.6	
75-25-2	Bromoform	17.0	
98-82-8	Isopropylbenzene (Cumene)	17.6	
103-65-1	n-Propylbenzene	17.7	
108-86-1	Bromobenzene	17.7	
79-34-5	1,1,2,2-Tetrachloroethane	17.7	
108-67-8	1,3,5-Trimethylbenzene	17.7	
95-49-8	2-Chlorotoluene	17.5	
96-18-4	1,2,3-Trichloropropane	17.8	
110-57-6	trans-1,4-Dichloro-2-butene	16.8	
108-94-1	Cyclohexanone	88.0	
106-43-4	4-Chlorotoluene	17.6	
98-06-6	tert-Butylbenzene	17.6	
95-63-6	1,2,4-Trimethylbenzene	17.8	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Report Date: 13-Nov-2019 08:53

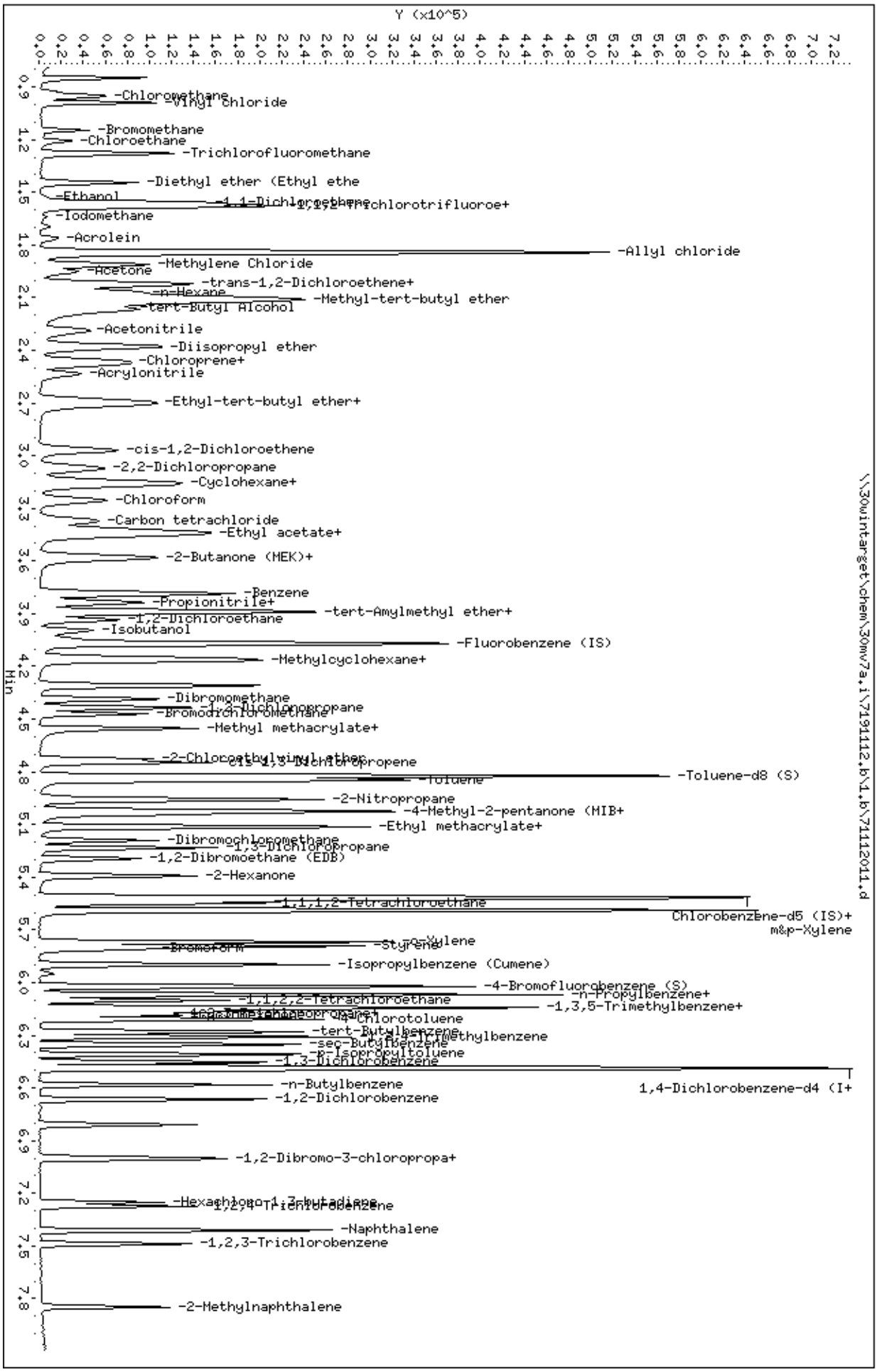
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	17.9	
99-87-6	p-Isopropyltoluene	17.5	
541-73-1	1,3-Dichlorobenzene	17.7	
106-46-7	1,4-Dichlorobenzene	17.6	
104-51-8	n-Butylbenzene	17.6	
95-50-1	1,2-Dichlorobenzene	17.6	
96-12-8	1,2-Dibromo-3-chloropropane	17.2	
108-70-3	1,3,5-Trichlorobenzene	17.6	
87-68-3	Hexachloro-1,3-butadiene	18.0	
120-82-1	1,2,4-Trichlorobenzene	17.9	
91-20-3	Naphthalene	17.4	
87-61-6	1,2,3-Trichlorobenzene	18.3	
91-57-6	2-Methylnaphthalene	18.0	
1868-53-7	Dibromofluoromethane (S)	30.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.8	
2037-26-5	Toluene-d8 (S)	30.2	
460-00-4	4-Bromofluorobenzene (S)	29.8	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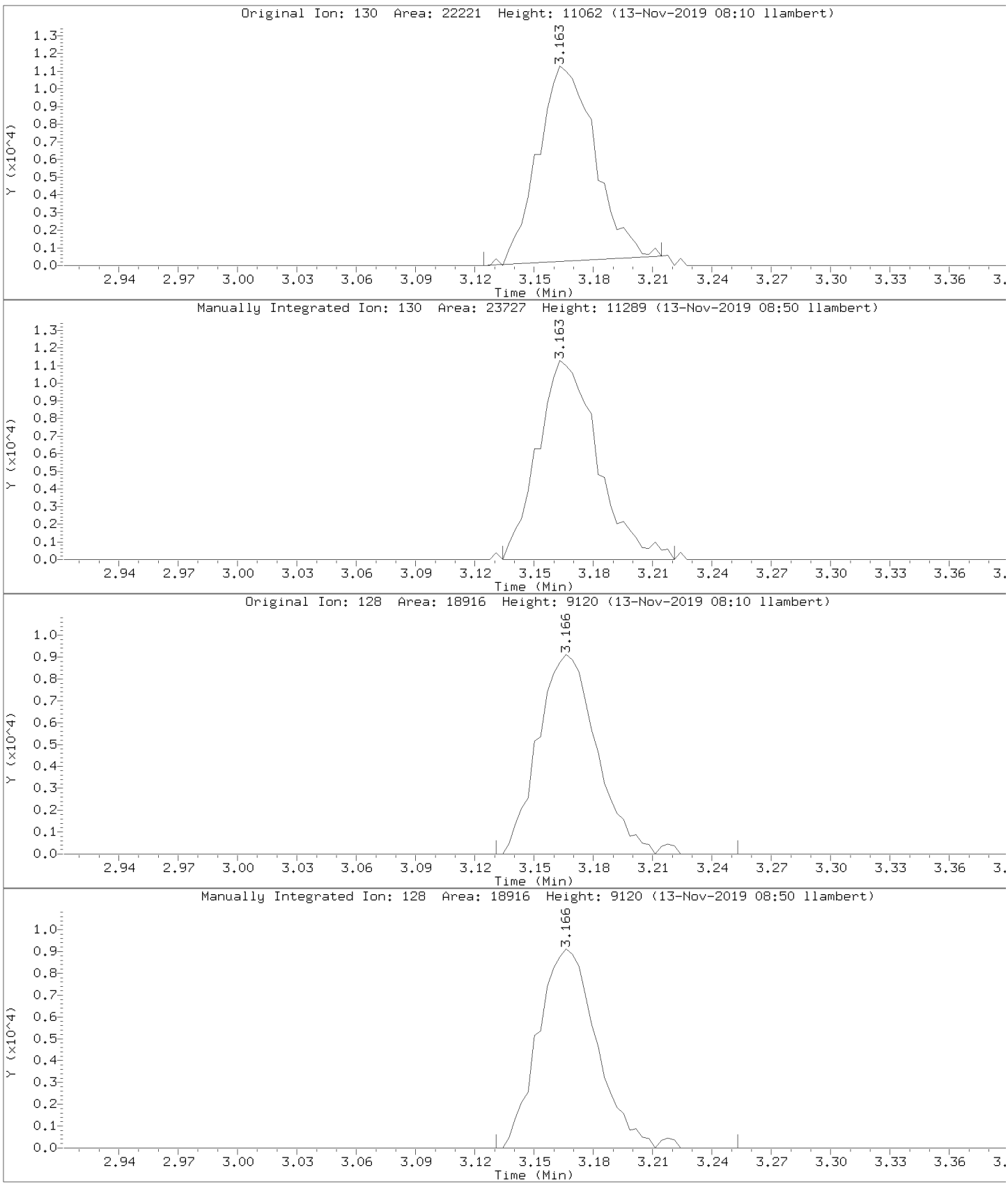
Date : 12-NOV-2019 15:14
Client ID: CAL4
Sample Info: CAL4, 10519:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112011.d
Y (x10^5)
Min
-Chloromethane
-Vinyl Chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1-Dichloroethene
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethyl vinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Chlorobenzene-d5 (IS)+
m&p-Xylene
-o-Xylene
-Bromoform
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112011.d
Injection Date: 12-NOV-2019 15:14
Instrument: 30mv7a.i
Lab Sample ID: CAL4

Compound: Bromochloromethane Review Code: LT
CAS Number: 74-97-5



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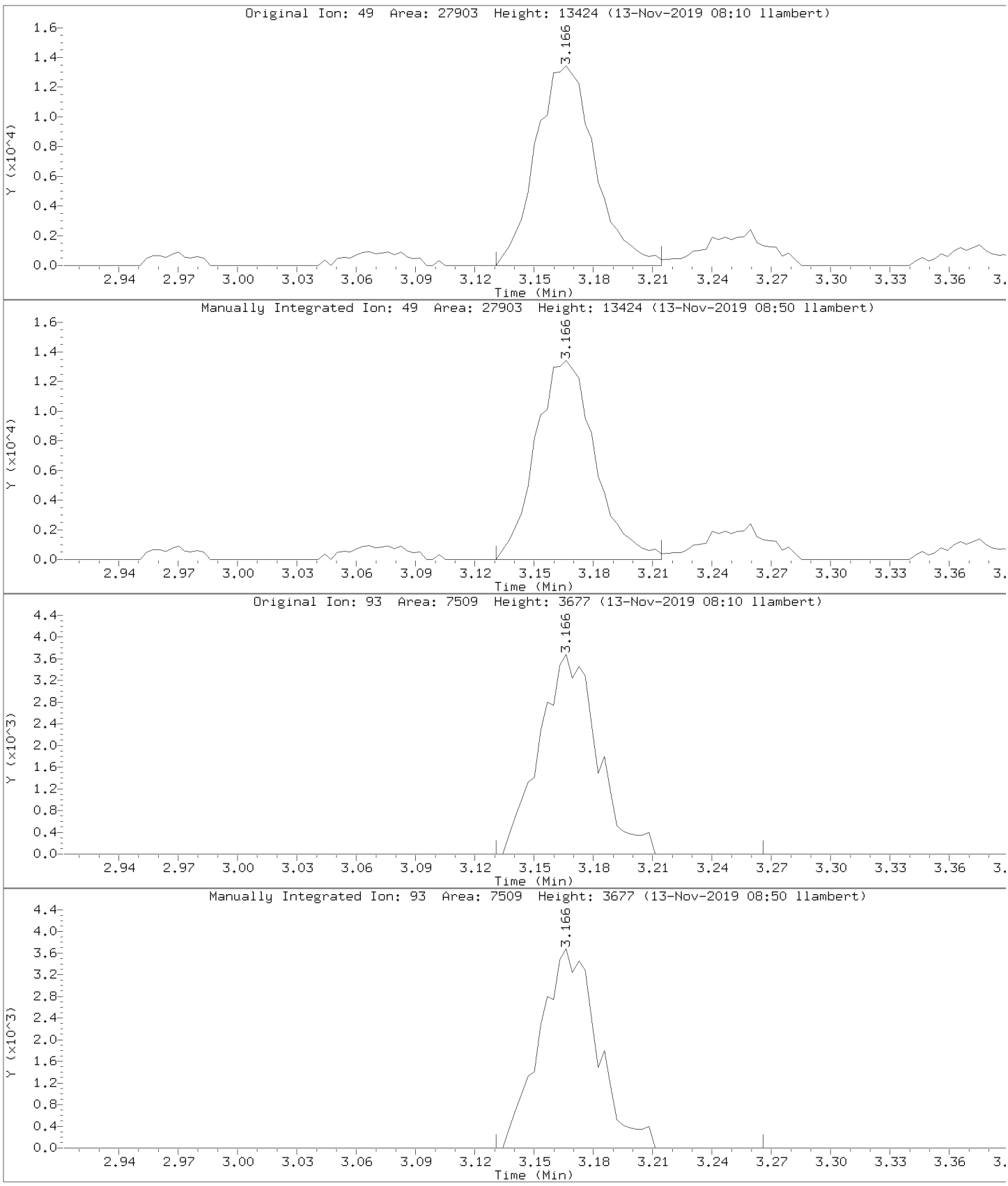
Injection Date: 12-NOV-2019 15:14
Instrument: 30mv7a.i
Lab Sample ID: CAL4



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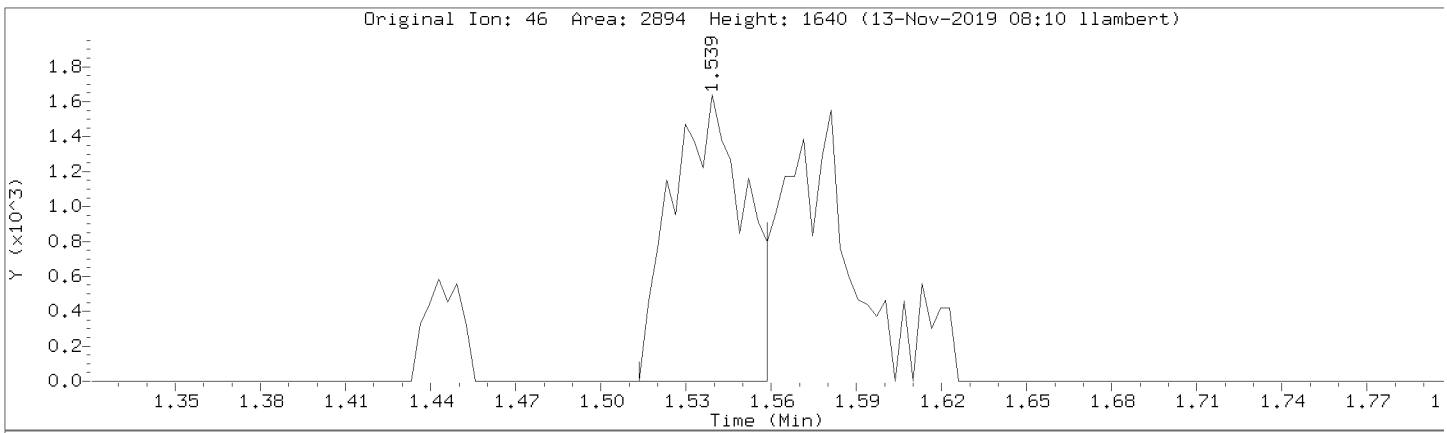
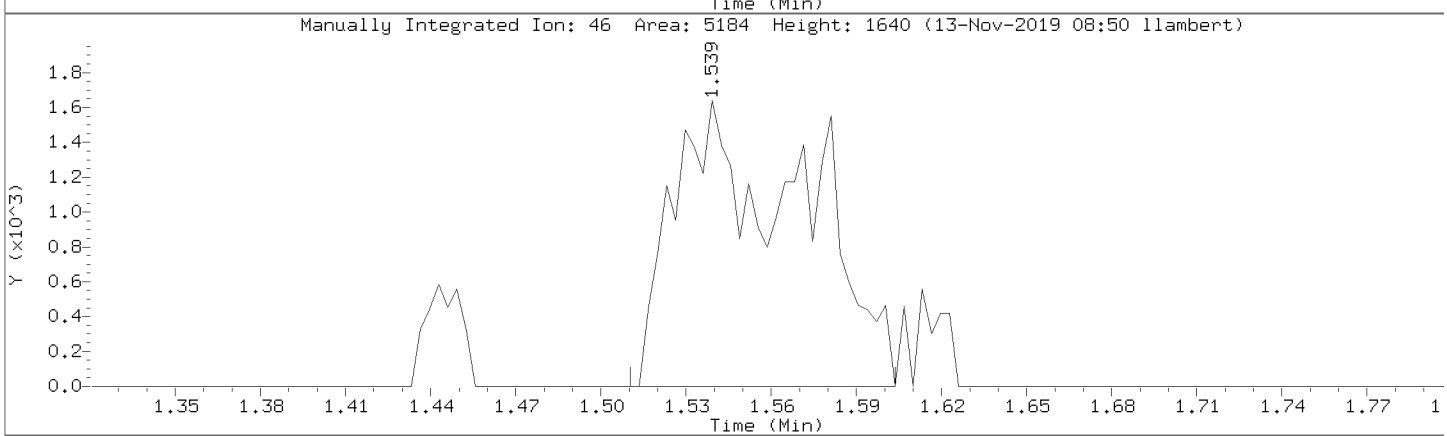
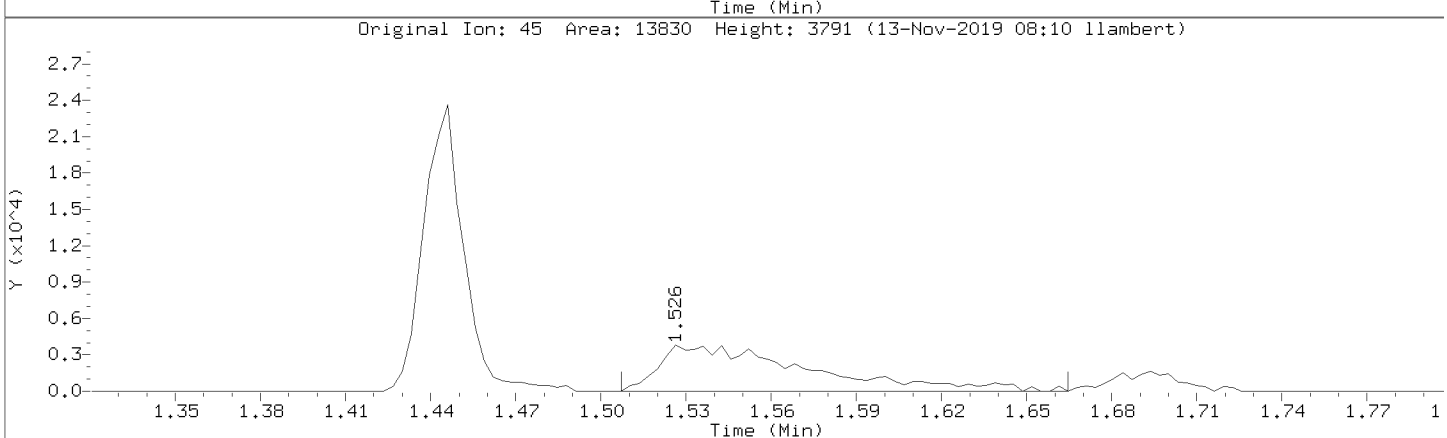
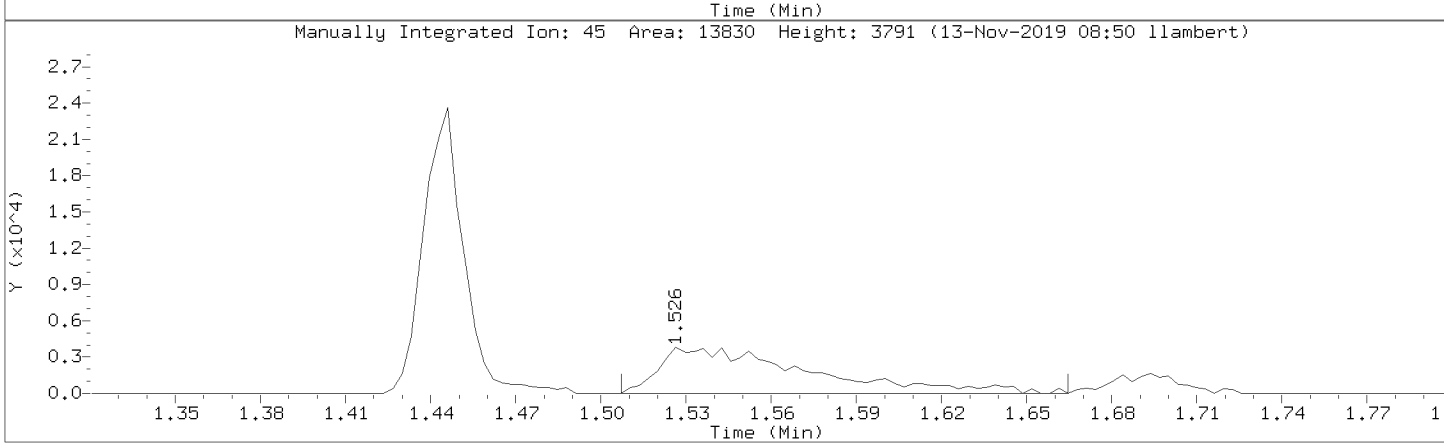
Injection Date: 12-NOV-2019 15:14
Instrument: 30mv7a.i
Lab Sample ID: CAL4

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5









Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 12-NOV-2019 15:39
Operator : LEL Inst ID: 30mv7a.i
Smp Info : cal5, 105192:1
Misc Info : 47221,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:39 Cal File: 71112013.d
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.850	0.851	(0.209)	122773	50.0000	56.0(Q)	
2	Chloromethane	50	0.950	0.951	(0.234)	141991	50.0000	48.0	
3	Vinyl chloride	62	0.989	0.989	(0.243)	141927	50.0000	55.4	
4	Bromomethane	94	1.150	1.147	(0.283)	32196	50.0000	47.1	
5	Chloroethane	64	1.204	1.208	(0.296)	37892	50.0000	46.4	
6	Trichlorofluoromethane	101	1.278	1.282	(0.314)	167602	50.0000	57.7	
7	Diethyl ether (Ethyl ether)	59	1.445	1.443	(0.355)	91355	50.0000	53.5	
8	Ethanol	46	1.535	1.571	(0.237)	15497	500.000	581	
9	1,1-Dichloroethene	61	1.555	1.555	(0.382)	161414	50.0000	53.8	
10	1,1,2-Trichlorotrifluoroethane	151	1.577	1.584	(0.388)	89272	50.0000	55.9	
11	Carbon disulfide	76	1.577	1.578	(0.388)	272011	50.0000	52.3	
12	Iodomethane	142	1.645	1.639	(0.404)	27411	50.0000	95.5	
13	Acrolein	56	1.764	1.764	(0.434)	38005	50.0000	55.8	
14	Allyl chloride	41	1.841	1.841	(0.452)	748199	250.000	280	
15	Methylene Chloride	49	1.912	1.915	(0.470)	127410	50.0000	43.5	
16	Acetone	58	1.953	1.947	(0.480)	29874	50.0000	37.1	
17	trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	141130	50.0000	52.0	
18	Methyl acetate	74	2.031	2.033	(0.499)	50644	50.0000	51.2	
19	n-Hexane	86	2.066	2.063	(0.508)	15720	50.0000	53.0	
20	Methyl-tert-butyl ether	73	2.092	2.092	(0.514)	281148	50.0000	51.9	
21	tert-Butyl Alcohol	59	2.172	2.166	(0.534)	285354	250.000	305	
22	Acetonitrile	41	2.288	2.295	(0.562)	155735	250.000	253	
23	Diisopropyl ether	45	2.378	2.385	(0.584)	307565	50.0000	52.8	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Chloroprene	53	2.458	2.462	(0.604)	106084	50.0000	54.2	
	25 1,1-Dichloroethane	63	2.481	2.484	(0.610)	177805	50.0000	52.8	
	26 Acrylonitrile	53	2.535	2.536	(0.623)	82939	50.0000	52.0	
	27 Ethyl-tert-butyl ether	59	2.690	2.693	(0.661)	291817	50.0000	53.4	
	28 Vinyl acetate	43	2.712	2.719	(0.667)	270136	50.0000	55.2	
	29 cis-1,2-Dichloroethene	61	2.969	2.963	(0.730)	134590	50.0000	53.2	
	30 2,2-Dichloropropane	77	3.075	3.073	(0.756)	134780	50.0000	53.4	
	31 Cyclohexane	56	3.153	3.153	(0.775)	162225	50.0000	55.9	
	32 Bromochloromethane	130	3.166	3.163	(0.778)	68174	50.0000	53.2	
	33 Chloroform	83	3.256	3.253	(0.800)	167985	50.0000	53.1	
	34 Ethyl acetate	43	3.410	3.436	(0.838)	98082	50.0000	62.2	
	35 Carbon tetrachloride	117	3.371	3.359	(0.829)	136688	50.0000	53.4	
	36 Tetrahydrofuran	42	3.413	3.433	(0.839)	92948	50.0000	55.4	
$	37 Dibromofluoromethane (S)	111	3.442	3.439	(0.846)	58204	30.0000	29.9	
	38 1,1,1-Trichloroethane	97	3.445	3.452	(0.847)	150288	50.0000	54.1	
	39 2-Butanone (MEK)	43	3.587	3.603	(0.881)	136640	50.0000	51.2	
	40 1,1-Dichloropropene	75	3.580	3.578	(0.880)	133105	50.0000	54.4	
	41 Benzene	78	3.786	3.783	(0.930)	385837	50.0000	52.9	
	42 Propionitrile	54	3.828	3.828	(0.941)	40784	50.0000	58.5	
	43 Methacrylonitrile	41	3.838	3.841	(0.943)	98887	50.0000	53.4	
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	250637	50.0000	54.2	
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	59431	30.0000	30.2	
	45 Isobutanol	43	3.995	4.011	(0.982)	82833	250.000	268(M)	GT
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	124197	50.0000	52.7	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	220850	30.0000		
	49 Methylcyclohexane	55	4.153	4.152	(1.021)	92087	50.0000	55.0	
	50 Trichloroethene	132	4.165	4.168	(1.024)	114250	50.0000	54.5	
	51 Dibromomethane	174	4.387	4.388	(1.078)	79848	50.0000	53.3	
	52 1,2-Dichloropropane	63	4.436	4.433	(1.090)	94150	50.0000	53.6	
	53 Bromodichloromethane	83	4.471	4.468	(1.099)	111032	50.0000	56.2	
	54 Methyl methacrylate	69	4.551	4.558	(1.119)	88616	50.0000	57.2	
	55 1,4-Dioxane (p-Dioxane)	88	4.567	4.578	(1.122)	27463	500.000	550	
	56 2-Chloroethylvinyl ether	63	4.725	4.732	(1.161)	78480	50.0000	62.7	
	57 cis-1,3-Dichloropropene	75	4.747	4.741	(1.167)	140667	50.0000	56.4	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	197484	30.0000	30.0	
	59 Toluene	91	4.847	4.848	(0.879)	391372	50.0000	52.8	
	60 2-Nitropropane	43	4.960	4.960	(1.219)	322218	250.000	294	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.028	(1.235)	191977	50.0000	56.8	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	106962	50.0000	53.2	
	63 trans-1,3-Dichloropropene	75	5.040	5.044	(0.914)	127199	50.0000	55.6	
	64 Ethyl methacrylate	41	5.111	5.114	(0.927)	88006	50.0000	55.4	
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	88425	50.0000	52.7	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	105372	50.0000	55.2	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	152080	50.0000	54.0	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	106494	50.0000	54.8	
	69 2-Hexanone	43	5.391	5.397	(0.978)	167620	50.0000	56.5	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	152484	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	126092	50.0000	54.2	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	241364	50.0000	52.9	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.548	(1.006)	93492	50.0000	54.1	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	310176	100.000	108	
	75 o-Xylene	106	5.770	5.770	(1.047)	149184	50.0000	53.4	
	76 Styrene	104	5.792	5.793	(1.051)	238416	50.0000	55.4	
	77 Bromoform	173	5.808	5.809	(0.896)	80414	50.0000	58.0	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	309907	50.0000	54.5	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	62130	30.0000	30.7	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	344766	50.0000	54.6	
	81 Bromobenzene	77	6.066	6.069	(0.936)	149064	50.0000	53.0	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	131397	50.0000	53.6	
	83 1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	244646	50.0000	55.0	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	80624	50.0000	53.4	
	85 1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	48757	50.0000	53.8	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.952)	40366	50.0000	62.6	
	87 Cyclohexanone	55	6.188	6.185	(0.954)	87150	250.000	324	
	88 4-Chlorotoluene	126	6.207	6.211	(0.957)	84891	50.0000	54.6	
	89 tert-Butylbenzene	119	6.281	6.282	(0.969)	198107	50.0000	54.7	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	241465	50.0000	54.2	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	263344	50.0000	54.1	
	92 p-Isopropyltoluene	119	6.407	6.410	(0.988)	229401	50.0000	55.3	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	145352	50.0000	52.8	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	65204	30.0000		
	95 1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	153893	50.0000	53.9	
	96 n-Butylbenzene	91	6.583	6.584	(1.015)	177629	50.0000	54.7	
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	141818	50.0000	53.5	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	52890	50.0000	56.8	
	103 1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	79122	50.0000	52.6	
	100 Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	36195	50.0000	54.2	
	101 1,2,4-Trichlorobenzene	180	7.275	7.278	(1.122)	74005	50.0000	53.7	
	102 Naphthalene	128	7.410	7.413	(1.143)	325987	50.0000	55.6	
	104 1,2,3-Trichlorobenzene	180	7.490	7.487	(1.155)	68692	50.0000	50.8	
	105 2-Methylnaphthalene	142	7.847	7.844	(1.210)	88466	50.0000	54.9	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	56.0	
74-87-3	Chloromethane	48.0	
75-01-4	Vinyl chloride	55.4	
74-83-9	Bromomethane	47.1	
75-00-3	Chloroethane	46.4	
75-69-4	Trichlorofluoromethane	57.7	
60-29-7	Diethyl ether (Ethyl ether)	53.5	
64-17-5	Ethanol	581	
75-35-4	1,1-Dichloroethene	53.8	
76-13-1	1,1,2-Trichlorotrifluoroetha	55.9	
75-15-0	Carbon disulfide	52.3	
74-88-4	Iodomethane	95.5	
107-02-8	Acrolein	55.8	
107-05-1	Allyl chloride	280	
75-09-2	Methylene Chloride	43.5	
67-64-1	Acetone	37.1	
156-60-5	trans-1,2-Dichloroethene	52.0	
79-20-9	Methyl acetate	51.2	
110-54-3	n-Hexane	53.0	
1634-04-4	Methyl-tert-butyl ether	51.9	
75-65-0	tert-Butyl Alcohol	305	
75-05-8	Acetonitrile	253	
108-20-3	Diisopropyl ether	52.8	
126-99-8	Chloroprene	54.2	
75-34-3	1,1-Dichloroethane	52.8	
107-13-1	Acrylonitrile	52.0	
637-92-3	Ethyl-tert-butyl ether	53.4	
108-05-4	Vinyl acetate	55.2	
156-59-2	cis-1,2-Dichloroethene	53.2	
594-20-7	2,2-Dichloropropane	53.4	
110-82-7	Cyclohexane	55.9	
74-97-5	Bromochloromethane	53.2	
67-66-3	Chloroform	53.1	
141-78-6	Ethyl acetate	62.2	
56-23-5	Carbon tetrachloride	53.4	
109-99-9	Tetrahydrofuran	55.4	
71-55-6	1,1,1-Trichloroethane	54.1	
78-93-3	2-Butanone (MEK)	51.2	
563-58-6	1,1-Dichloropropene	54.4	
71-43-2	Benzene	52.9	
107-12-0	Propionitrile	58.5	
126-98-7	Methacrylonitrile	53.4	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	54.2	
78-83-1	Isobutanol	268	
107-06-2	1,2-Dichloroethane	52.7	
108-87-2	Methylcyclohexane	55.0	
79-01-6	Trichloroethene	54.5	
74-95-3	Dibromomethane	53.3	
78-87-5	1,2-Dichloropropane	53.6	
75-27-4	Bromodichloromethane	56.2	
80-62-6	Methyl methacrylate	57.2	
123-91-1	1,4-Dioxane (p-Dioxane)	550	
110-75-8	2-Chloroethylvinyl ether	62.7	
10061-01-5	cis-1,3-Dichloropropene	56.4	
108-88-3	Toluene	52.8	
79-46-9	2-Nitropropane	294	
108-10-1	4-Methyl-2-pentanone (MIBK)	56.8	
127-18-4	Tetrachloroethene	53.2	
10061-02-6	trans-1,3-Dichloropropene	55.6	
97-63-2	Ethyl methacrylate	55.4	
79-00-5	1,1,2-Trichloroethane	52.7	
124-48-1	Dibromochloromethane	55.2	
142-28-9	1,3-Dichloropropane	54.0	
106-93-4	1,2-Dibromoethane (EDB)	54.8	
591-78-6	2-Hexanone	56.5	
100-41-4	Ethylbenzene	54.2	
108-90-7	Chlorobenzene	52.9	
630-20-6	1,1,1,2-Tetrachloroethane	54.1	
7816-60-0	m&p-Xylene	108	
95-47-6	o-Xylene	53.4	
100-42-5	Styrene	55.4	
75-25-2	Bromoform	58.0	
98-82-8	Isopropylbenzene (Cumene)	54.5	
103-65-1	n-Propylbenzene	54.6	
108-86-1	Bromobenzene	53.0	
79-34-5	1,1,2,2-Tetrachloroethane	53.6	
108-67-8	1,3,5-Trimethylbenzene	55.0	
95-49-8	2-Chlorotoluene	53.4	
96-18-4	1,2,3-Trichloropropane	53.8	
110-57-6	trans-1,4-Dichloro-2-butene	62.6	
108-94-1	Cyclohexanone	324	
106-43-4	4-Chlorotoluene	54.6	
98-06-6	tert-Butylbenzene	54.7	
95-63-6	1,2,4-Trimethylbenzene	54.2	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Report Date: 13-Nov-2019 08:53

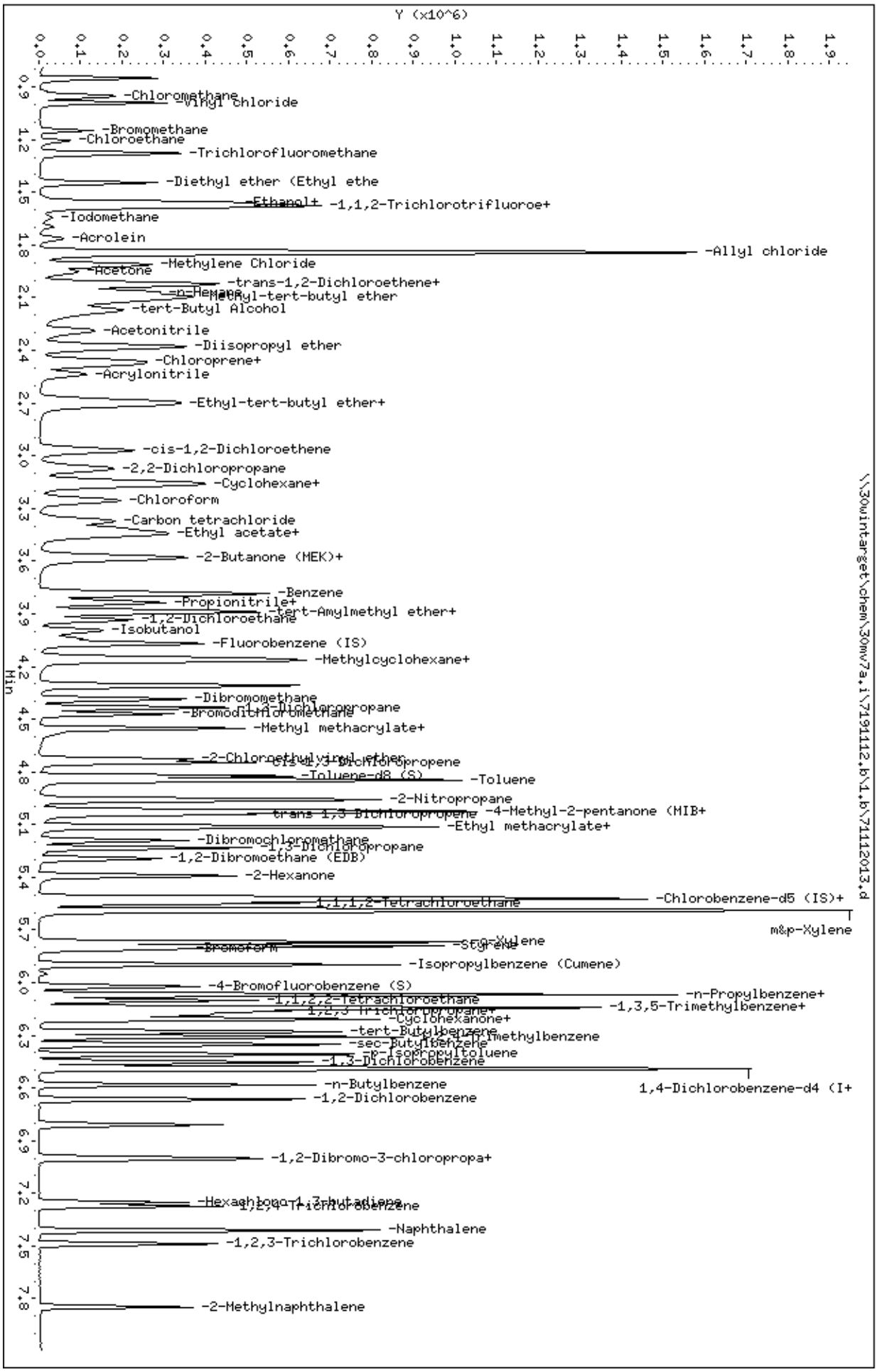
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	54.1	
99-87-6	p-Isopropyltoluene	55.3	
541-73-1	1,3-Dichlorobenzene	52.8	
106-46-7	1,4-Dichlorobenzene	53.9	
104-51-8	n-Butylbenzene	54.7	
95-50-1	1,2-Dichlorobenzene	53.5	
96-12-8	1,2-Dibromo-3-chloropropane	56.8	
108-70-3	1,3,5-Trichlorobenzene	52.6	
87-68-3	Hexachloro-1,3-butadiene	54.2	
120-82-1	1,2,4-Trichlorobenzene	53.7	
91-20-3	Naphthalene	55.6	
87-61-6	1,2,3-Trichlorobenzene	50.8	
91-57-6	2-Methylnaphthalene	54.9	
1868-53-7	Dibromofluoromethane (S)	29.9	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.2	
2037-26-5	Toluene-d8 (S)	30.0	
460-00-4	4-Bromofluorobenzene (S)	30.7	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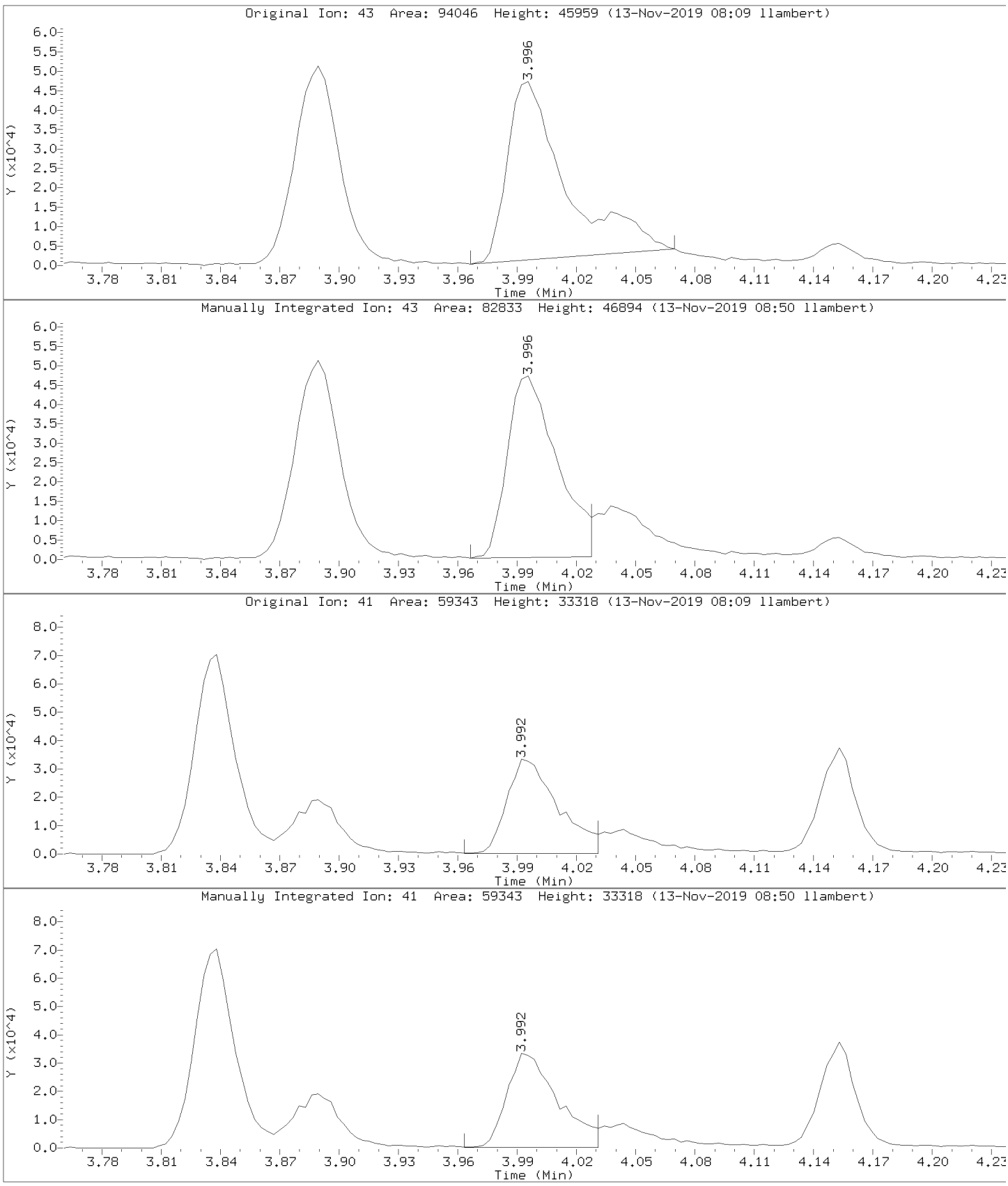
Date : 12-NOV-2019 15:39
Client ID: CAL5
Sample Info: CAL5, 10519211
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112013.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-o-Xylene
-Styrene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
-2-Chlorotoluene+
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112013.d
Injection Date: 12-NOV-2019 15:39
Instrument: 30mv7a.i
Lab Sample ID: CAL5

Compound: Isobutanol Review Code: GT
CAS Number: 78-83-1



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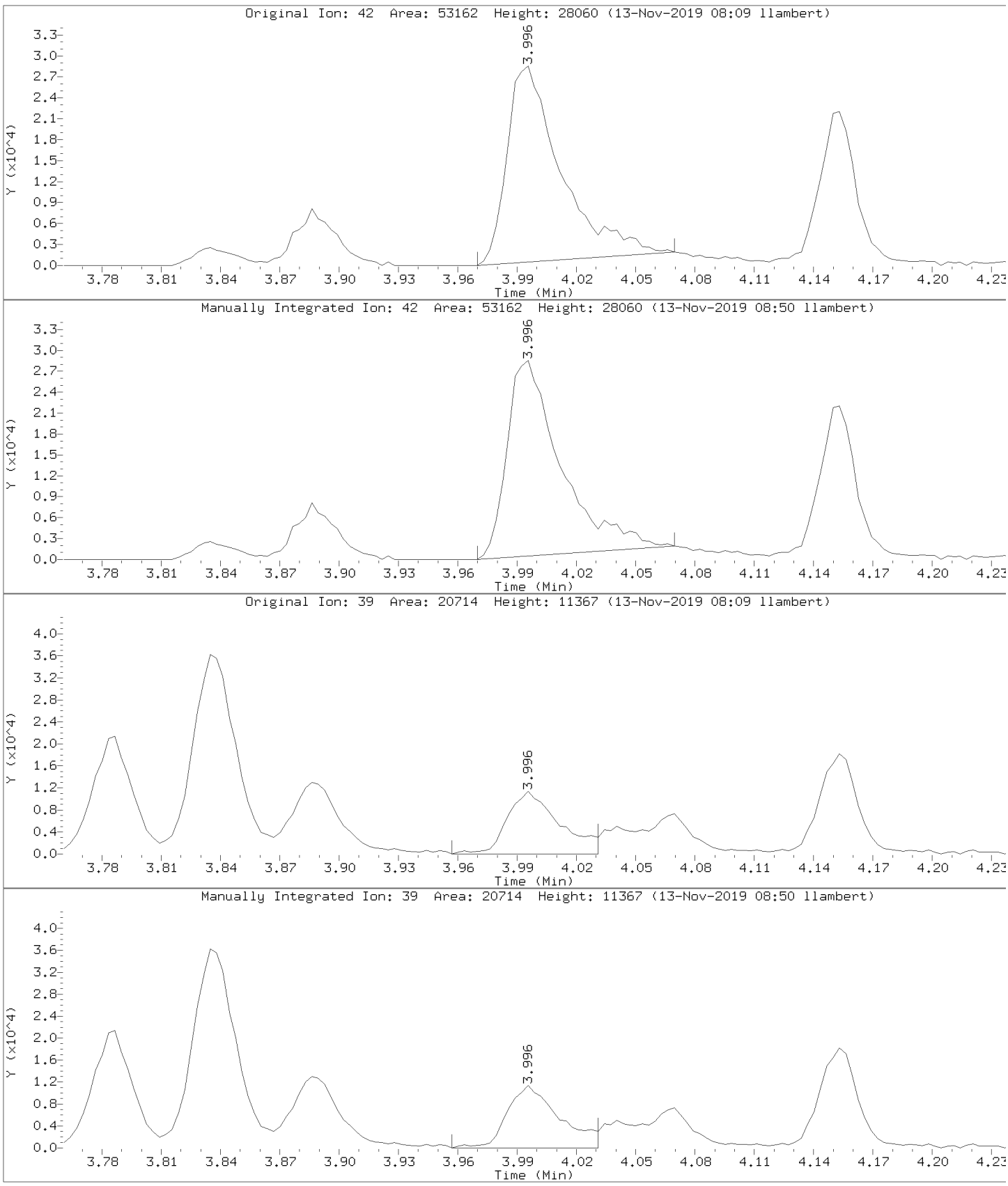
Injection Date: 12-NOV-2019 15:39
Instrument: 30mv7a.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 12-NOV-2019 16:04
Operator : LEL Inst ID: 30mv7a.i
Smp Info : cal6, 105193:1
Misc Info : 47221,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 16:04 Cal File: 71112015.d
Als bottle: 15 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.847	0.851	(0.208)	512483	200.000	217(Q)	
2 Chloromethane	50	0.944	0.951	(0.232)	681648	200.000	214	
3 Vinyl chloride	62	0.986	0.989	(0.242)	591228	200.000	214	
4 Bromomethane	94	1.146	1.147	(0.282)	127399	200.000	173	
5 Chloroethane	64	1.201	1.208	(0.295)	122945	200.000	140	
6 Trichlorofluoromethane	101	1.272	1.282	(0.313)	571240	200.000	183	
7 Diethyl ether (Ethyl ether)	59	1.442	1.443	(0.354)	381789	200.000	208	
8 Ethanol	46	1.571	1.571	(0.242)	72820	2000.00	2520(Q)	
9 1,1-Dichloroethene	61	1.552	1.555	(0.381)	687484	200.000	213	
10 1,1,2-Trichlorotrifluoroethane	151	1.571	1.584	(0.386)	381035	200.000	222	
11 Carbon disulfide	76	1.571	1.578	(0.386)	1203839	200.000	215	
12 Iodomethane	142	1.638	1.639	(0.403)	105895	200.000	343(AQ)	
13 Acrolein	56	1.764	1.764	(0.434)	166243	200.000	227	
14 Allyl chloride	41	1.838	1.841	(0.452)	2782177	1000.00	968	
15 Methylene Chloride	49	1.908	1.915	(0.469)	544714	200.000	173	
16 Acetone	58	1.957	1.947	(0.481)	120780	200.000	139	
17 trans-1,2-Dichloroethene	61	2.015	2.017	(0.495)	610648	200.000	209	
18 Methyl acetate	74	2.031	2.033	(0.499)	218261	200.000	205(Q)	
19 n-Hexane	86	2.063	2.063	(0.507)	72857	200.000	228	
20 Methyl-tert-butyl ether	73	2.092	2.092	(0.514)	1215878	200.000	209(Q)	
21 tert-Butyl Alcohol	59	2.191	2.166	(0.539)	1121592	1000.00	1010	
22 Acetonitrile	41	2.291	2.295	(0.563)	675030	1000.00	1020(Q)	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.381	2.385	(0.585)	1325270	200.000	212	
	24 Chloroprene	53	2.455	2.462	(0.603)	471943	200.000	224	
	25 1,1-Dichloroethane	63	2.478	2.484	(0.609)	749686	200.000	207	
	26 Acrylonitrile	53	2.535	2.536	(0.623)	382046	200.000	223	
	27 Ethyl-tert-butyl ether	59	2.690	2.693	(0.661)	1255692	200.000	214	
	28 Vinyl acetate	43	2.709	2.719	(0.666)	1210797	200.000	230	
	29 cis-1,2-Dichloroethene	61	2.966	2.963	(0.729)	569235	200.000	209	
	30 2,2-Dichloropropane	77	3.069	3.073	(0.754)	578400	200.000	213	
	31 Cyclohexane	56	3.150	3.153	(0.774)	698657	200.000	224	
	32 Bromochloromethane	130	3.166	3.163	(0.778)	266159	200.000	193	
	33 Chloroform	83	3.252	3.253	(0.799)	712512	200.000	210	
	34 Ethyl acetate	43	3.413	3.436	(0.839)	425968	200.000	251	
	35 Carbon tetrachloride	117	3.368	3.359	(0.828)	613359	200.000	223	
	36 Tetrahydrofuran	42	3.413	3.433	(0.839)	402974	200.000	224	
$	37 Dibromofluoromethane (S)	111	3.439	3.439	(0.845)	62735	30.0000	30.0	
	38 1,1,1-Trichloroethane	97	3.445	3.452	(0.847)	647829	200.000	217	
	39 2-Butanone (MEK)	43	3.590	3.603	(0.882)	621994	200.000	217	
	40 1,1-Dichloropropene	75	3.574	3.578	(0.878)	575784	200.000	219	
	41 Benzene	78	3.783	3.783	(0.930)	1628499	200.000	208	
	42 Propionitrile	54	3.828	3.828	(0.941)	182549	200.000	244	
	43 Methacrylonitrile	41	3.838	3.841	(0.943)	426494	200.000	214	
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	1089680	200.000	219	
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	60134	30.0000	28.4(Q)	
	45 Isobutanol	43	4.011	4.011	(0.986)	496697	1000.00	1500(Q)	
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	516492	200.000	204	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	237334	30.0000		
	49 Methylcyclohexane	55	4.150	4.152	(1.020)	419217	200.000	233	
	50 Trichloroethene	132	4.166	4.168	(1.024)	482538	200.000	214	
	51 Dibromomethane	174	4.384	4.388	(1.077)	346347	200.000	215	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.089)	402665	200.000	213	
	53 Bromodichloromethane	83	4.471	4.468	(1.099)	483272	200.000	228	
	54 Methyl methacrylate	69	4.551	4.558	(1.119)	403651	200.000	243	
	55 1,4-Dioxane (p-Dioxane)	88	4.577	4.578	(1.125)	120649	2000.00	2250(Q)	
	56 2-Chloroethylvinyl ether	63	4.725	4.732	(1.161)	300912	200.000	224	
	57 cis-1,3-Dichloropropene	75	4.748	4.741	(1.167)	622040	200.000	232	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	211399	30.0000	30.8	
	59 Toluene	91	4.847	4.848	(0.879)	1690377	200.000	219	
	60 2-Nitropropane	43	4.960	4.960	(1.219)	1415488	1000.00	1200	
	61 4-Methyl-2-pentanone (MIBK)	43	5.027	5.028	(1.235)	767035	200.000	211	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	461282	200.000	220	
	63 trans-1,3-Dichloropropene	75	5.040	5.044	(0.914)	560205	200.000	235	
	64 Ethyl methacrylate	41	5.111	5.114	(0.927)	377766	200.000	228	
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	375736	200.000	215	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	460682	200.000	232	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	630985	200.000	215	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	446440	200.000	220	
	69 2-Hexanone	43	5.391	5.397	(0.978)	703694	200.000	228	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	158954	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	534446	200.000	220	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	1006751	200.000	212	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.548	(1.006)	406277	200.000	226	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	1281680	400.000	426	
	75 o-Xylene	106	5.770	5.770	(1.047)	621248	200.000	213	
	76 Styrene	104	5.793	5.793	(1.051)	989714	200.000	221	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Report Date: 13-Nov-2019 08:53

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77	Bromoform	173	5.812	5.809	(0.896)	360405	200.000	248(A)	
	78	Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	1284708	200.000	216	
$	79	4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	62990	30.0000	29.8	
	80	n-Propylbenzene	91	6.069	6.069	(0.936)	1416010	200.000	214	
	81	Bromobenzene	77	6.066	6.069	(0.936)	614998	200.000	209	
	82	1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	544940	200.000	212	
	83	1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	1001297	200.000	215	
	84	2-Chlorotoluene	126	6.140	6.140	(0.947)	331489	200.000	210	
	85	1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	199312	200.000	210	
	86	trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.952)	181912	200.000	269	
	87	Cyclohexanone	55	6.188	6.185	(0.954)	353638	1000.00	1260	
	88	4-Chlorotoluene	126	6.207	6.211	(0.957)	350879	200.000	215	
	89	tert-Butylbenzene	119	6.281	6.282	(0.969)	810081	200.000	214	
	90	1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	1005855	200.000	215	
	91	sec-Butylbenzene	105	6.352	6.352	(0.980)	1091561	200.000	214	
	92	p-Isopropyltoluene	119	6.410	6.410	(0.989)	944323	200.000	217	
	93	1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	602393	200.000	209	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	68287	30.0000	(Q)	
	95	1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	632122	200.000	211	
	96	n-Butylbenzene	91	6.584	6.584	(1.015)	748874	200.000	220	
$	98	1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97	1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	590930	200.000	213	
	99	1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	239277	200.000	245	
	103	1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	326702	200.000	207	
	100	Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	152405	200.000	218	
	101	1,2,4-Trichlorobenzene	180	7.275	7.278	(1.122)	307407	200.000	208(H)	WP
	102	Naphthalene	128	7.410	7.413	(1.143)	1359469	200.000	221	
	104	1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	284749	200.000	201	
	105	2-Methylnaphthalene	142	7.847	7.844	(1.210)	354710	200.000	210	

QC Flag Legend

A - Target compound detected but, quantitated amount
exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Review Codes Legend

:
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	217	
74-87-3	Chloromethane	214	
75-01-4	Vinyl chloride	214	
74-83-9	Bromomethane	173	
75-00-3	Chloroethane	140	
75-69-4	Trichlorofluoromethane	183	
60-29-7	Diethyl ether (Ethyl ether)	208	
64-17-5	Ethanol	2520	
75-35-4	1,1-Dichloroethene	213	
76-13-1	1,1,2-Trichlorotrifluoroetha	222	
75-15-0	Carbon disulfide	215	
74-88-4	Iodomethane	343	E
107-02-8	Acrolein	227	
107-05-1	Allyl chloride	968	
75-09-2	Methylene Chloride	173	
67-64-1	Acetone	139	
156-60-5	trans-1,2-Dichloroethene	209	
79-20-9	Methyl acetate	205	
110-54-3	n-Hexane	228	
1634-04-4	Methyl-tert-butyl ether	209	
75-65-0	tert-Butyl Alcohol	1010	
75-05-8	Acetonitrile	1020	
108-20-3	Diisopropyl ether	212	
126-99-8	Chloroprene	224	
75-34-3	1,1-Dichloroethane	207	
107-13-1	Acrylonitrile	223	
637-92-3	Ethyl-tert-butyl ether	214	
108-05-4	Vinyl acetate	230	
156-59-2	cis-1,2-Dichloroethene	209	
594-20-7	2,2-Dichloropropane	213	
110-82-7	Cyclohexane	224	
74-97-5	Bromochloromethane	193	
67-66-3	Chloroform	210	
141-78-6	Ethyl acetate	251	
56-23-5	Carbon tetrachloride	223	
109-99-9	Tetrahydrofuran	224	
71-55-6	1,1,1-Trichloroethane	217	
78-93-3	2-Butanone (MEK)	217	
563-58-6	1,1-Dichloropropene	219	
71-43-2	Benzene	208	
107-12-0	Propionitrile	244	
126-98-7	Methacrylonitrile	214	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	219	
78-83-1	Isobutanol	1500	
107-06-2	1,2-Dichloroethane	204	
108-87-2	Methylcyclohexane	233	
79-01-6	Trichloroethene	214	
74-95-3	Dibromomethane	215	
78-87-5	1,2-Dichloropropane	213	
75-27-4	Bromodichloromethane	228	
80-62-6	Methyl methacrylate	243	
123-91-1	1,4-Dioxane (p-Dioxane)	2250	
110-75-8	2-Chloroethylvinyl ether	224	
10061-01-5	cis-1,3-Dichloropropene	232	
108-88-3	Toluene	219	
79-46-9	2-Nitropropane	1200	
108-10-1	4-Methyl-2-pentanone (MIBK)	211	
127-18-4	Tetrachloroethene	220	
10061-02-6	trans-1,3-Dichloropropene	235	
97-63-2	Ethyl methacrylate	228	
79-00-5	1,1,2-Trichloroethane	215	
124-48-1	Dibromochloromethane	232	
142-28-9	1,3-Dichloropropane	215	
106-93-4	1,2-Dibromoethane (EDB)	220	
591-78-6	2-Hexanone	228	
100-41-4	Ethylbenzene	220	
108-90-7	Chlorobenzene	212	
630-20-6	1,1,1,2-Tetrachloroethane	226	
7816-60-0	m&p-Xylene	426	
95-47-6	o-Xylene	213	
100-42-5	Styrene	221	
75-25-2	Bromoform	248	E
98-82-8	Isopropylbenzene (Cumene)	216	
103-65-1	n-Propylbenzene	214	
108-86-1	Bromobenzene	209	
79-34-5	1,1,2,2-Tetrachloroethane	212	
108-67-8	1,3,5-Trimethylbenzene	215	
95-49-8	2-Chlorotoluene	210	
96-18-4	1,2,3-Trichloropropane	210	
110-57-6	trans-1,4-Dichloro-2-butene	269	
108-94-1	Cyclohexanone	1260	
106-43-4	4-Chlorotoluene	215	
98-06-6	tert-Butylbenzene	214	
95-63-6	1,2,4-Trimethylbenzene	215	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Report Date: 13-Nov-2019 08:53

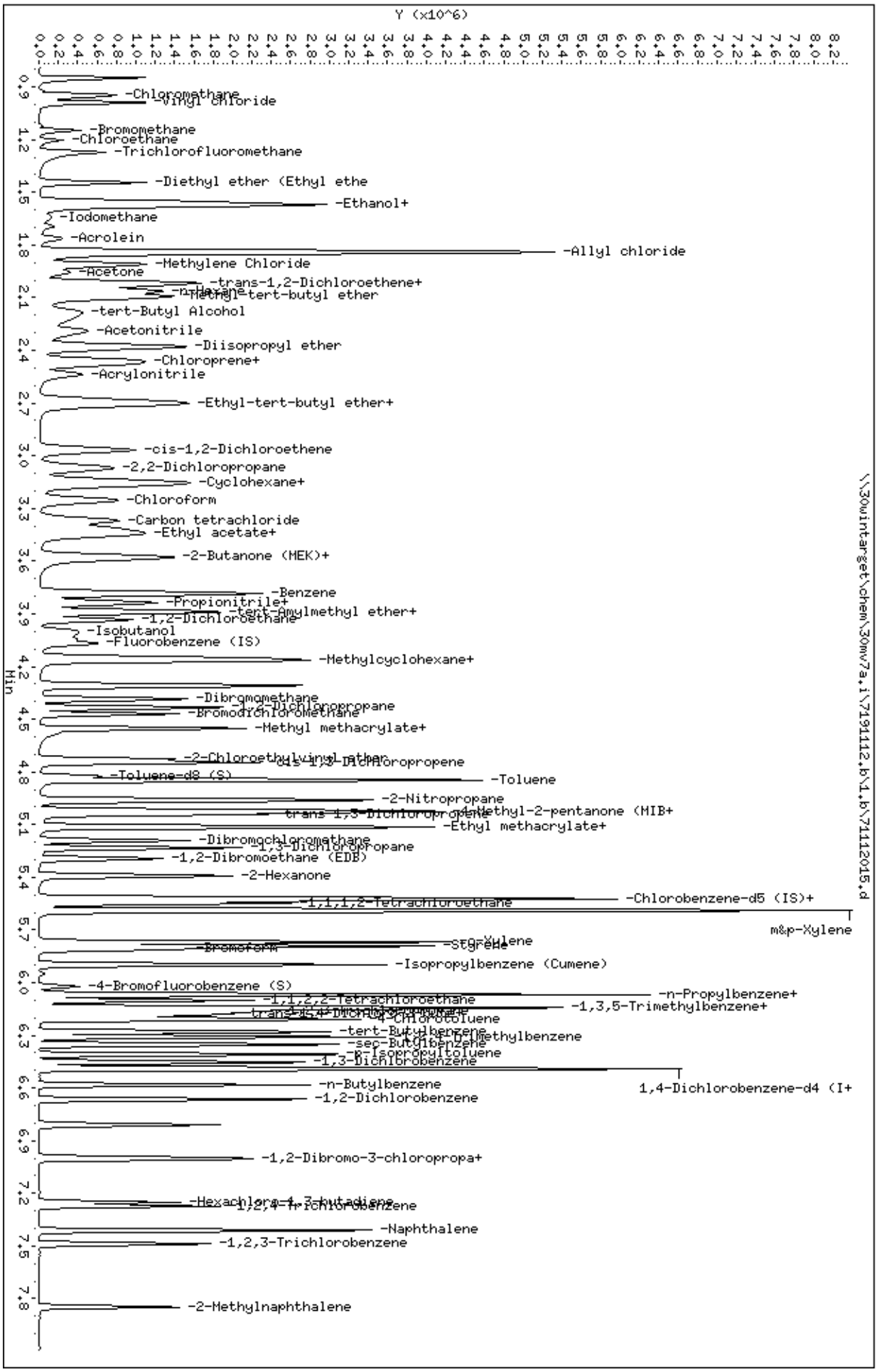
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	214	
99-87-6	p-Isopropyltoluene	217	
541-73-1	1,3-Dichlorobenzene	209	
106-46-7	1,4-Dichlorobenzene	211	
104-51-8	n-Butylbenzene	220	
95-50-1	1,2-Dichlorobenzene	213	
96-12-8	1,2-Dibromo-3-chloropropane	245	
108-70-3	1,3,5-Trichlorobenzene	207	
87-68-3	Hexachloro-1,3-butadiene	218	
120-82-1	1,2,4-Trichlorobenzene	208	
91-20-3	Naphthalene	221	
87-61-6	1,2,3-Trichlorobenzene	201	
91-57-6	2-Methylnaphthalene	210	
1868-53-7	Dibromofluoromethane (S)	30.0	
17060-07-0	1,2-Dichloroethane-d4 (S)	28.4	
2037-26-5	Toluene-d8 (S)	30.8	
460-00-4	4-Bromofluorobenzene (S)	29.8	


Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Date : 12-NOV-2019 16:04
Client ID: CAL6
Sample Info: CAL6, 10519311
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112015.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
trans-1,3-Dichloropropene
4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
trans-1,4-Dichloro-2-butene
4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112015.d
Injection Date: 12-NOV-2019 16:04
Instrument: 30mv7a.i
Lab Sample ID: CAL6
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 12-NOV-2019 16:28
Operator : LEL Inst ID: 30mv7a.i
Smp Info : cal7, 105194:1
Misc Info : 47221,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 16:28 Cal File: 71112017.d
Als bottle: 17 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.847	0.851	(0.208)	1024706	400.000	428(AQ)	
2 Chloromethane	50	0.944	0.951	(0.232)	1542074	400.000	478(A)	
3 Vinyl chloride	62	0.986	0.989	(0.242)	1148219	400.000	410(A)	
4 Bromomethane	94	1.147	1.147	(0.282)	268099	400.000	359	
5 Chloroethane	64	1.201	1.208	(0.295)	235145	400.000	264(A)	
6 Trichlorofluoromethane	101	1.269	1.282	(0.312)	987682	400.000	311(AQ)	
7 Diethyl ether (Ethyl ether)	59	1.442	1.443	(0.355)	709785	400.000	381	
8 Ethanol	46	1.571	1.571	(0.242)	132008	4000.00	4560(AQ)	
9 1,1-Dichloroethene	61	1.548	1.555	(0.381)	1352483	400.000	413(A)	
10 1,1,2-Trichlorotrifluoroethane	151	1.568	1.584	(0.385)	748401	400.000	429(A)	
11 Carbon disulfide	76	1.568	1.578	(0.385)	2417921	400.000	426(A)	
12 Iodomethane	142	1.645	1.639	(0.404)	162039	400.000	517(AQ)	
13 Acrolein	56	1.764	1.764	(0.434)	340328	400.000	458(A)	
14 Allyl chloride	41	1.838	1.841	(0.452)	5269362	2000.00	1800	
15 Methylene Chloride	49	1.909	1.915	(0.469)	1176948	400.000	368	
16 Acetone	58	1.960	1.947	(0.482)	234278	400.000	266	
17 trans-1,2-Dichloroethene	61	2.011	2.017	(0.494)	1276440	400.000	431(A)	
18 Methyl acetate	74	2.034	2.033	(0.500)	442302	400.000	410(AQ)	
19 n-Hexane	86	2.060	2.063	(0.506)	141766	400.000	438(A)	
20 Methyl-tert-butyl ether	73	2.095	2.092	(0.515)	2556046	400.000	432(AQ)	
21 tert-Butyl Alcohol	59	2.220	2.166	(0.546)	2059678	2000.00	1830(QM)	LT
22 Acetonitrile	41	2.291	2.295	(0.563)	1274000	2000.00	1900(Q)	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.381	2.385	(0.585)	2781326	400.000	437(A)	
	24 Chloroprene	53	2.455	2.462	(0.603)	988762	400.000	462(A)	
	25 1,1-Dichloroethane	63	2.478	2.484	(0.609)	1563035	400.000	425(A)	
	26 Acrylonitrile	53	2.539	2.536	(0.624)	763310	400.000	438(A)	
	27 Ethyl-tert-butyl ether	59	2.696	2.693	(0.663)	2648184	400.000	444(A)	
	28 Vinyl acetate	43	2.712	2.719	(0.667)	2573746	400.000	482(A)	
	29 cis-1,2-Dichloroethene	61	2.966	2.963	(0.729)	1203781	400.000	436(A)	
	30 2,2-Dichloropropane	77	3.069	3.073	(0.754)	1222987	400.000	443(A)	
	31 Cyclohexane	56	3.150	3.153	(0.774)	1437525	400.000	453(A)	
	32 Bromochloromethane	130	3.166	3.163	(0.778)	528972	400.000	378	
	33 Chloroform	83	3.253	3.253	(0.799)	1485137	400.000	430(A)	
	34 Ethyl acetate	43	3.417	3.436	(0.840)	869027	400.000	505(A)	
	35 Carbon tetrachloride	117	3.368	3.359	(0.828)	1285566	400.000	460(A)	
	36 Tetrahydrofuran	42	3.420	3.433	(0.840)	789554	400.000	431(A)	
$	37 Dibromofluoromethane (S)	111	3.442	3.439	(0.846)	63076	30.0000	29.7	
	38 1,1,1-Trichloroethane	97	3.445	3.452	(0.847)	1336798	400.000	441(A)	
	39 2-Butanone (MEK)	43	3.597	3.603	(0.884)	1219394	400.000	419(A)	
	40 1,1-Dichloropropene	75	3.577	3.578	(0.879)	1215663	400.000	455(A)	
	41 Benzene	78	3.783	3.783	(0.930)	3400428	400.000	427(A)	
	42 Propionitrile	54	3.835	3.828	(0.942)	356683	400.000	469(AQ)	
	43 Methacrylonitrile	41	3.841	3.841	(0.944)	884877	400.000	438(A)	
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	2300549	400.000	456(A)	
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	67886	30.0000	31.6(Q)	
	45 Isobutanol	43	4.034	4.011	(0.991)	969635	2000.00	2880(A)	
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	1060124	400.000	412(A)	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	241118	30.0000	(Q)	
	49 Methylcyclohexane	55	4.153	4.152	(1.021)	843925	400.000	462(A)	
	50 Trichloroethene	132	4.166	4.168	(1.024)	1006376	400.000	440(A)	
	51 Dibromomethane	174	4.388	4.388	(1.078)	726957	400.000	444(A)	
	52 1,2-Dichloropropane	63	4.436	4.433	(1.090)	845760	400.000	441(A)	
	53 Bromodichloromethane	83	4.471	4.468	(1.099)	1035748	400.000	480(A)	
	54 Methyl methacrylate	69	4.552	4.558	(1.119)	838902	400.000	496(A)	
	55 1,4-Dioxane (p-Dioxane)	88	4.587	4.578	(1.127)	235605	4000.00	4320(AQ)	
	56 2-Chloroethylvinyl ether	63	4.728	4.732	(1.162)	549210	400.000	402(A)	
	57 cis-1,3-Dichloropropene	75	4.748	4.741	(1.167)	1301233	400.000	478(A)	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	221770	30.0000	32.7	
	59 Toluene	91	4.847	4.848	(0.879)	3499898	400.000	458(A)	
	60 2-Nitropropane	43	4.963	4.960	(1.220)	2794565	2000.00	2330(A)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.027	5.028	(1.235)	1523804	400.000	413(A)	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	956277	400.000	461(A)	
	63 trans-1,3-Dichloropropene	75	5.043	5.044	(0.915)	1163240	400.000	493(A)	
	64 Ethyl methacrylate	41	5.114	5.114	(0.928)	775172	400.000	472(A)	
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	758404	400.000	438(A)	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	962956	400.000	489(A)	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	1291858	400.000	444(A)	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	927423	400.000	462(A)	
	69 2-Hexanone	43	5.394	5.397	(0.978)	1414750	400.000	462(A)	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	157443	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	1078691	400.000	449(A)	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	2022694	400.000	429(A)	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.548	(1.006)	828316	400.000	464(A)	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	2508055	800.000	842(A)	
	75 o-Xylene	106	5.770	5.770	(1.047)	1260696	400.000	437(A)	
	76 Styrene	104	5.793	5.793	(1.051)	2043939	400.000	460(A)	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Report Date: 13-Nov-2019 08:53

			QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	77	Bromoform	173	5.812	5.809	(0.896)	768681	400.000	528(A)	
	78	Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	2567012	400.000	430(A)	
$	79	4-Bromofluorobenzene (S)	174	6.024	6.021	(0.929)	62830	30.0000	29.6	
	80	n-Propylbenzene	91	6.069	6.069	(0.936)	2791710	400.000	422(A)	
	81	Bromobenzene	77	6.069	6.069	(0.936)	1248850	400.000	423(A)	
	82	1,1,2,2-Tetrachloroethane	83	6.105	6.102	(0.941)	1137847	400.000	442(A)	
	83	1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	1995429	400.000	428(A)	
	84	2-Chlorotoluene	126	6.140	6.140	(0.947)	665956	400.000	420(A)	
	85	1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	404595	400.000	425(A)	
	86	trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.952)	384629	400.000	568(A)	
	87	Cyclohexanone	55	6.191	6.185	(0.955)	667564	2000.00	2370(A)	
	88	4-Chlorotoluene	126	6.211	6.211	(0.958)	719114	400.000	440(A)	
	89	tert-Butylbenzene	119	6.281	6.282	(0.969)	1616506	400.000	425(A)	
	90	1,2,4-Trimethylbenzene	105	6.310	6.307	(0.973)	2025474	400.000	433(A)	
	91	sec-Butylbenzene	105	6.352	6.352	(0.980)	2200113	400.000	430(A)	
	92	p-Isopropyltoluene	119	6.410	6.410	(0.989)	1887603	400.000	433(A)	
	93	1,3-Dichlorobenzene	146	6.455	6.452	(0.996)	1225587	400.000	424(A)	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	68455	30.0000	(Q)	
	95	1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	1266200	400.000	422(A)	
	96	n-Butylbenzene	91	6.584	6.584	(1.015)	1502341	400.000	441(A)	
$	98	1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97	1,2-Dichlorobenzene	146	6.667	6.664	(1.028)	1214624	400.000	436(A)	
	99	1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	493511	400.000	505(A)	
	103	1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	653703	400.000	414(A)	
	100	Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	305849	400.000	436(A)	
	101	1,2,4-Trichlorobenzene	180	7.275	7.278	(1.122)	618631	400.000	423(AM)	WP
	102	Naphthalene	128	7.410	7.413	(1.143)	2772548	400.000	450(A)	
	104	1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	573628	400.000	404(A)	
	105	2-Methylnaphthalene	142	7.847	7.844	(1.210)	691357	400.000	408(A)	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
WP: Indicates that the wrong peak was chosen (i.e. The surrogate peak was misidentified by the computer system).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	428	E
74-87-3	Chloromethane	478	E
75-01-4	Vinyl chloride	410	E
74-83-9	Bromomethane	359	
75-00-3	Chloroethane	264	E
75-69-4	Trichlorofluoromethane	311	E
60-29-7	Diethyl ether (Ethyl ether)	381	
64-17-5	Ethanol	4560	E
75-35-4	1,1-Dichloroethene	413	E
76-13-1	1,1,2-Trichlorotrifluoroetha	429	E
75-15-0	Carbon disulfide	426	E
74-88-4	Iodomethane	517	E
107-02-8	Acrolein	458	E
107-05-1	Allyl chloride	1800	
75-09-2	Methylene Chloride	368	
67-64-1	Acetone	266	
156-60-5	trans-1,2-Dichloroethene	431	E
79-20-9	Methyl acetate	410	E
110-54-3	n-Hexane	438	E
1634-04-4	Methyl-tert-butyl ether	432	E
75-65-0	tert-Butyl Alcohol	1830	
75-05-8	Acetonitrile	1900	
108-20-3	Diisopropyl ether	437	E
126-99-8	Chloroprene	462	E
75-34-3	1,1-Dichloroethane	425	E
107-13-1	Acrylonitrile	438	E
637-92-3	Ethyl-tert-butyl ether	444	E
108-05-4	Vinyl acetate	482	E
156-59-2	cis-1,2-Dichloroethene	436	E
594-20-7	2,2-Dichloropropane	443	E
110-82-7	Cyclohexane	453	E
74-97-5	Bromochloromethane	378	
67-66-3	Chloroform	430	E
141-78-6	Ethyl acetate	505	E
56-23-5	Carbon tetrachloride	460	E
109-99-9	Tetrahydrofuran	431	E
71-55-6	1,1,1-Trichloroethane	441	E
78-93-3	2-Butanone (MEK)	419	E
563-58-6	1,1-Dichloropropene	455	E
71-43-2	Benzene	427	E
107-12-0	Propionitrile	469	E
126-98-7	Methacrylonitrile	438	E

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	456	E
78-83-1	Isobutanol	2880	E
107-06-2	1,2-Dichloroethane	412	E
108-87-2	Methylcyclohexane	462	E
79-01-6	Trichloroethene	440	E
74-95-3	Dibromomethane	444	E
78-87-5	1,2-Dichloropropane	441	E
75-27-4	Bromodichloromethane	480	E
80-62-6	Methyl methacrylate	496	E
123-91-1	1,4-Dioxane (p-Dioxane)	4320	E
110-75-8	2-Chloroethylvinyl ether	402	E
10061-01-5	cis-1,3-Dichloropropene	478	E
108-88-3	Toluene	458	E
79-46-9	2-Nitropropane	2330	E
108-10-1	4-Methyl-2-pentanone (MIBK)	413	E
127-18-4	Tetrachloroethene	461	E
10061-02-6	trans-1,3-Dichloropropene	493	E
97-63-2	Ethyl methacrylate	472	E
79-00-5	1,1,2-Trichloroethane	438	E
124-48-1	Dibromochloromethane	489	E
142-28-9	1,3-Dichloropropane	444	E
106-93-4	1,2-Dibromoethane (EDB)	462	E
591-78-6	2-Hexanone	462	E
100-41-4	Ethylbenzene	449	E
108-90-7	Chlorobenzene	429	E
630-20-6	1,1,1,2-Tetrachloroethane	464	E
7816-60-0	m&p-Xylene	842	E
95-47-6	o-Xylene	437	E
100-42-5	Styrene	460	E
75-25-2	Bromoform	528	E
98-82-8	Isopropylbenzene (Cumene)	430	E
103-65-1	n-Propylbenzene	422	E
108-86-1	Bromobenzene	423	E
79-34-5	1,1,2,2-Tetrachloroethane	442	E
108-67-8	1,3,5-Trimethylbenzene	428	E
95-49-8	2-Chlorotoluene	420	E
96-18-4	1,2,3-Trichloropropane	425	E
110-57-6	trans-1,4-Dichloro-2-butene	568	E
108-94-1	Cyclohexanone	2370	E
106-43-4	4-Chlorotoluene	440	E
98-06-6	tert-Butylbenzene	425	E
95-63-6	1,2,4-Trimethylbenzene	433	E

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Report Date: 13-Nov-2019 08:53

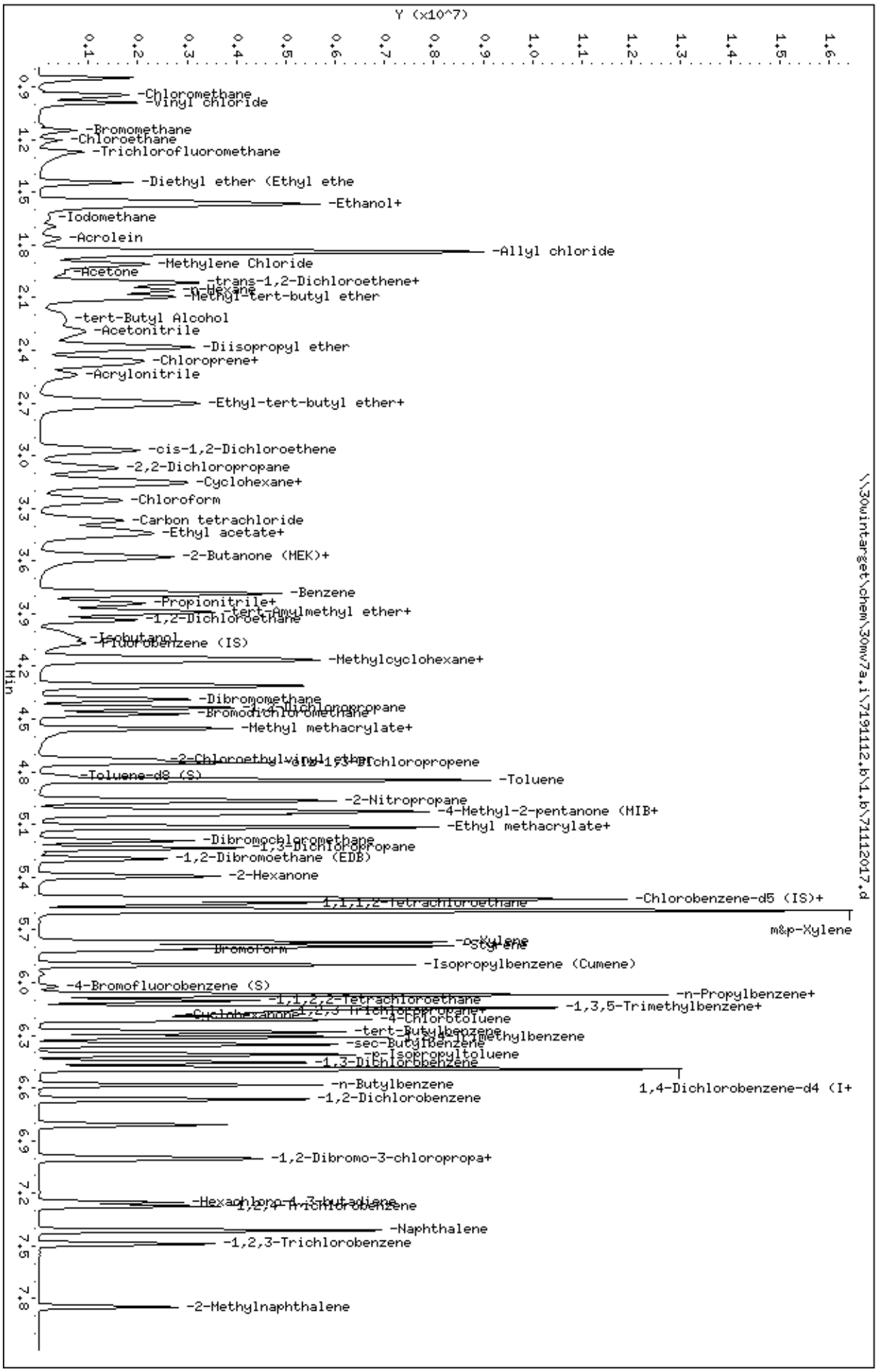
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47221,

Client SDG: 30MV7A-1
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	430	E
99-87-6	p-Isopropyltoluene	433	E
541-73-1	1,3-Dichlorobenzene	424	E
106-46-7	1,4-Dichlorobenzene	422	E
104-51-8	n-Butylbenzene	441	E
95-50-1	1,2-Dichlorobenzene	436	E
96-12-8	1,2-Dibromo-3-chloropropane	505	E
108-70-3	1,3,5-Trichlorobenzene	414	E
87-68-3	Hexachloro-1,3-butadiene	436	E
120-82-1	1,2,4-Trichlorobenzene	423	E
91-20-3	Naphthalene	450	E
87-61-6	1,2,3-Trichlorobenzene	404	E
91-57-6	2-Methylnaphthalene	408	E
1868-53-7	Dibromofluoromethane (S)	29.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.6	
2037-26-5	Toluene-d8 (S)	32.7	
460-00-4	4-Bromofluorobenzene (S)	29.6	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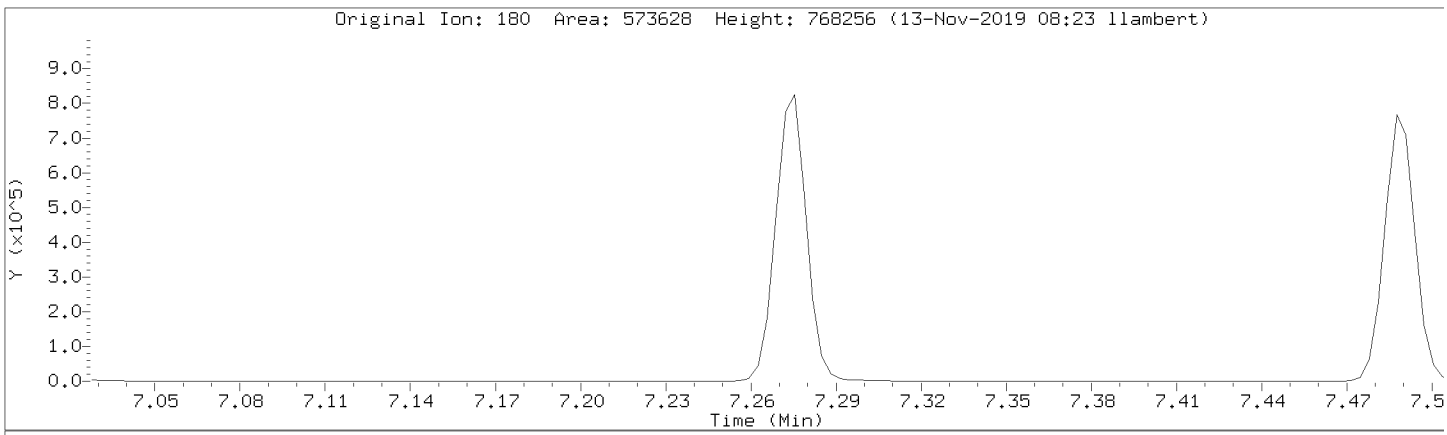
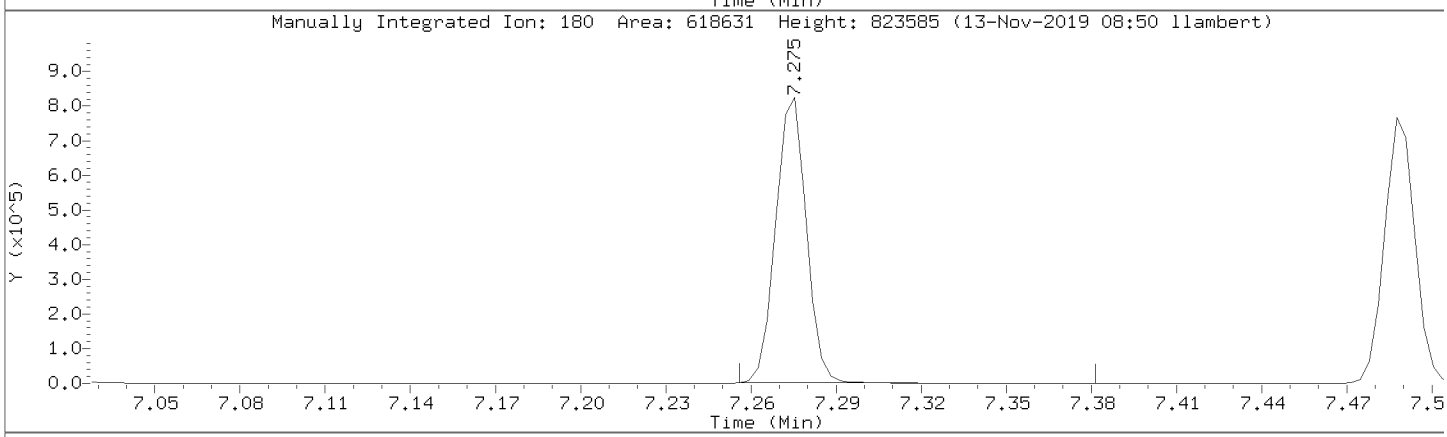
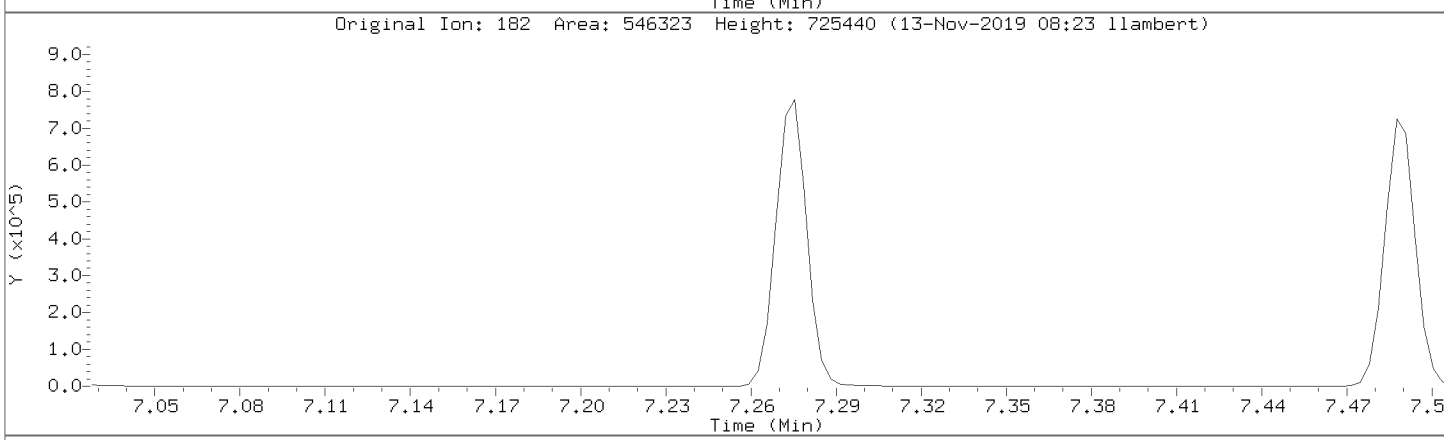
Date : 12-NOV-2019 16:28
Client ID: CAL7
Sample Info: CAL7, 10519411
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112017.d
Y (x10^7)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,4-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
1,1,1,2-Tetrachloroethane
m&p-Xylene
-o-Xylene
Styrene
Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
1,2,3-Trichloropropane
-4-Chlorotoluene
Cyclohexanone
-tert-Butylbenzene
1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

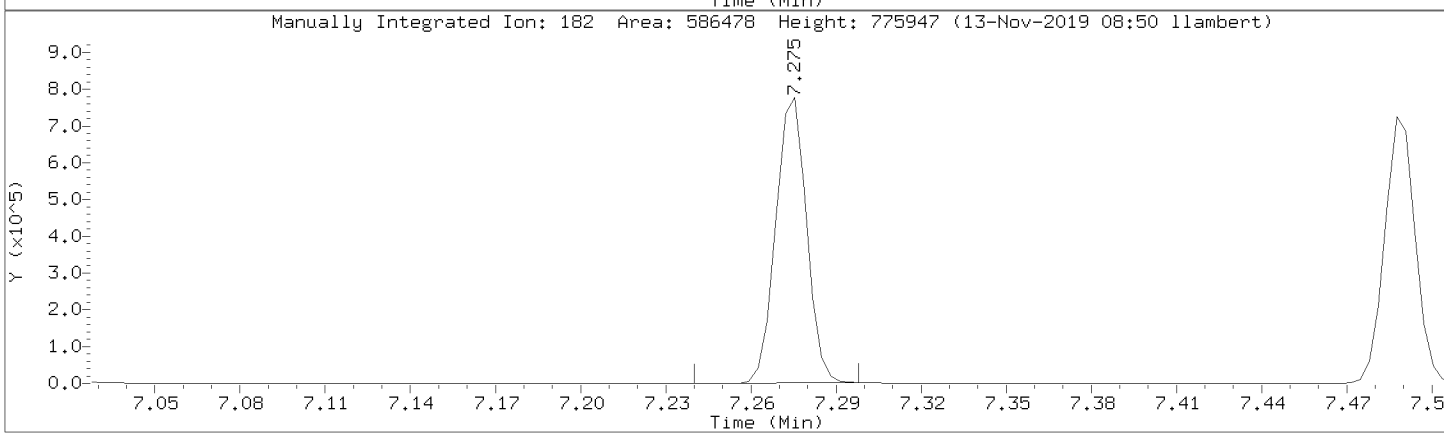
Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112017.d
Injection Date: 12-NOV-2019 16:28
Instrument: 30mv7a.i
Lab Sample ID: CAL7

Compound: 1,2,4-Trichlorobenzene Review Code: WP
CAS Number: 120-82-1

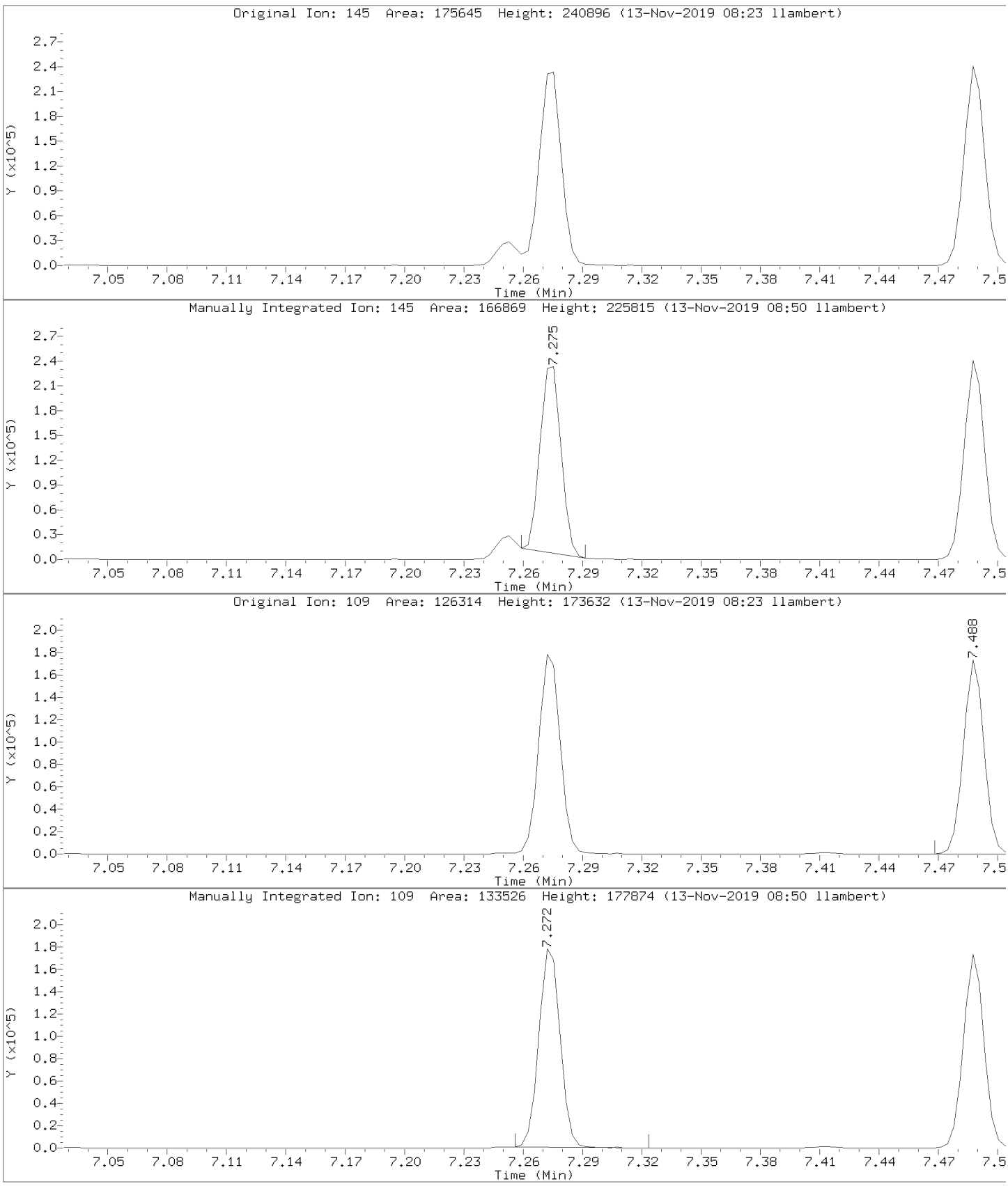








Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112017.d
Injection Date: 12-NOV-2019 16:28
Instrument: 30mv7a.i
Lab Sample ID: CAL7



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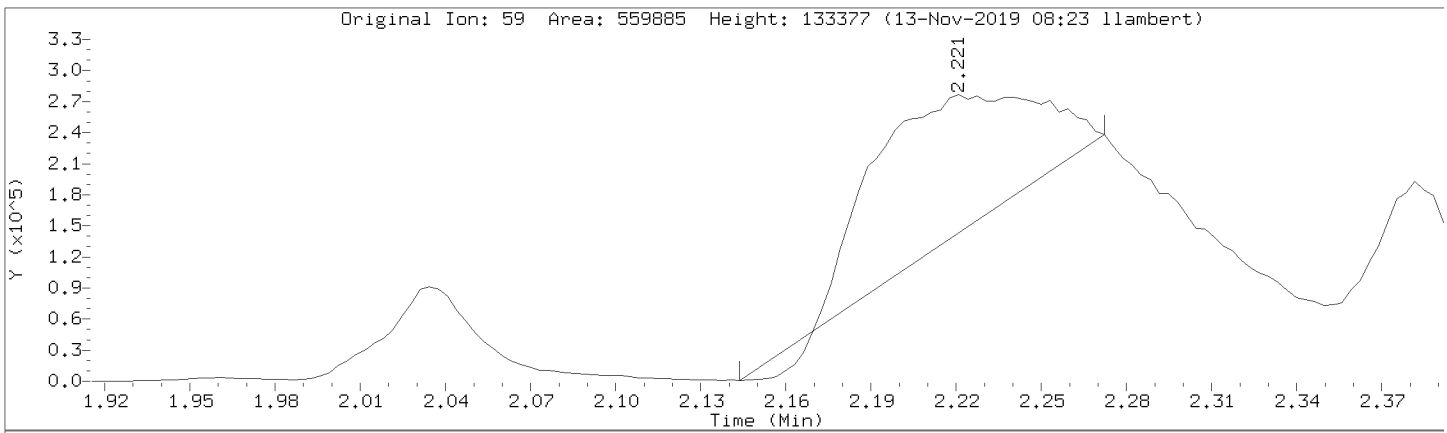
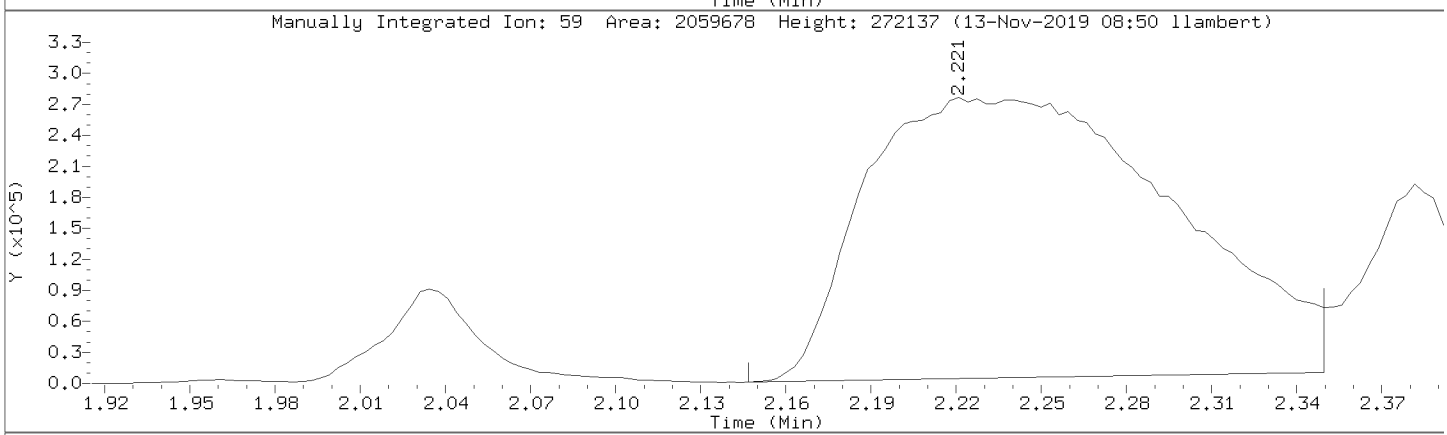
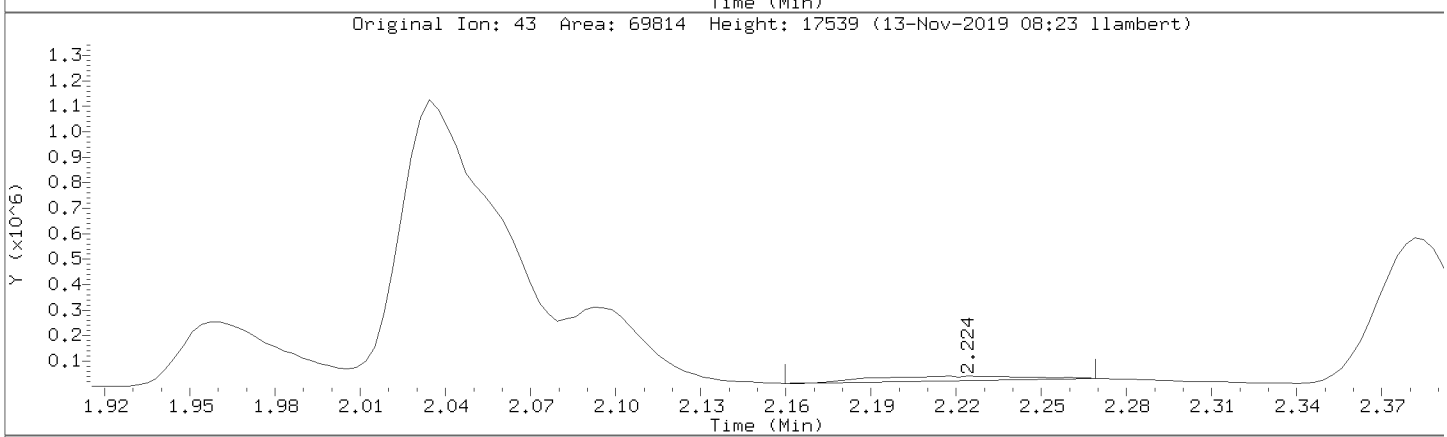
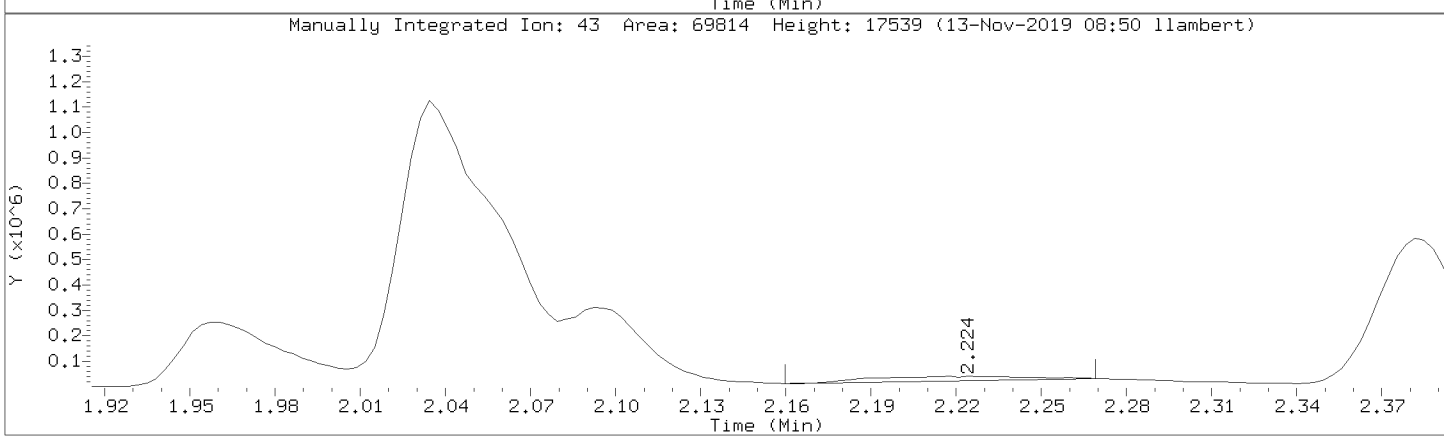
Injection Date: 12-NOV-2019 16:28
Instrument: 30mv7a.i
Lab Sample ID: CAL7

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Lab Smp Id: CAL1 Client Smp ID: CAL1
Inj Date : 12-NOV-2019 14:12
Operator : LEL Inst ID: 30mv7b.i
Smp Info : cal1, 105188:1
Misc Info : 47222,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:12 Cal File: 71112006.d
Als bottle: 6 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.841	0.841	(0.207)	2078	1.00000	0.800(Ta)	
2 Chloromethane	50	0.940	0.941	(0.231)	3204	1.00000	1.02	
3 Vinyl chloride	62	0.979	0.979	(0.241)	3000	1.00000	0.928(a)	
4 Bromomethane	94	1.140	1.140	(0.280)	1234	1.00000	1.16	
5 Chloroethane	64	1.201	1.198	(0.295)	984	1.00000	1.03(QM)	NI
6 Trichlorofluoromethane	101	1.272	1.269	(0.313)	3388	1.00000	0.824(aQM)	NI
7 Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	2405	1.00000	1.04	
8 Ethanol	46	1.519	1.542	(0.234)	158	10.0000	5.84(QM)	NI
9 1,1-Dichloroethene	61	1.545	1.548	(0.380)	3750	1.00000	0.907(a)	
10 1,1,2-Trichlorotrifluoroethane	151	1.571	1.571	(0.386)	1891	1.00000	0.875(a)	
11 Carbon disulfide	76	1.571	1.568	(0.386)	6959	1.00000	1.02(Q)	
12 Iodomethane	142	1.635	1.635	(0.402)	1170	1.00000	1.18(QM)	NI
13 Acrolein	56	1.760	1.754	(0.433)	677	1.00000	0.970(aQM)	NI
14 Allyl chloride	41	1.838	1.835	(0.452)	17733	5.00000	4.88	
15 Methylene Chloride	49	1.905	1.902	(0.469)	5444	1.00000	1.45(Q)	
16 Acetone	58	1.940	1.944	(0.477)	2193	1.00000	2.17	
17 trans-1,2-Dichloroethene	61	2.011	2.008	(0.495)	3086	1.00000	0.896(a)	
18 Methyl acetate	74	2.021	2.024	(0.497)	849	1.00000	0.771(aQ)	
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	2.088	2.089	(0.514)	6898	1.00000	0.984(aQ)	
21 tert-Butyl Alcohol	59	2.169	2.172	(0.533)	5143	5.00000	4.82(aQM)	WP
22 Acetonitrile	41	2.284	2.278	(0.562)	3013	5.00000	5.17(QM)	NI

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.381	2.375	(0.586)	7141	1.00000	0.948(a)	
	24 Chloroprene	53	2.455	2.452	(0.604)	2369	1.00000	0.920(aQ)	
	25 1,1-Dichloroethane	63	2.468	2.471	(0.607)	3905	1.00000	0.906(aQM)	NI
	26 Acrylonitrile	53	2.529	2.526	(0.622)	1605	1.00000	0.894(aQM)	NI
	27 Ethyl-tert-butyl ether	59	2.690	2.687	(0.662)	6874	1.00000	0.955(a)	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	5698	1.00000	0.878(aQM)	NI
	29 cis-1,2-Dichloroethene	61	2.963	2.957	(0.729)	3090	1.00000	0.943(aQ)	
	30 2,2-Dichloropropane	77	3.072	3.066	(0.756)	2677	1.00000	0.834(aQM)	NI
	31 Cyclohexane	56	3.146	3.146	(0.774)	3074	1.00000	0.814(a)	
	32 Bromochloromethane	130	3.162	3.159	(0.778)	1516	1.00000	0.904(aQ)	
	33 Chloroform	83	3.252	3.246	(0.800)	4345	1.00000	1.04	
	34 Ethyl acetate	43	3.432	3.407	(0.844)	1131	1.00000	0.584(aQM)	NI
	35 Carbon tetrachloride	117	3.352	3.365	(0.824)	2641	1.00000	0.822(aQ)	
	36 Tetrahydrofuran	42	3.432	3.407	(0.844)	1703	1.00000	0.886(aQ)	
$	37 Dibromofluoromethane (S)	111	3.432	3.433	(0.844)	66138	30.0000	30.4	
	38 1,1,1-Trichloroethane	97	3.439	3.439	(0.846)	2906	1.00000	0.834(aQ)	
	39 2-Butanone (MEK)	43	3.593	3.584	(0.884)	2944	1.00000	0.996(aQM)	NI
	40 1,1-Dichloropropene	75	3.564	3.571	(0.877)	2875	1.00000	0.900(aQM)	LT
	41 Benzene	78	3.780	3.780	(0.930)	9474	1.00000	0.990(aQM)	LT
	42 Propionitrile	54	3.821	3.822	(0.940)	478	1.00000	0.715(aQ)	
	43 Methacrylonitrile	41	3.834	3.831	(0.943)	1996	1.00000	0.890(aQM)	NI
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	5617	1.00000	0.940(aQ)	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	69586	30.0000	31.4	
	45 Isobutanol	43	4.005	3.992	(0.985)	852	5.00000	3.22(aQM)	NI
	47 1,2-Dichloroethane	62	3.934	3.931	(0.968)	2963	1.00000	0.976(aQ)	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	250602	30.0000		
	49 Methylcyclohexane	55	4.146	4.150	(1.020)	1879	1.00000	0.842(aM)	LT
	50 Trichloroethene	132	4.162	4.162	(1.024)	2444	1.00000	0.892(a)	
	51 Dibromomethane	174	4.384	4.384	(1.078)	1609	1.00000	0.856(aQ)	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.090)	1926	1.00000	0.862(a)	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	2062	1.00000	0.825(aQ)	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	1443	1.00000	0.768(aQ)	
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	4.728	4.726	(1.163)	877	1.00000	0.538(aQ)	
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	2386	1.00000	0.776(aQ)	
$	58 Toluene-d8 (S)	98	4.821	4.822	(0.875)	216971	30.0000	29.1	
	59 Toluene	91	4.844	4.844	(0.879)	8846	1.00000	0.901(a)	
	60 2-Nitropropane	43	4.956	4.957	(1.219)	4495	5.00000	3.81(aQM)	WP
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	3477	1.00000	0.846(aQ)	
	62 Tetrachloroethene	166	5.017	5.021	(0.910)	2269	1.00000	0.842(a)	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	2175	1.00000	0.753(aQ)	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	1501	1.00000	0.756(aQM)	NI
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	1944	1.00000	0.882(a)	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	1690	1.00000	0.730(aQM)	NI
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	3475	1.00000	0.940(a)	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	2144	1.00000	0.859(aQM)	NI
	69 2-Hexanone	43	5.397	5.391	(0.979)	2875	1.00000	0.832(aQM)	NI
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	168395	30.0000		
	71 Ethylbenzene	106	5.525	5.526	(1.002)	2833	1.00000	0.912(a)	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	5335	1.00000	0.899(aQ)	
	73 1,1,1,2-Tetrachloroethane	131	5.542	5.545	(1.005)	1652	1.00000	0.778(aQ)	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	6593	2.00000	1.73	
	75 o-Xylene	106	5.770	5.770	(1.047)	3306	1.00000	0.903(a)	
	76 Styrene	104	5.792	5.793	(1.051)	4458	1.00000	0.822(aQM)	NI

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Report Date: 13-Nov-2019 09:51

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77	Bromoform	173	5.808	5.809	(0.896)	1111	1.00000	0.696(a)	
	78	Isopropylbenzene (Cumene)	105	5.898	5.899	(0.910)	6383	1.00000	0.871(aQ)	
$	79	4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	66573	30.0000	29.7	
	80	n-Propylbenzene	91	6.069	6.069	(0.936)	7645	1.00000	0.928(aQ)	
	81	Bromobenzene	77	6.066	6.066	(0.936)	3268	1.00000	0.908(aQ)	
	82	1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	2819	1.00000	0.924(aQ)	
	83	1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	4744	1.00000	0.835(a)	
	84	2-Chlorotoluene	126	6.140	6.140	(0.947)	1601	1.00000	0.829(aQM)	NI
	85	1,2,3-Trichloropropane	110	6.162	6.159	(0.950)	980	1.00000	0.896(aQ)	
	86	trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.952)	427	1.00000	0.584(aQM)	NI
	87	Cyclohexanone	55	6.188	6.185	(0.954)	674	5.00000	3.30(aQM)	NI
	88	4-Chlorotoluene	126	6.207	6.207	(0.957)	1784	1.00000	0.875(a)	
	89	tert-Butylbenzene	119	6.281	6.278	(0.969)	4044	1.00000	0.875(a)	
	90	1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	4866	1.00000	0.868(a)	
	91	sec-Butylbenzene	105	6.352	6.352	(0.980)	5455	1.00000	0.881(a)	
	92	p-Isopropyltoluene	119	6.406	6.407	(0.988)	4415	1.00000	0.847(aQ)	
	93	1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	3261	1.00000	0.921(aQ)	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	72127	30.0000	(Q)	
	95	1,4-Dichlorobenzene	146	6.490	6.487	(1.001)	3586	1.00000	0.931(aQ)	
	96	n-Butylbenzene	91	6.583	6.584	(1.015)	3550	1.00000	0.882(a)	
$	98	1,2-Dichlorobenzene-d4 (S)	152	6.660	6.661	(1.027)	32757	30.0000	29.8(Q)	
	97	1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	3230	1.00000	0.936(aQ)	
	99	1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	893	1.00000	0.840(aQ)	
	103	1,3,5-Trichlorobenzene	180	7.005	7.005	(1.080)	1749	1.00000	0.937(aQ)	
	100	Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	818	1.00000	0.964(aQ)	
	101	1,2,4-Trichlorobenzene	180	7.275	7.272	(1.122)	1541	1.00000	0.910(a)	
	102	Naphthalene	128	7.413	7.410	(1.143)	6504	1.00000	0.886(a)	
	104	1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	1681	1.00000	0.984(aQ)	
	105	2-Methylnaphthalene	142	7.847	7.847	(1.210)	2888	1.00000	0.950(a)	

QC Flag Legend

T - Target compound detected outside RT window.
a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

    :
  NI: Indicates that the peak was not integrated at all by the
      computer software.
  WP: Indicates that the wrong peak was chosen (i.e. The surrogate
      peak was misidentified by the computer system).
  LT: Indicates that the peak in question was inappropriately
      integrated to an area less than what it should be (e.g., Peak
      area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	0.800	J
74-87-3	Chloromethane	1.02	
75-01-4	Vinyl chloride	0.928	J
74-83-9	Bromomethane	1.16	
75-00-3	Chloroethane	1.03	
75-69-4	Trichlorofluoromethane	0.824	J
60-29-7	Diethyl ether (Ethyl ether)	1.04	
64-17-5	Ethanol	5.84	
75-35-4	1,1-Dichloroethene	0.907	J
76-13-1	1,1,2-Trichlorotrifluoroetha	0.875	J
75-15-0	Carbon disulfide	1.02	
74-88-4	Iodomethane	1.18	
107-02-8	Acrolein	0.970	J
107-05-1	Allyl chloride	4.88	
75-09-2	Methylene Chloride	1.45	
67-64-1	Acetone	2.17	
156-60-5	trans-1,2-Dichloroethene	0.896	J
79-20-9	Methyl acetate	0.771	J
1634-04-4	Methyl-tert-butyl ether	0.984	J
75-65-0	tert-Butyl Alcohol	4.82	J
75-05-8	Acetonitrile	5.17	
108-20-3	Diisopropyl ether	0.948	J
126-99-8	Chloroprene	0.920	J
75-34-3	1,1-Dichloroethane	0.906	J
107-13-1	Acrylonitrile	0.894	J
637-92-3	Ethyl-tert-butyl ether	0.955	J
108-05-4	Vinyl acetate	0.878	J
156-59-2	cis-1,2-Dichloroethene	0.943	J
594-20-7	2,2-Dichloropropane	0.834	J
110-82-7	Cyclohexane	0.814	J
74-97-5	Bromochloromethane	0.904	J
67-66-3	Chloroform	1.04	
141-78-6	Ethyl acetate	0.584	J
56-23-5	Carbon tetrachloride	0.822	J
109-99-9	Tetrahydrofuran	0.886	J
71-55-6	1,1,1-Trichloroethane	0.834	J
78-93-3	2-Butanone (MEK)	0.996	J
563-58-6	1,1-Dichloropropene	0.900	J
71-43-2	Benzene	0.990	J
107-12-0	Propionitrile	0.715	J
126-98-7	Methacrylonitrile	0.890	J
994-05-8	tert-Amylmethyl ether	0.940	J

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
78-83-1	Isobutanol	3.22	J
107-06-2	1,2-Dichloroethane	0.976	J
108-87-2	Methylcyclohexane	0.842	J
79-01-6	Trichloroethene	0.892	J
74-95-3	Dibromomethane	0.856	J
78-87-5	1,2-Dichloropropane	0.862	J
75-27-4	Bromodichloromethane	0.825	J
80-62-6	Methyl methacrylate	0.768	J
110-75-8	2-Chloroethylvinyl ether	0.538	J
10061-01-5	cis-1,3-Dichloropropene	0.776	J
108-88-3	Toluene	0.901	J
79-46-9	2-Nitropropane	3.81	J
108-10-1	4-Methyl-2-pentanone (MIBK)	0.846	J
127-18-4	Tetrachloroethene	0.842	J
10061-02-6	trans-1,3-Dichloropropene	0.753	J
97-63-2	Ethyl methacrylate	0.756	J
79-00-5	1,1,2-Trichloroethane	0.882	J
124-48-1	Dibromochloromethane	0.730	J
142-28-9	1,3-Dichloropropane	0.940	J
106-93-4	1,2-Dibromoethane (EDB)	0.859	J
591-78-6	2-Hexanone	0.832	J
100-41-4	Ethylbenzene	0.912	J
108-90-7	Chlorobenzene	0.899	J
630-20-6	1,1,1,2-Tetrachloroethane	0.778	J
7816-60-0	m&p-Xylene	1.73	
95-47-6	o-Xylene	0.903	J
100-42-5	Styrene	0.822	J
75-25-2	Bromoform	0.696	J
98-82-8	Isopropylbenzene (Cumene)	0.871	J
103-65-1	n-Propylbenzene	0.928	J
108-86-1	Bromobenzene	0.908	J
79-34-5	1,1,2,2-Tetrachloroethane	0.924	J
108-67-8	1,3,5-Trimethylbenzene	0.835	J
95-49-8	2-Chlorotoluene	0.829	J
96-18-4	1,2,3-Trichloropropane	0.896	J
110-57-6	trans-1,4-Dichloro-2-butene	0.584	J
108-94-1	Cyclohexanone	3.30	J
106-43-4	4-Chlorotoluene	0.875	J
98-06-6	tert-Butylbenzene	0.875	J
95-63-6	1,2,4-Trimethylbenzene	0.868	J
135-98-8	sec-Butylbenzene	0.881	J
99-87-6	p-Isopropyltoluene	0.847	J

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Report Date: 13-Nov-2019 09:51

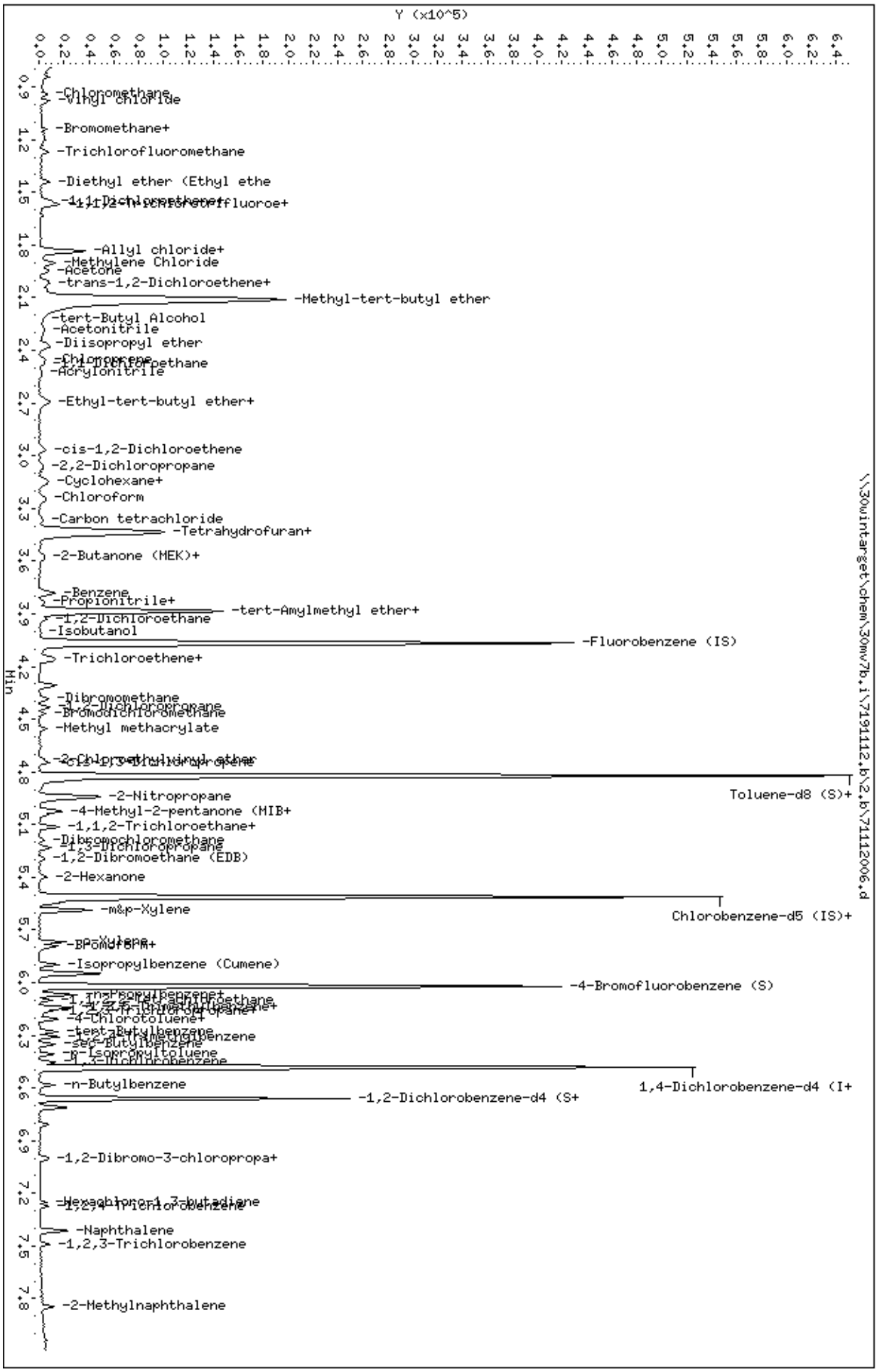
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL1
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL1
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
541-73-1	1,3-Dichlorobenzene	0.921	J
106-46-7	1,4-Dichlorobenzene	0.931	J
104-51-8	n-Butylbenzene	0.882	J
95-50-1	1,2-Dichlorobenzene	0.936	J
96-12-8	1,2-Dibromo-3-chloropropane	0.840	J
108-70-3	1,3,5-Trichlorobenzene	0.937	J
87-68-3	Hexachloro-1,3-butadiene	0.964	J
120-82-1	1,2,4-Trichlorobenzene	0.910	J
91-20-3	Naphthalene	0.886	J
87-61-6	1,2,3-Trichlorobenzene	0.984	J
91-57-6	2-Methylnaphthalene	0.950	J
1868-53-7	Dibromofluoromethane (S)	30.4	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.4	
2037-26-5	Toluene-d8 (S)	29.1	
460-00-4	4-Bromofluorobenzene (S)	29.7	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.8	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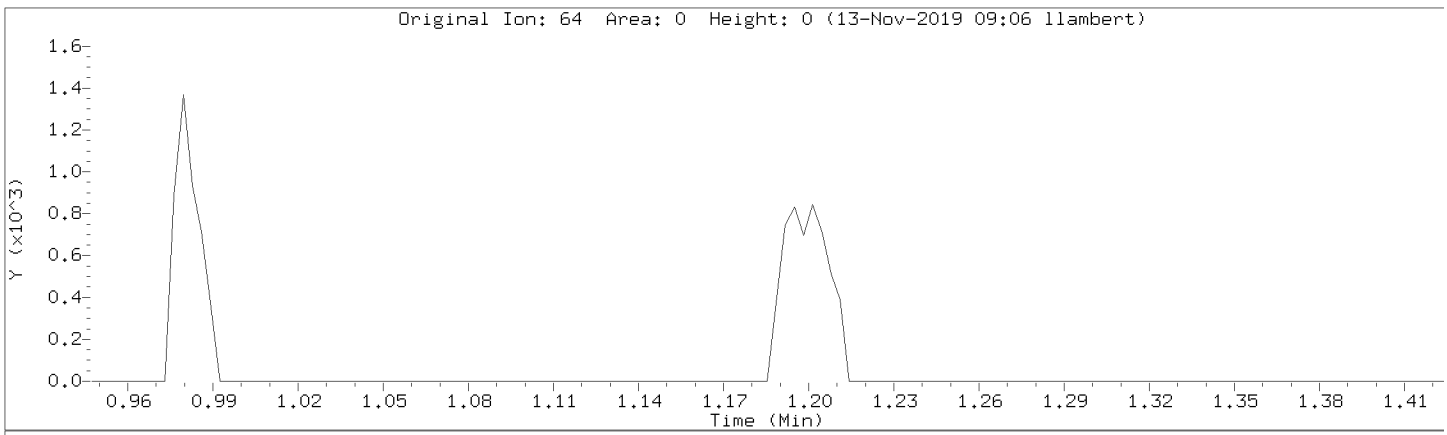
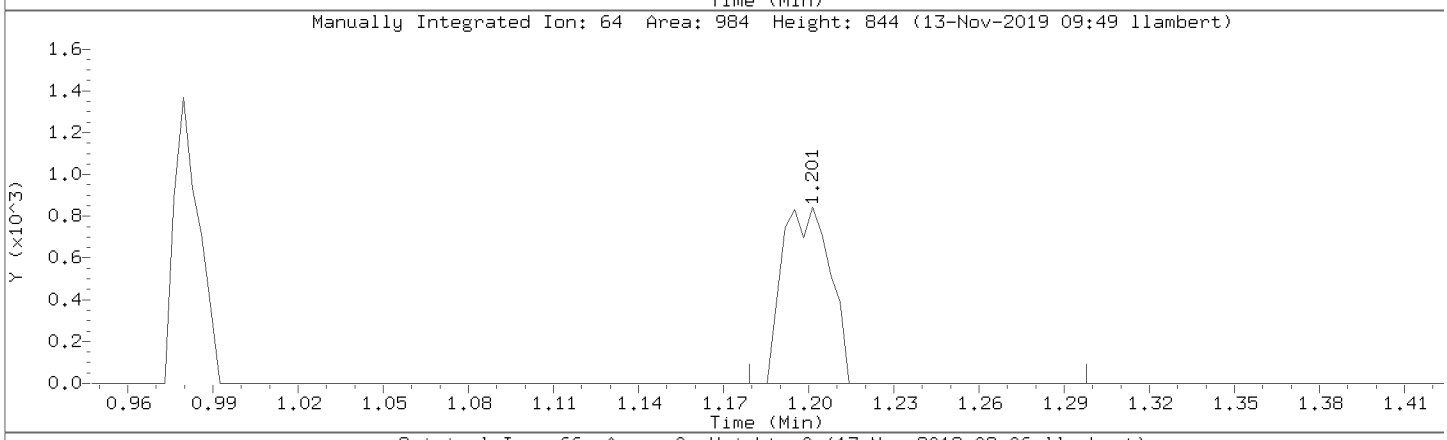
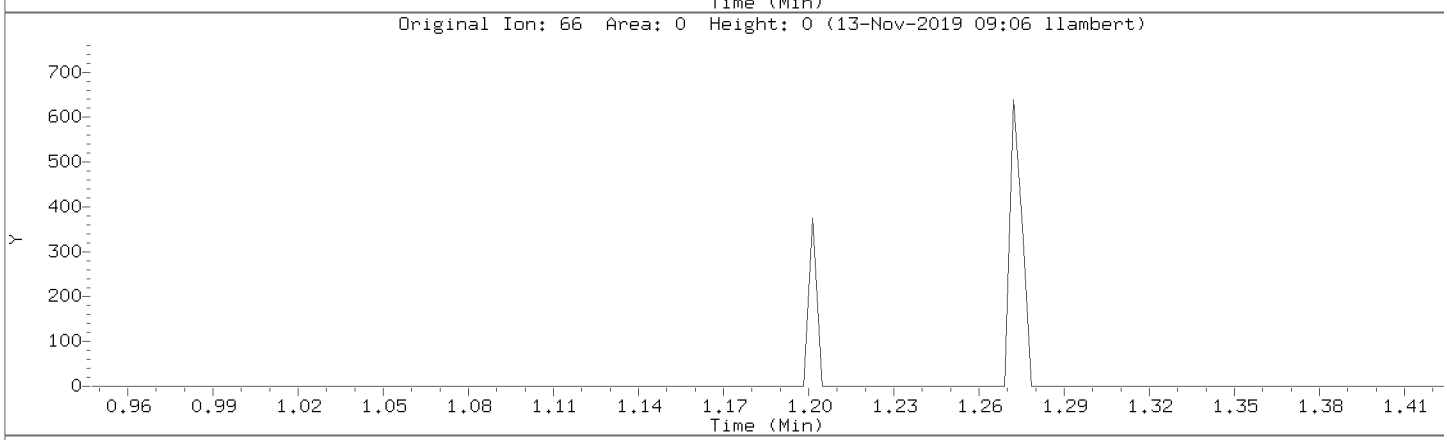
Date : 12-NOV-2019 14:12
Client ID: CAL1
Sample Info: CAL1, 10518:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane+
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-1,1-Dichloroethene+
-1,1,2-Trichlorotrifluoroe+
-Allyl chloride+
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene
-1,1-Dichloroethane
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Tetrahydrofuran+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Trichloroethene+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
Toluene-d8 (S)+
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-1,1,2-Trichloroethane+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-Bromoform+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-4-Chlorotoluene+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

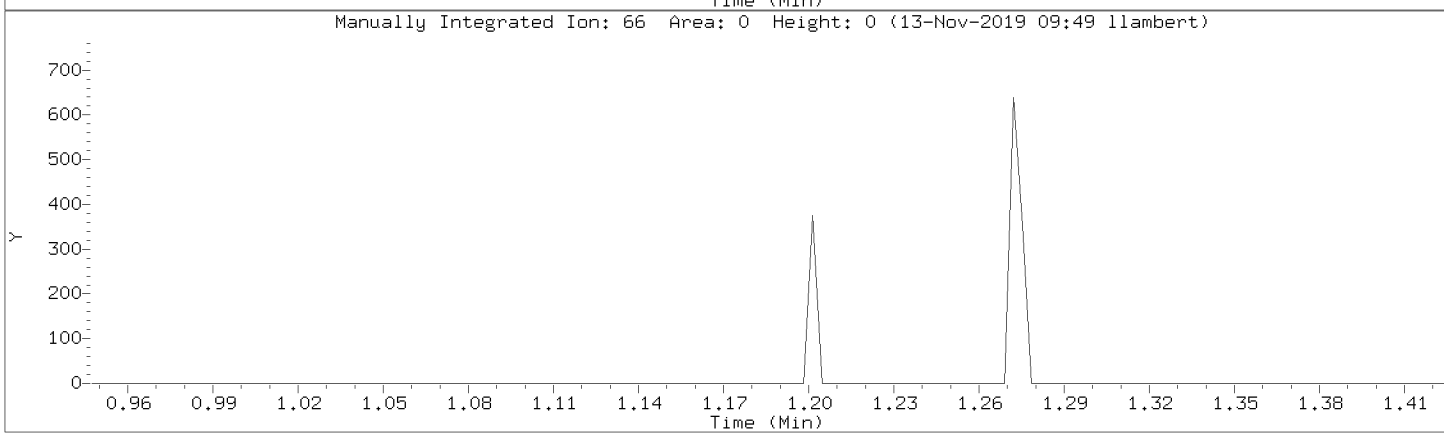
Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112006.d
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Chloroethane Review Code: NI
CAS Number: 75-00-3









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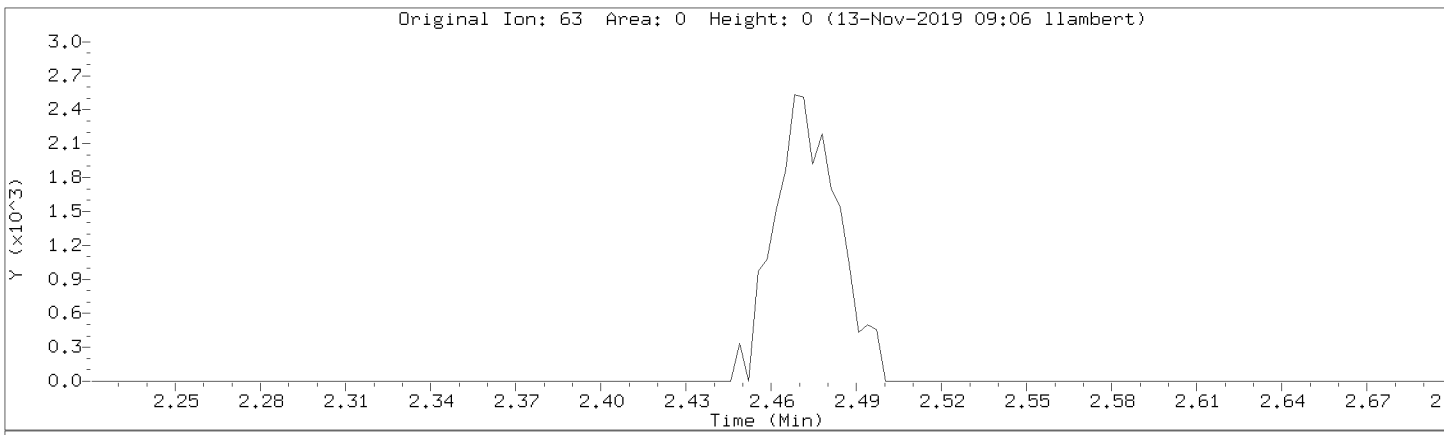
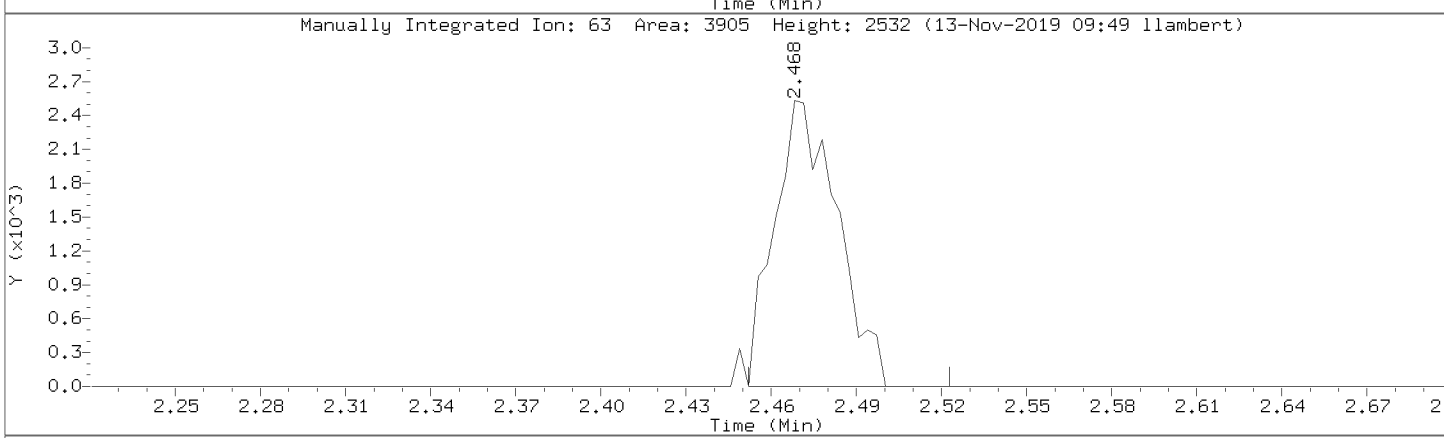
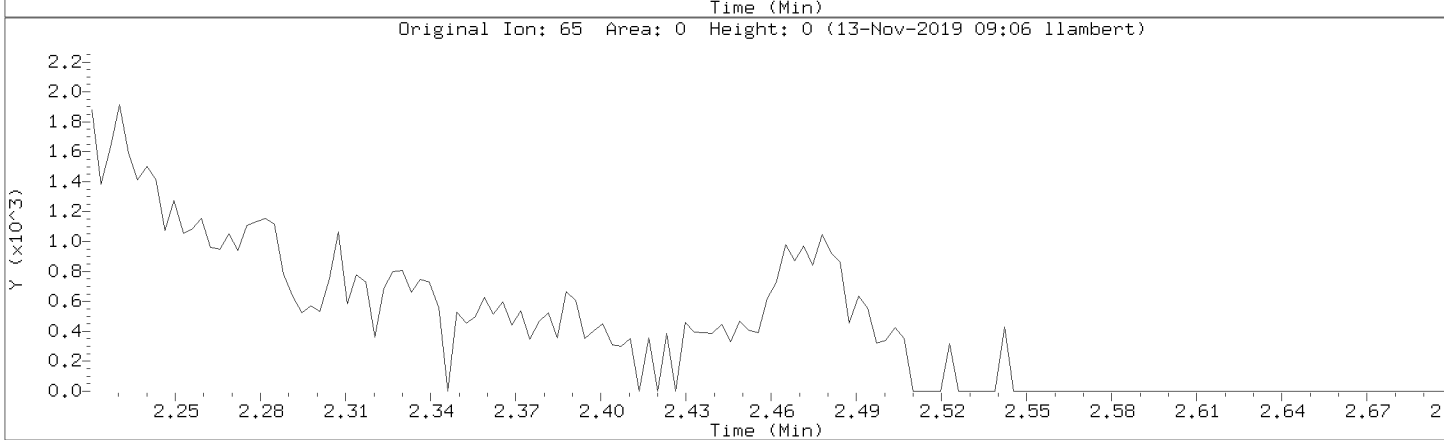
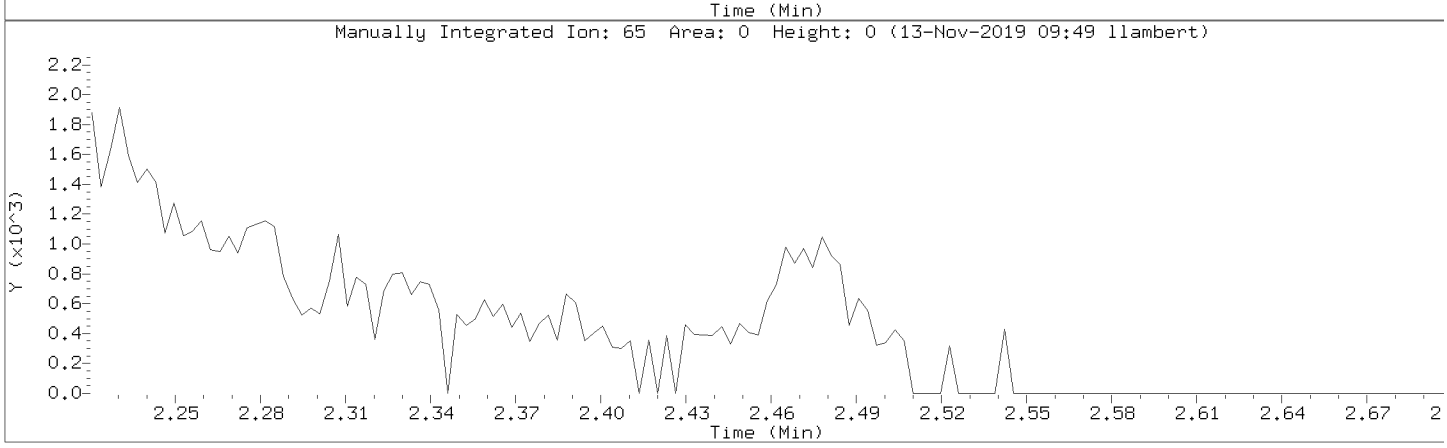
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 1,1-Dichloroethane Review Code: NI
CAS Number: 75-34-3









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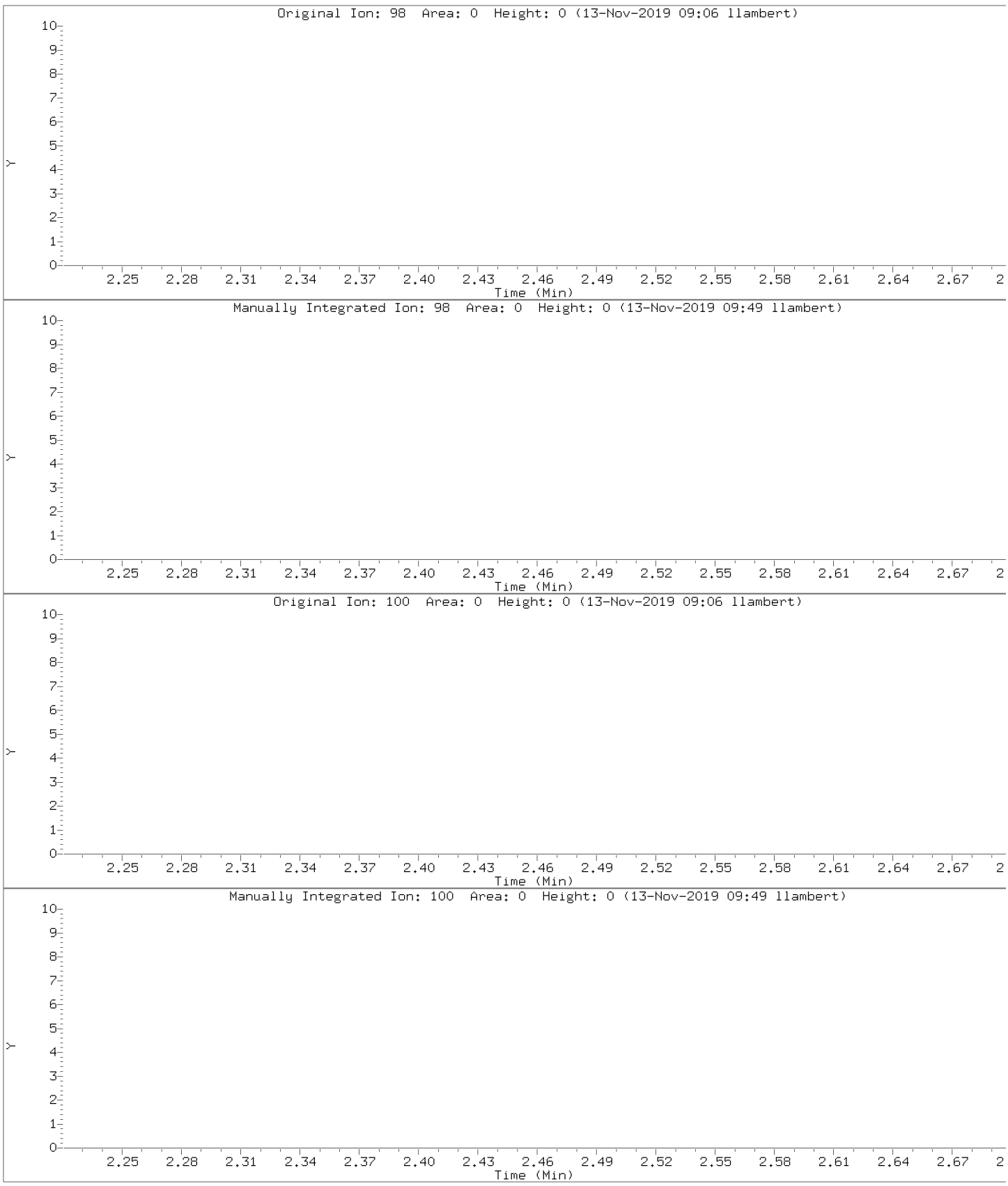
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1



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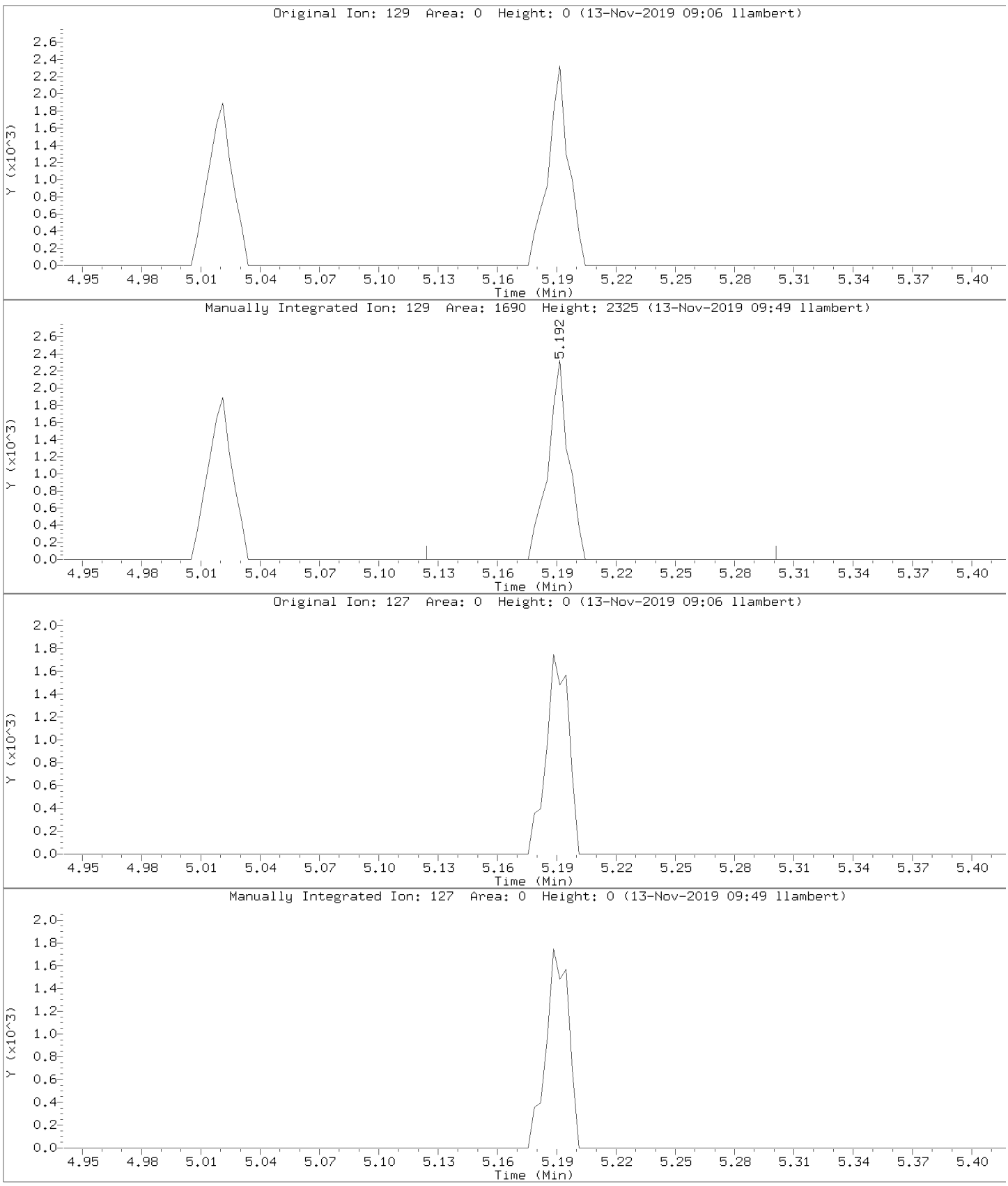
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Dibromochloromethane Review Code: NI
CAS Number: 124-48-1



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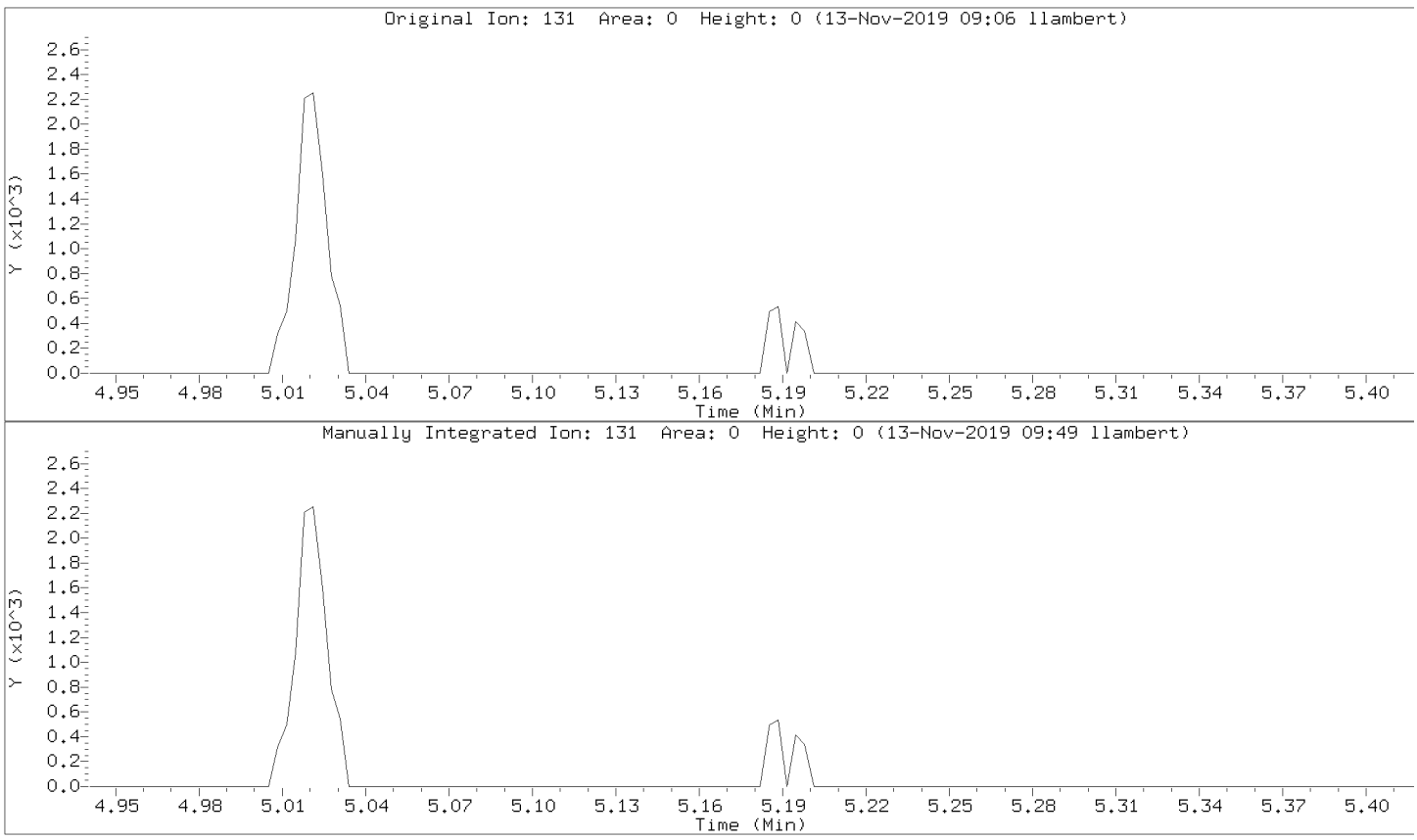
Lab Sample ID: CAL1



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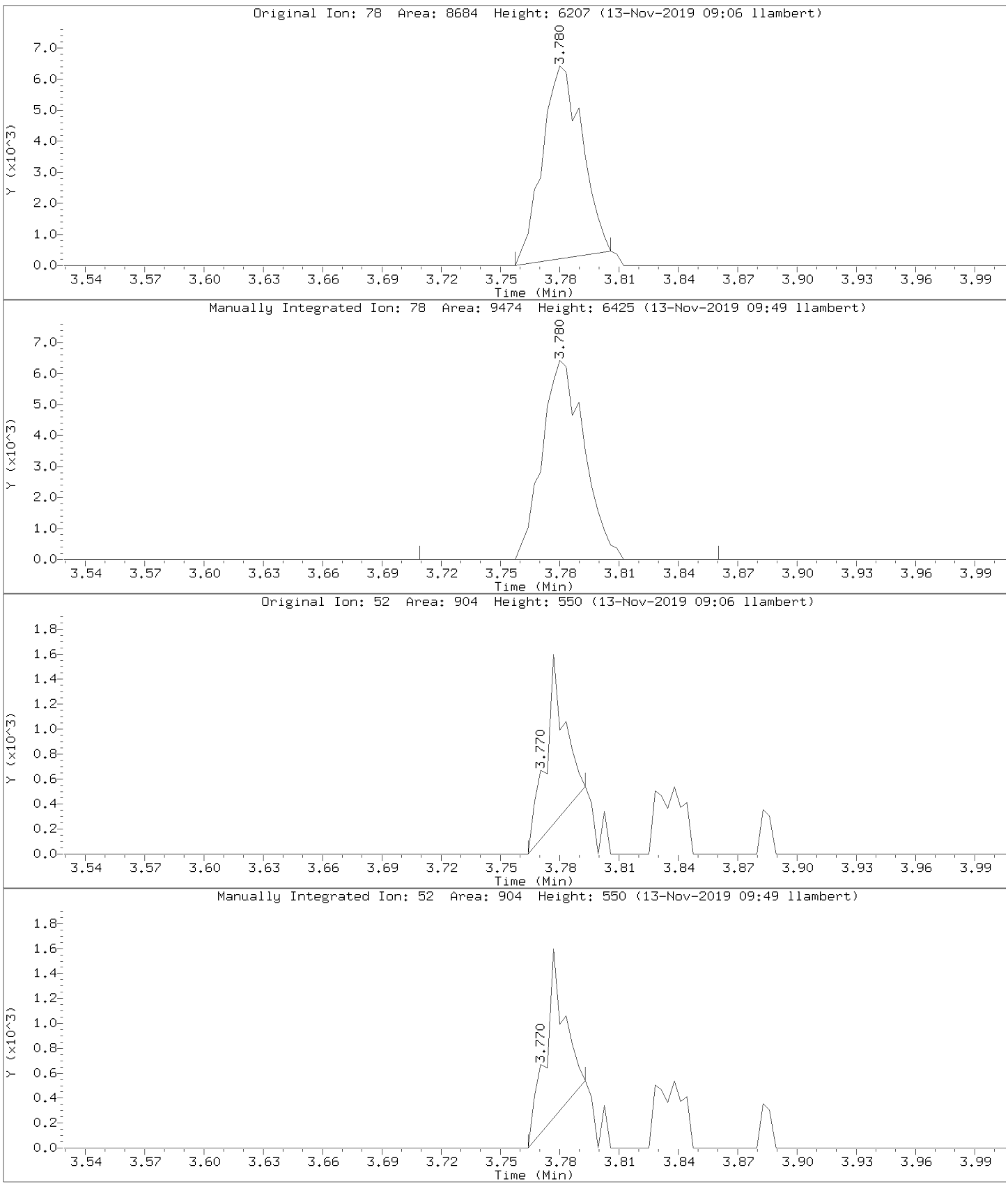
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Benzene Review Code: LT
CAS Number: 71-43-2



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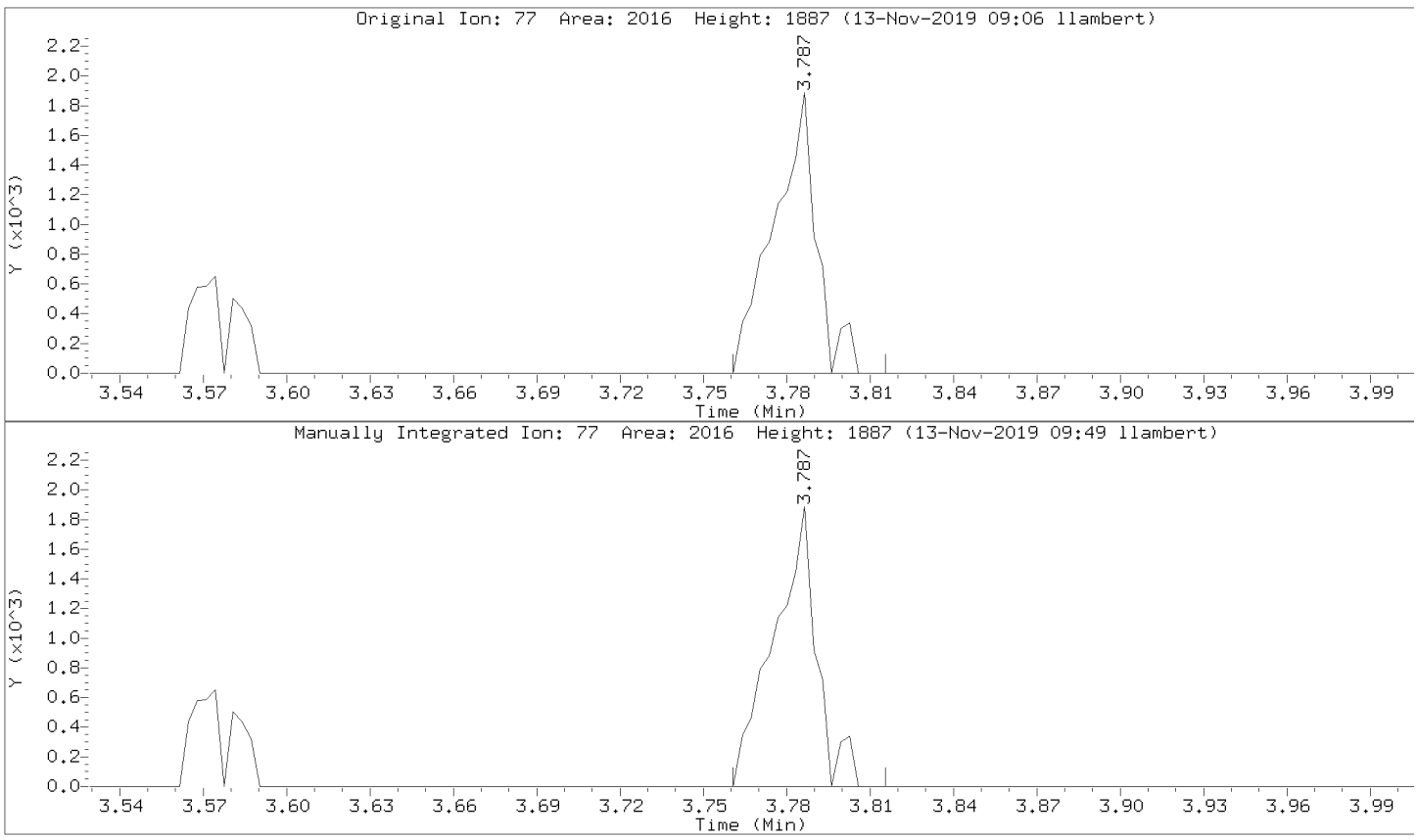
Instrument: 30mv7b.i
Lab Sample ID: CAL1



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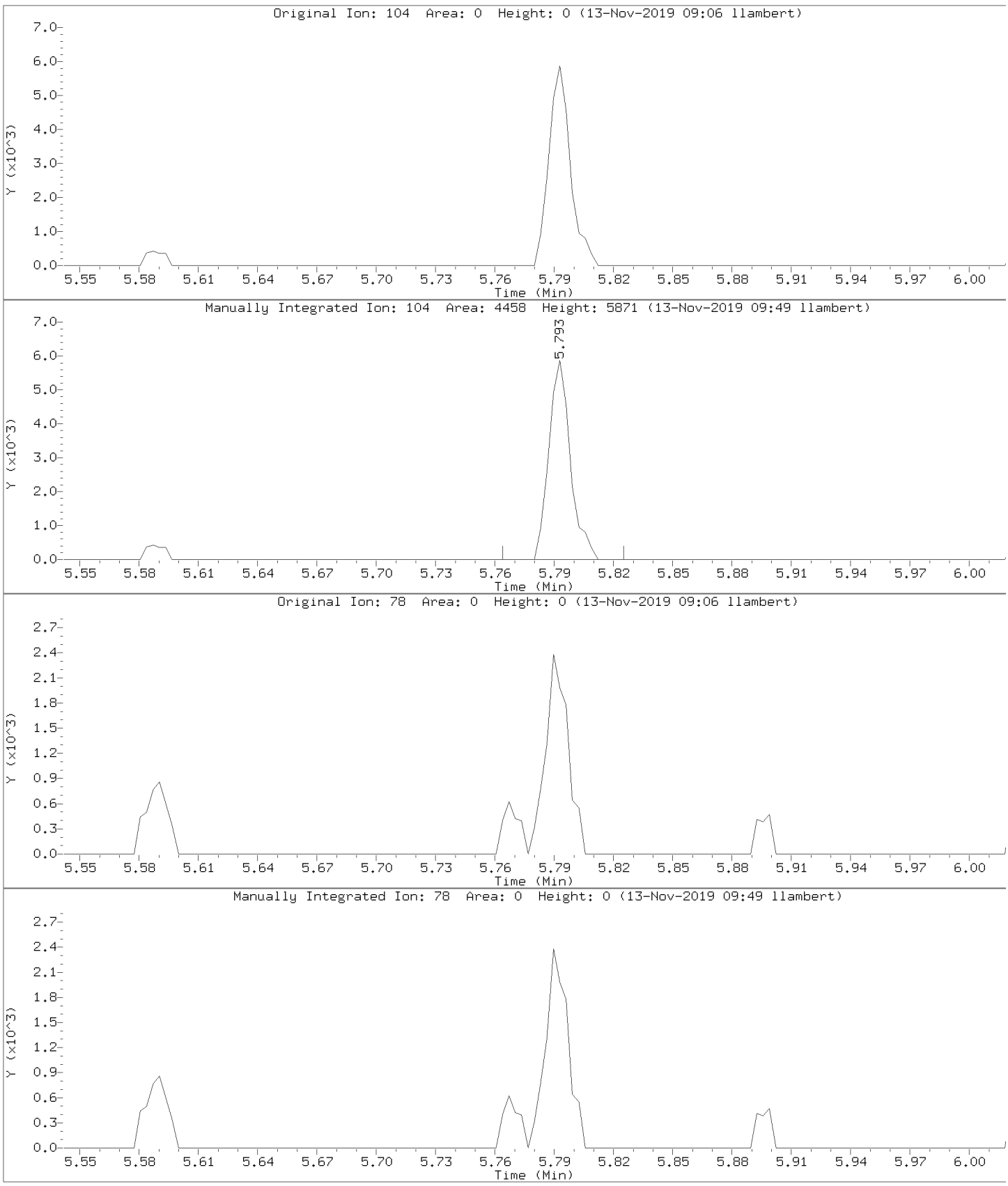
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Styrene Review Code: NI
CAS Number: 100-42-5



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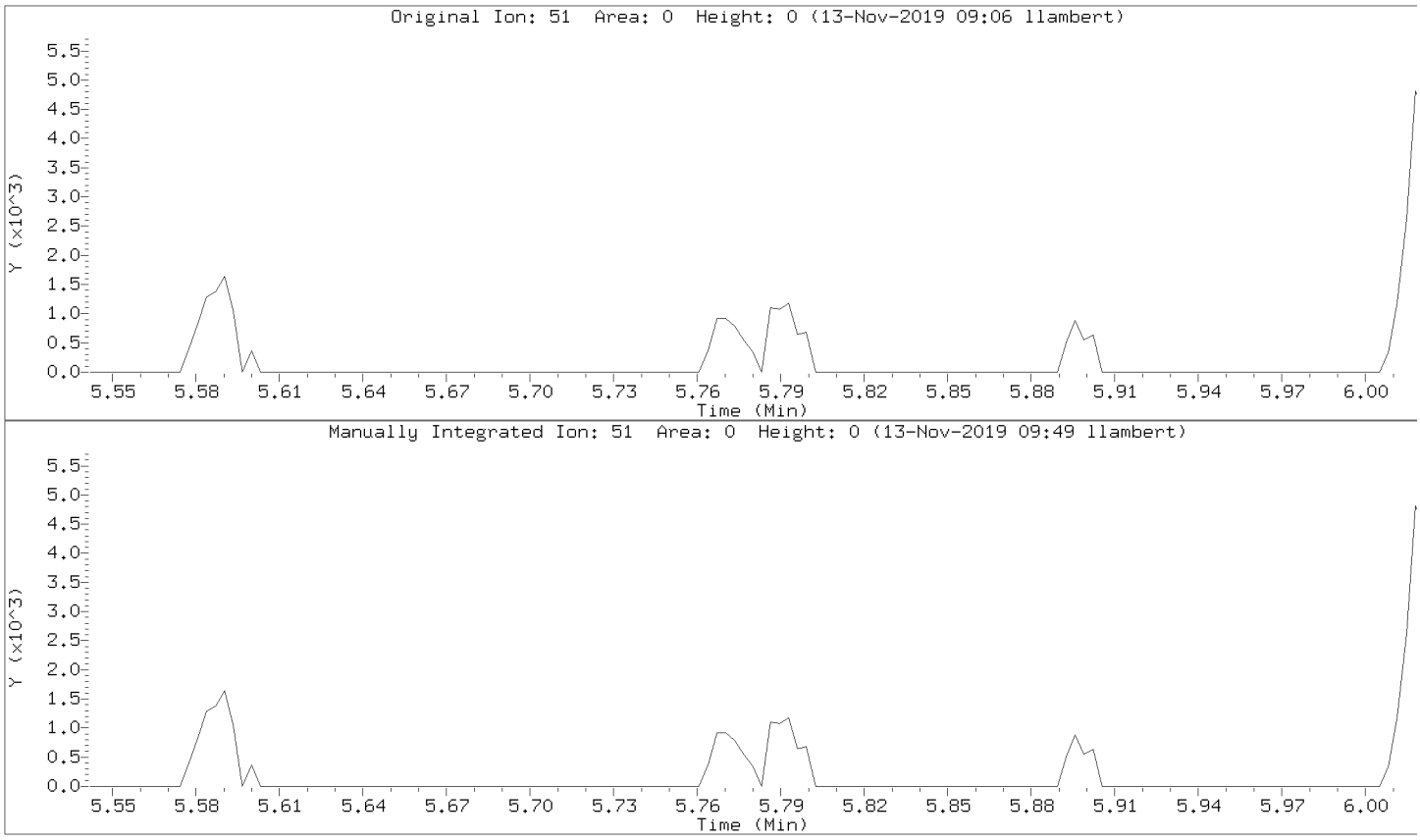
Lab Sample ID: CAL1



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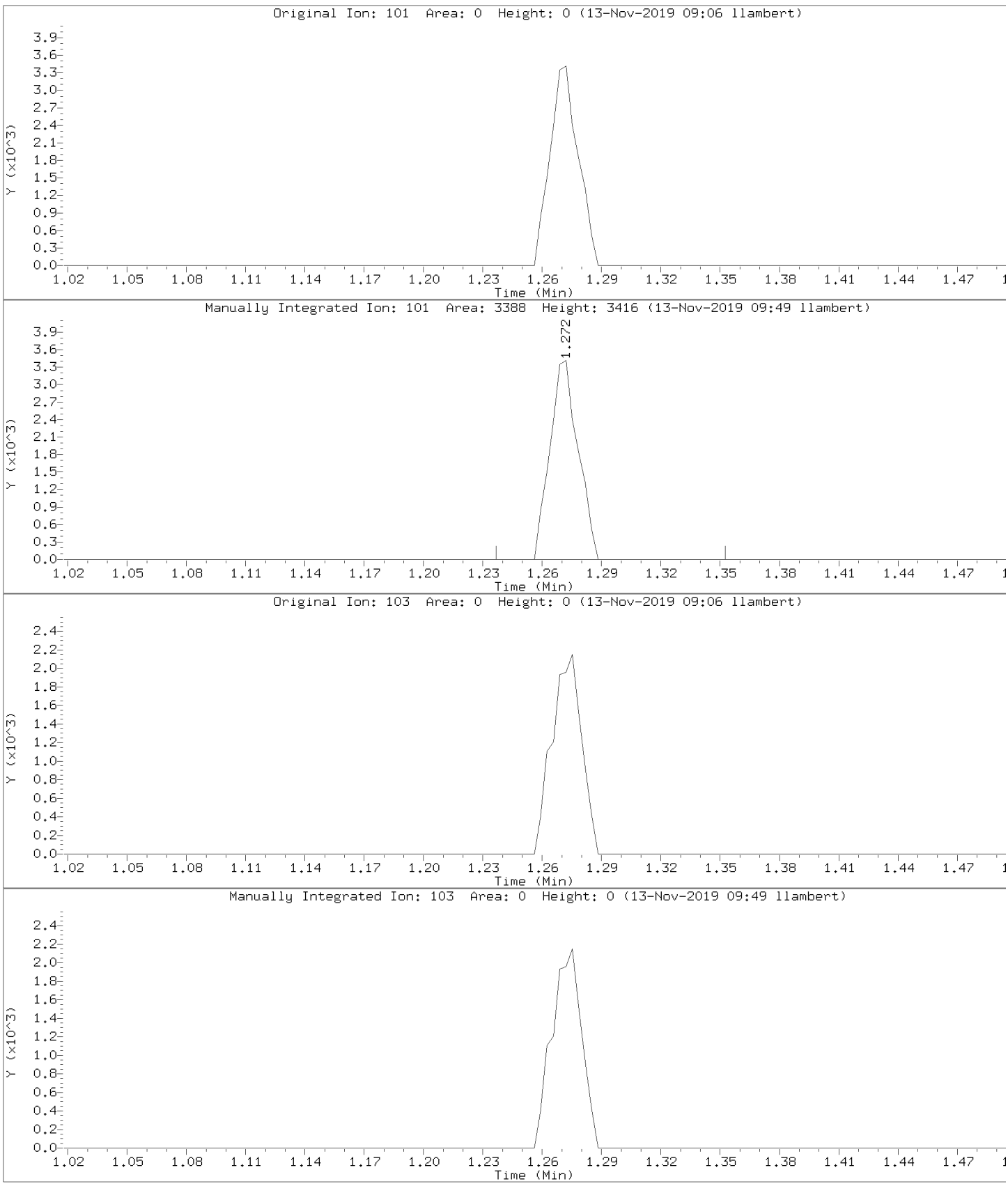
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Trichlorofluoromethane Review Code: NI
CAS Number: 75-69-4



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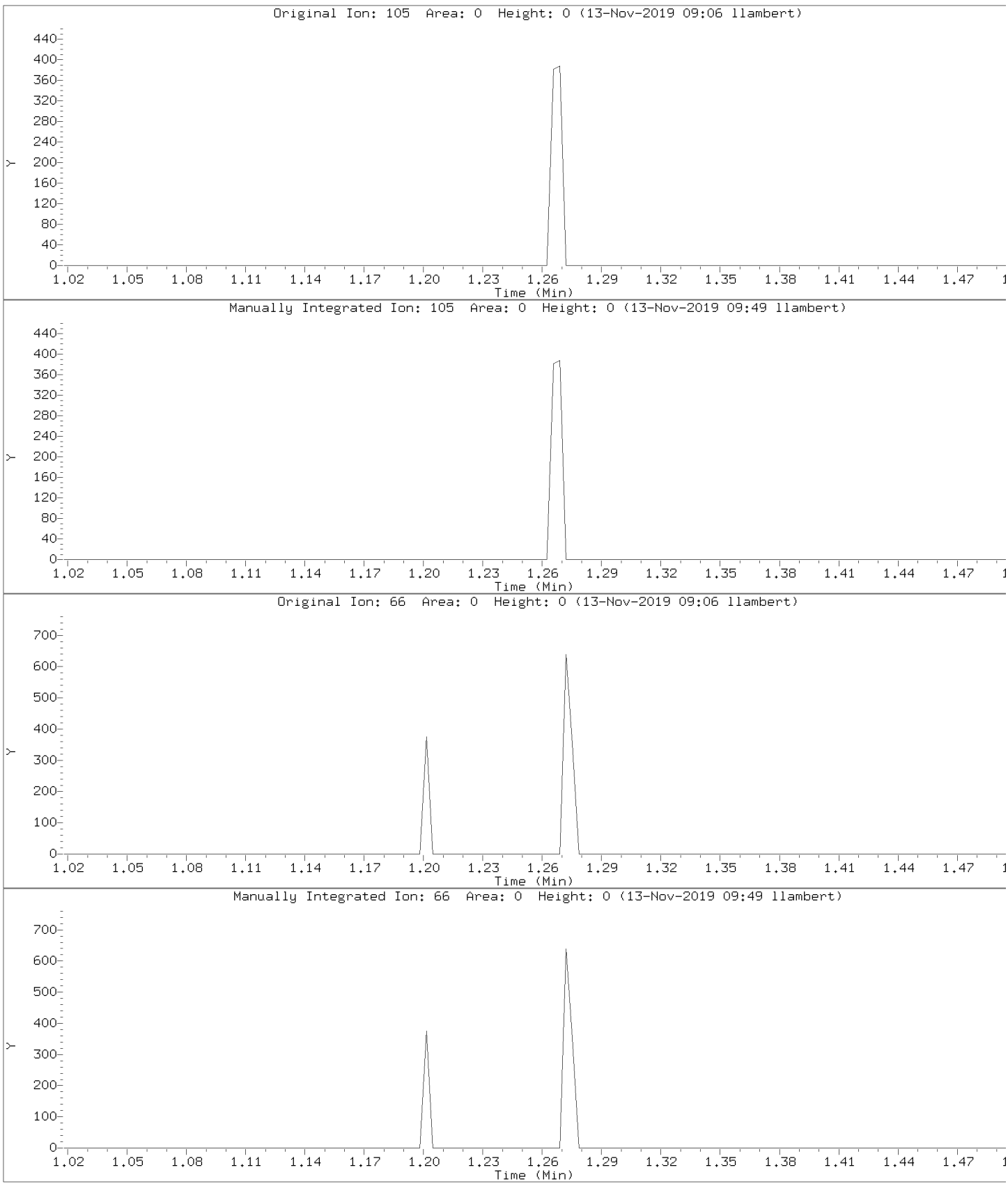
Lab Sample ID: CAL1



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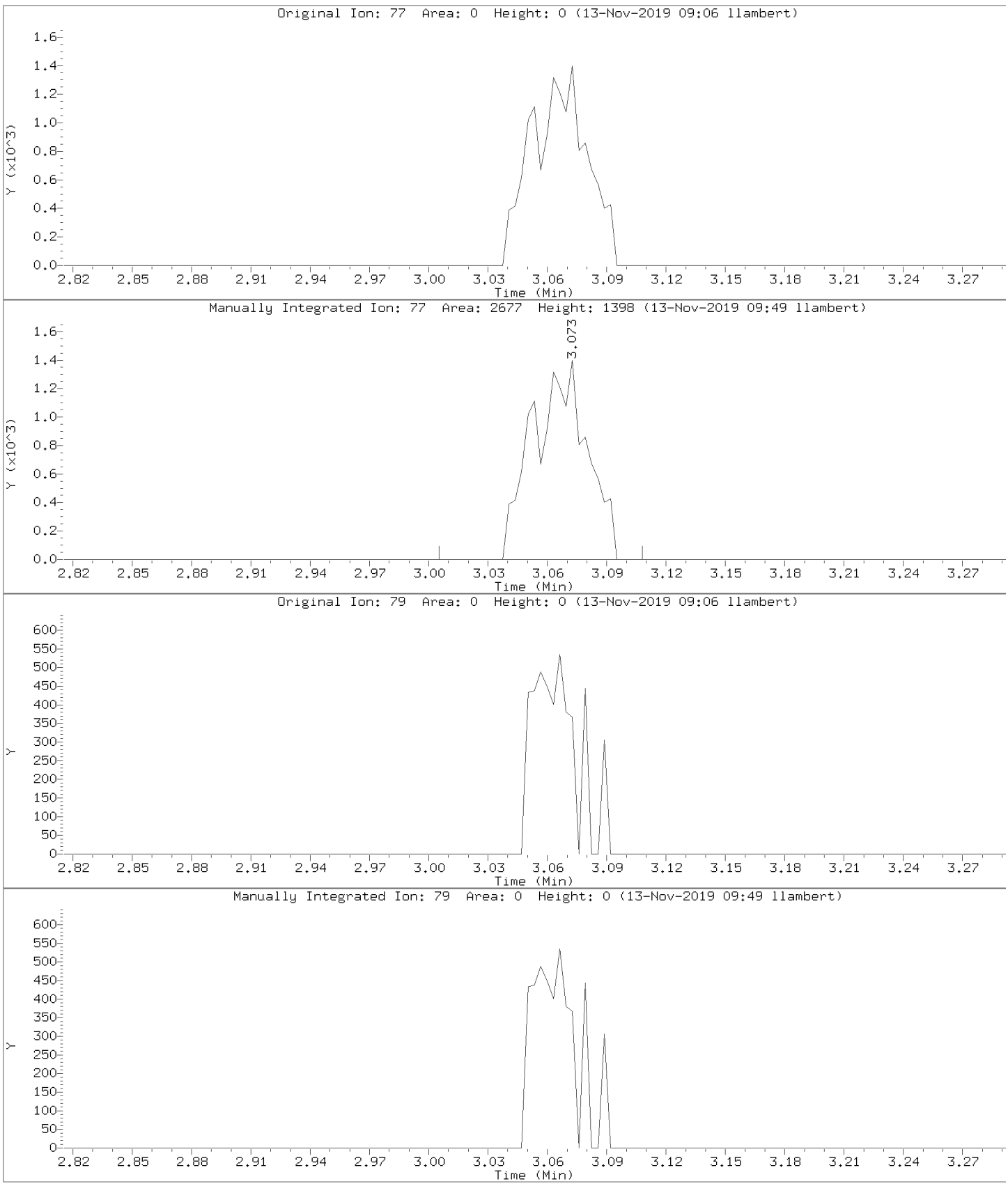
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 2,2-Dichloropropane Review Code: NI
CAS Number: 594-20-7



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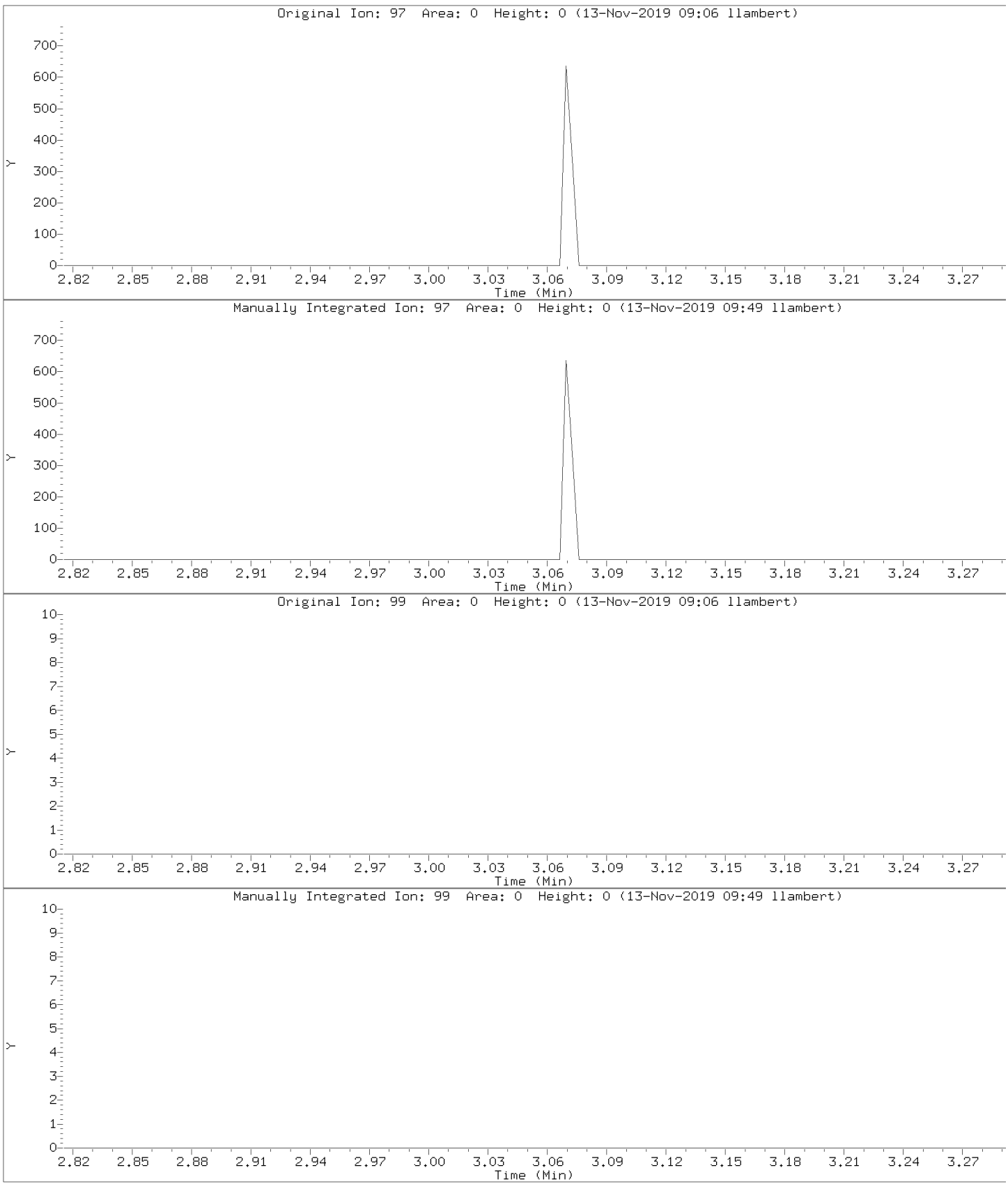
Lab Sample ID: CAL1



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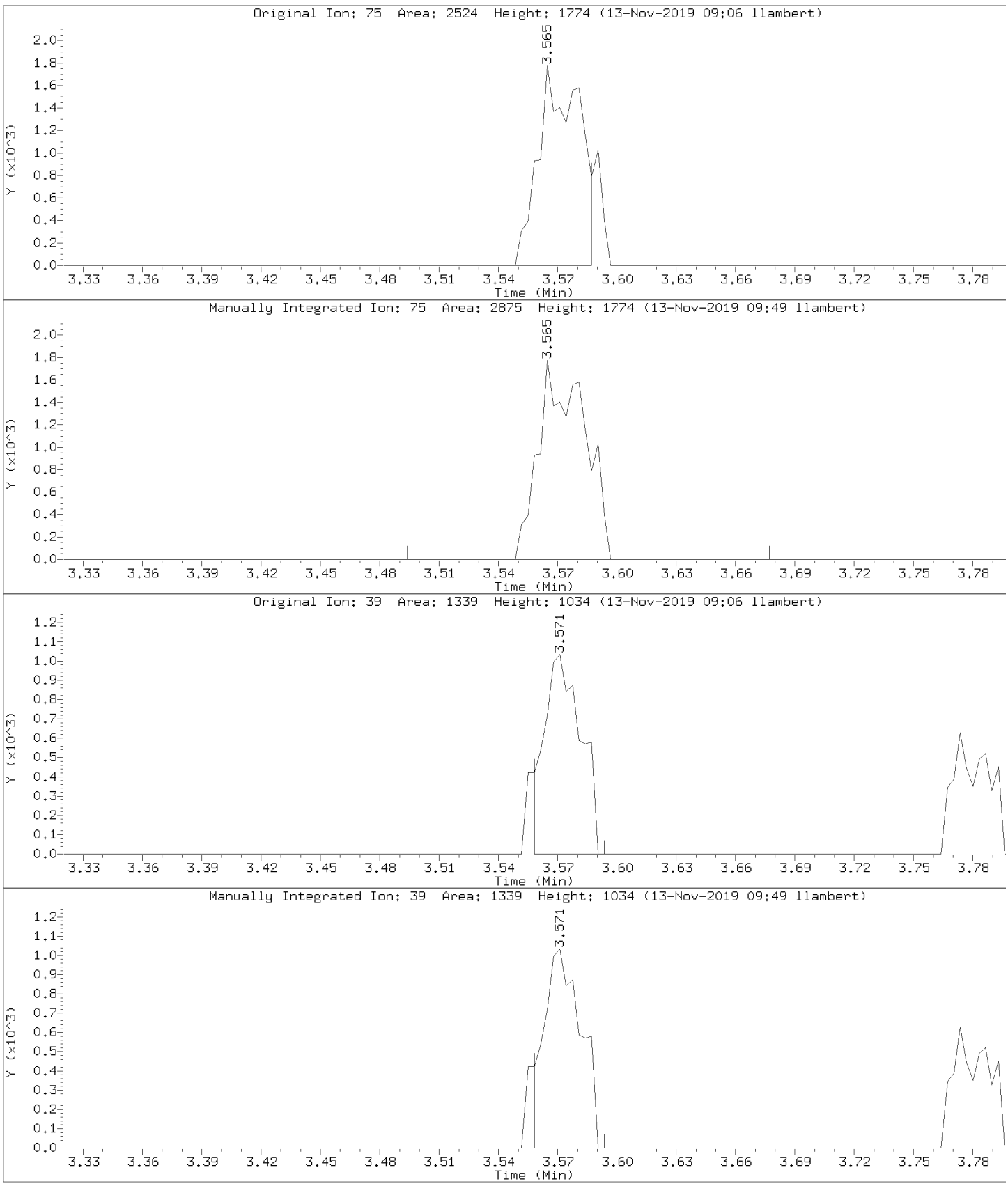
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 1,1-Dichloropropene Review Code: LT
CAS Number: 563-58-6



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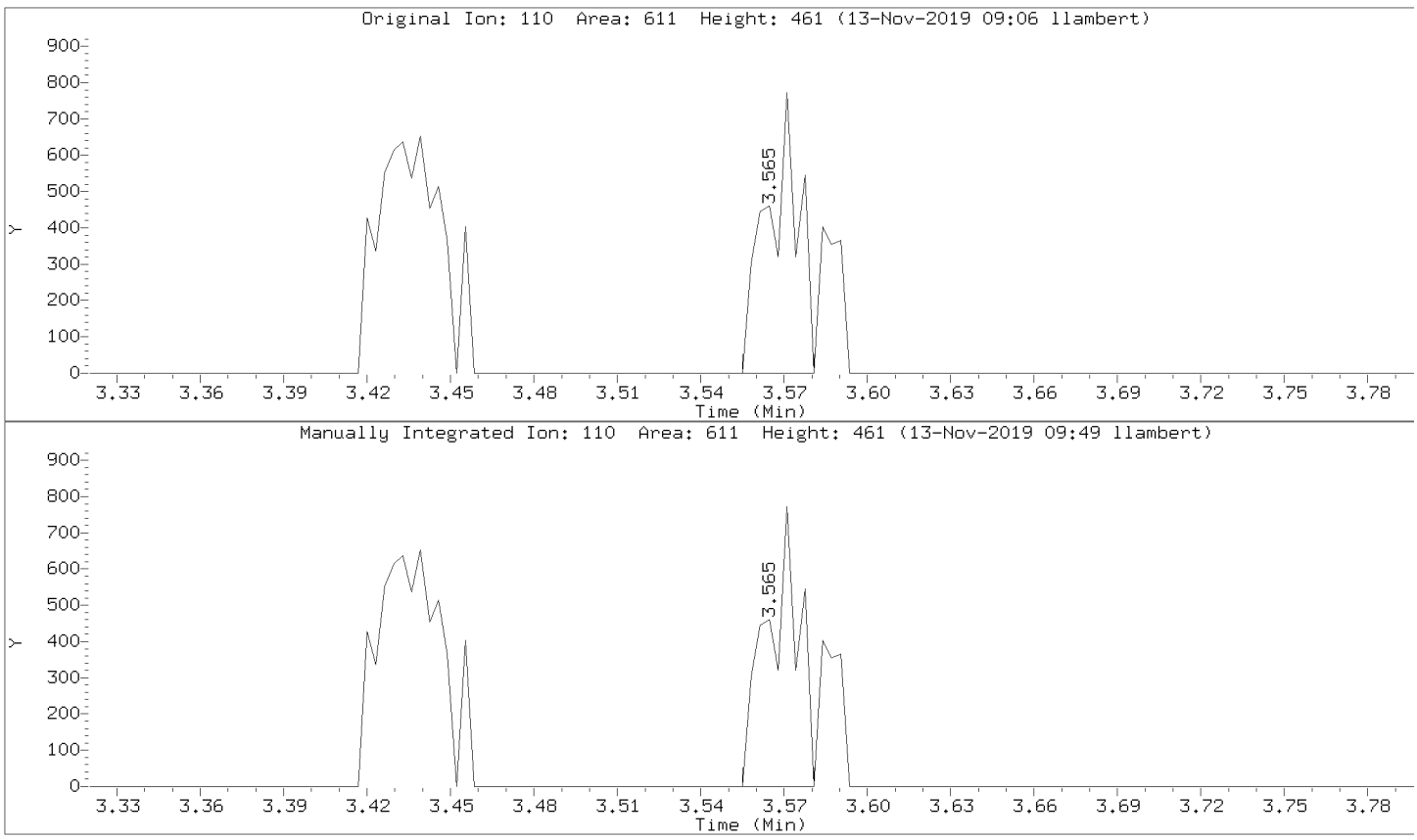
Lab Sample ID: CAL1



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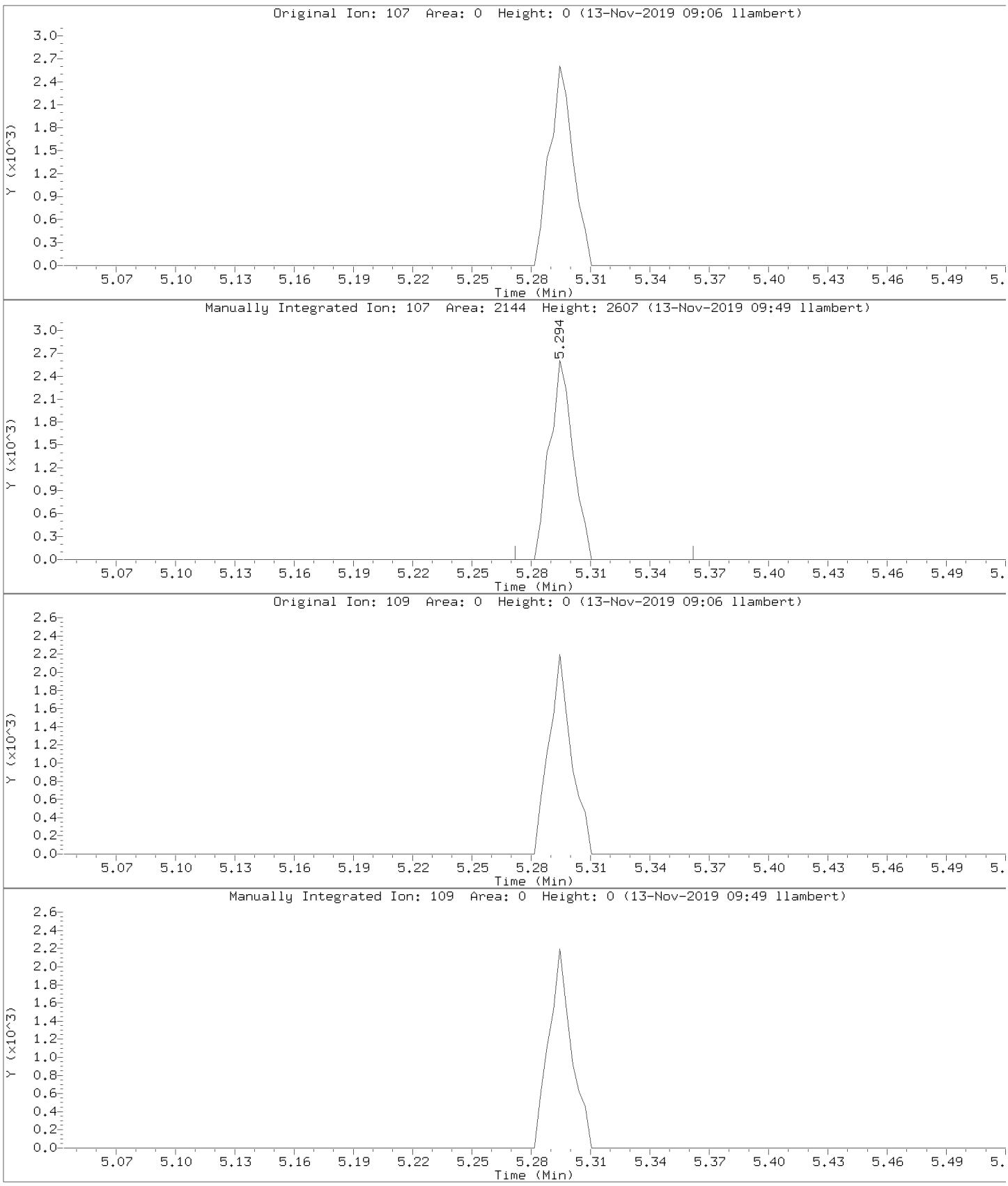
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 1,2-Dibromoethane (EDB) Review Code: NI
CAS Number: 106-93-4



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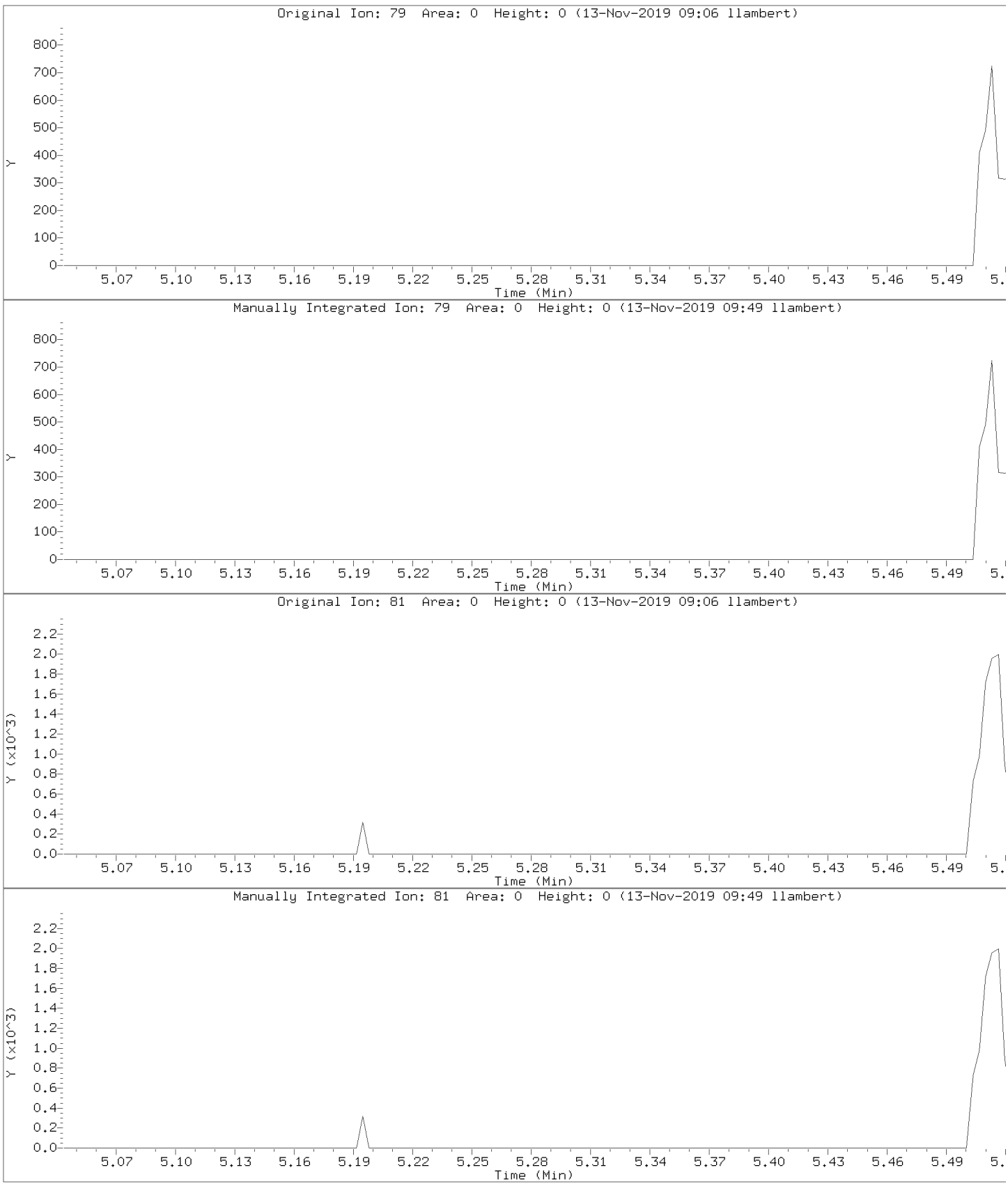
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1



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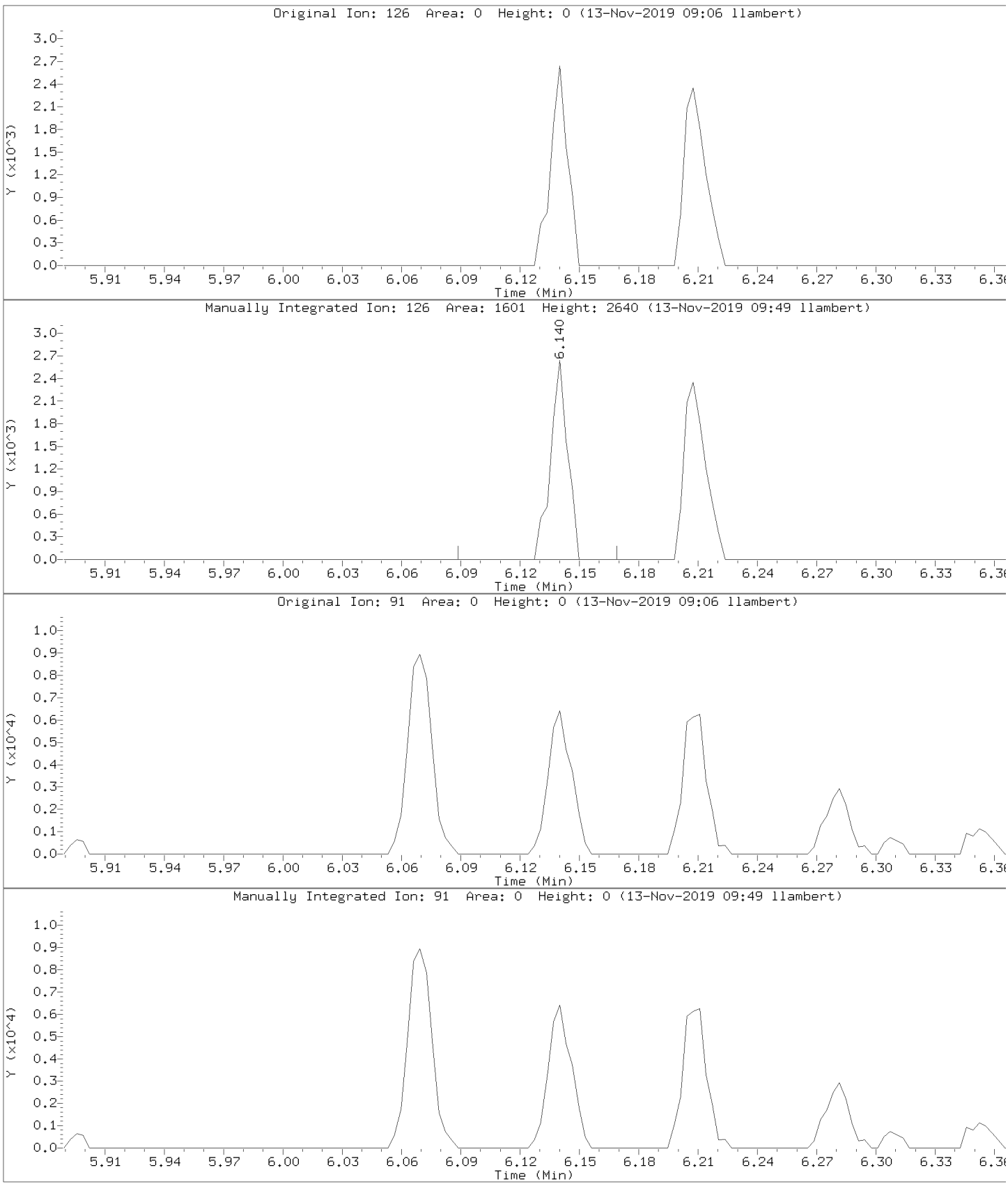
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 2-Chlorotoluene Review Code: NI
CAS Number: 95-49-8



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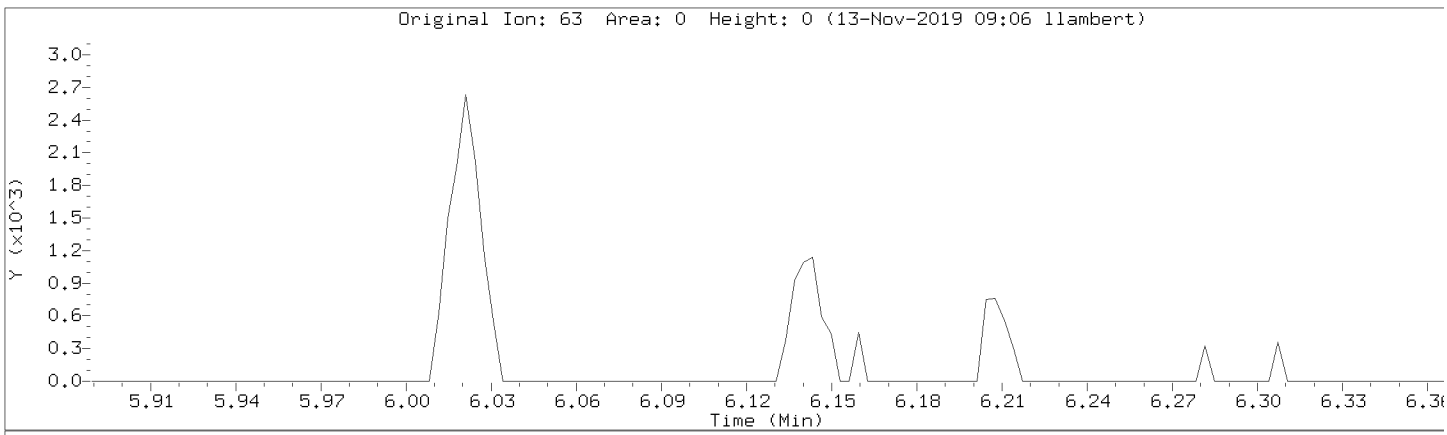
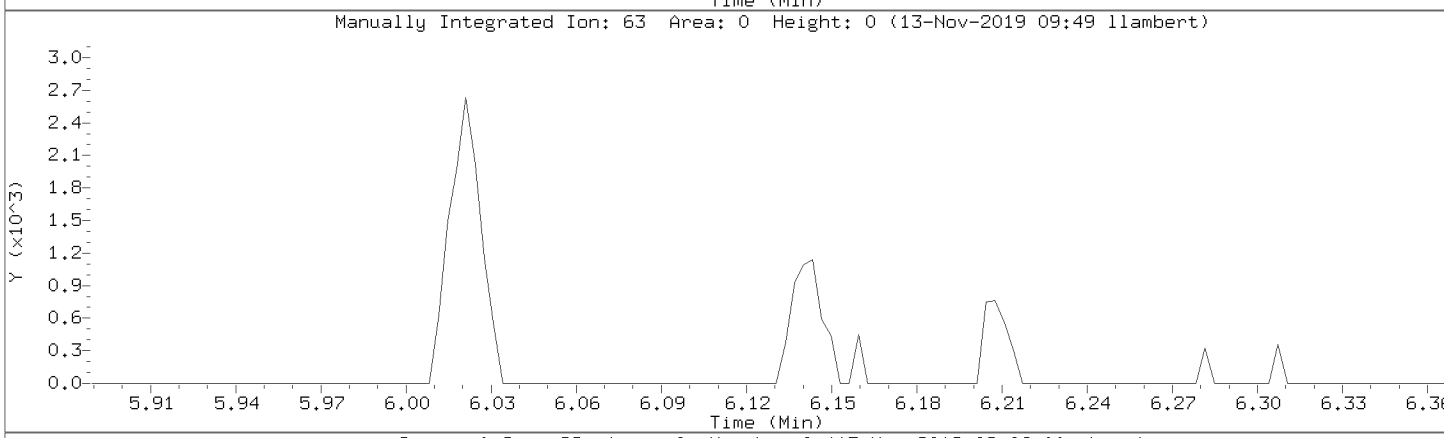
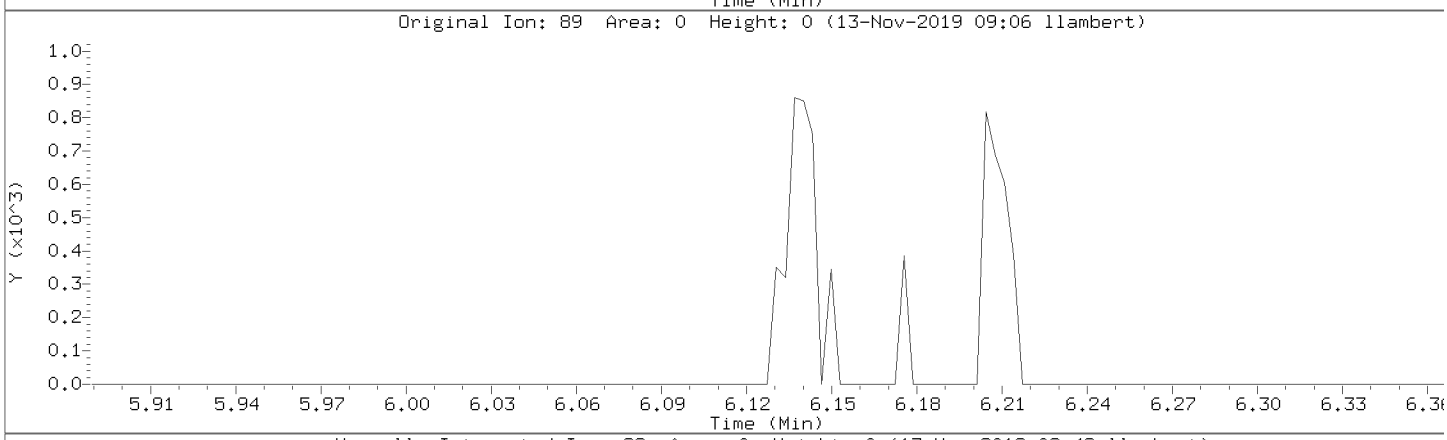
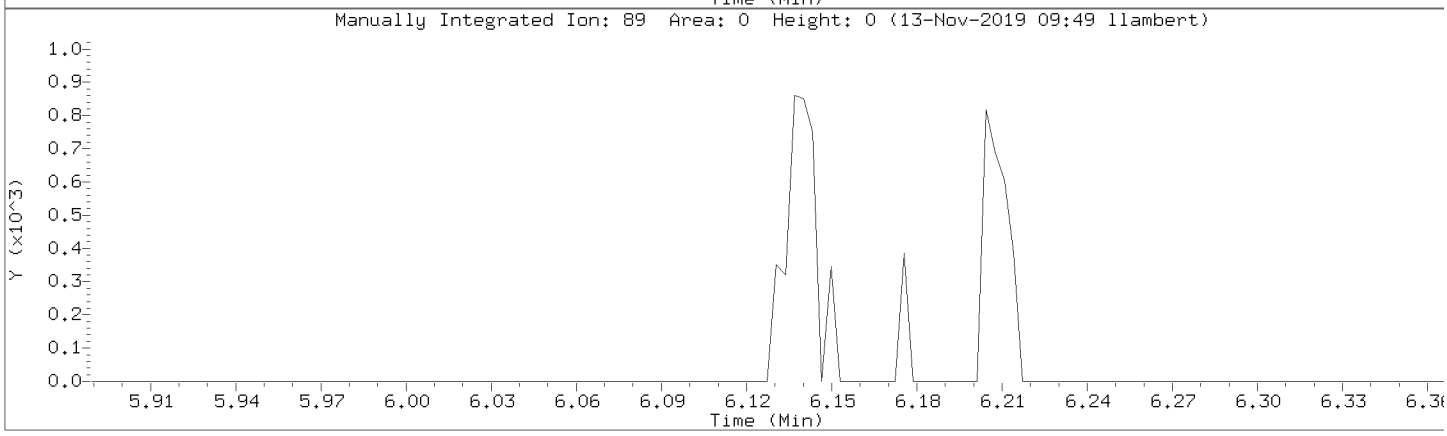
Instrument: 30mv7b.i
Lab Sample ID: CAL1









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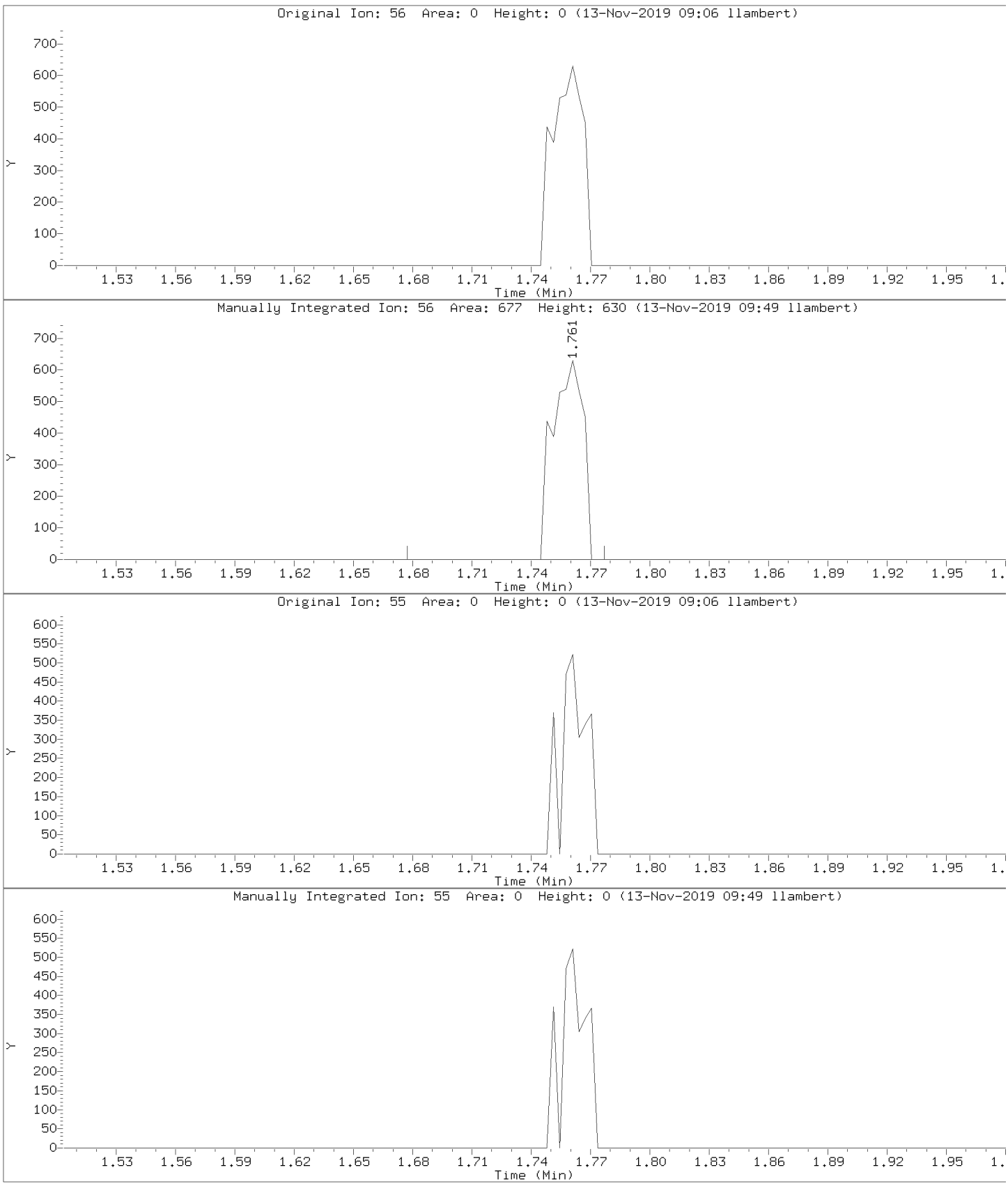
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Acrolein Review Code: NI
CAS Number: 107-02-8



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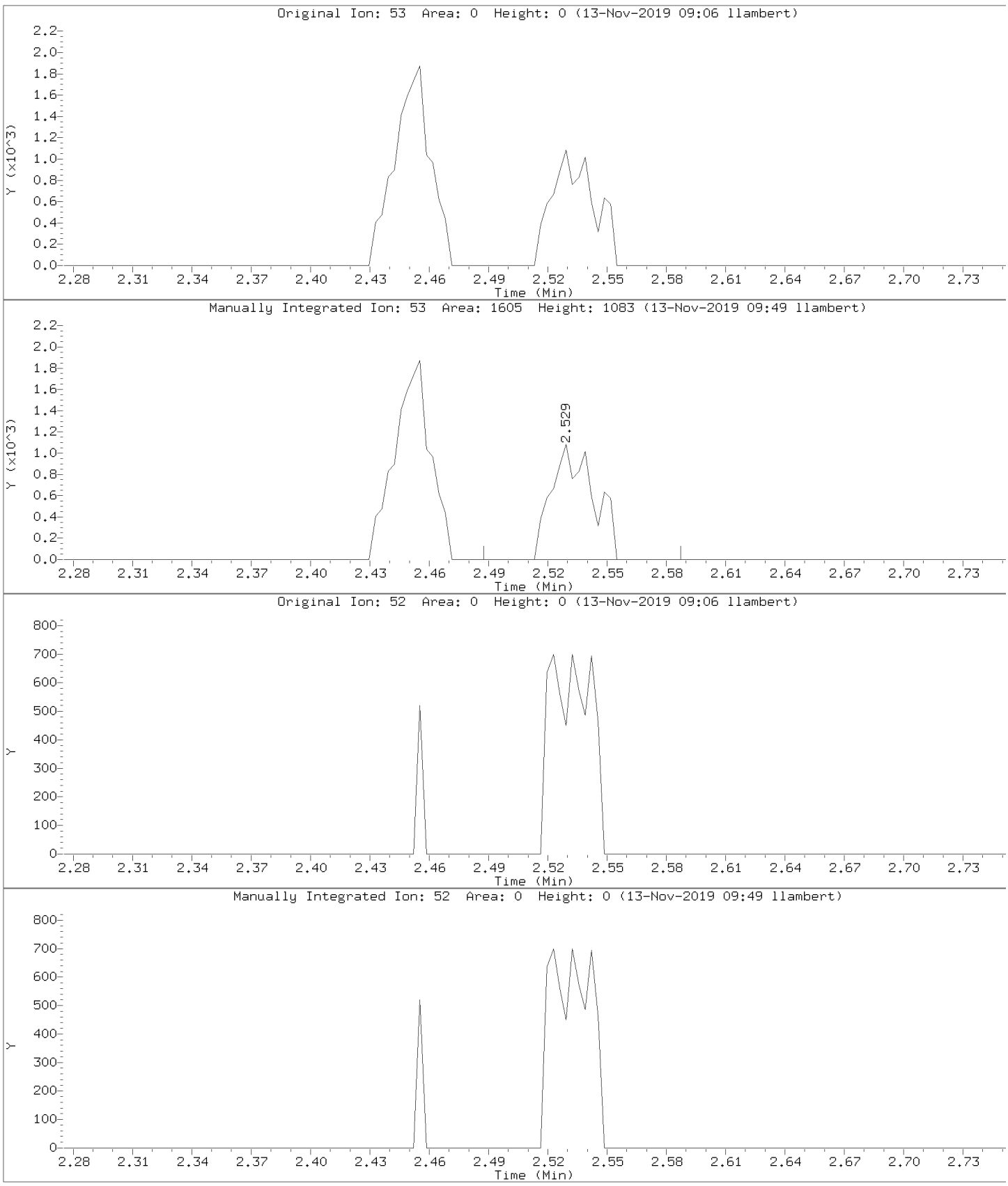
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Acrylonitrile Review Code: NI
CAS Number: 107-13-1



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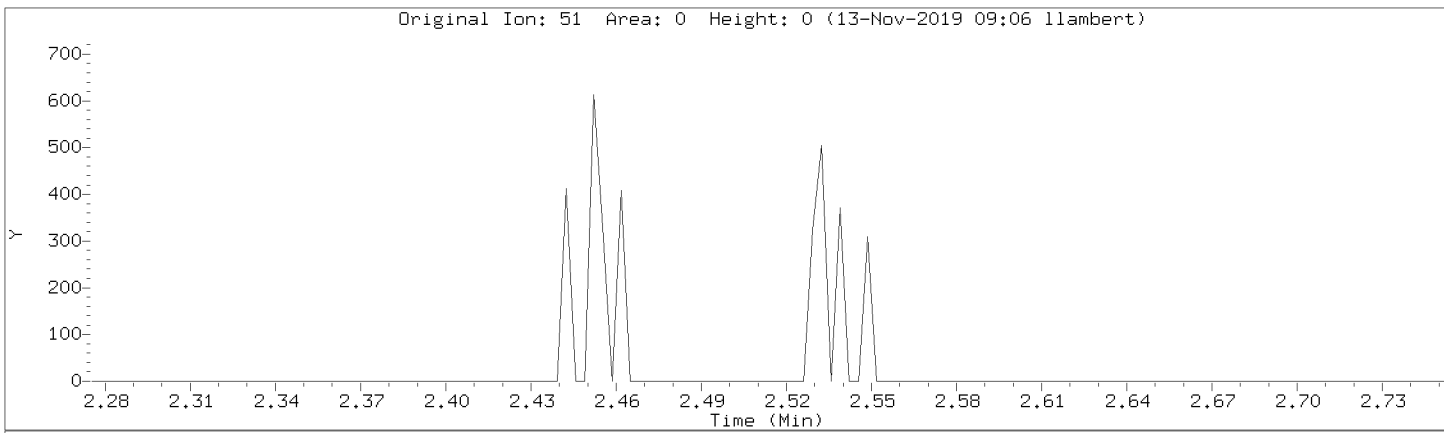
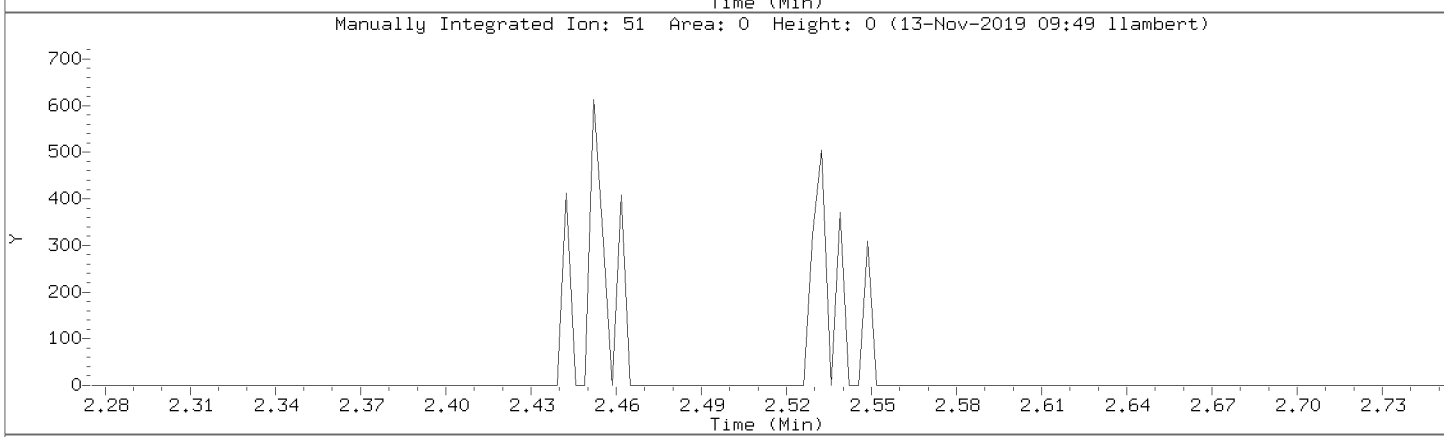
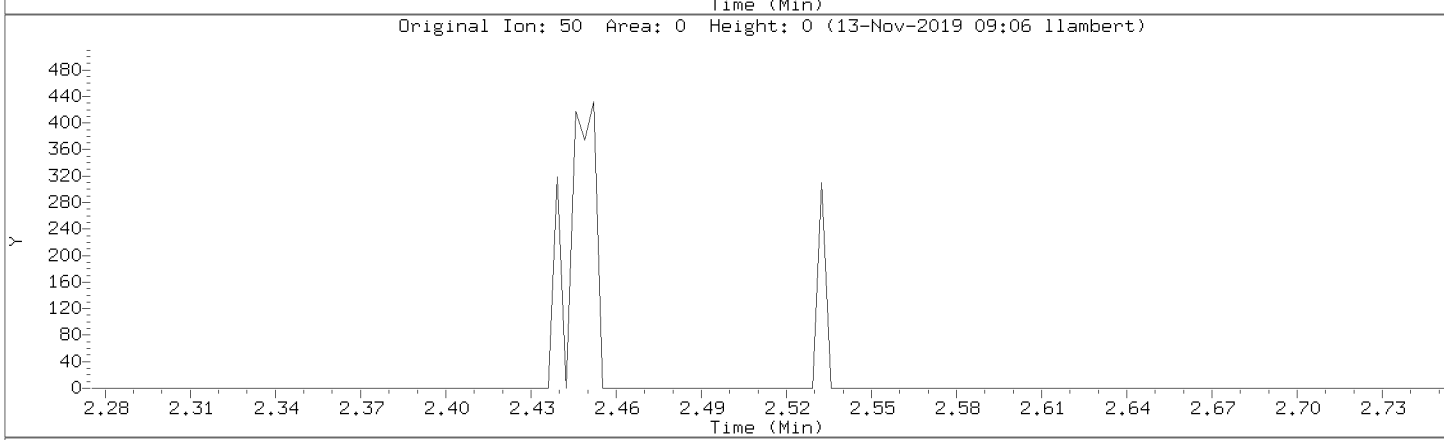
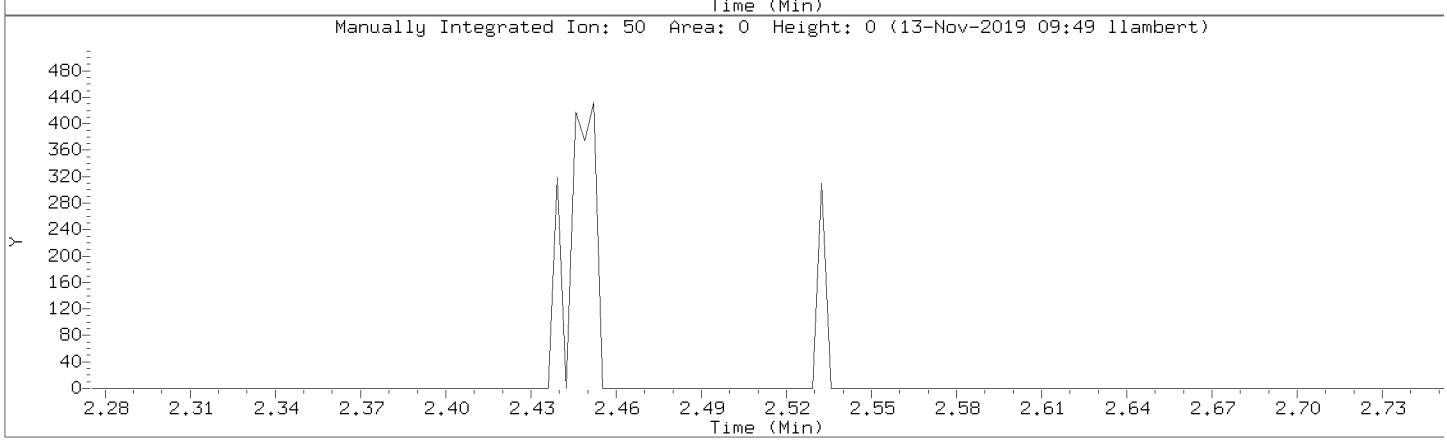
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1









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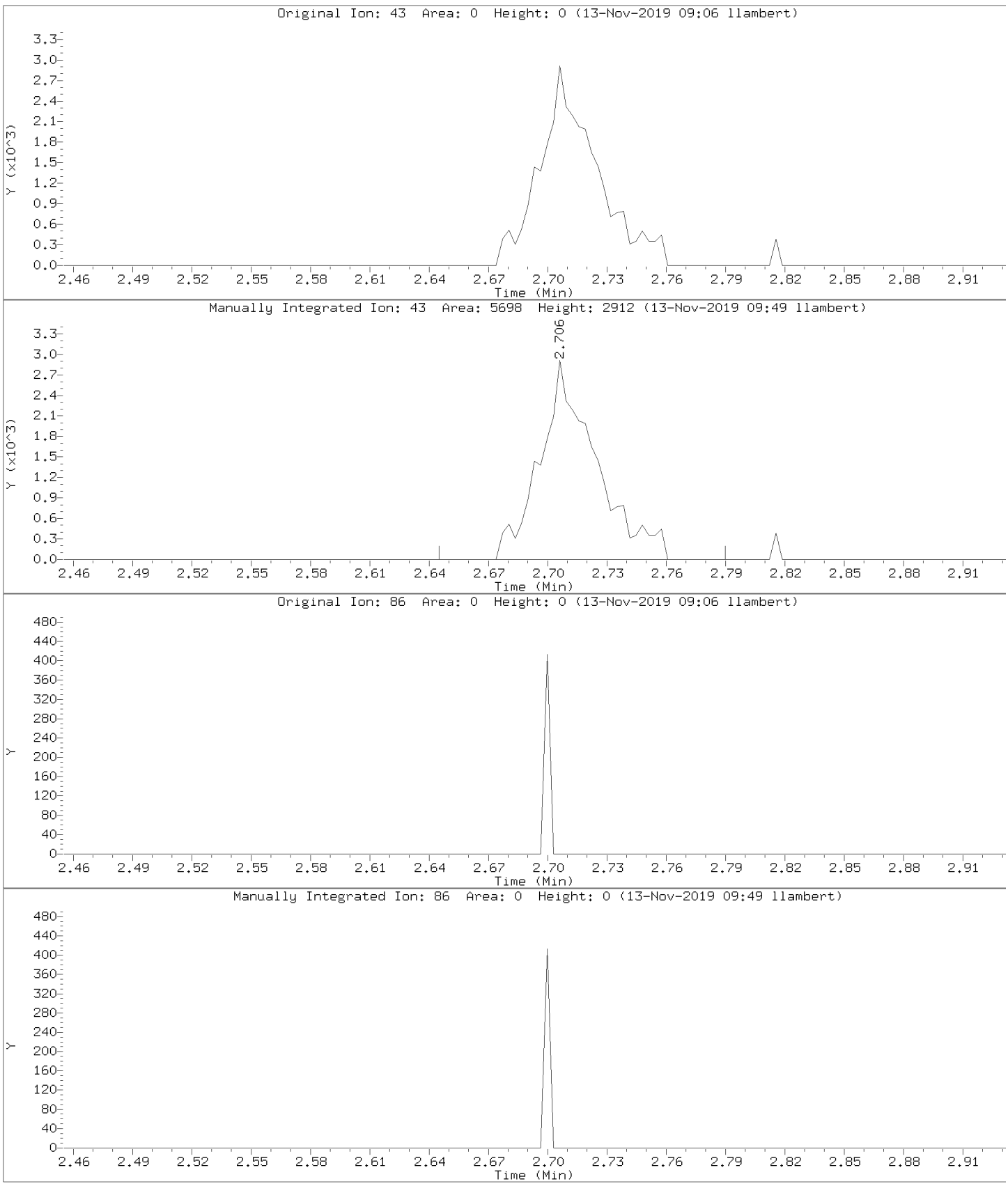
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Vinyl acetate Review Code: NI
CAS Number: 108-05-4



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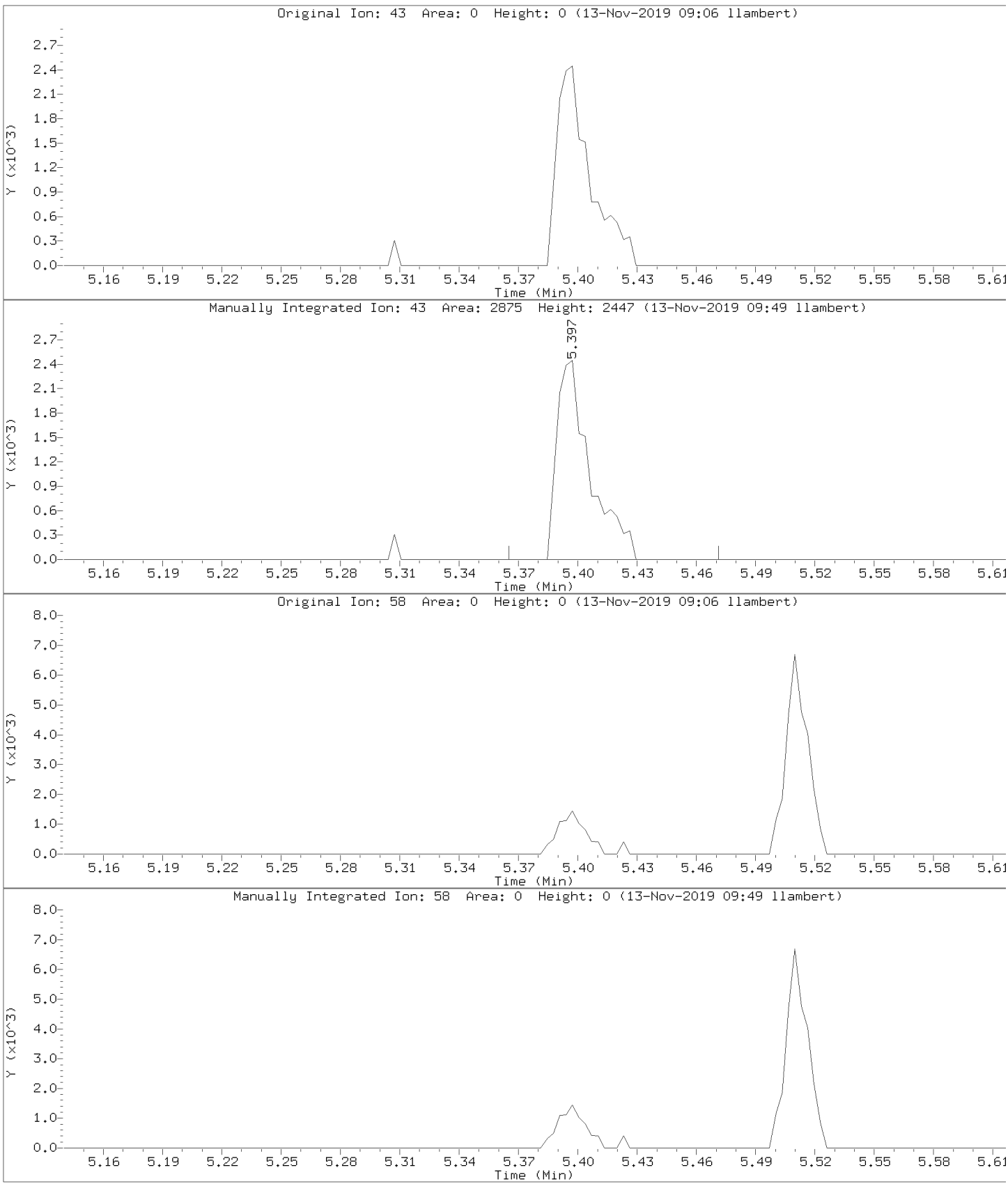
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 2-Hexanone Review Code: NI
CAS Number: 591-78-6



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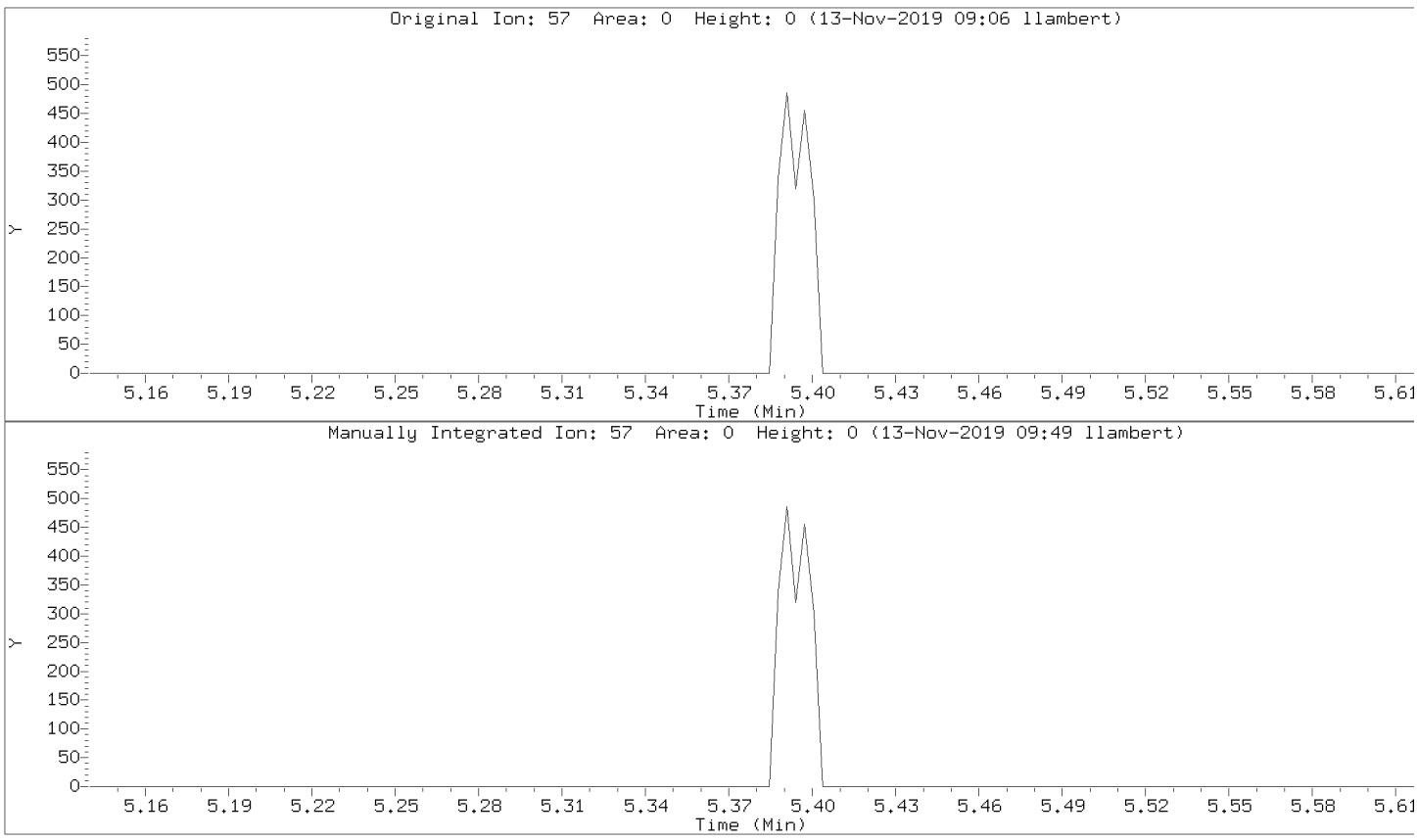
Lab Sample ID: CAL1



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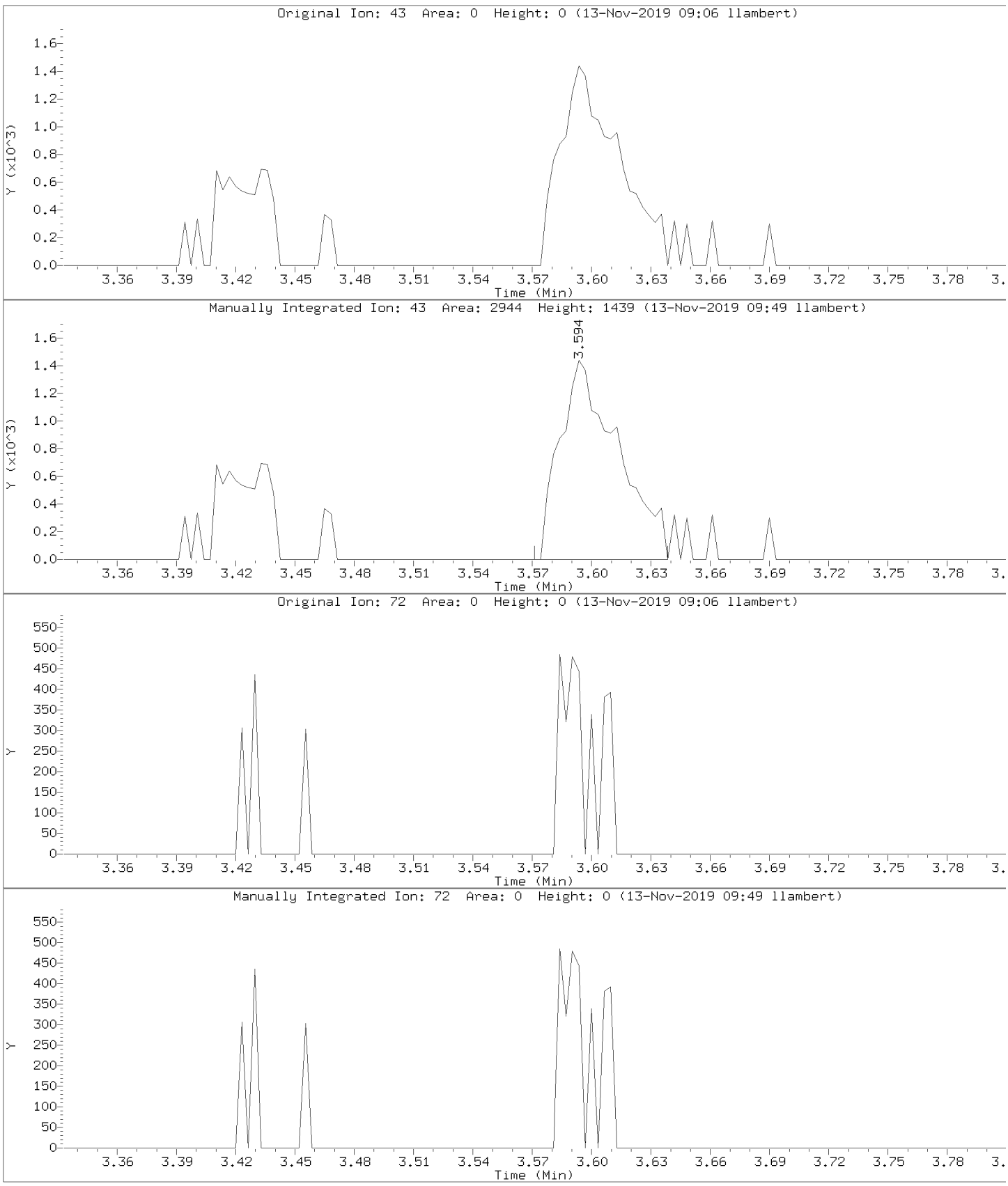
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 2-Butanone (MEK) Review Code: NI
CAS Number: 78-93-3



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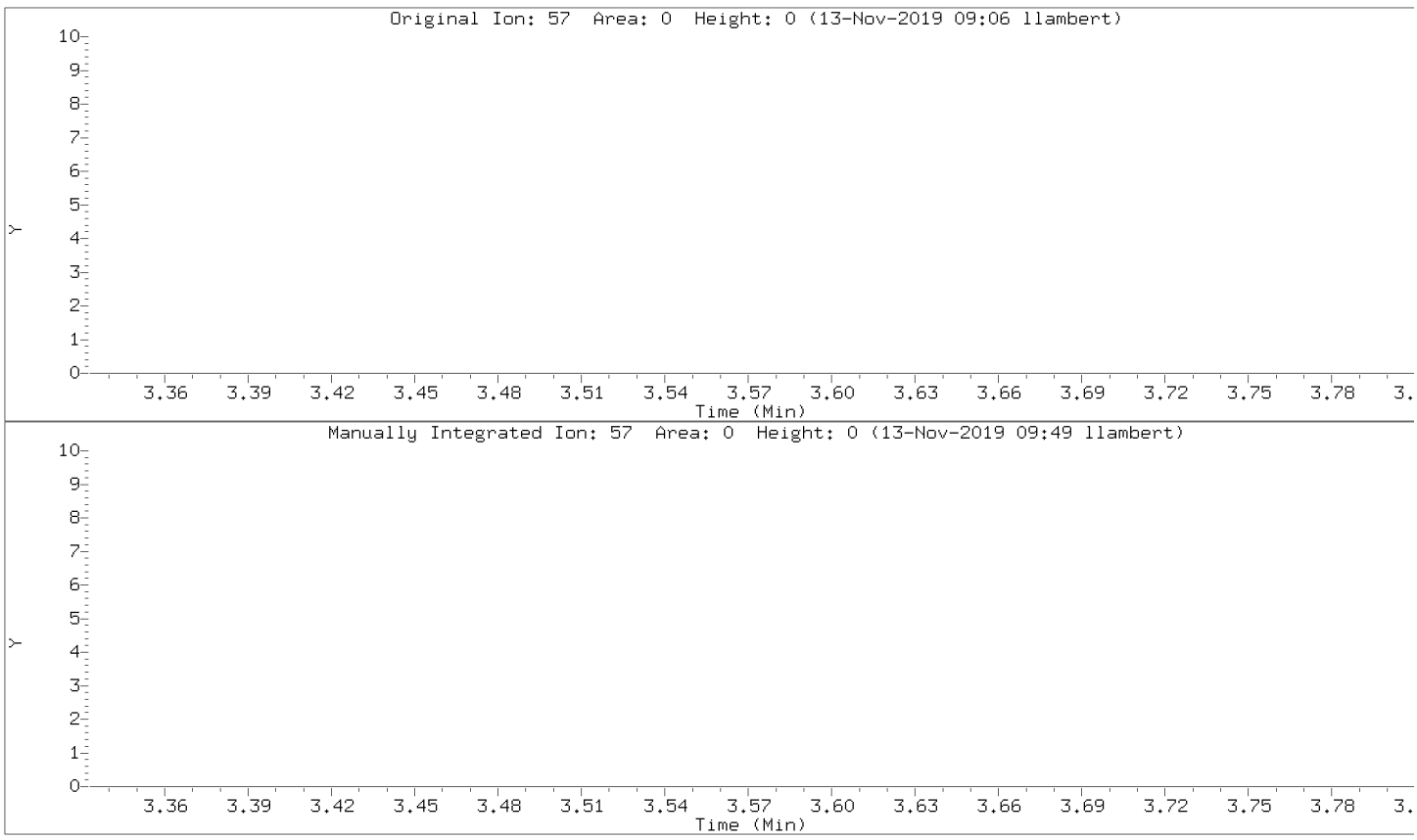
Lab Sample ID: CAL1



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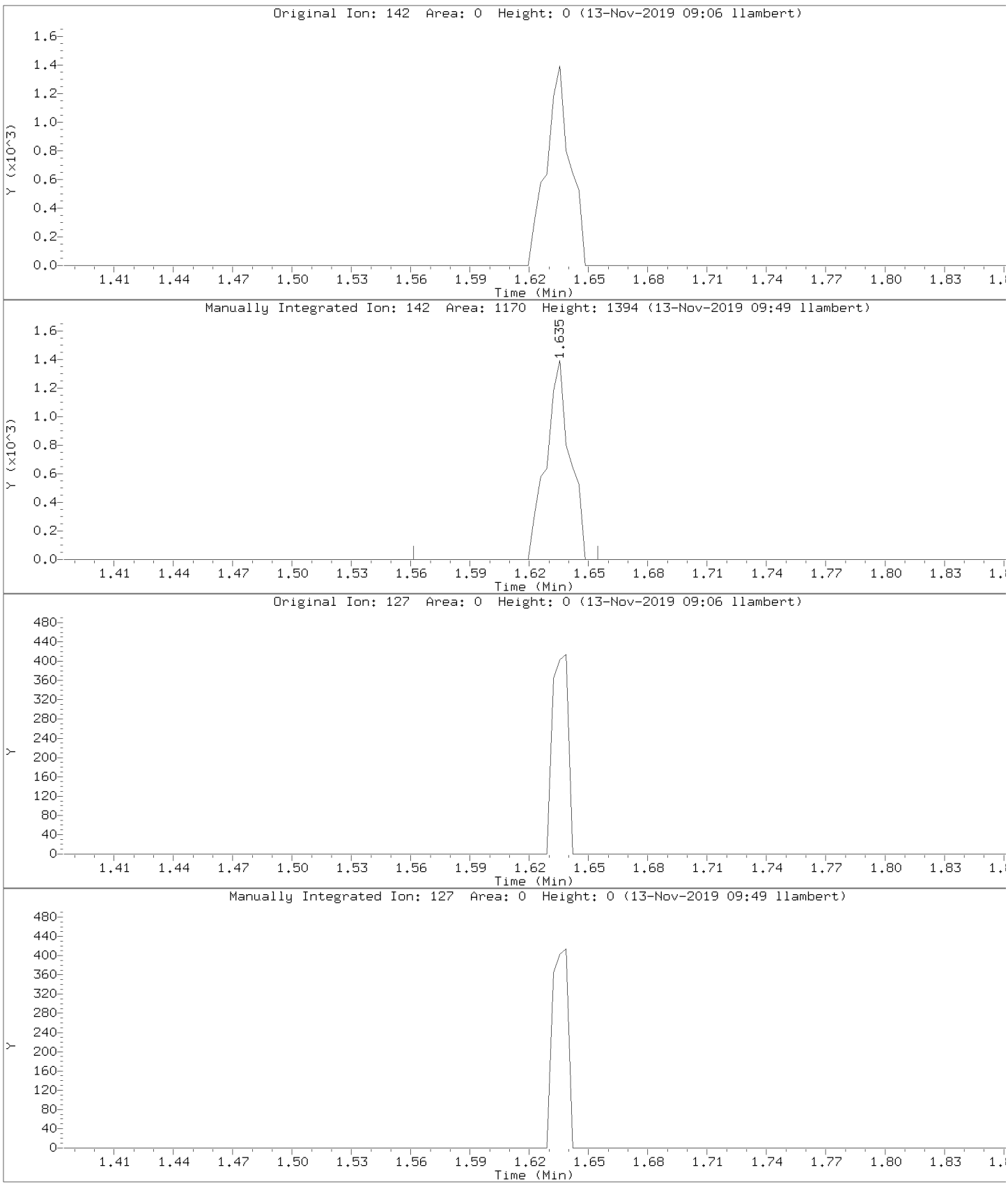
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Iodomethane Review Code: NI
CAS Number: 74-88-4



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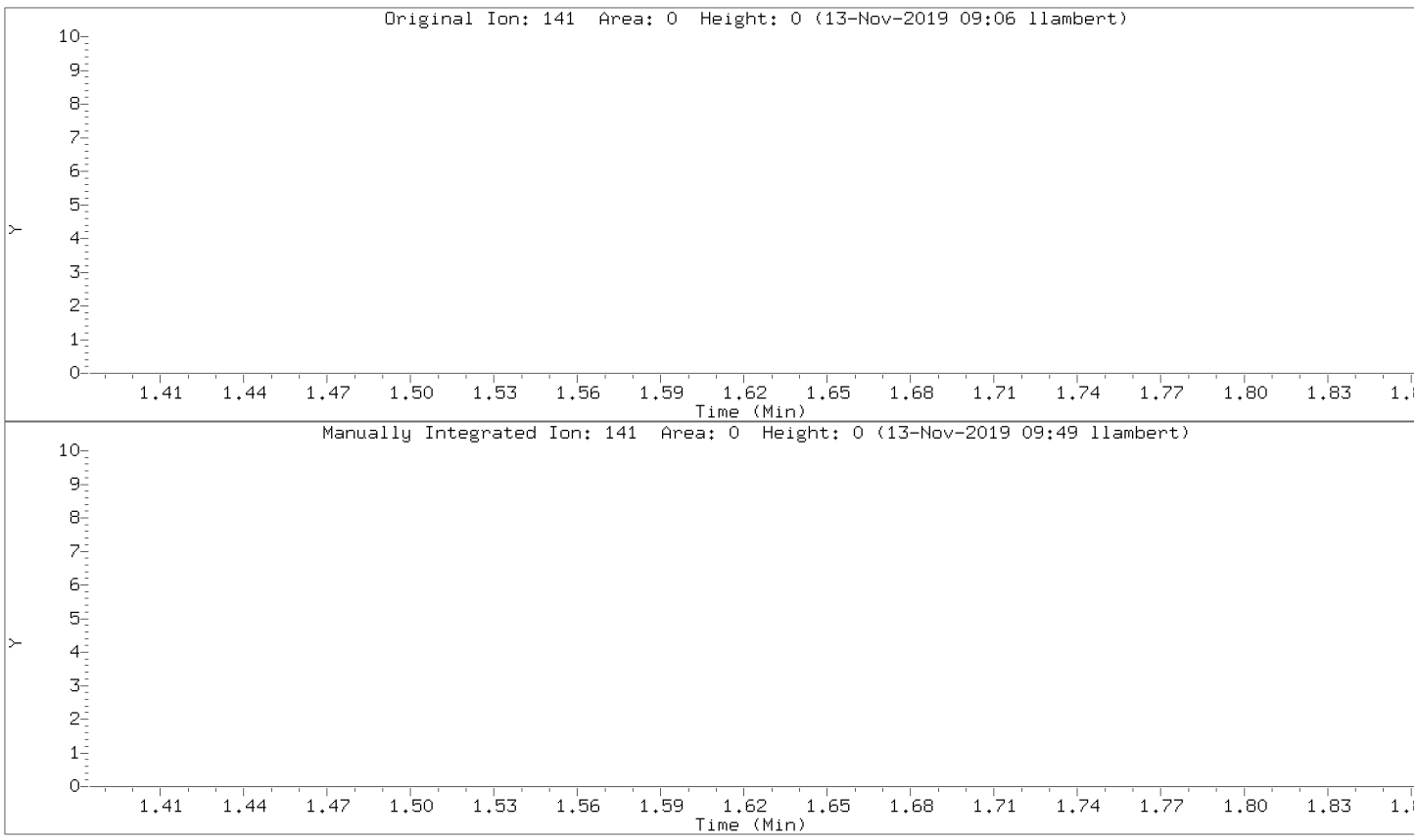
Lab Sample ID: CAL1



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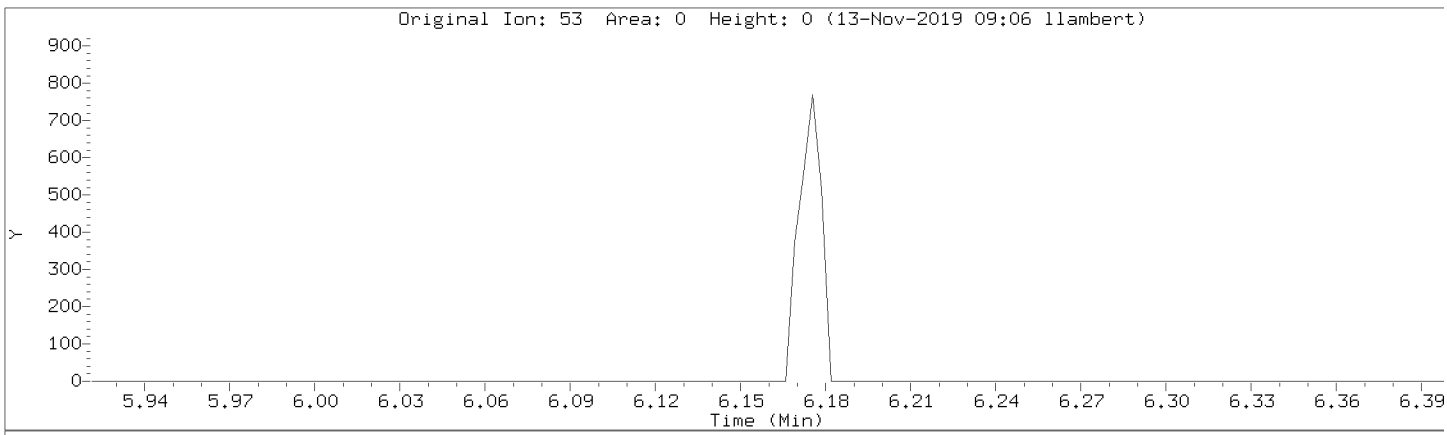
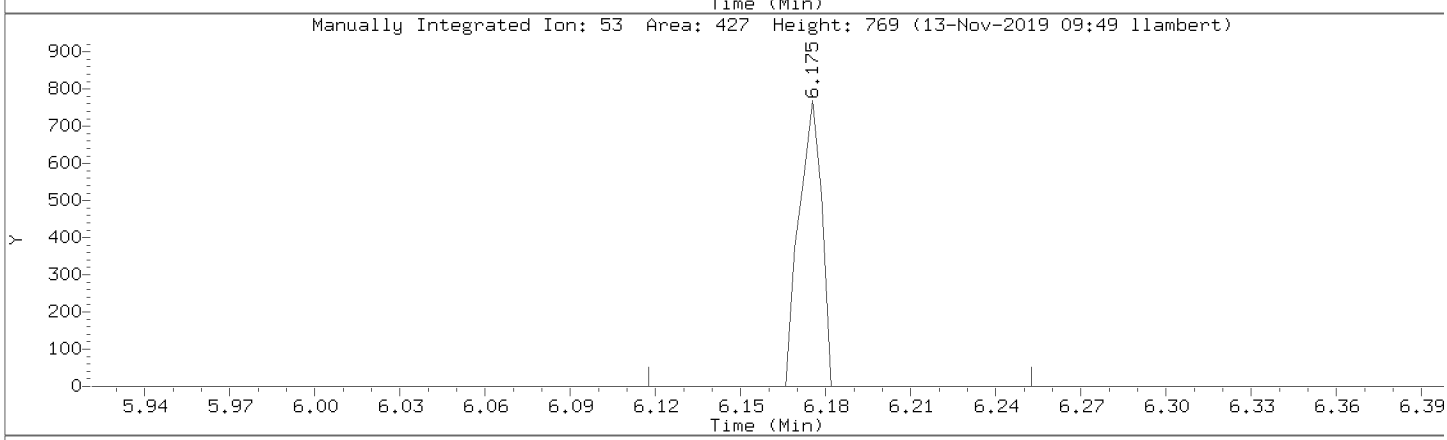
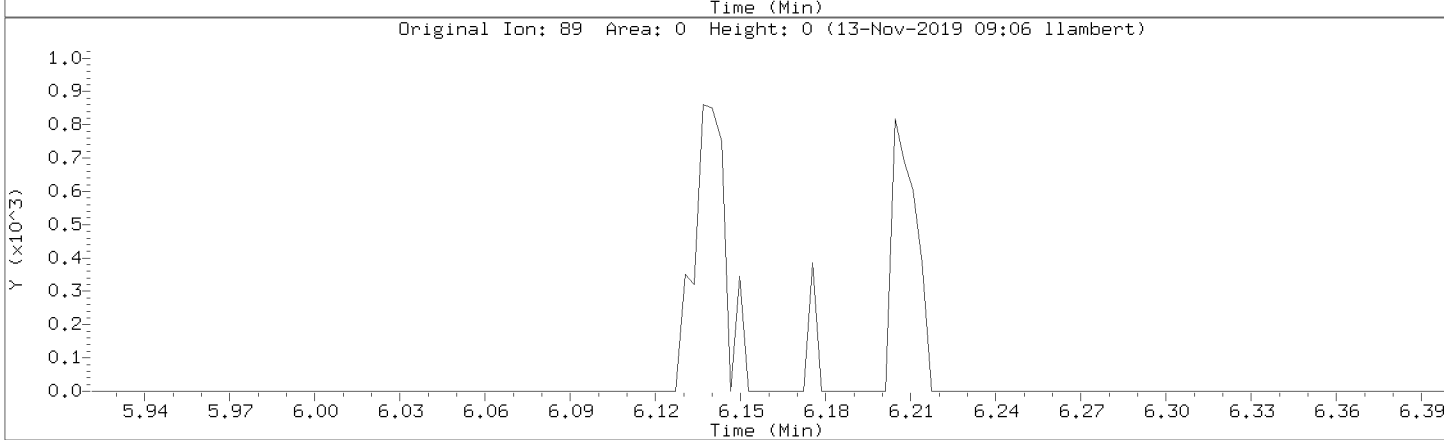
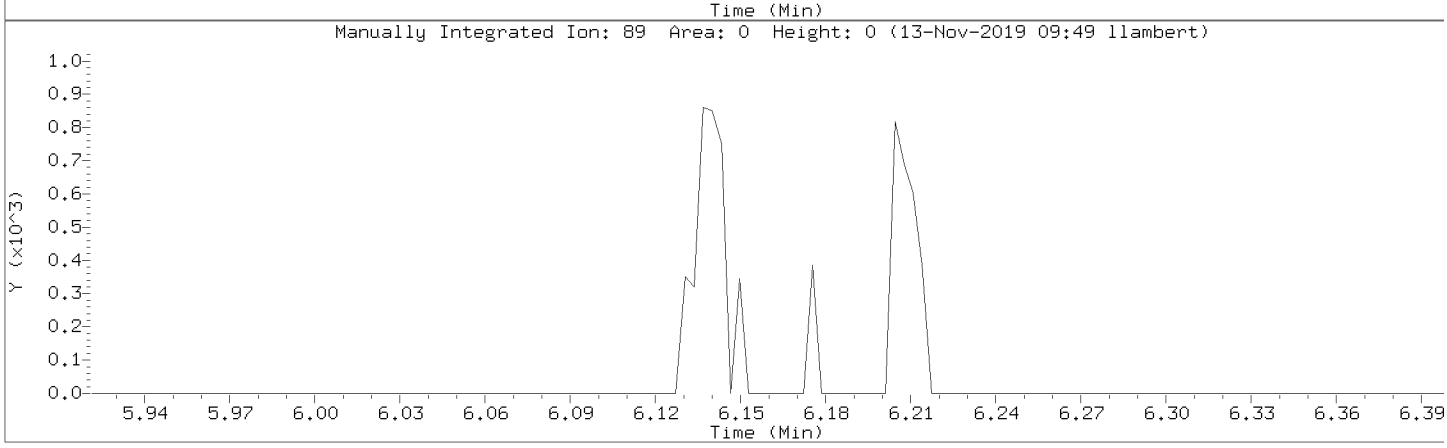
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: trans-1,4-Dichloro-2-butene Review Code: NI
CAS Number: 110-57-6









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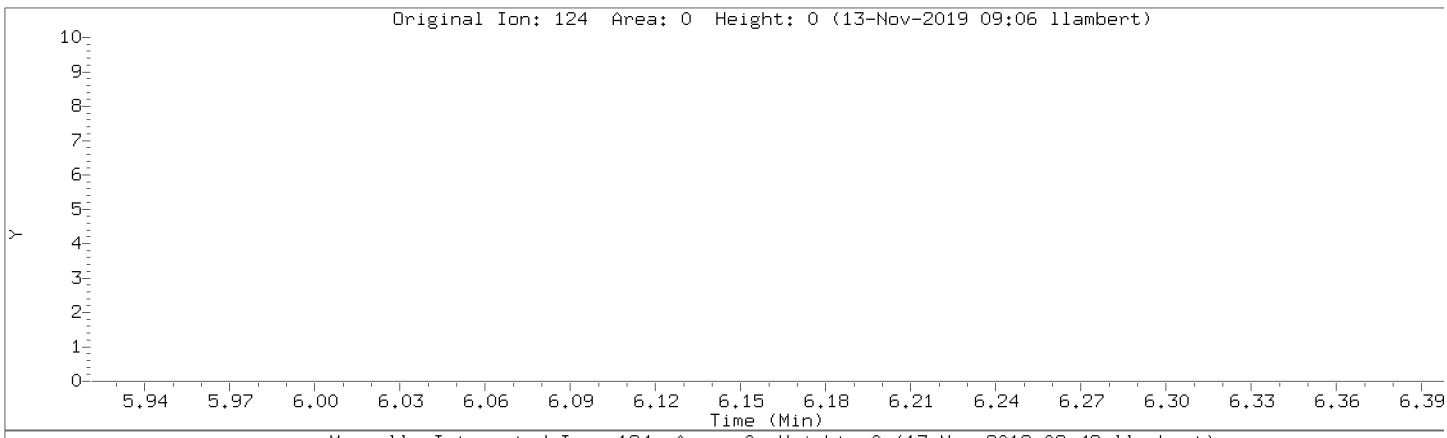
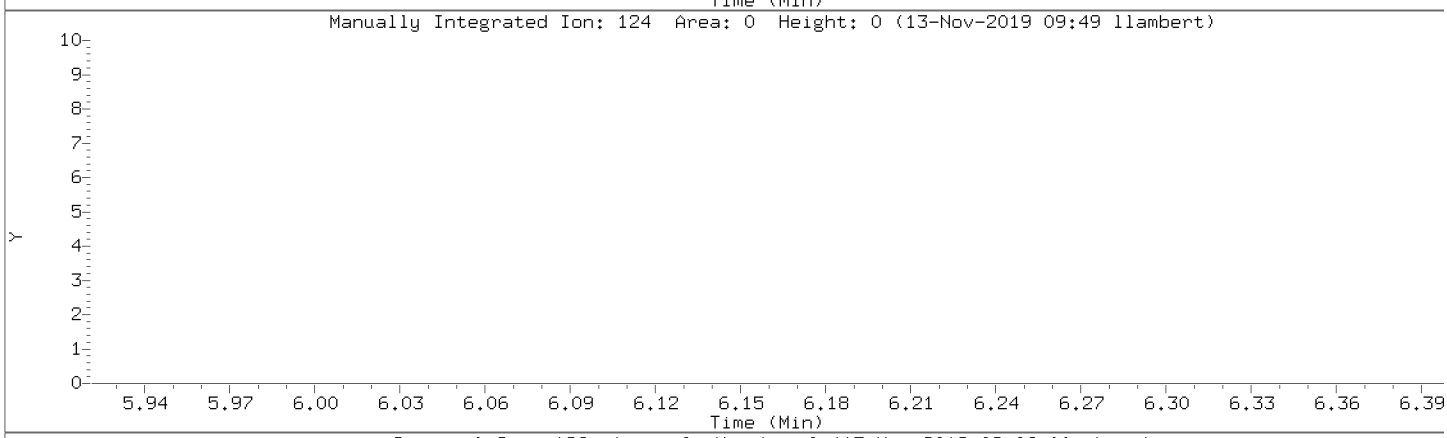
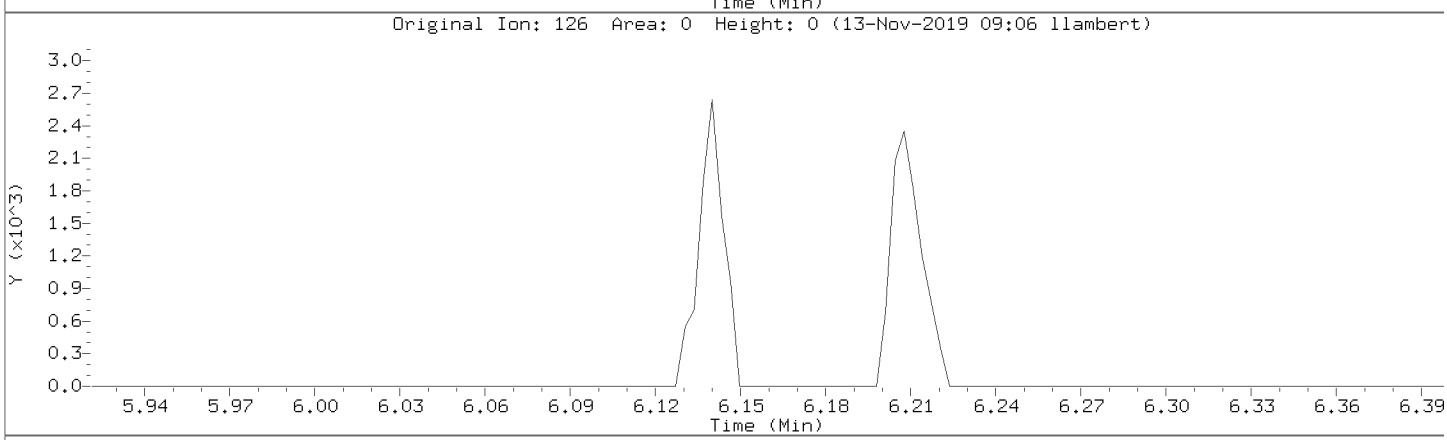
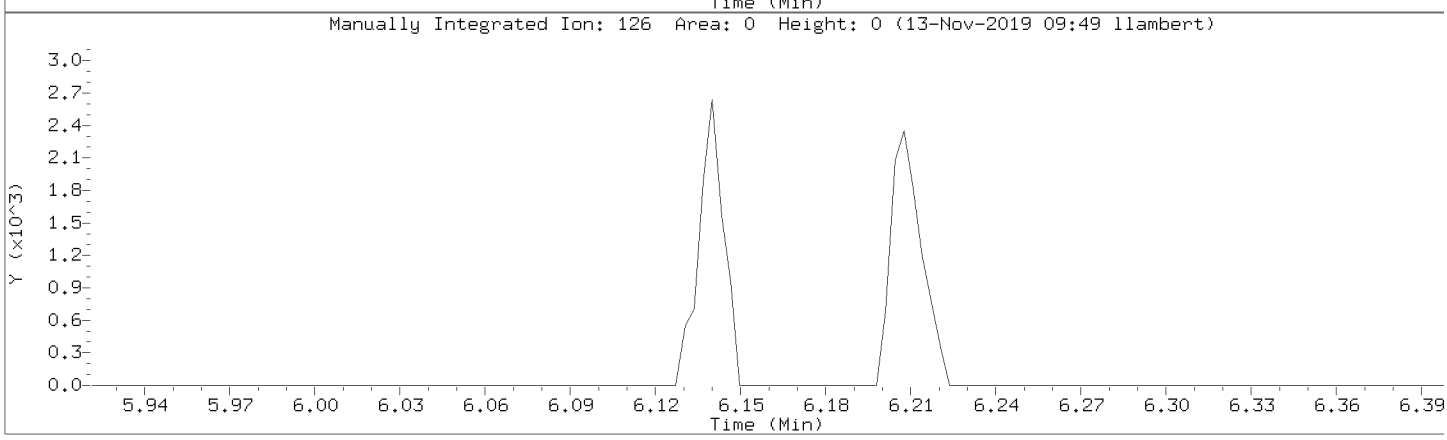
Lab Sample ID: CAL1









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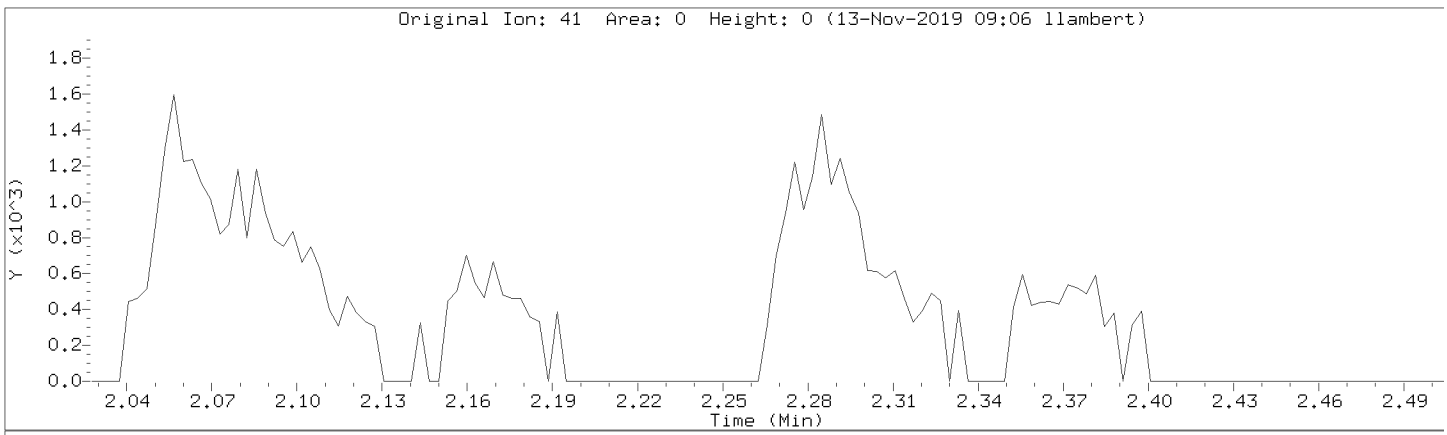
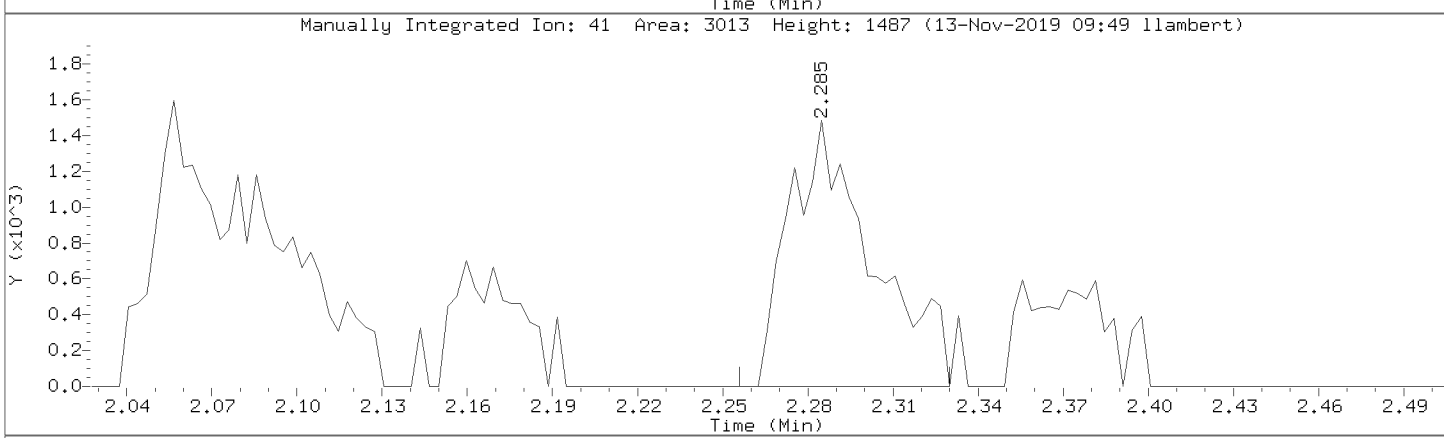
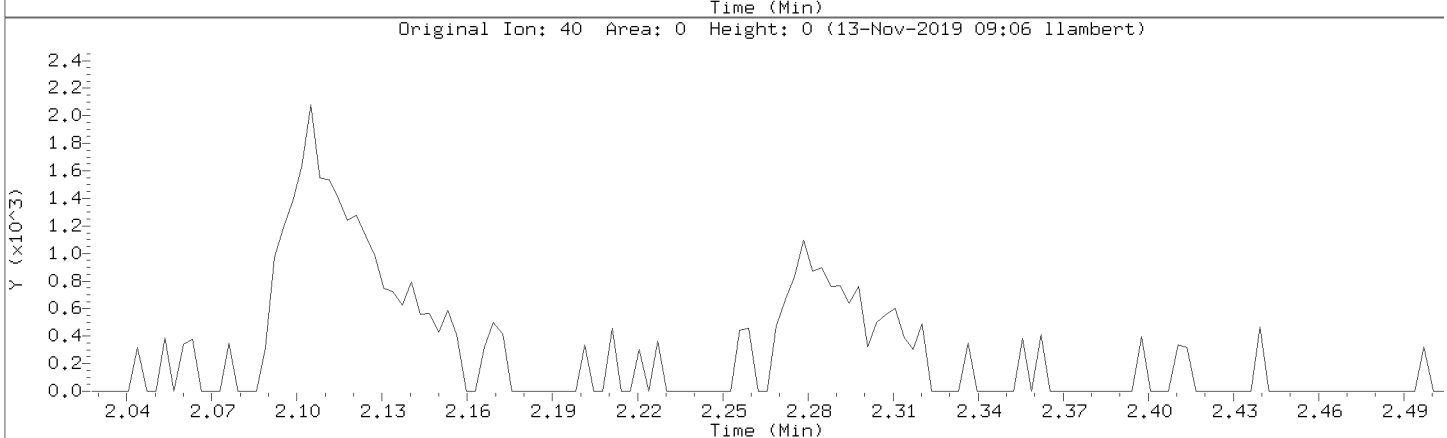
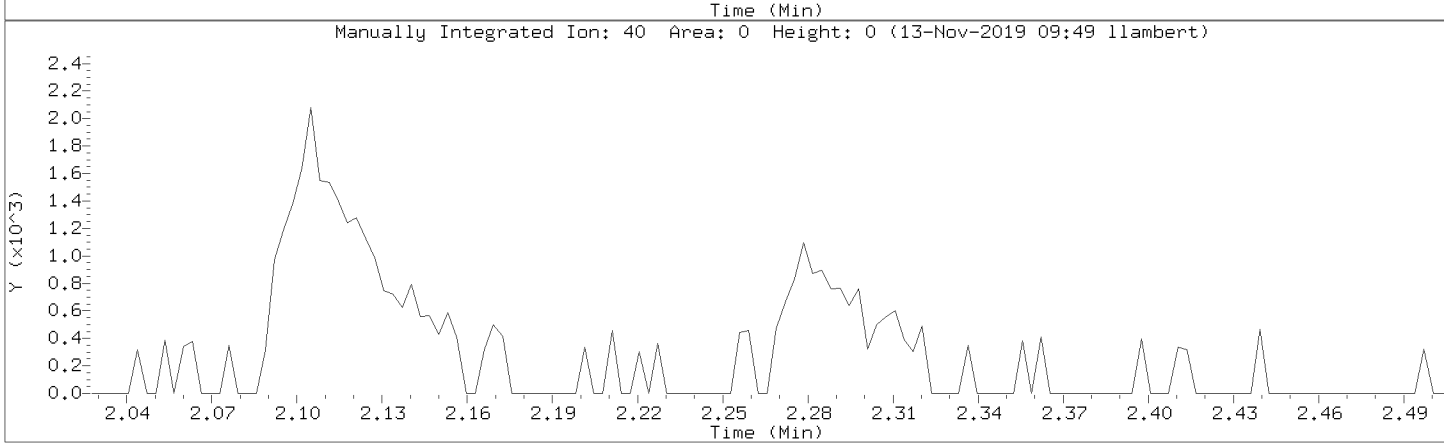
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Acetonitrile Review Code: NI
CAS Number: 75-05-8









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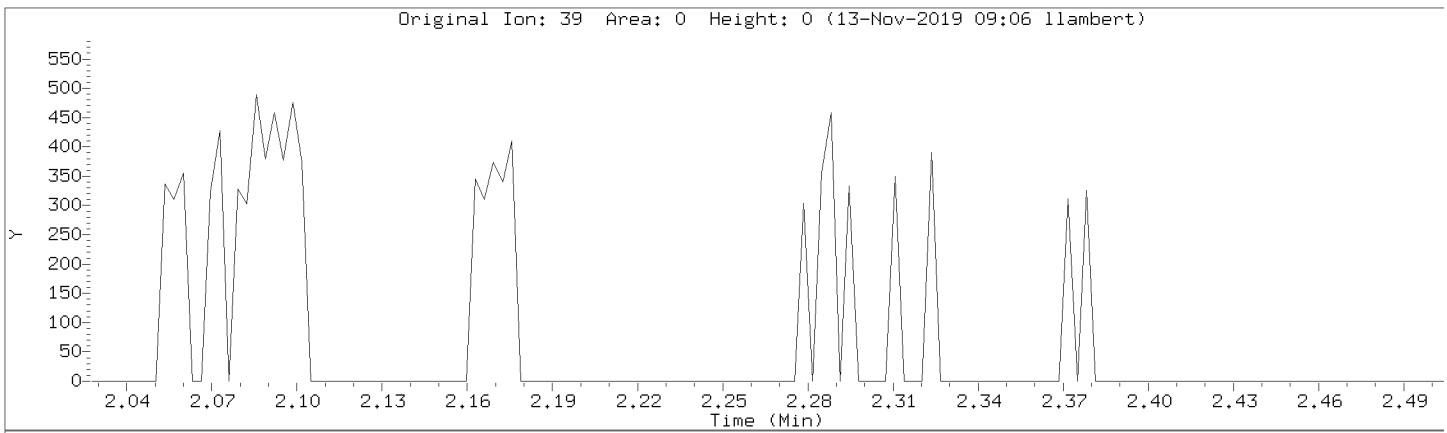
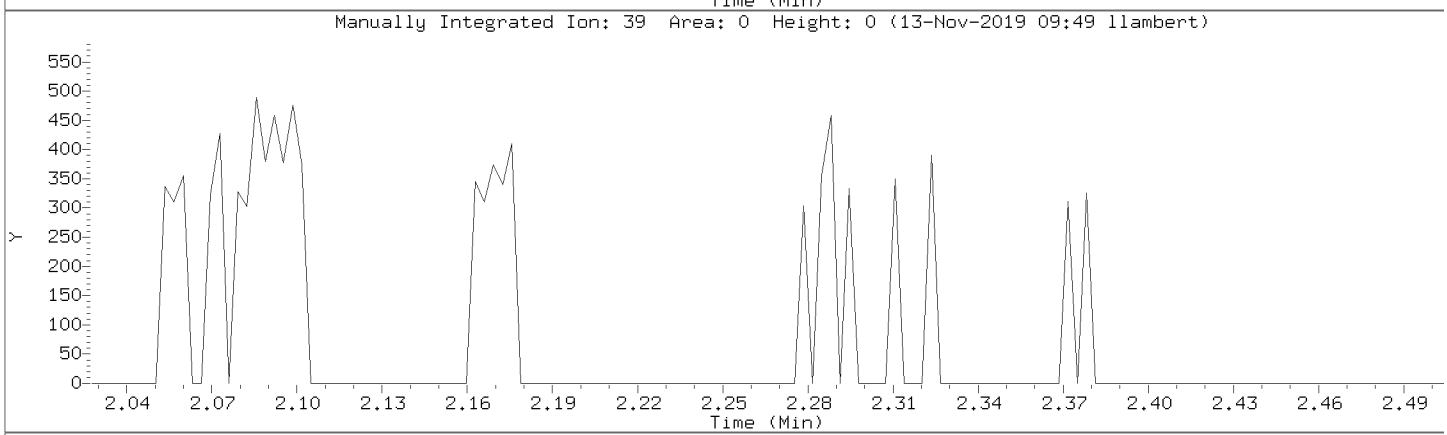
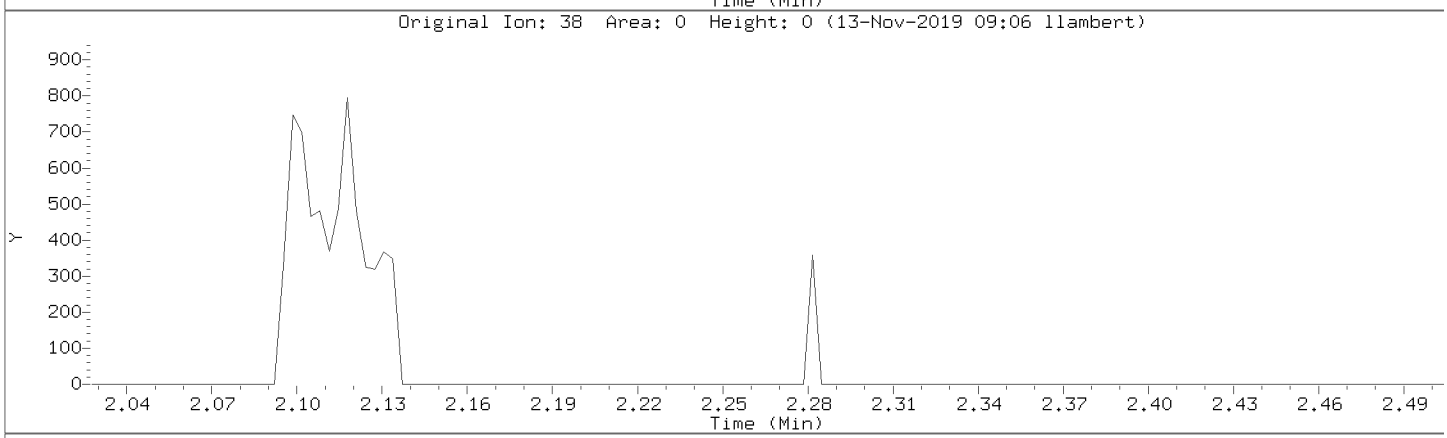
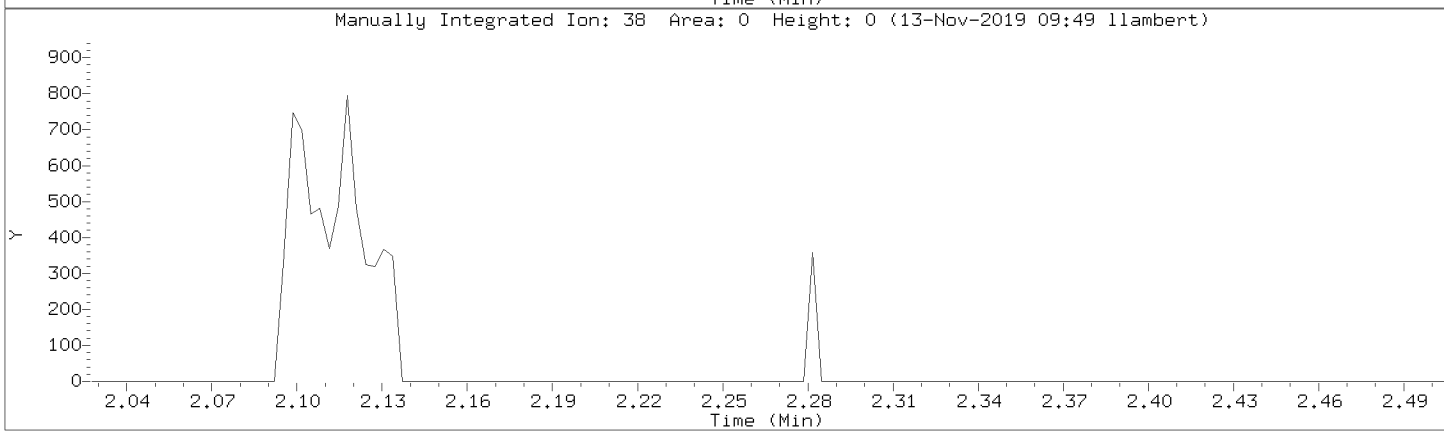
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1









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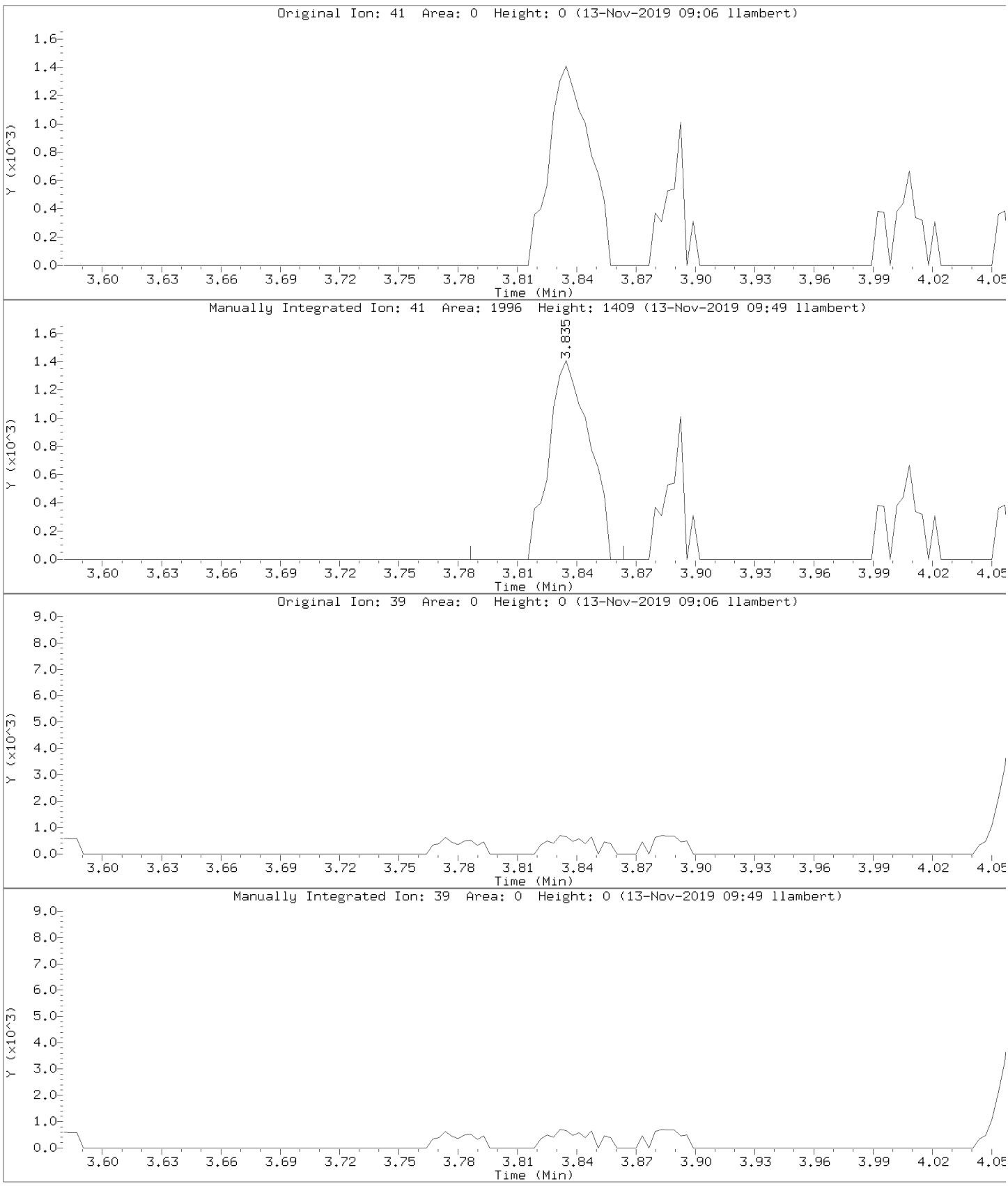
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Methacrylonitrile Review Code: NI
CAS Number: 126-98-7



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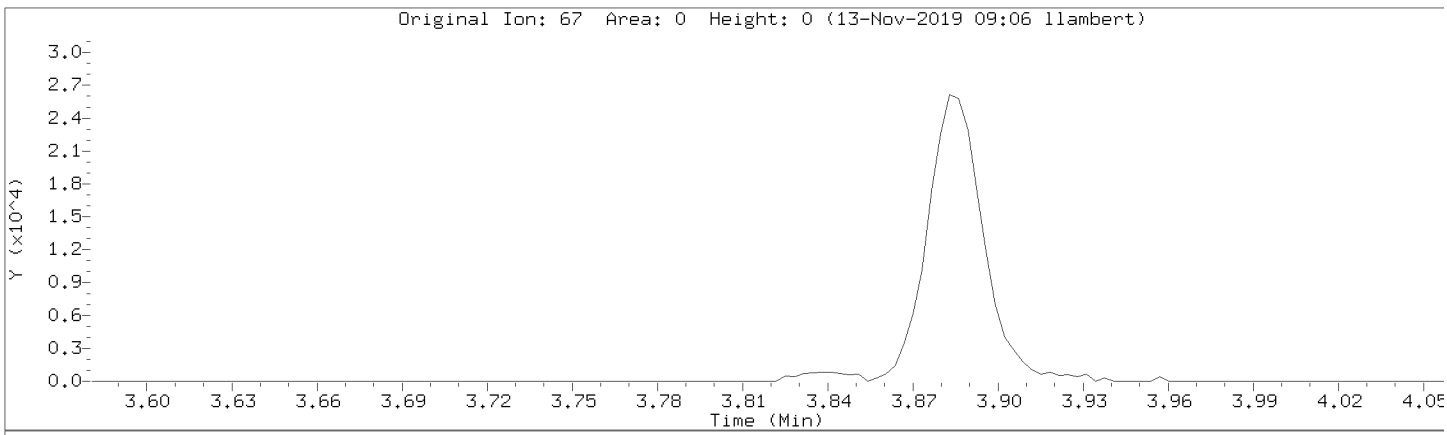
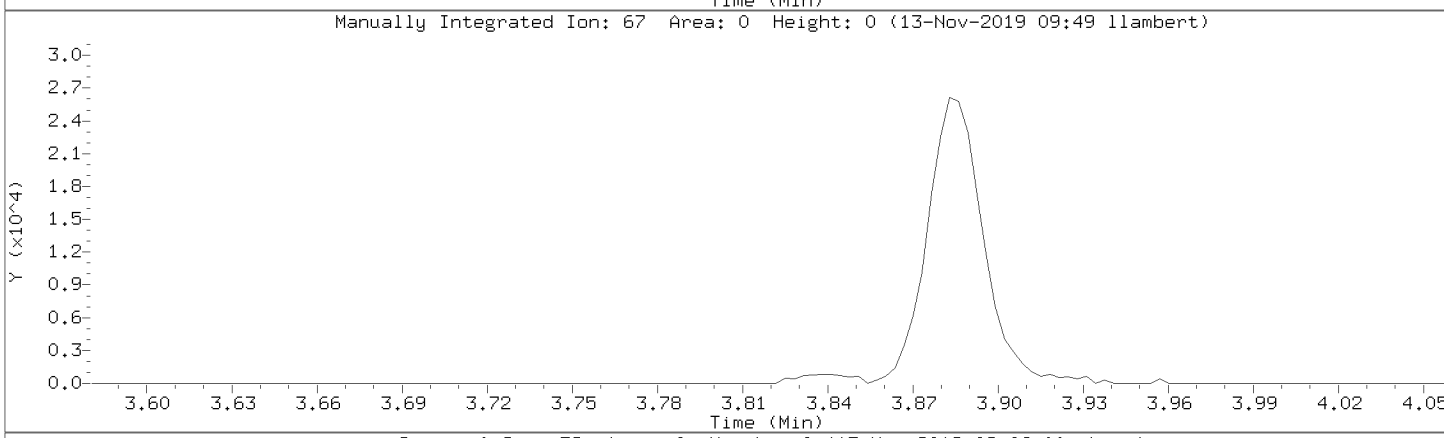
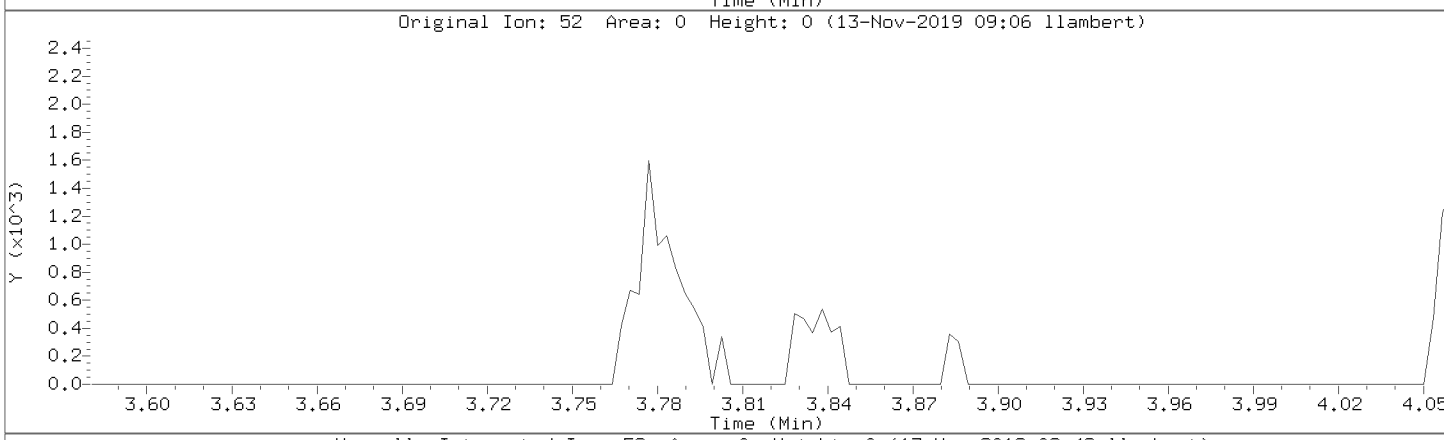
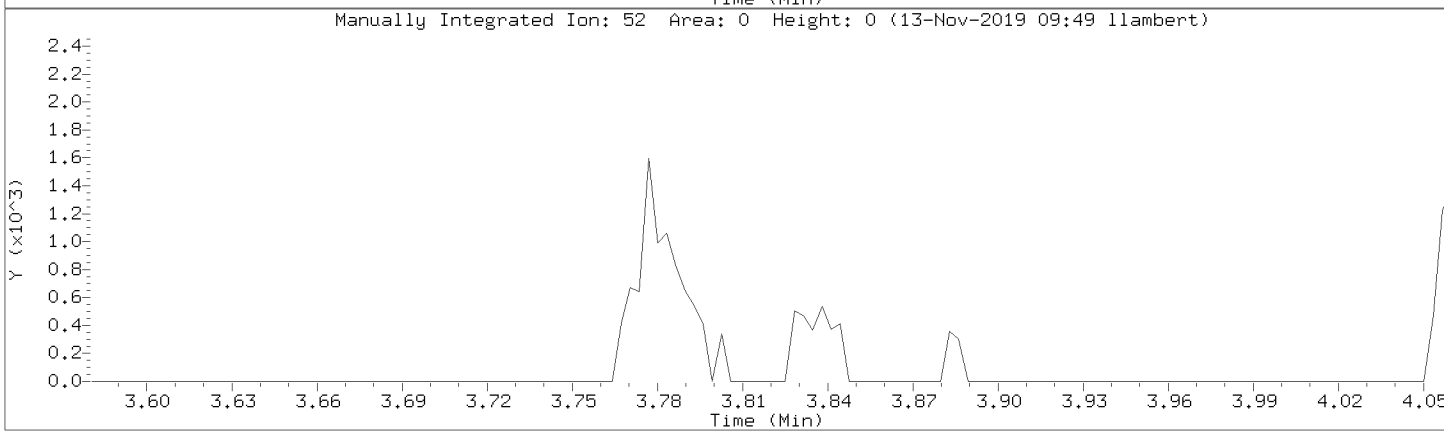
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1









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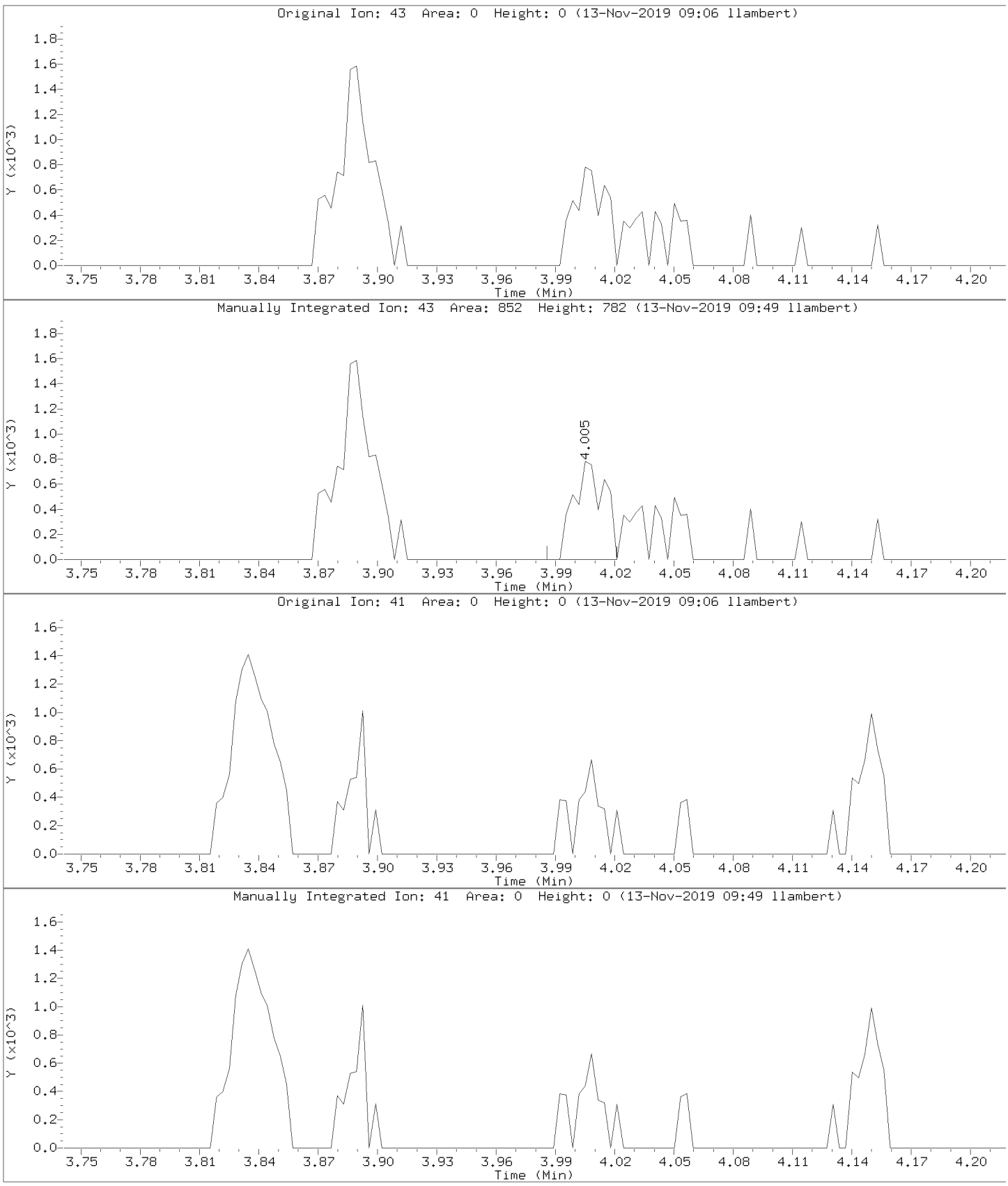
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Isobutanol Review Code: NI
CAS Number: 78-83-1



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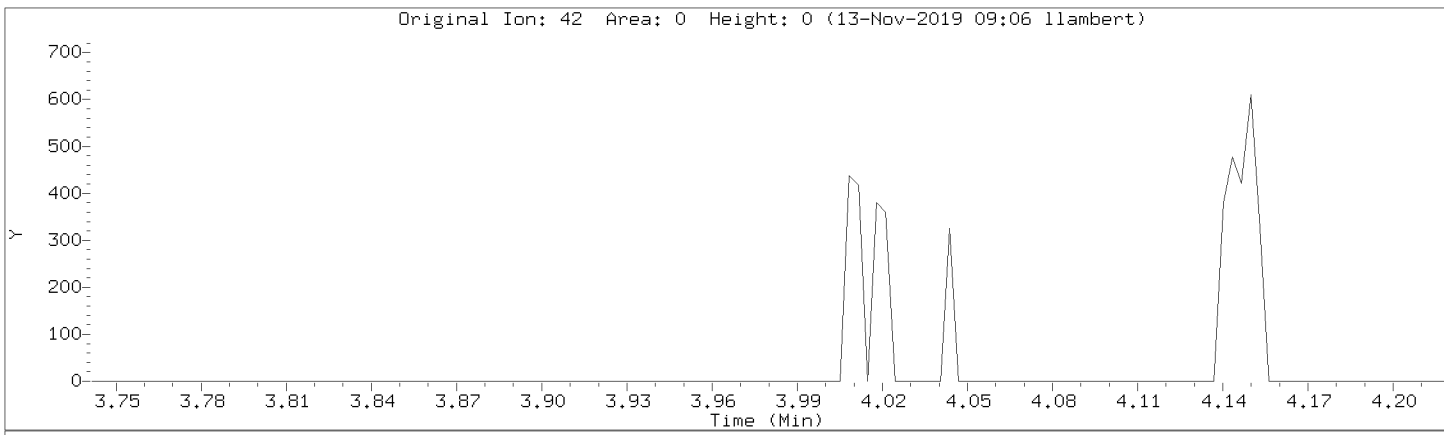
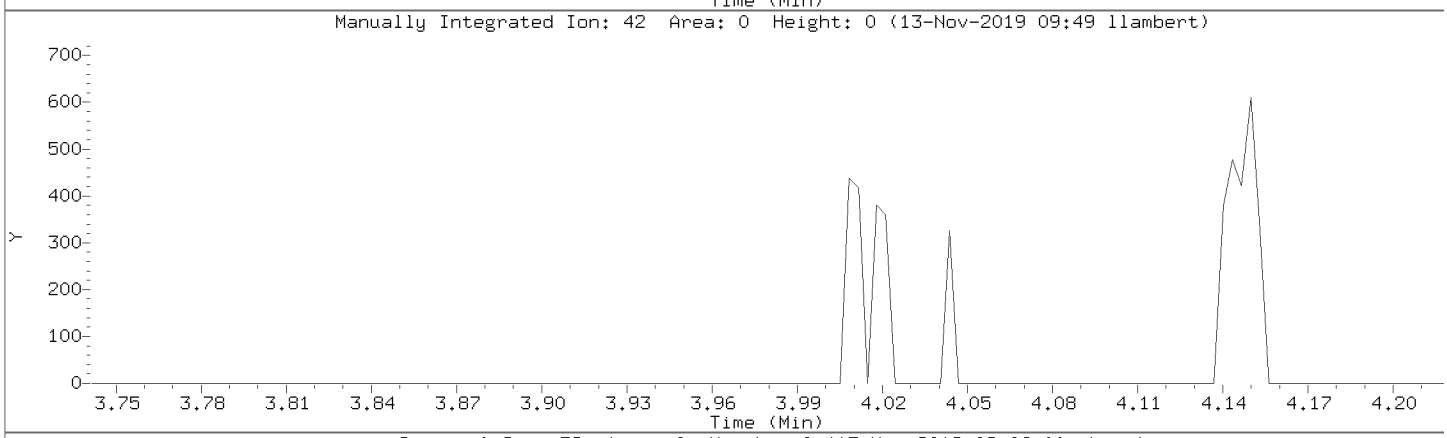
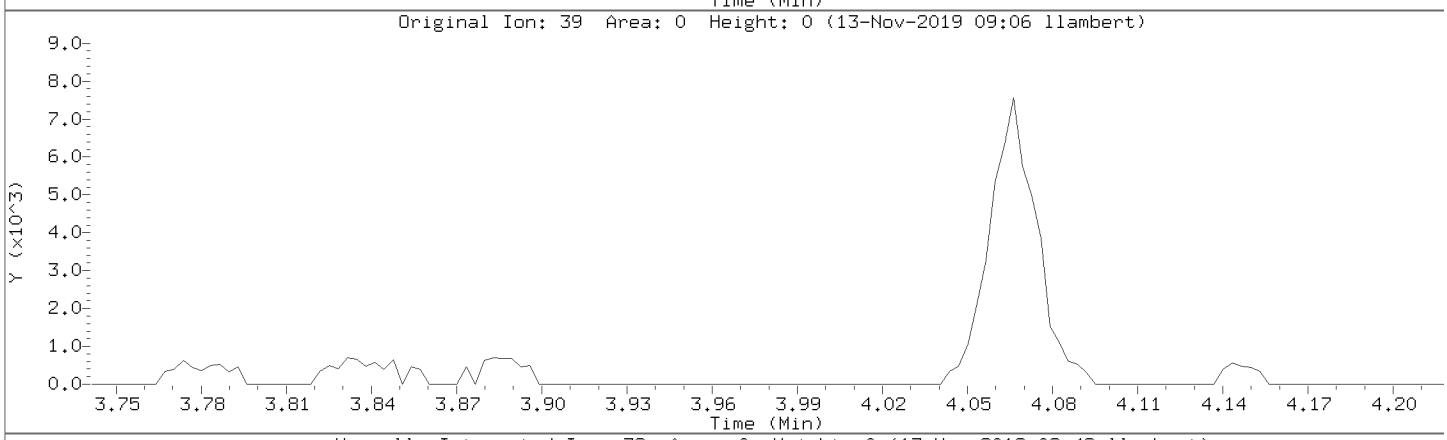
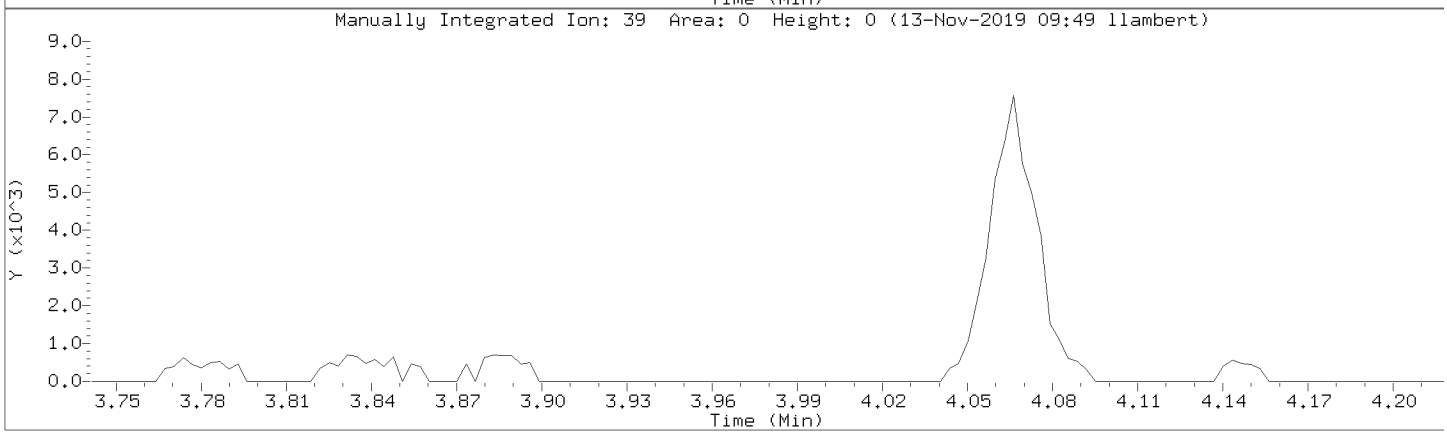
Lab Sample ID: CAL1



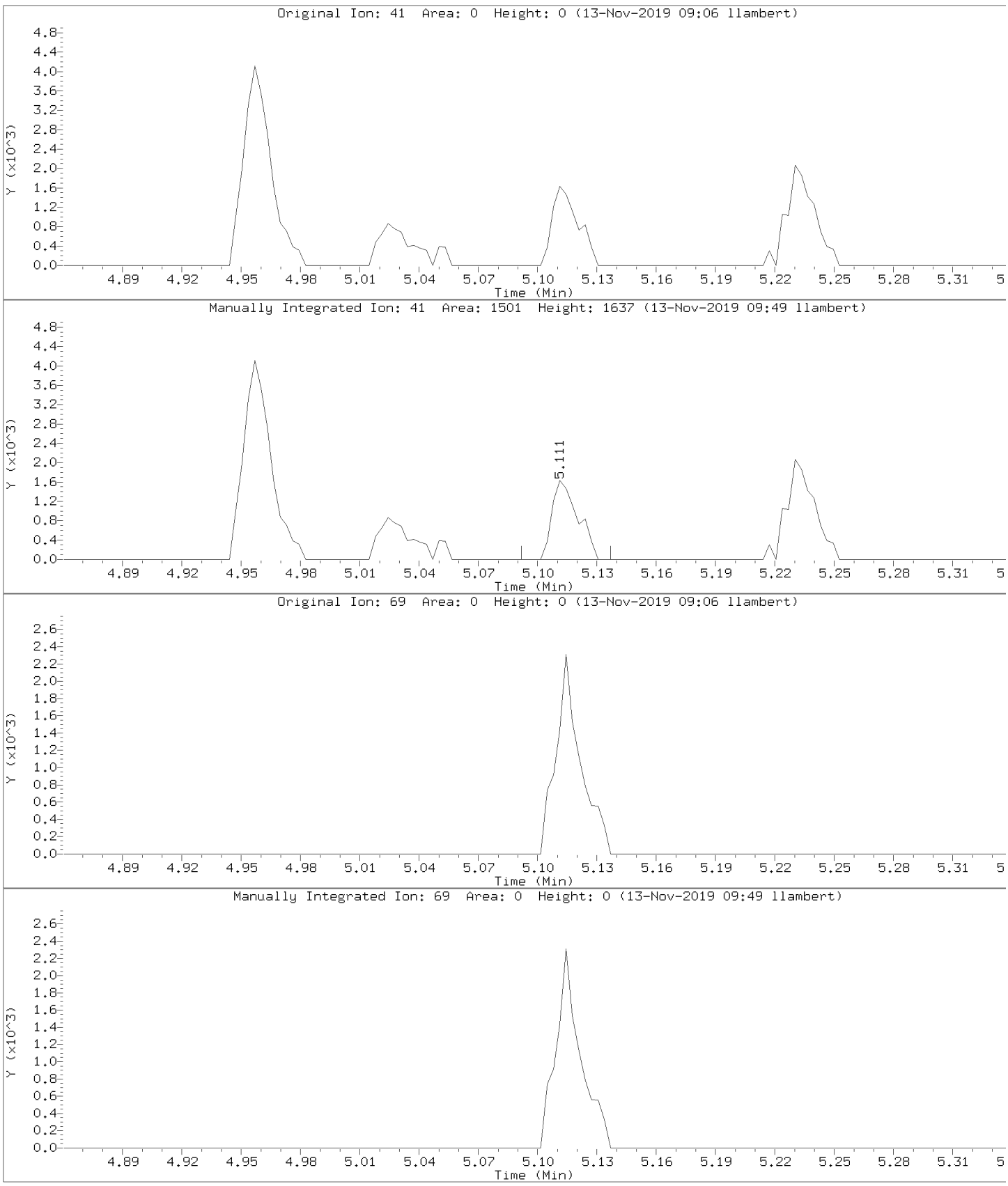






Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112006.d
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Ethyl methacrylate Review Code: NI
CAS Number: 97-63-2



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Injection Date: 12-NOV-2019 14:12
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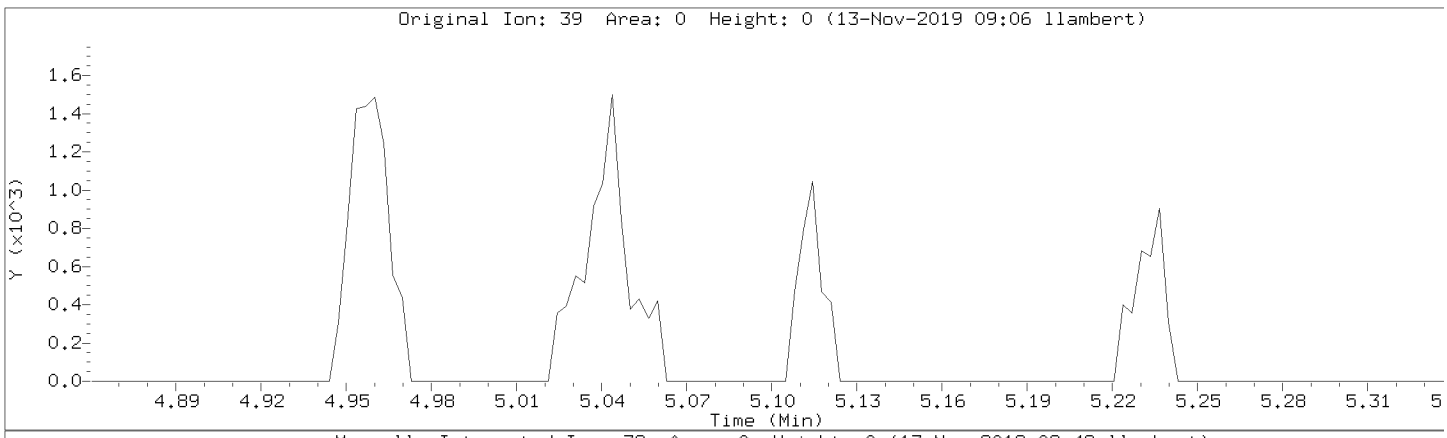
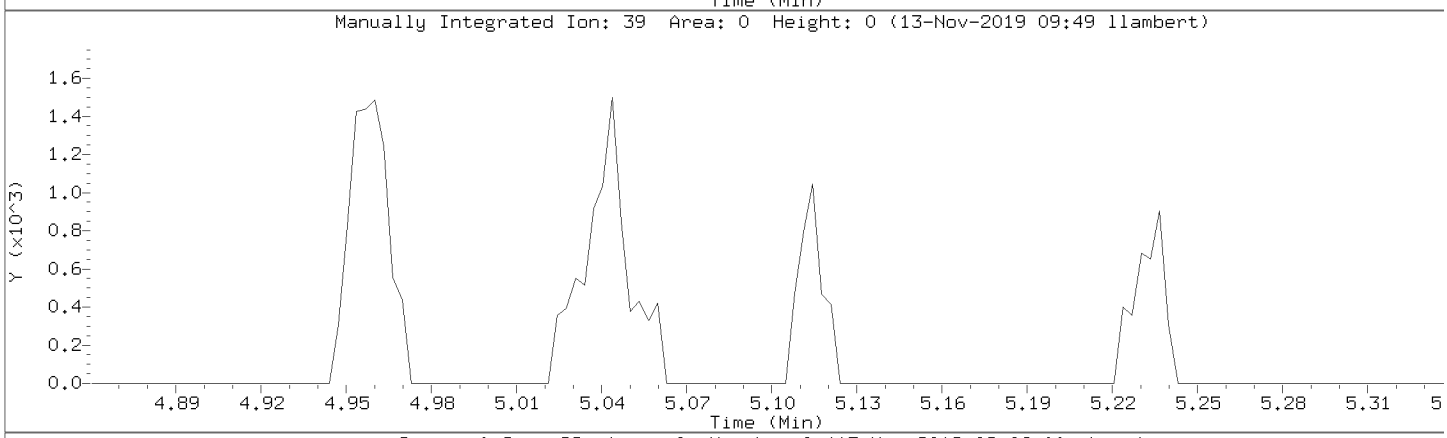
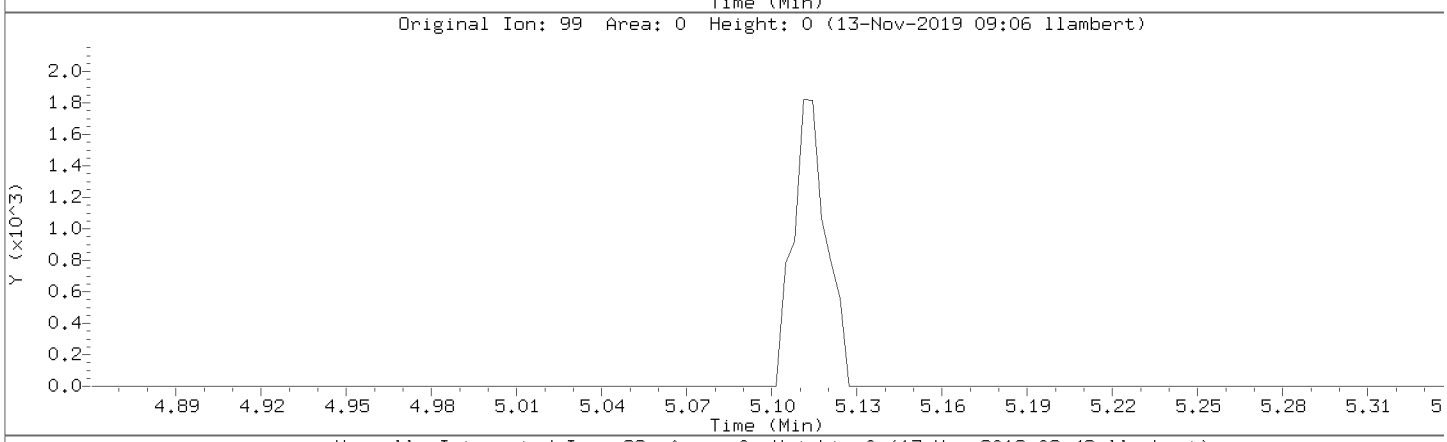
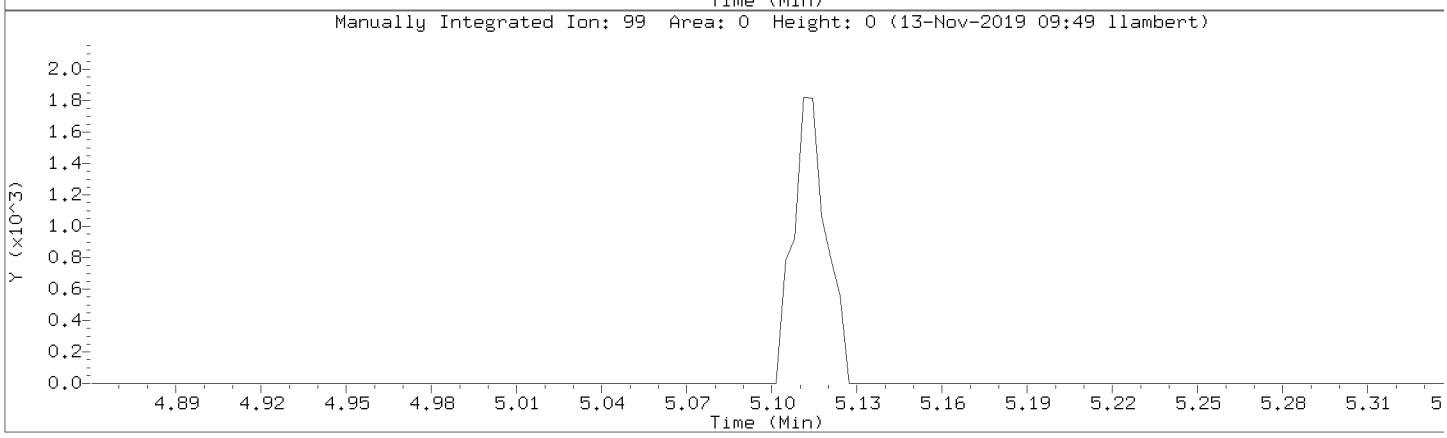
Lab Sample ID: CAL1



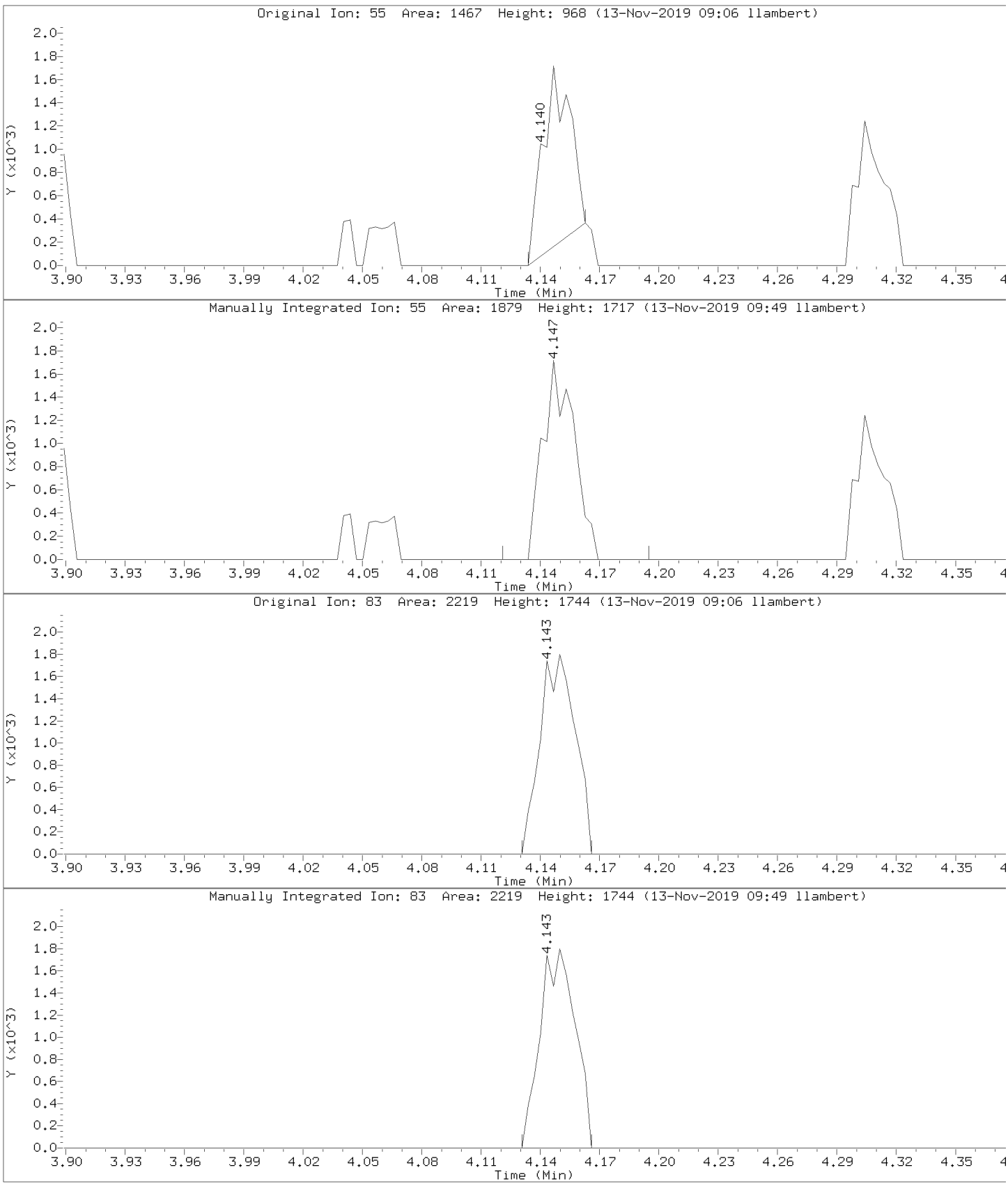






Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112006.d
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Methylcyclohexane Review Code: LT
CAS Number: 108-87-2



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Injection Date: 12-NOV-2019 14:12
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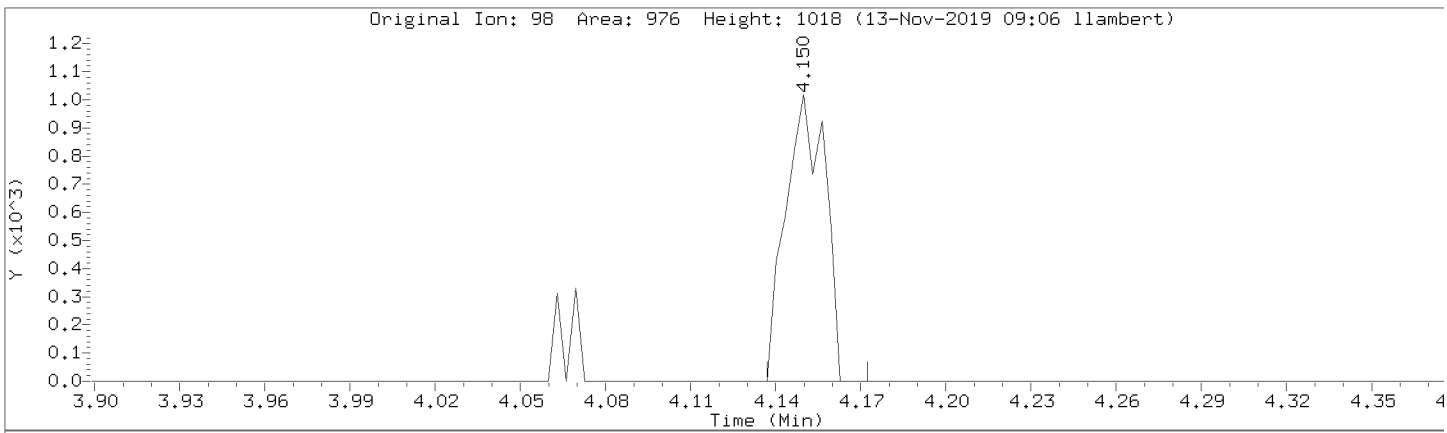
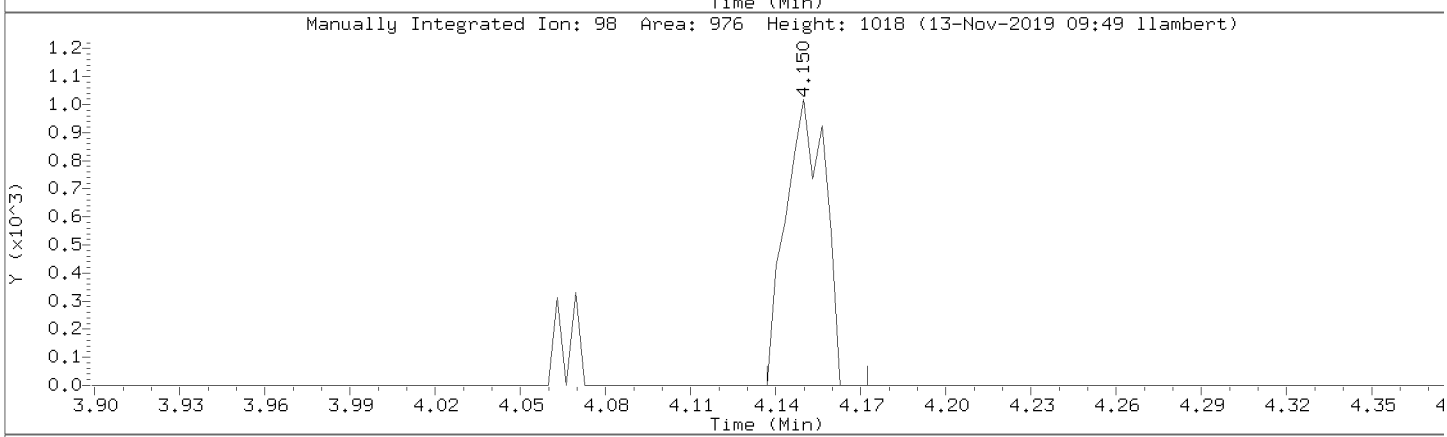
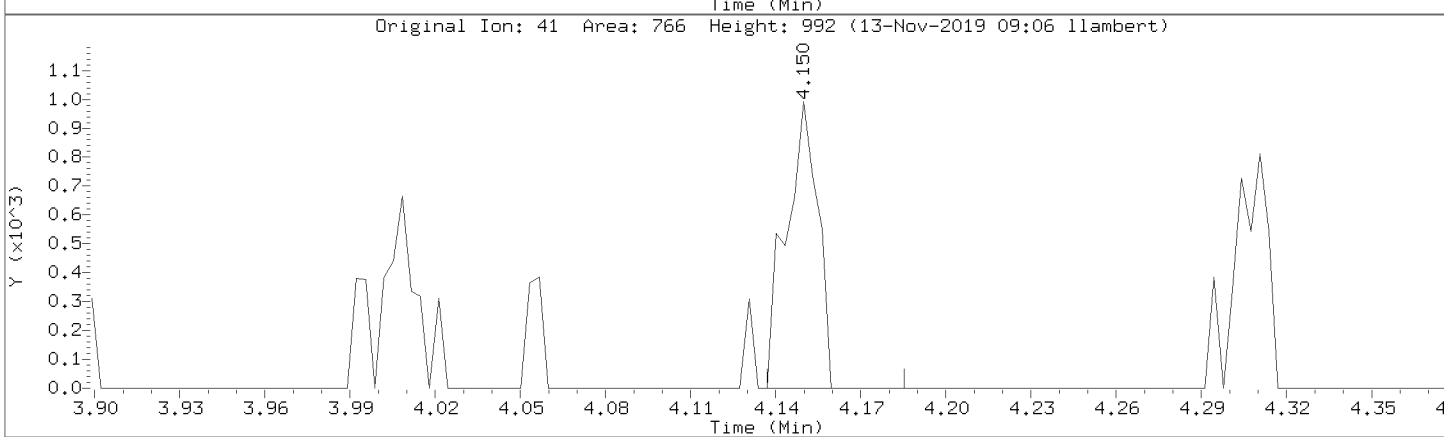
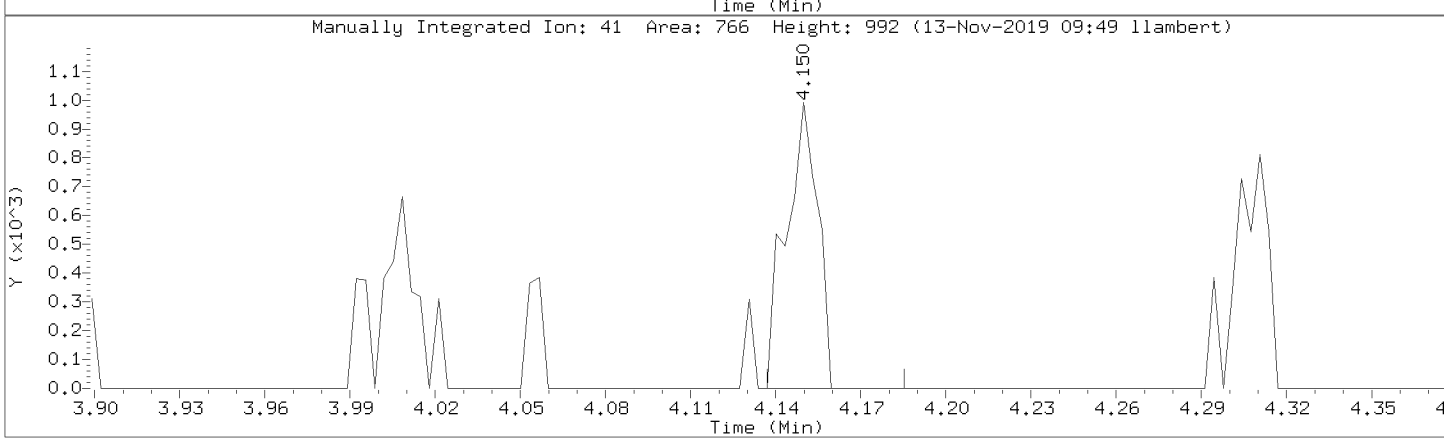
Lab Sample ID: CAL1









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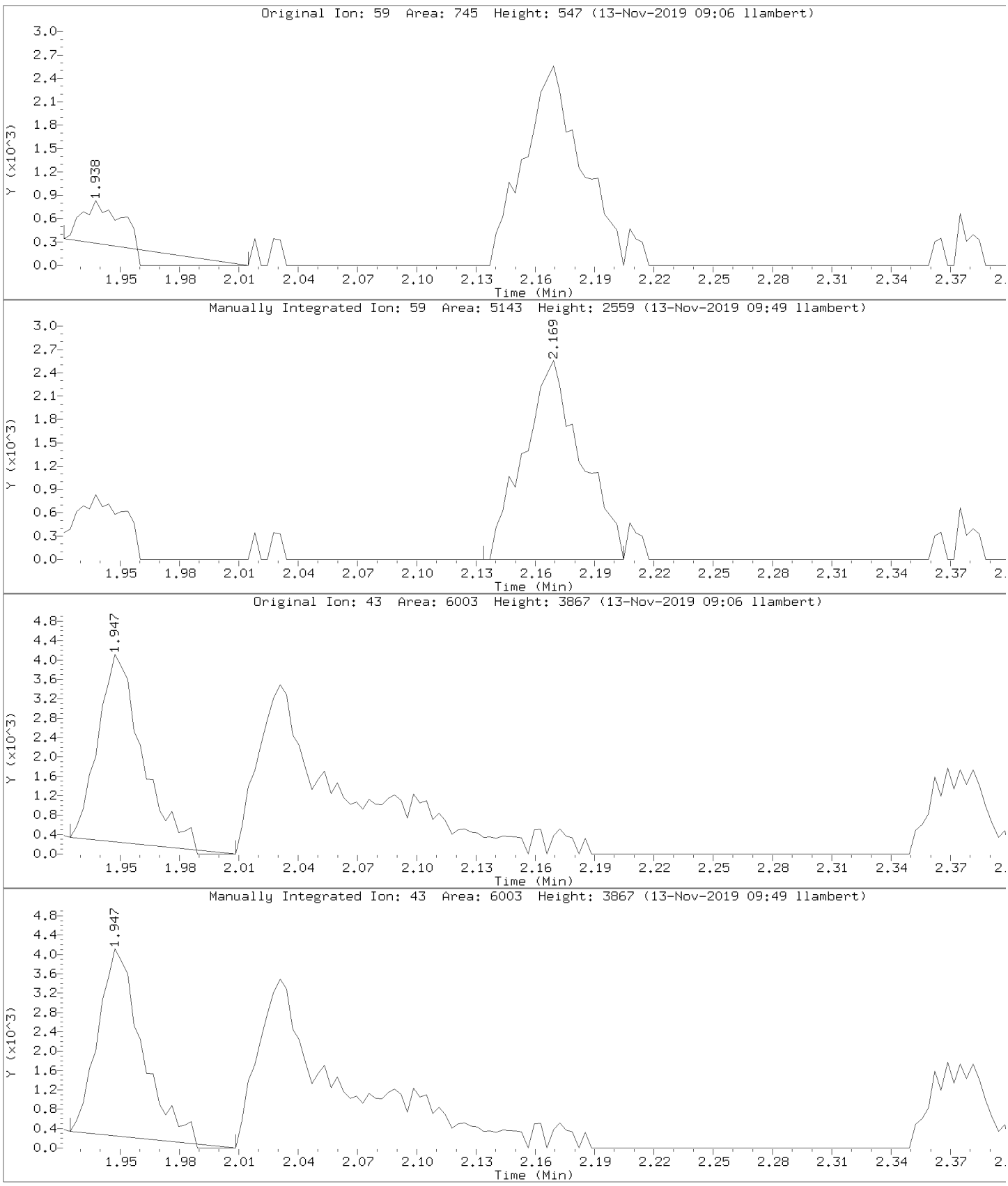
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: tert-Butyl Alcohol Review Code: WP
CAS Number: 75-65-0



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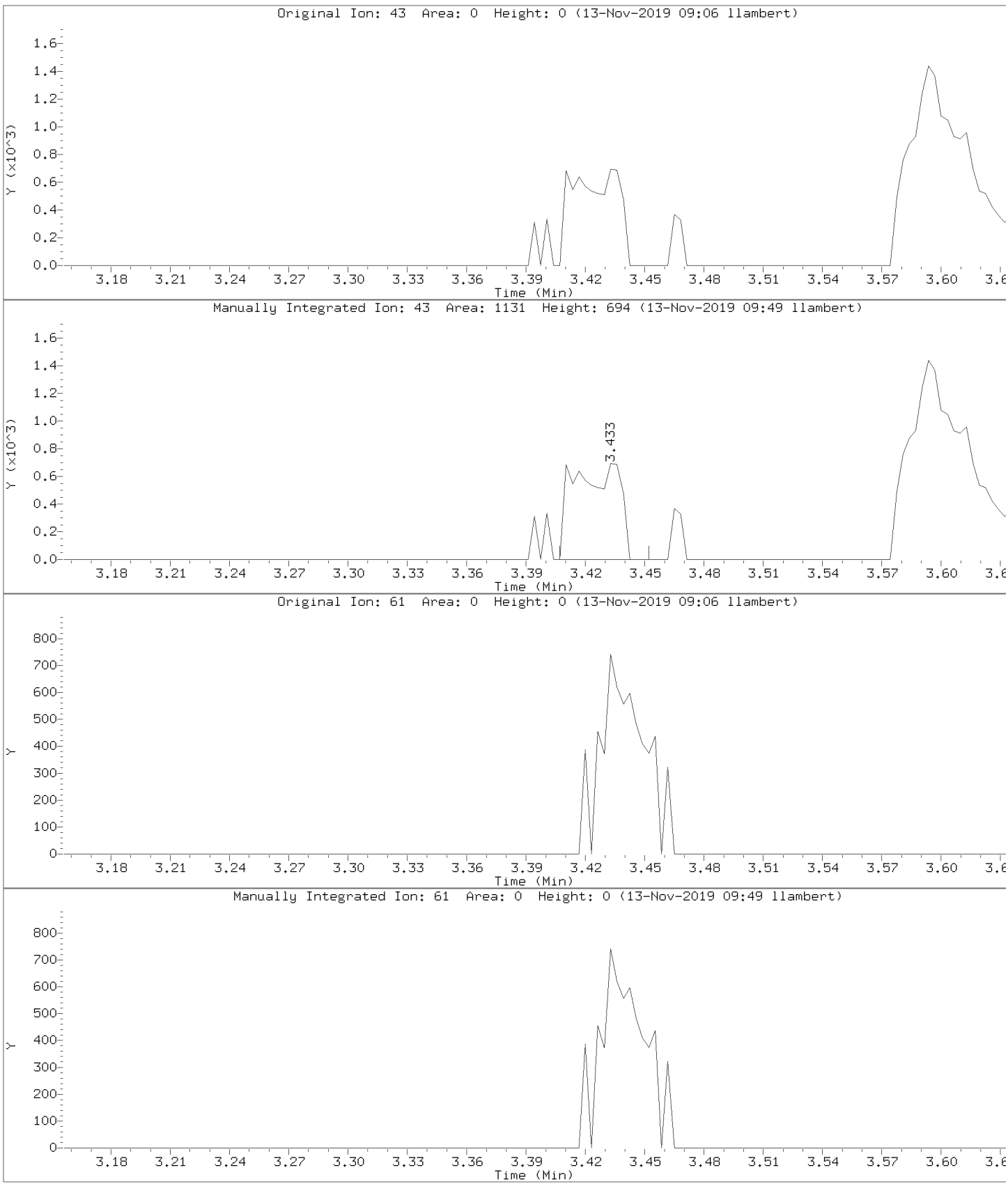
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Ethyl acetate Review Code: NI
CAS Number: 141-78-6



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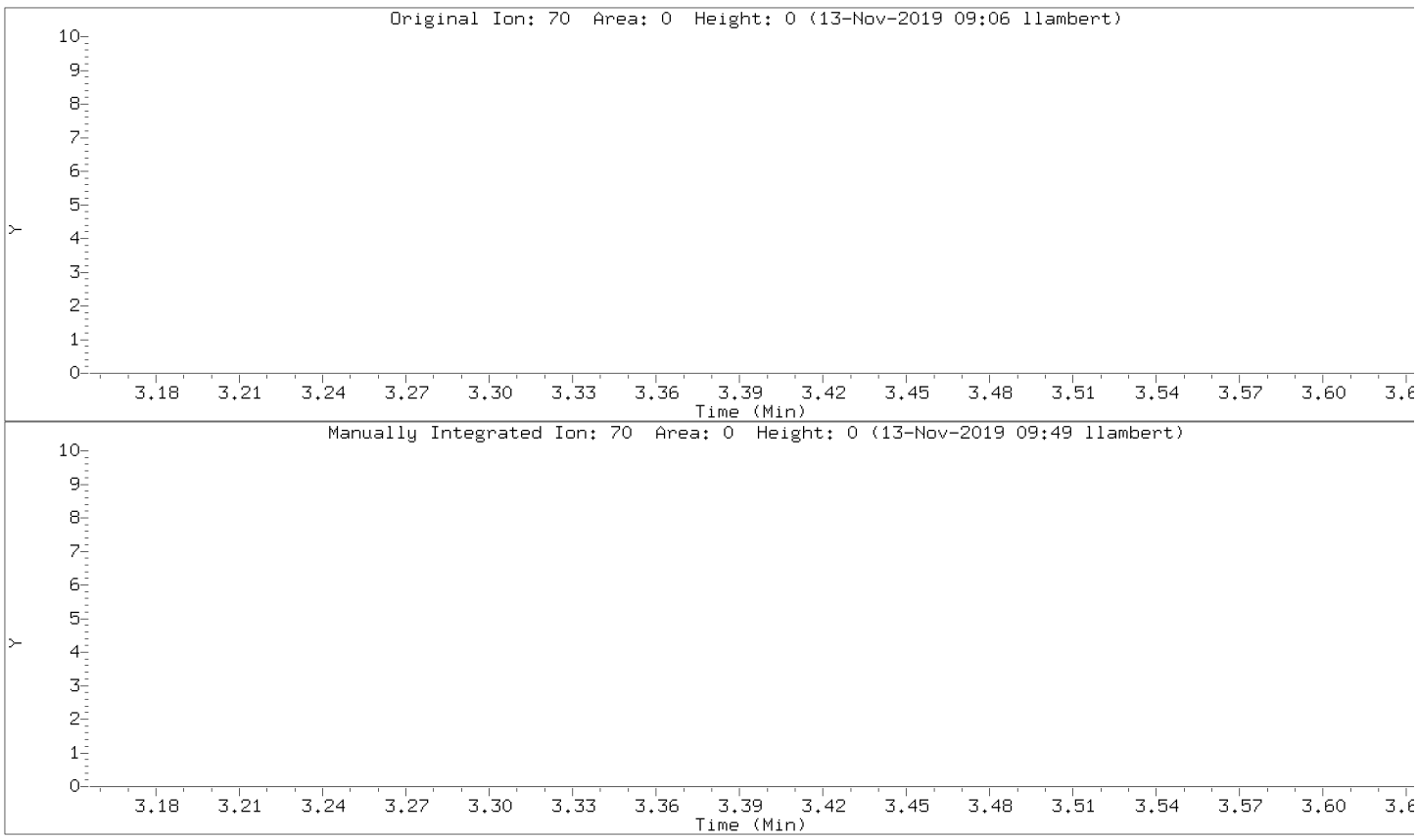
Lab Sample ID: CAL1



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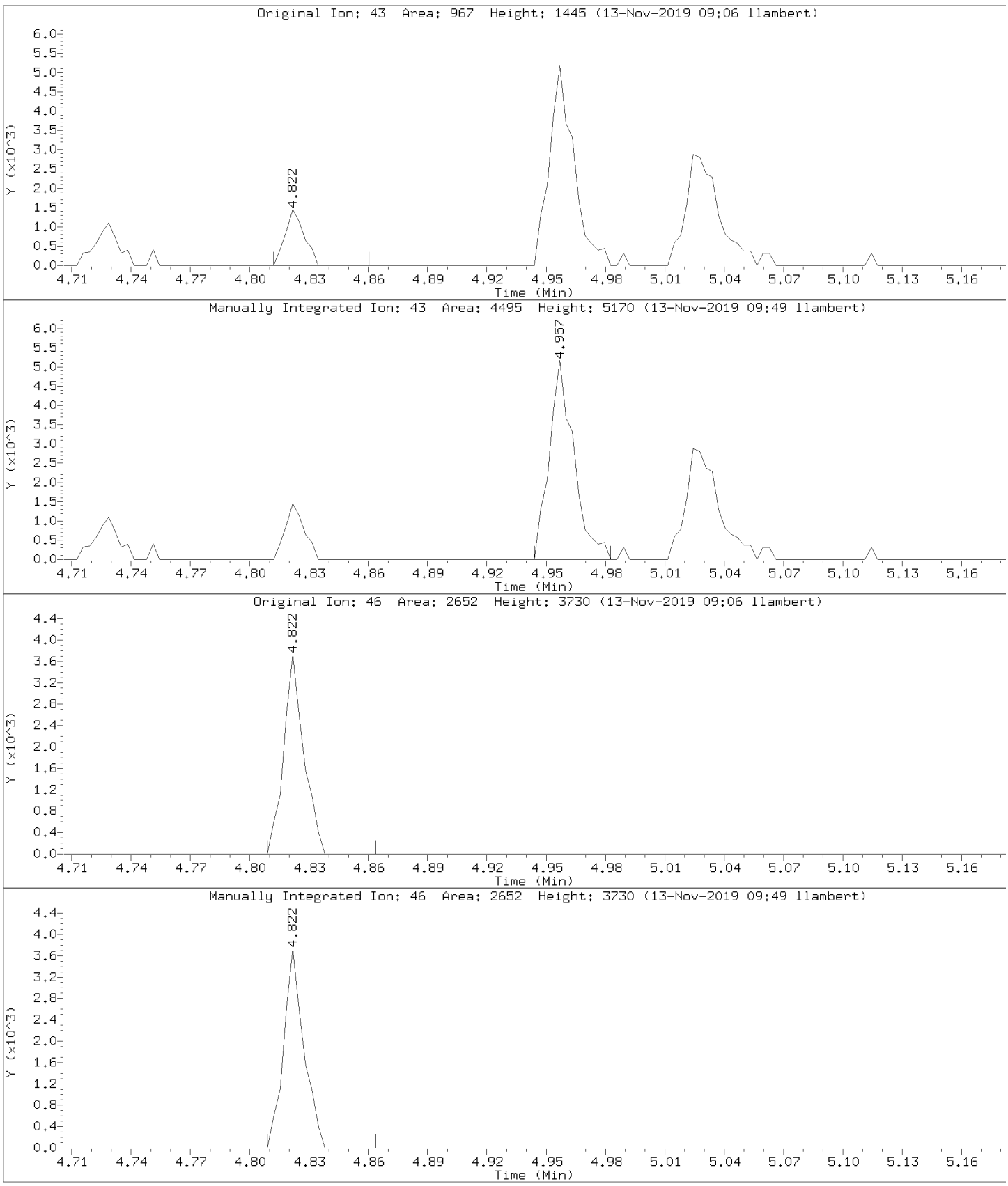
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: 2-Nitropropane Review Code: WP
CAS Number: 79-46-9



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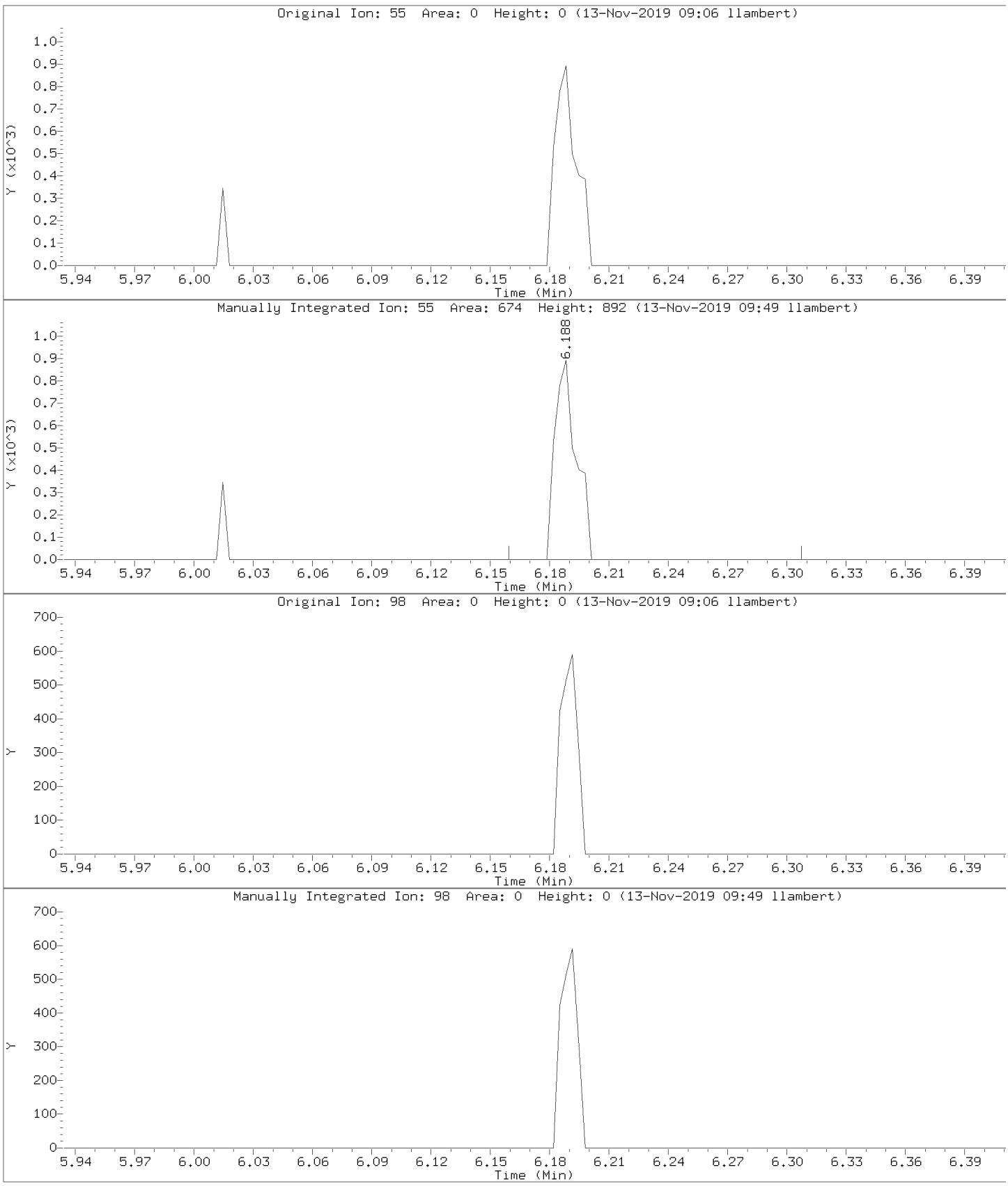
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Cyclohexanone Review Code: NI
CAS Number: 108-94-1



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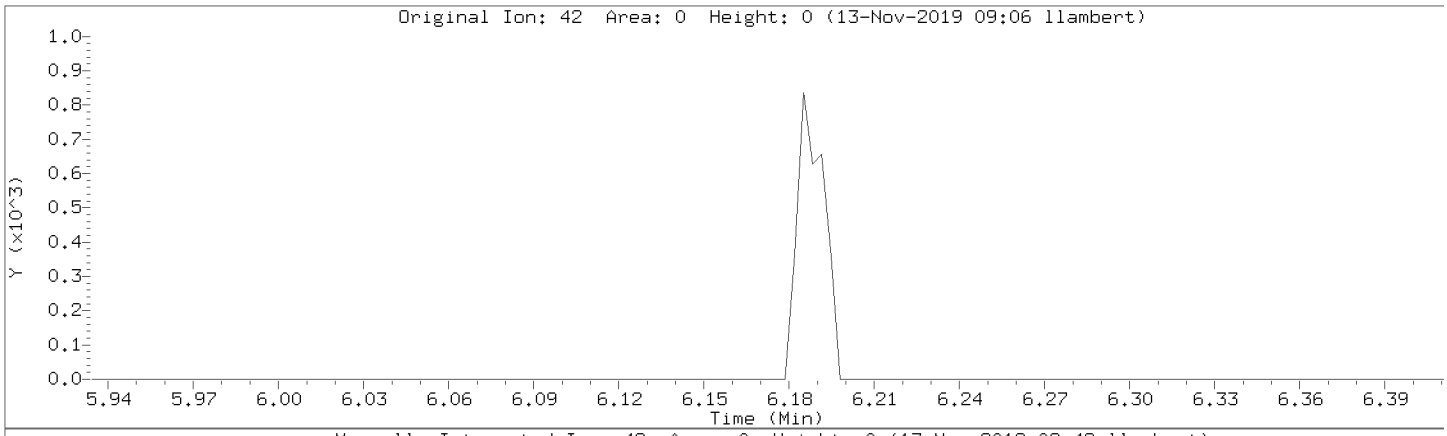
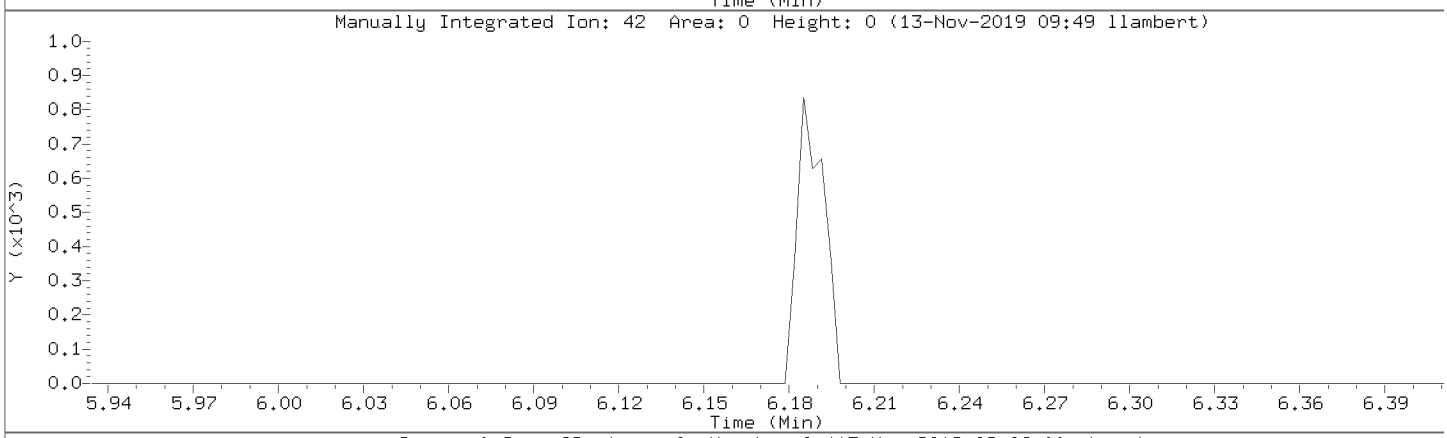
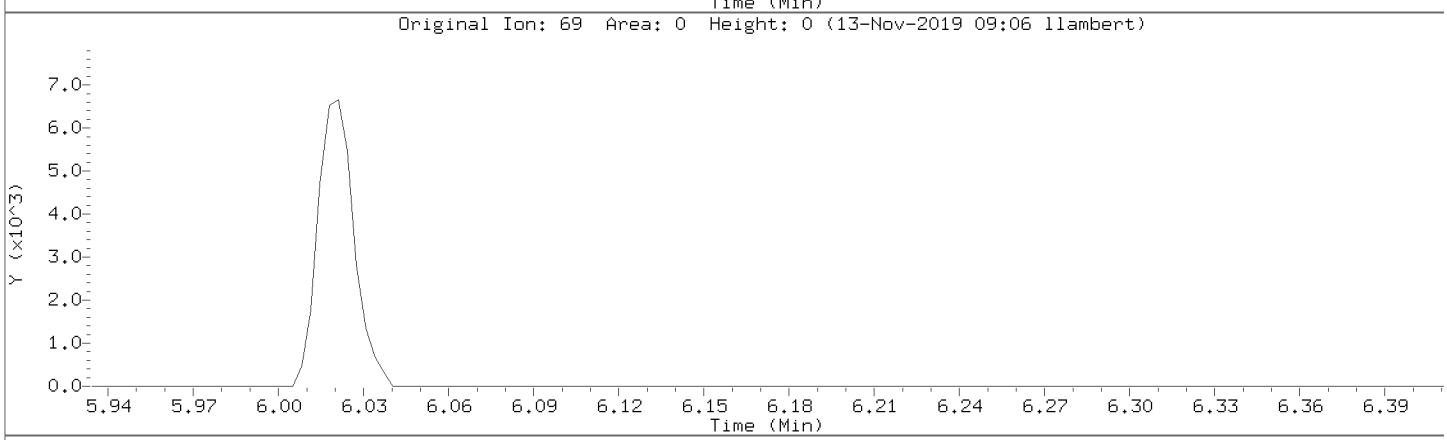
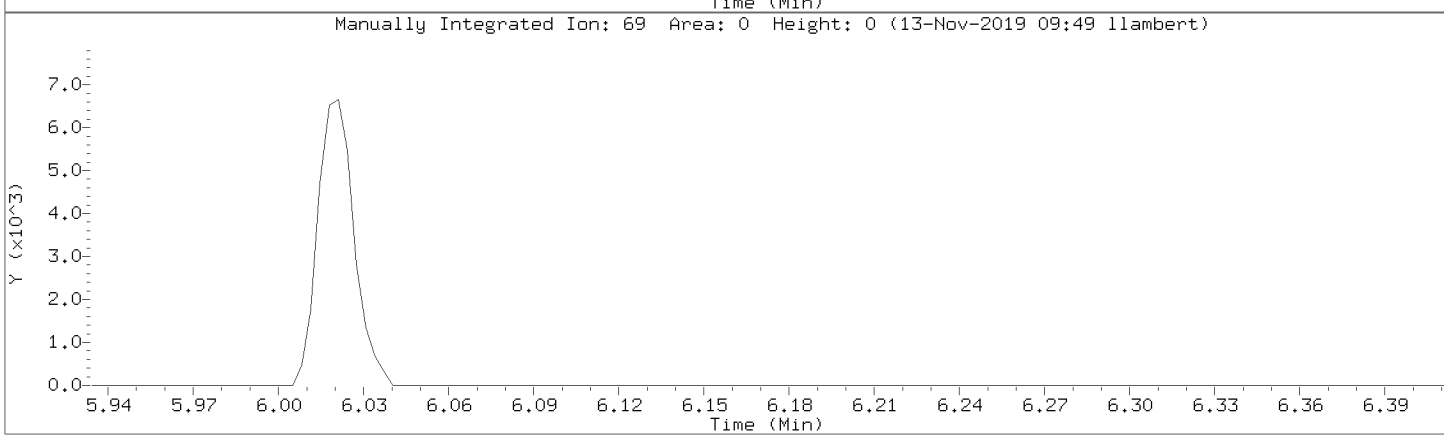
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1









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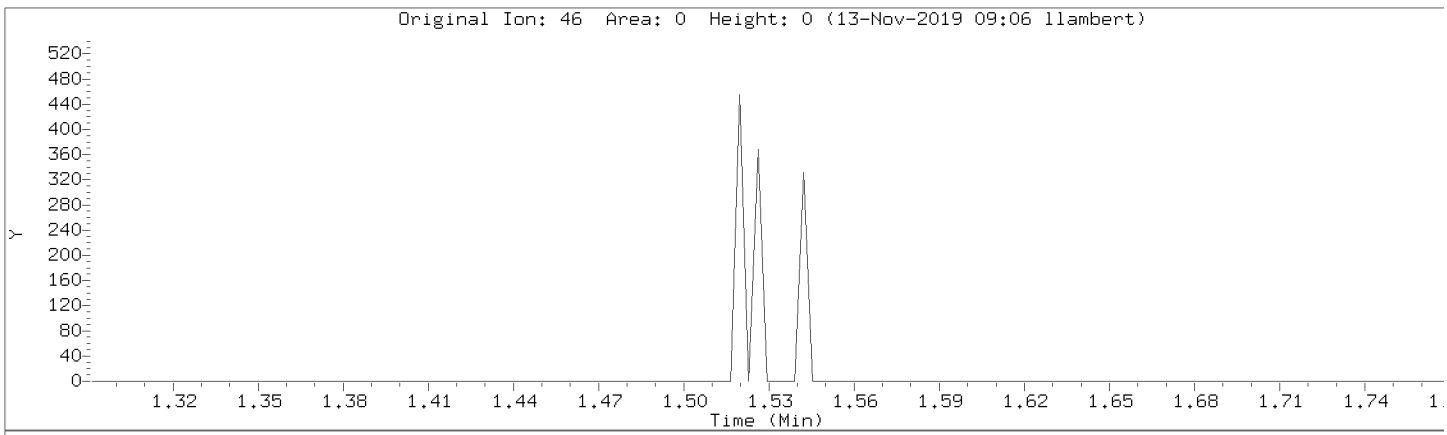
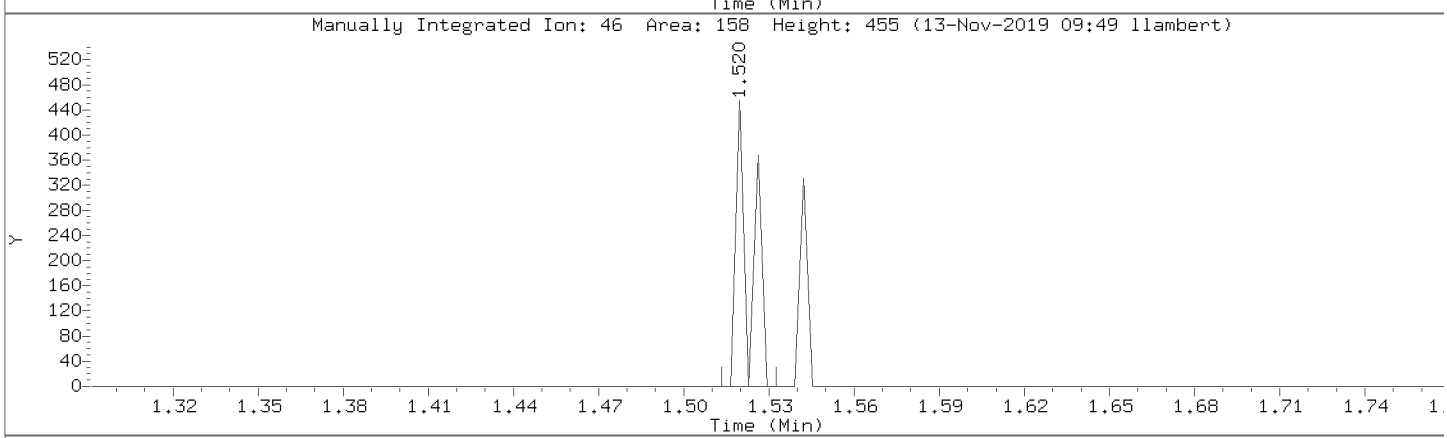
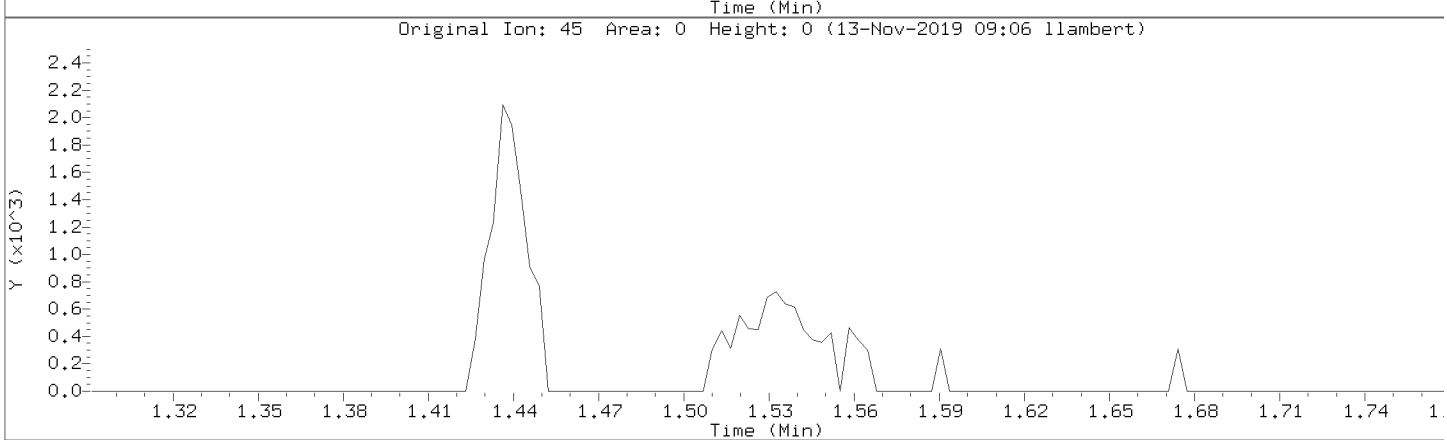
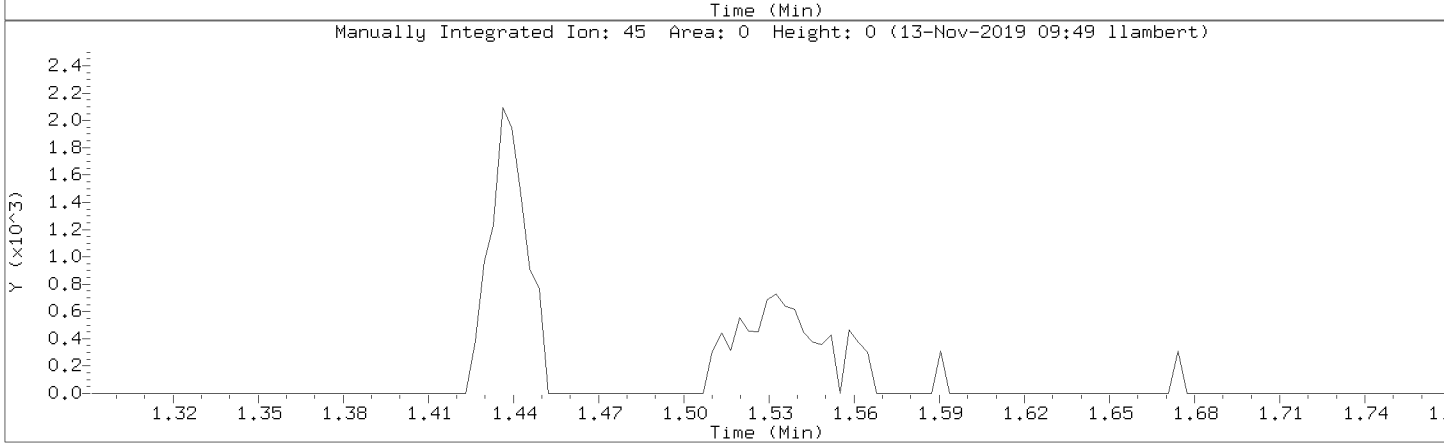
Injection Date: 12-NOV-2019 14:12
Instrument: 30mv7b.i
Lab Sample ID: CAL1

Compound: Ethanol Review Code: NI
CAS Number: 64-17-5









Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Lab Smp Id: CAL2 Client Smp ID: CAL2
Inj Date : 12-NOV-2019 14:37
Operator : LEL Inst ID: 30mv7b.i
Smp Info : cal2, 105189:1
Misc Info : 47222,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:37 Cal File: 71112008.d
Als bottle: 8 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.841	0.841	(0.207)	9350	4.00000	3.38(Q)	
2 Chloromethane	50	0.941	0.941	(0.231)	12650	4.00000	3.98(M)	GT
3 Vinyl chloride	62	0.982	0.979	(0.242)	12205	4.00000	3.66	
4 Bromomethane	94	1.140	1.140	(0.280)	3530	4.00000	3.40	
5 Chloroethane	64	1.198	1.198	(0.295)	3870	4.00000	4.04(Q)	
6 Trichlorofluoromethane	101	1.272	1.269	(0.313)	15457	4.00000	3.55	
7 Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	8883	4.00000	3.81	
8 Ethanol	46	1.519	1.542	(0.234)	958	40.0000	32.4(Q)	
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	15382	4.00000	3.59	
10 1,1,2-Trichlorotrifluoroethane	151	1.568	1.571	(0.386)	7943	4.00000	3.51	
11 Carbon disulfide	76	1.571	1.568	(0.386)	26794	4.00000	3.90	
12 Iodomethane	142	1.632	1.635	(0.401)	2812	4.00000	2.94(Q)	
13 Acrolein	56	1.757	1.754	(0.432)	2484	4.00000	3.48(Q)	
14 Allyl chloride	41	1.834	1.835	(0.451)	70593	20.0000	19.0	
15 Methylene Chloride	49	1.905	1.902	(0.469)	14501	4.00000	4.30	
16 Acetone	58	1.950	1.944	(0.480)	3425	4.00000	4.71(Q)	
17 trans-1,2-Dichloroethene	61	2.011	2.008	(0.495)	13579	4.00000	3.79	
18 Methyl acetate	74	2.024	2.024	(0.498)	4822	4.00000	4.09(M)	LT
19 n-Hexane	86	2.059	2.063	(0.507)	1351	4.00000	3.32(Q)	
20 Methyl-tert-butyl ether	73	2.085	2.089	(0.513)	28087	4.00000	3.94(QM)	LT
21 tert-Butyl Alcohol	59	2.172	2.172	(0.534)	21583	20.0000	19.8(M)	LT
22 Acetonitrile	41	2.278	2.278	(0.560)	11976	20.0000	20.4(QM)	NI

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.375	2.375	(0.584)	29942	4.00000	3.87	
	24 Chloroprene	53	2.452	2.452	(0.603)	10187	4.00000	3.83	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	17198	4.00000	3.85(Q)	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	7231	4.00000	3.87(Q)	
	27 Ethyl-tert-butyl ether	59	2.683	2.687	(0.660)	28483	4.00000	3.86	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	25146	4.00000	3.71	
	29 cis-1,2-Dichloroethene	61	2.963	2.957	(0.729)	12510	4.00000	3.71	
	30 2,2-Dichloropropane	77	3.072	3.066	(0.756)	12300	4.00000	3.63	
	31 Cyclohexane	56	3.146	3.146	(0.774)	13883	4.00000	3.47	
	32 Bromochloromethane	130	3.166	3.159	(0.779)	6755	4.00000	3.88	
	33 Chloroform	83	3.252	3.246	(0.800)	15474	4.00000	3.71	
	34 Ethyl acetate	43	3.413	3.407	(0.839)	7893	4.00000	3.64(Q)	
	35 Carbon tetrachloride	117	3.362	3.365	(0.827)	12121	4.00000	3.56	
	36 Tetrahydrofuran	42	3.423	3.407	(0.842)	7723	4.00000	3.85	
$	37 Dibromofluoromethane (S)	111	3.432	3.433	(0.844)	65431	30.0000	29.8	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	12931	4.00000	3.51	
	39 2-Butanone (MEK)	43	3.593	3.584	(0.884)	11512	4.00000	3.84(aQ)	
	40 1,1-Dichloropropene	75	3.571	3.571	(0.878)	11718	4.00000	3.53(QM)	GT
	41 Benzene	78	3.780	3.780	(0.930)	36285	4.00000	3.73(Q)	
	42 Propionitrile	54	3.828	3.822	(0.941)	2757	4.00000	3.79(QM)	LT
	43 Methacrylonitrile	41	3.831	3.831	(0.942)	8937	4.00000	3.82(M)	LT
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	23179	4.00000	3.77	
$	46 1,2-Dichloroethane-d4 (S)	65	3.883	3.883	(0.955)	69146	30.0000	31.1	
	45 Isobutanol	43	3.995	3.992	(0.983)	4914	20.0000	16.8(QM)	BA
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	11392	4.00000	3.68(Q)	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	254162	30.0000		
	49 Methylcyclohexane	55	4.149	4.150	(1.021)	8433	4.00000	3.58	
	50 Trichloroethene	132	4.162	4.162	(1.024)	10461	4.00000	3.67	
	51 Dibromomethane	174	4.384	4.384	(1.078)	7389	4.00000	3.74	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.090)	8464	4.00000	3.61	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	9650	4.00000	3.65	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	6970	4.00000	3.46	
	55 1,4-Dioxane (p-Dioxane)	88	4.567	4.568	(1.123)	1414	40.0000	34.2(QM)	LT
	56 2-Chloroethylvinyl ether	63	4.728	4.726	(1.163)	6216	4.00000	3.37	
	57 cis-1,3-Dichloropropene	75	4.747	4.744	(1.168)	11325	4.00000	3.44	
$	58 Toluene-d8 (S)	98	4.821	4.822	(0.875)	217731	30.0000	29.9	
	59 Toluene	91	4.847	4.844	(0.879)	36970	4.00000	3.79	
	60 2-Nitropropane	43	4.956	4.957	(1.219)	20960	20.0000	16.5	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	16417	4.00000	3.79(aQ)	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	10038	4.00000	3.70	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	10531	4.00000	3.54	
	64 Ethyl methacrylate	41	5.114	5.111	(0.928)	7551	4.00000	3.70	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	8360	4.00000	3.81	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	8422	4.00000	3.52	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	13684	4.00000	3.76	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	9589	4.00000	3.83(Q)	
	69 2-Hexanone	43	5.394	5.391	(0.978)	13275	4.00000	3.80(a)	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	163114	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	11460	4.00000	3.72	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	22094	4.00000	3.75	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	7706	4.00000	3.55(Q)	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	28337	8.00000	7.44	
	75 o-Xylene	106	5.770	5.770	(1.047)	13576	4.00000	3.74	
	76 Styrene	104	5.792	5.793	(1.051)	19744	4.00000	3.60	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Report Date: 13-Nov-2019 09:51

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77	Bromoform	173	5.809	5.809	(0.896)	5760	4.00000	3.38	
	78	Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	27870	4.00000	3.72	
$	79	4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	68220	30.0000	30.6	
	80	n-Propylbenzene	91	6.069	6.069	(0.936)	30718	4.00000	3.69	
	81	Bromobenzene	77	6.066	6.066	(0.936)	13735	4.00000	3.76	
	82	1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	11558	4.00000	3.75	
	83	1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	21727	4.00000	3.70	
	84	2-Chlorotoluene	126	6.140	6.140	(0.947)	7790	4.00000	3.90(Q)	
	85	1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	4322	4.00000	3.88	
	86	trans-1,4-Dichloro-2-butene	53	6.172	6.172	(0.952)	2724	4.00000	3.40(Q)	
	87	Cyclohexanone	55	6.188	6.185	(0.955)	3233	20.0000	14.7	
	88	4-Chlorotoluene	126	6.207	6.207	(0.958)	7902	4.00000	3.79	
	89	tert-Butylbenzene	119	6.278	6.278	(0.969)	17385	4.00000	3.68	
	90	1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	20891	4.00000	3.64	
	91	sec-Butylbenzene	105	6.352	6.352	(0.980)	23008	4.00000	3.64	
	92	p-Isopropyltoluene	119	6.407	6.407	(0.989)	19217	4.00000	3.58	
	93	1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	13635	4.00000	3.81	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	71532	30.0000	(Q)	
	95	1,4-Dichlorobenzene	146	6.490	6.487	(1.001)	15280	4.00000	3.93	
	96	n-Butylbenzene	91	6.583	6.584	(1.016)	15282	4.00000	3.72	
$	98	1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	32201	30.0000	29.5(Q)	
	97	1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	13257	4.00000	3.81	
	99	1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	3874	4.00000	3.53	
	103	1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	7188	4.00000	3.82	
	100	Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	3004	4.00000	3.54	
	101	1,2,4-Trichlorobenzene	180	7.271	7.272	(1.122)	6400	4.00000	3.72	
	102	Naphthalene	128	7.410	7.410	(1.143)	26490	4.00000	3.54	
	104	1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	6538	4.00000	3.84	
	105	2-Methylnaphthalene	142	7.847	7.847	(1.211)	10732	4.00000	3.52	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
NI: Indicates that the peak was not integrated at all by the computer software.
BA: Indicates that the baseline had to be adjusted correctly by the analyst.

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	3.38	
74-87-3	Chloromethane	3.98	
75-01-4	Vinyl chloride	3.66	
74-83-9	Bromomethane	3.40	
75-00-3	Chloroethane	4.04	
75-69-4	Trichlorofluoromethane	3.55	
60-29-7	Diethyl ether (Ethyl ether)	3.81	
64-17-5	Ethanol	32.4	
75-35-4	1,1-Dichloroethene	3.59	
76-13-1	1,1,2-Trichlorotrifluoroetha	3.51	
75-15-0	Carbon disulfide	3.90	
74-88-4	Iodomethane	2.94	
107-02-8	Acrolein	3.48	
107-05-1	Allyl chloride	19.0	
75-09-2	Methylene Chloride	4.30	
67-64-1	Acetone	4.71	
156-60-5	trans-1,2-Dichloroethene	3.79	
79-20-9	Methyl acetate	4.09	
110-54-3	n-Hexane	3.32	
1634-04-4	Methyl-tert-butyl ether	3.94	
75-65-0	tert-Butyl Alcohol	19.8	
75-05-8	Acetonitrile	20.4	
108-20-3	Diisopropyl ether	3.87	
126-99-8	Chloroprene	3.83	
75-34-3	1,1-Dichloroethane	3.85	
107-13-1	Acrylonitrile	3.87	
637-92-3	Ethyl-tert-butyl ether	3.86	
108-05-4	Vinyl acetate	3.71	
156-59-2	cis-1,2-Dichloroethene	3.71	
594-20-7	2,2-Dichloropropane	3.63	
110-82-7	Cyclohexane	3.47	
74-97-5	Bromochloromethane	3.88	
67-66-3	Chloroform	3.71	
141-78-6	Ethyl acetate	3.64	
56-23-5	Carbon tetrachloride	3.56	
109-99-9	Tetrahydrofuran	3.85	
71-55-6	1,1,1-Trichloroethane	3.51	
78-93-3	2-Butanone (MEK)	3.84	J
563-58-6	1,1-Dichloropropene	3.53	
71-43-2	Benzene	3.73	
107-12-0	Propionitrile	3.79	
126-98-7	Methacrylonitrile	3.82	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	3.77	
78-83-1	Isobutanol	16.8	
107-06-2	1,2-Dichloroethane	3.68	
108-87-2	Methylcyclohexane	3.58	
79-01-6	Trichloroethene	3.67	
74-95-3	Dibromomethane	3.74	
78-87-5	1,2-Dichloropropane	3.61	
75-27-4	Bromodichloromethane	3.65	
80-62-6	Methyl methacrylate	3.46	
123-91-1	1,4-Dioxane (p-Dioxane)	34.2	
110-75-8	2-Chloroethylvinyl ether	3.37	
10061-01-5	cis-1,3-Dichloropropene	3.44	
108-88-3	Toluene	3.79	
79-46-9	2-Nitropropane	16.5	
108-10-1	4-Methyl-2-pentanone (MIBK)	3.79	J
127-18-4	Tetrachloroethene	3.70	
10061-02-6	trans-1,3-Dichloropropene	3.54	
97-63-2	Ethyl methacrylate	3.70	
79-00-5	1,1,2-Trichloroethane	3.81	
124-48-1	Dibromochloromethane	3.52	
142-28-9	1,3-Dichloropropane	3.76	
106-93-4	1,2-Dibromoethane (EDB)	3.83	
591-78-6	2-Hexanone	3.80	J
100-41-4	Ethylbenzene	3.72	
108-90-7	Chlorobenzene	3.75	
630-20-6	1,1,1,2-Tetrachloroethane	3.55	
7816-60-0	m&p-Xylene	7.44	
95-47-6	o-Xylene	3.74	
100-42-5	Styrene	3.60	
75-25-2	Bromoform	3.38	
98-82-8	Isopropylbenzene (Cumene)	3.72	
103-65-1	n-Propylbenzene	3.69	
108-86-1	Bromobenzene	3.76	
79-34-5	1,1,2,2-Tetrachloroethane	3.75	
108-67-8	1,3,5-Trimethylbenzene	3.70	
95-49-8	2-Chlorotoluene	3.90	
96-18-4	1,2,3-Trichloropropane	3.88	
110-57-6	trans-1,4-Dichloro-2-butene	3.40	
108-94-1	Cyclohexanone	14.7	
106-43-4	4-Chlorotoluene	3.79	
98-06-6	tert-Butylbenzene	3.68	
95-63-6	1,2,4-Trimethylbenzene	3.64	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Report Date: 13-Nov-2019 09:51

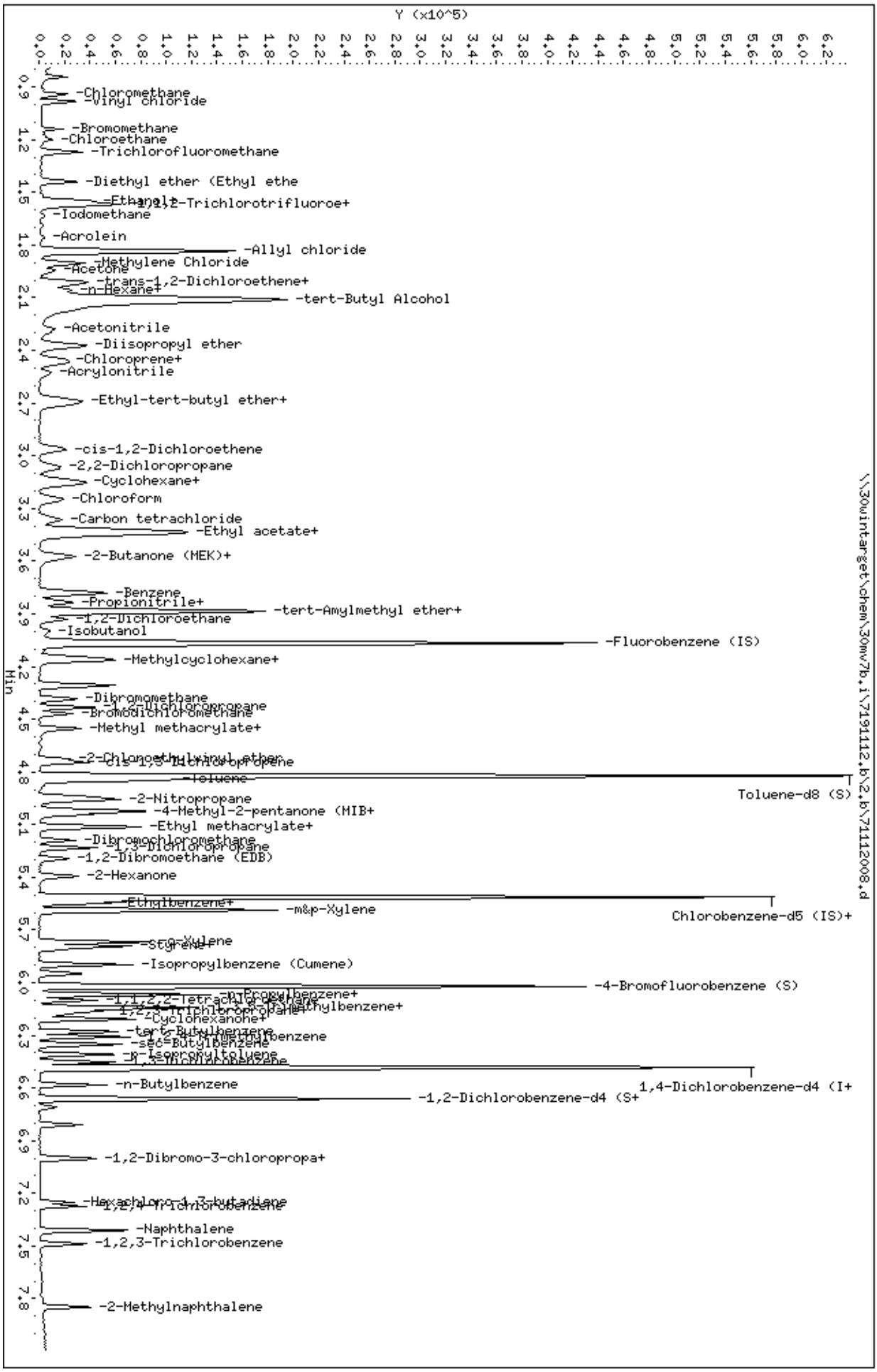
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL2
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL2
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	3.64	
99-87-6	p-Isopropyltoluene	3.58	
541-73-1	1,3-Dichlorobenzene	3.81	
106-46-7	1,4-Dichlorobenzene	3.93	
104-51-8	n-Butylbenzene	3.72	
95-50-1	1,2-Dichlorobenzene	3.81	
96-12-8	1,2-Dibromo-3-chloropropane	3.53	
108-70-3	1,3,5-Trichlorobenzene	3.82	
87-68-3	Hexachloro-1,3-butadiene	3.54	
120-82-1	1,2,4-Trichlorobenzene	3.72	
91-20-3	Naphthalene	3.54	
87-61-6	1,2,3-Trichlorobenzene	3.84	
91-57-6	2-Methylnaphthalene	3.52	
1868-53-7	Dibromofluoromethane (S)	29.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	31.1	
2037-26-5	Toluene-d8 (S)	29.9	
460-00-4	4-Bromofluorobenzene (S)	30.6	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.5	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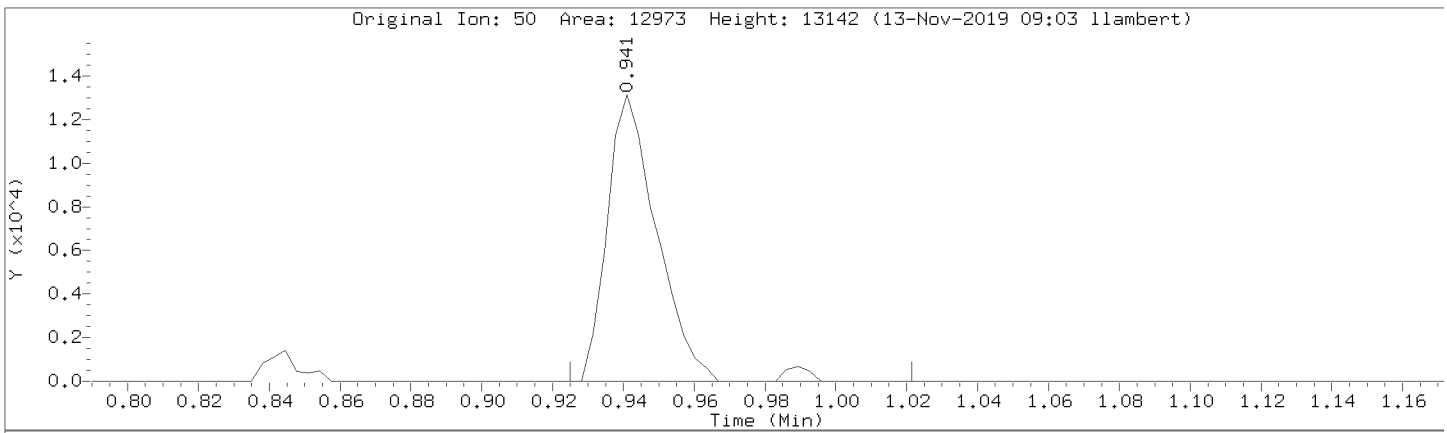
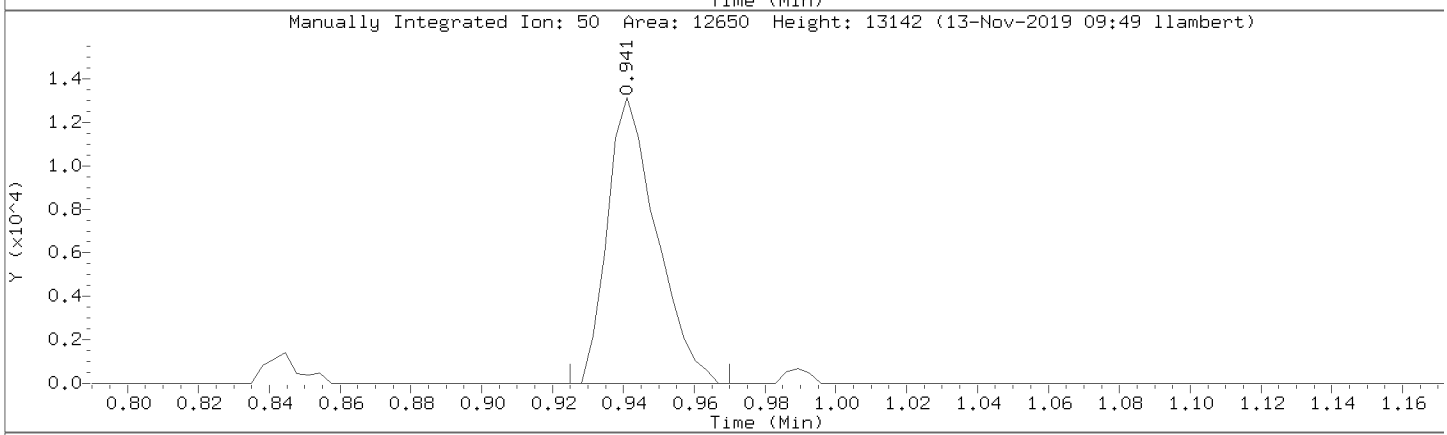
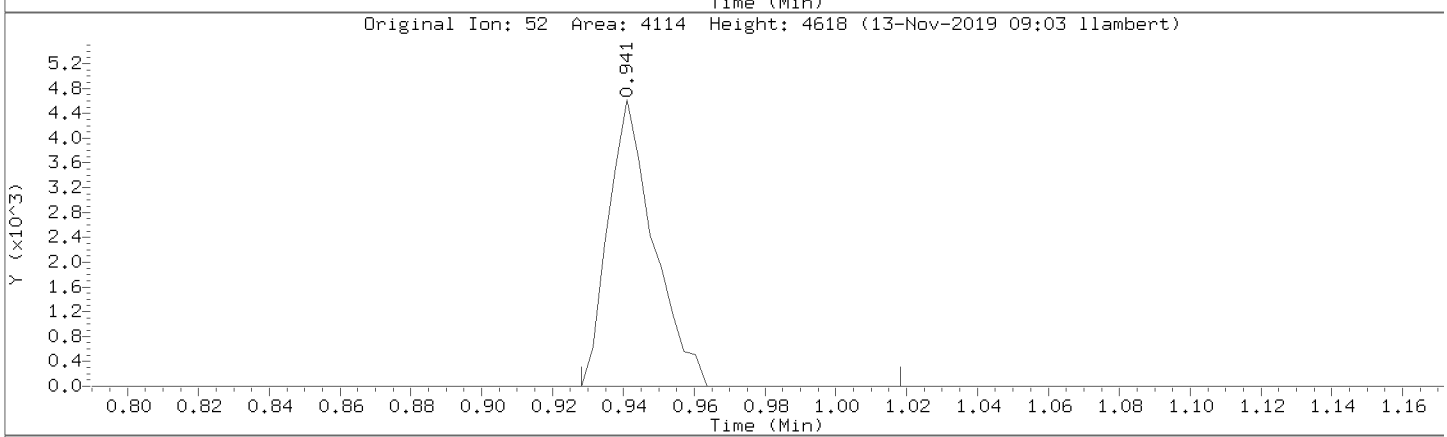
Date : 12-NOV-2019 14:37
Client ID: CAL2
Sample Info: CAL2, 10518911
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112008.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene
Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Ethylbenzene+
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-2-Chlorotoluene+
-1,3,5-Trimethylbenzene+
-1,2,3-Trichloropropane
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

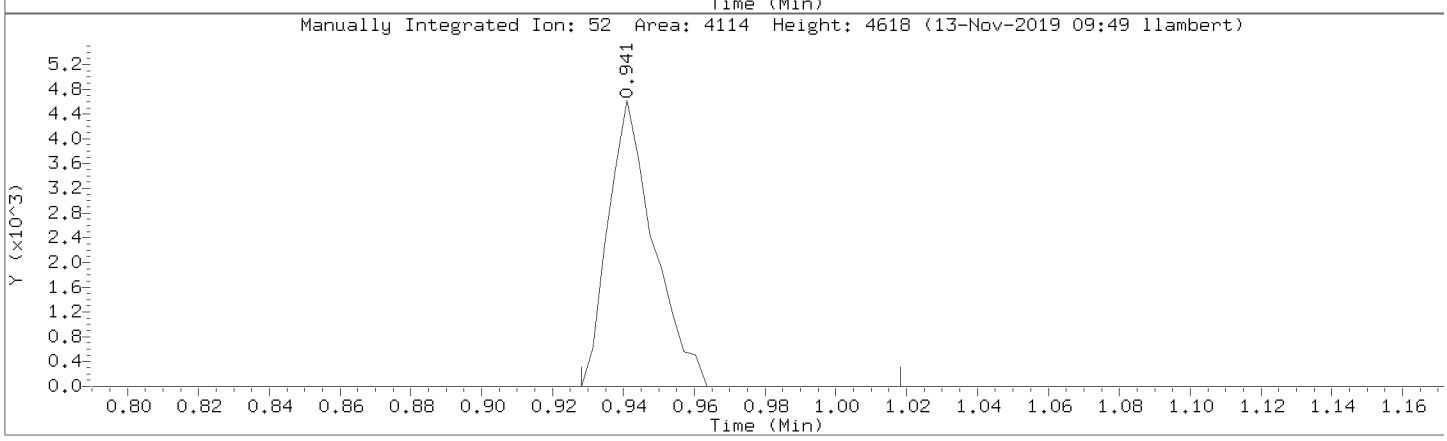
Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: Chloromethane Review Code: GT
CAS Number: 74-87-3









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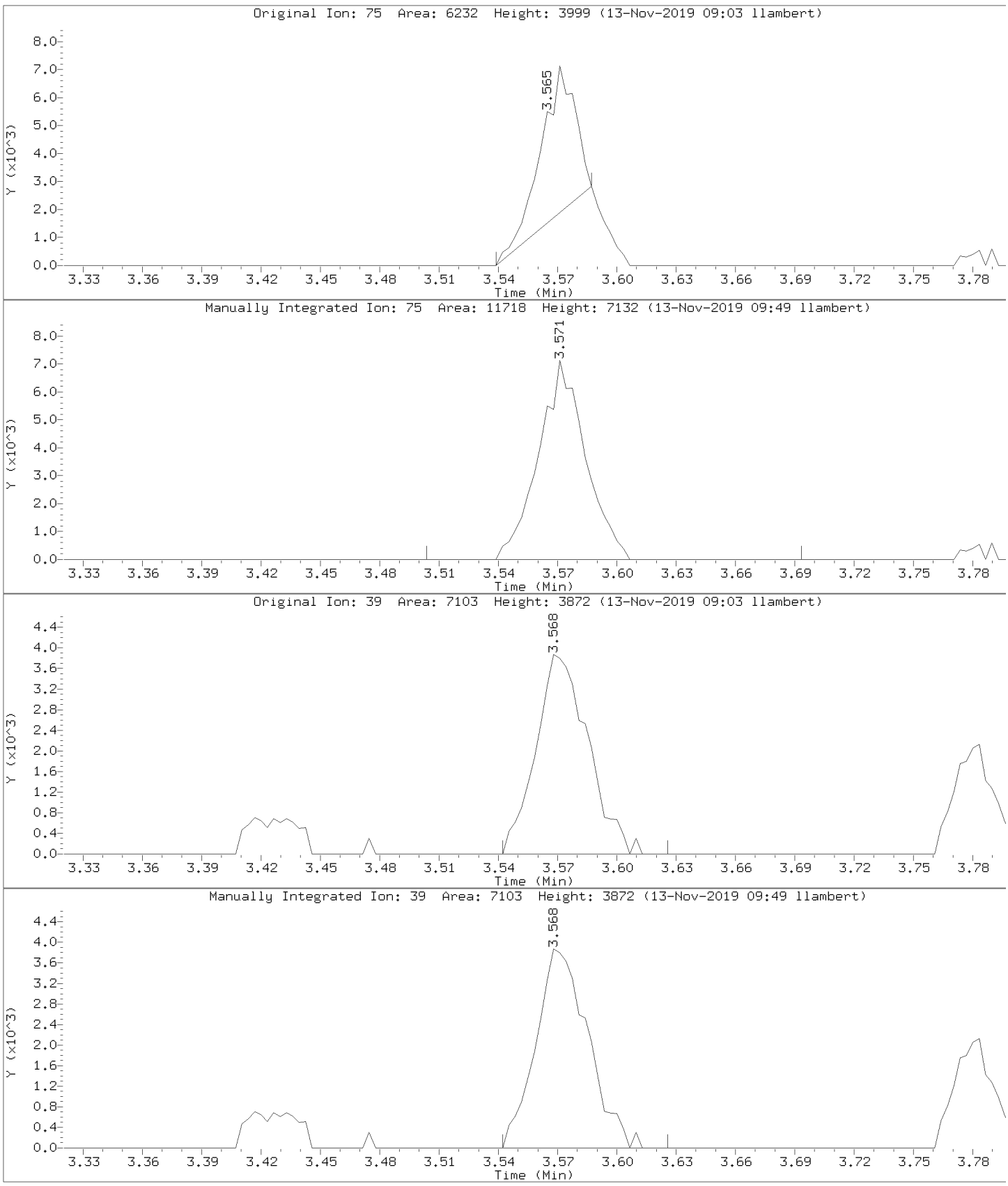
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: 1,1-Dichloropropene Review Code: GT
CAS Number: 563-58-6



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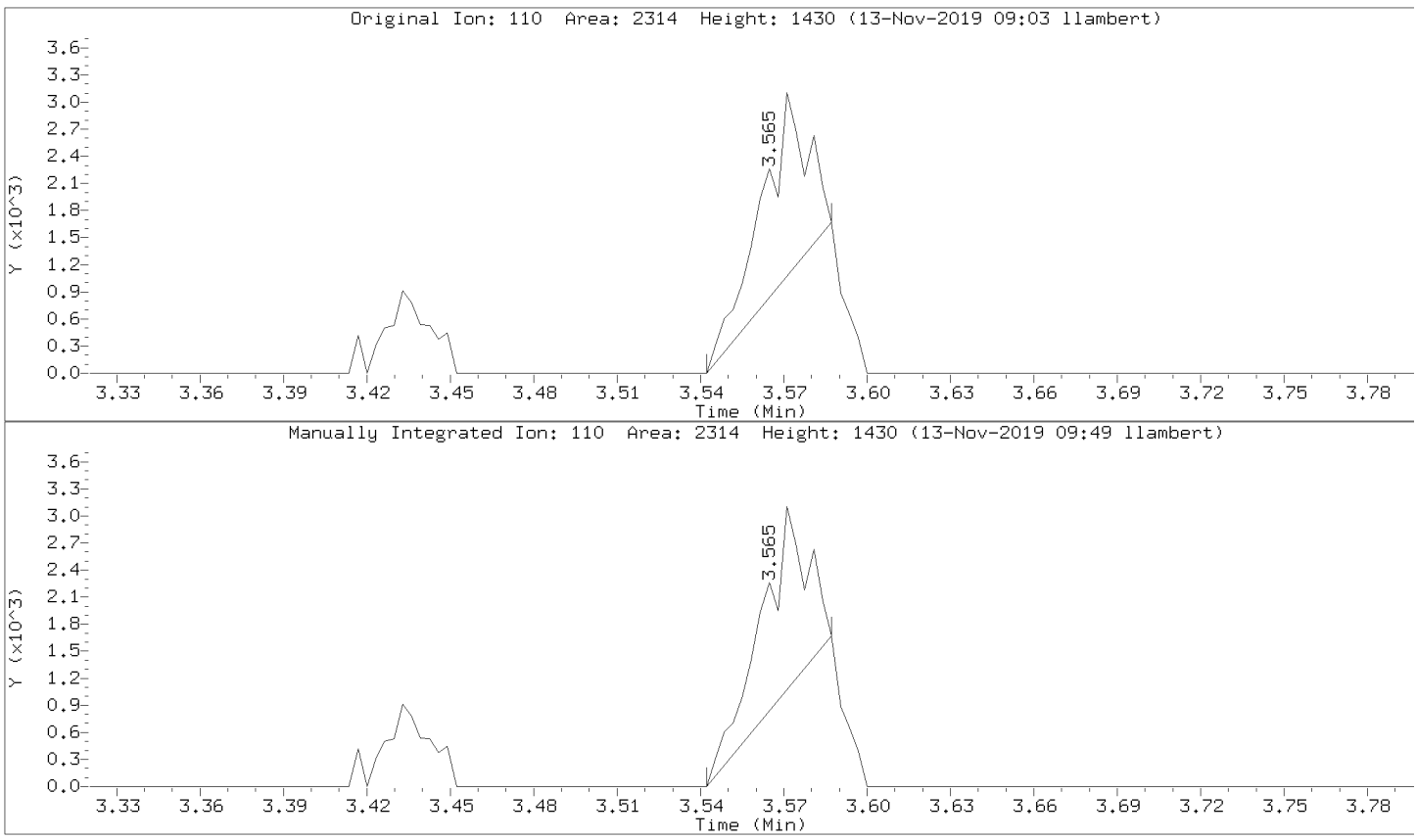
Instrument: 30mv7b.i
Lab Sample ID: CAL2



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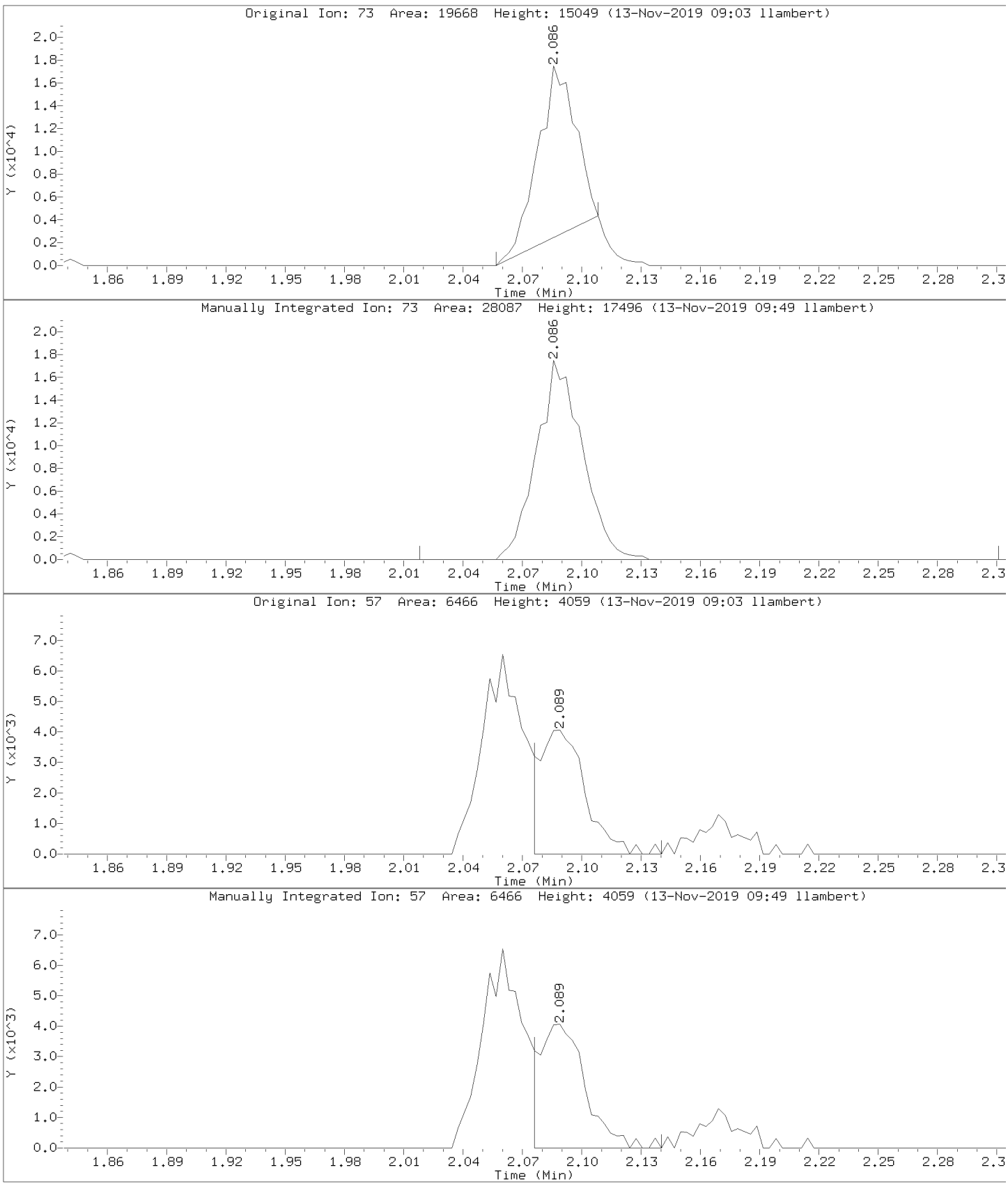
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: Methyl-tert-butyl ether Review Code: LT
CAS Number: 1634-04-4



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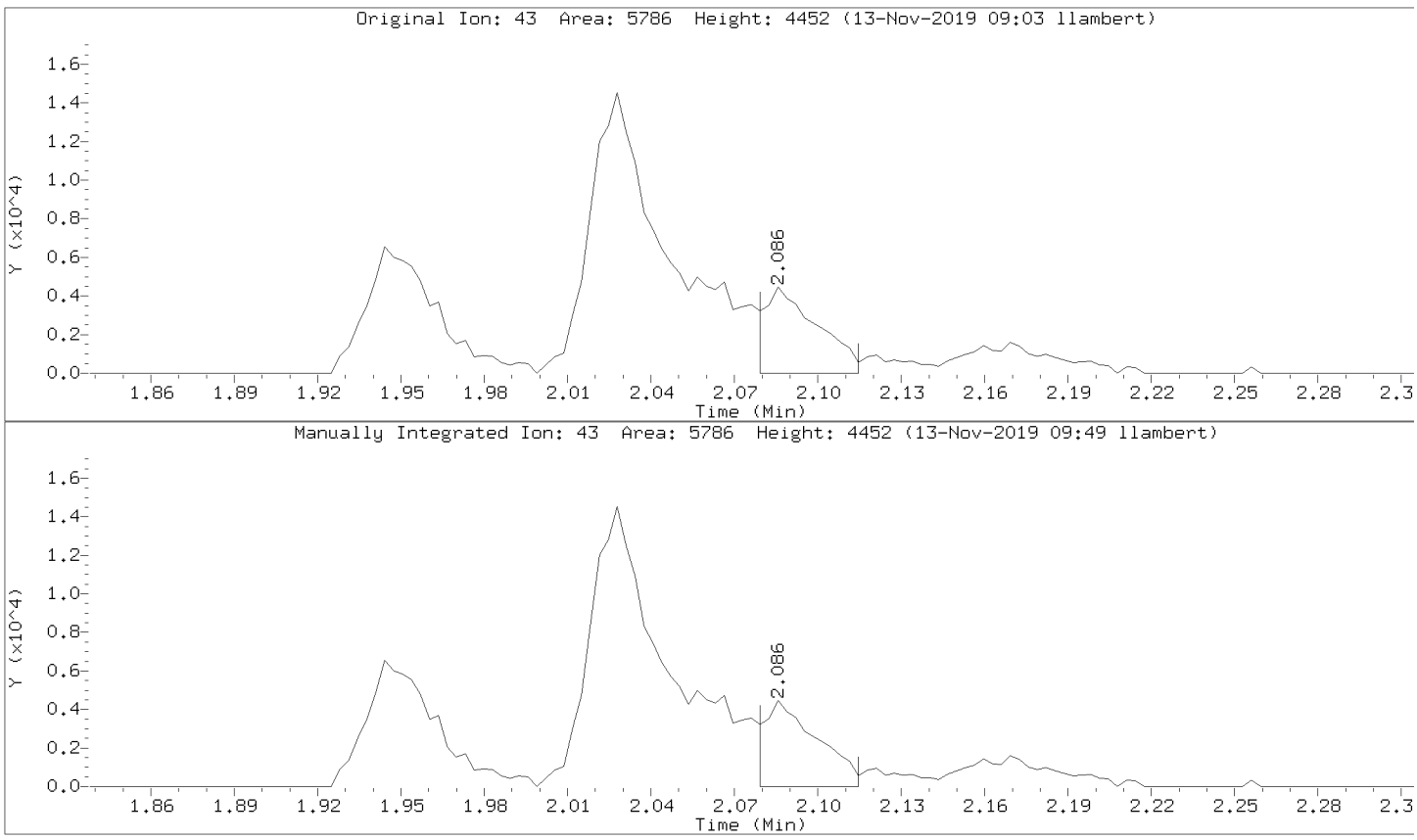
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2



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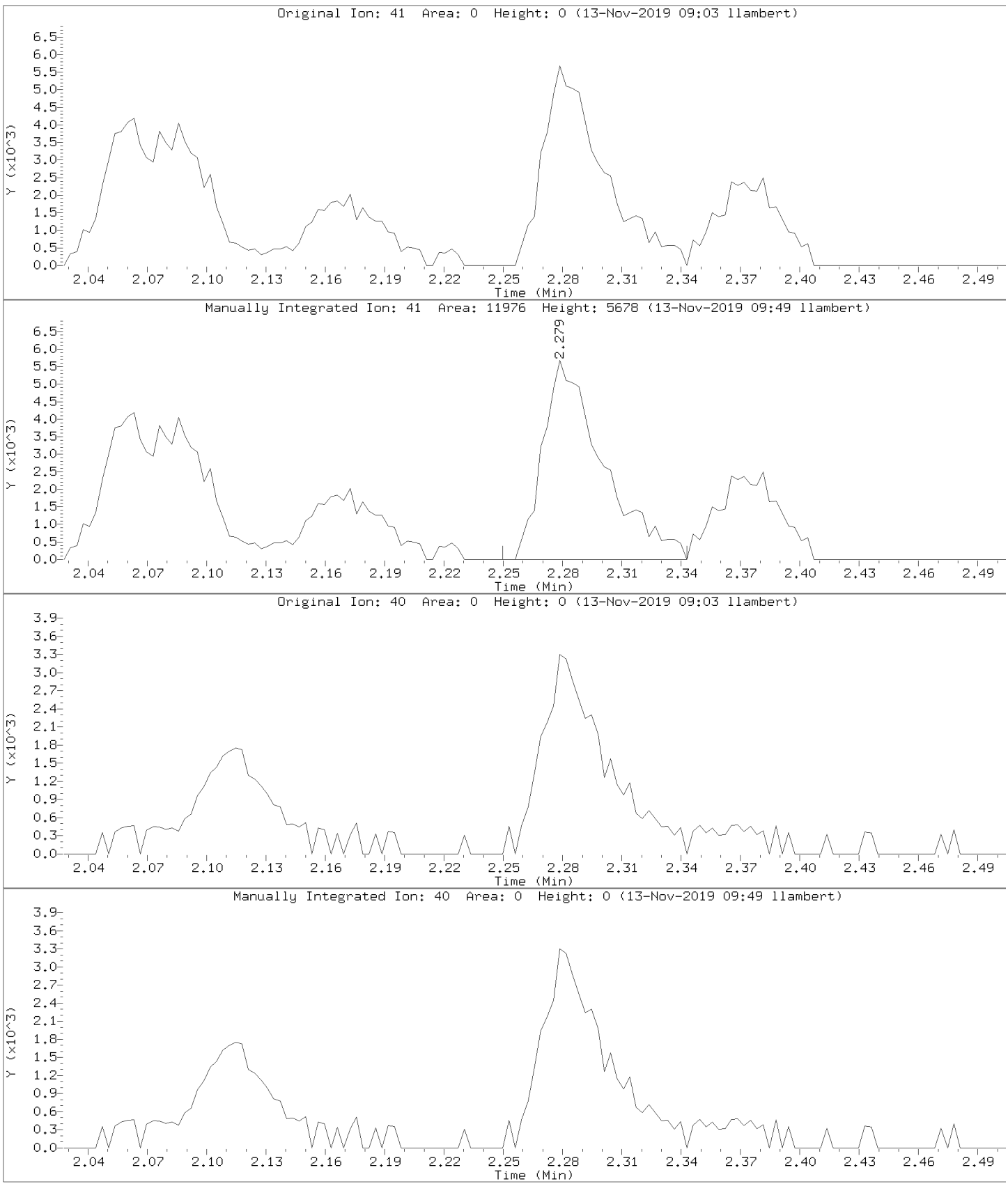
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: Acetonitrile Review Code: NI
CAS Number: 75-05-8



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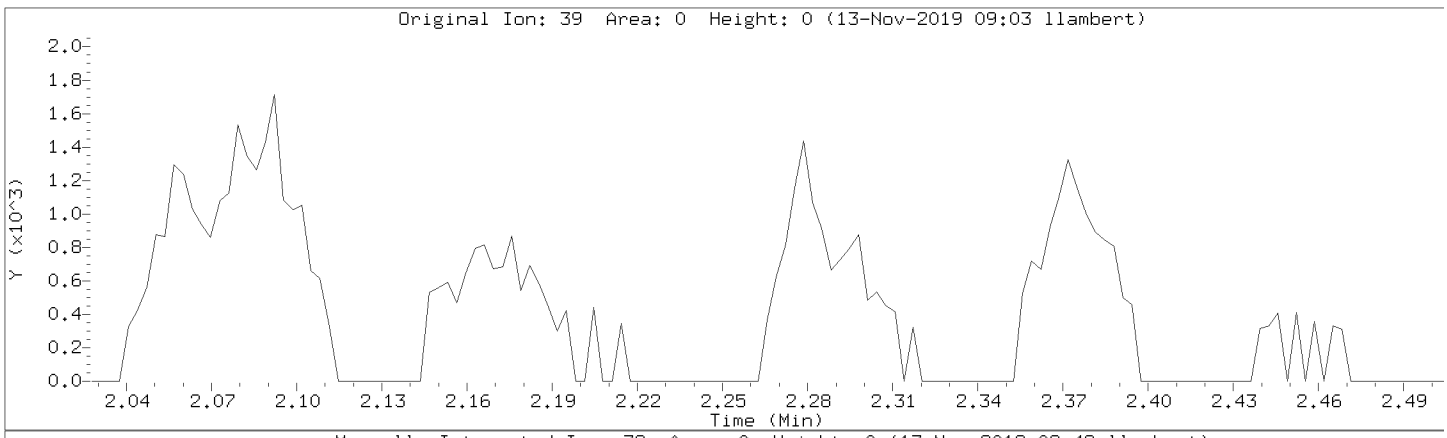
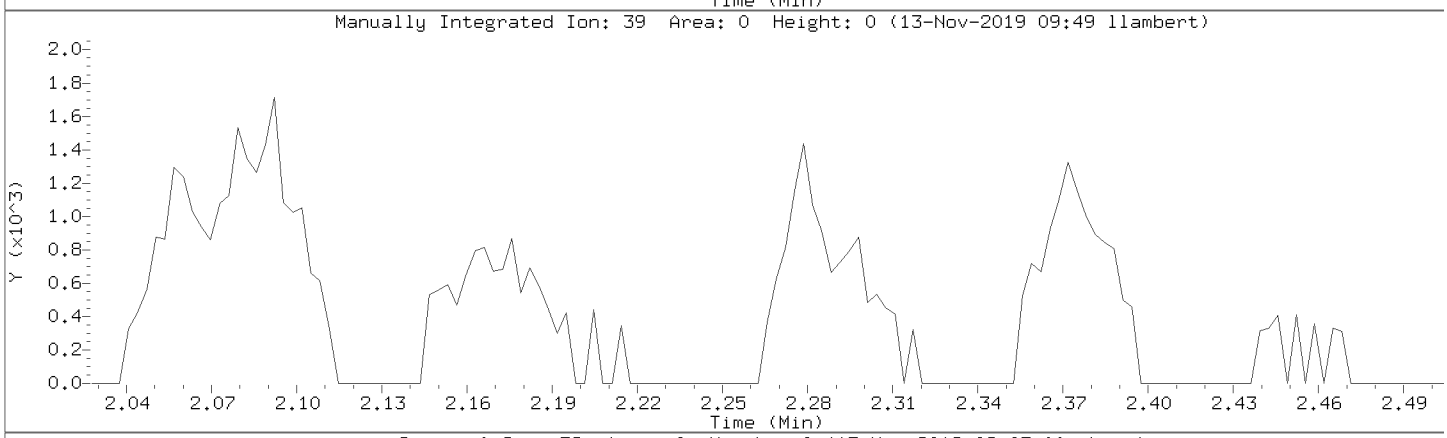
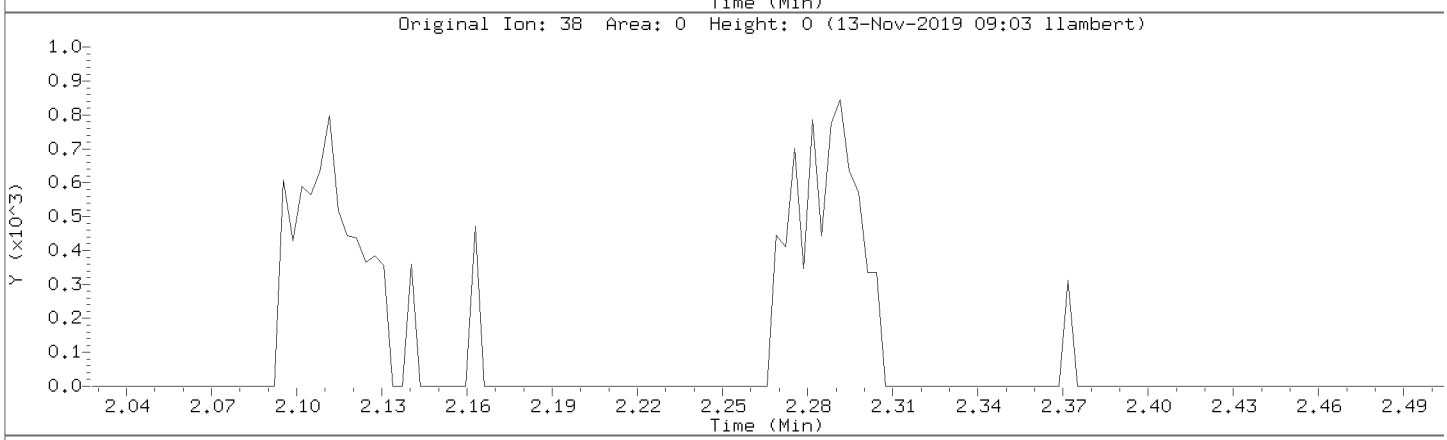
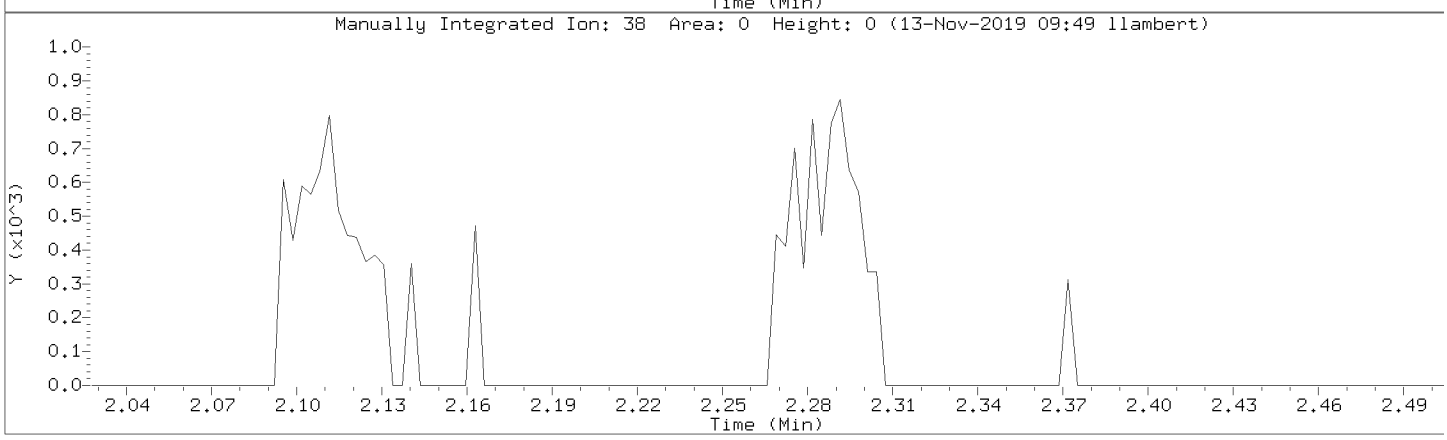
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2



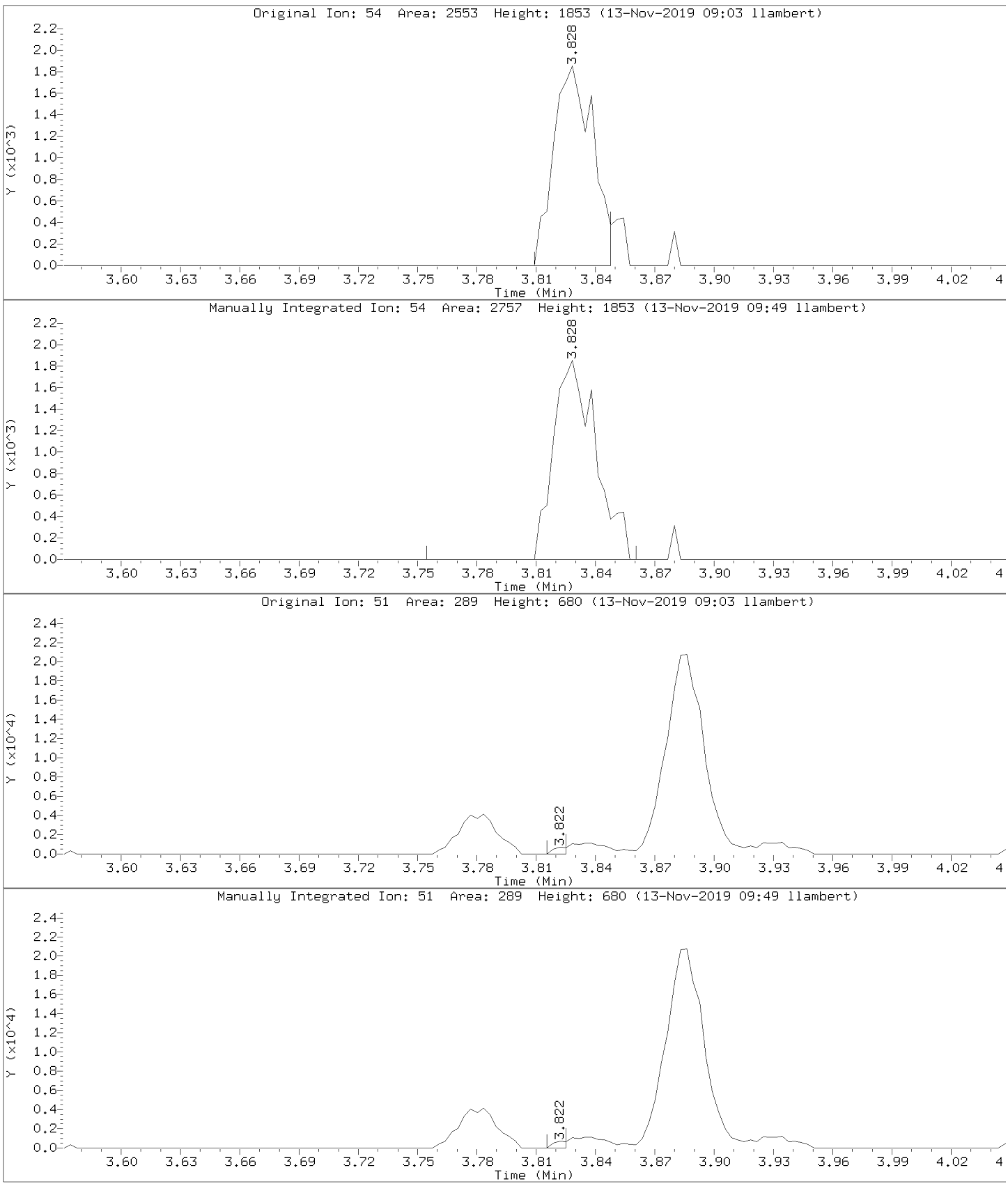






Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0



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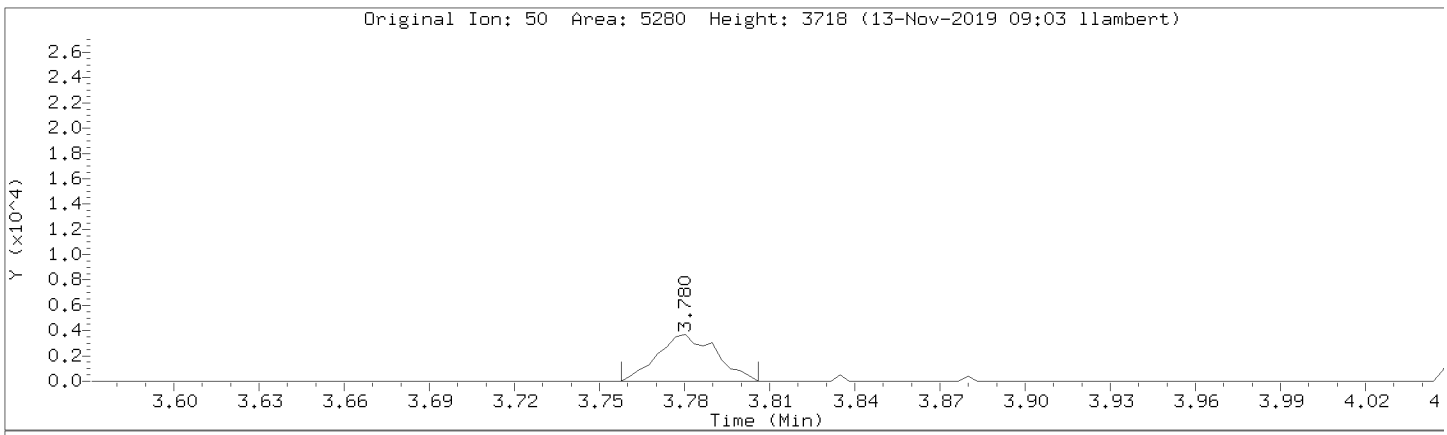
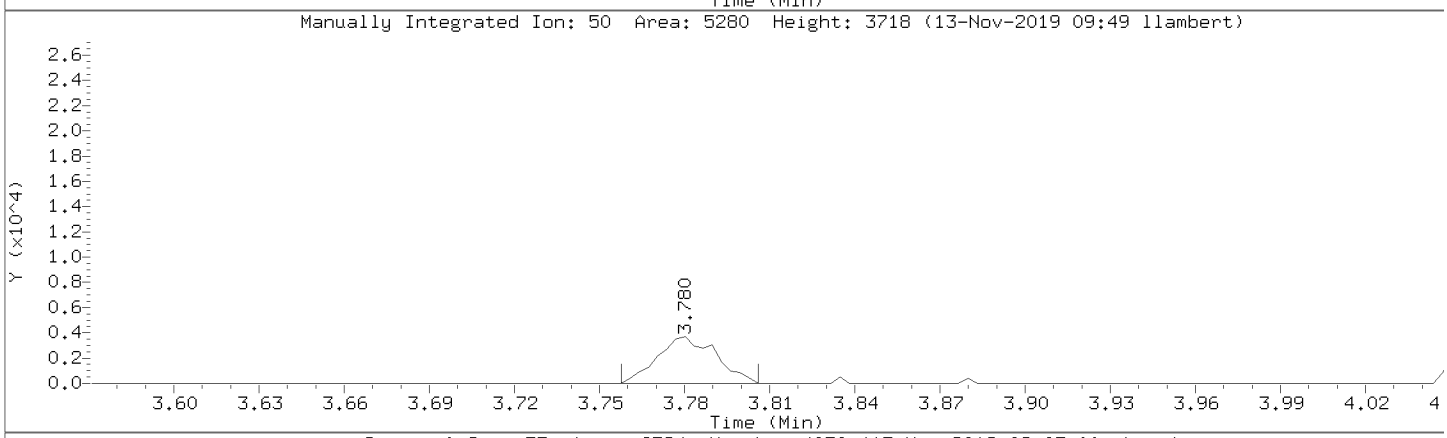
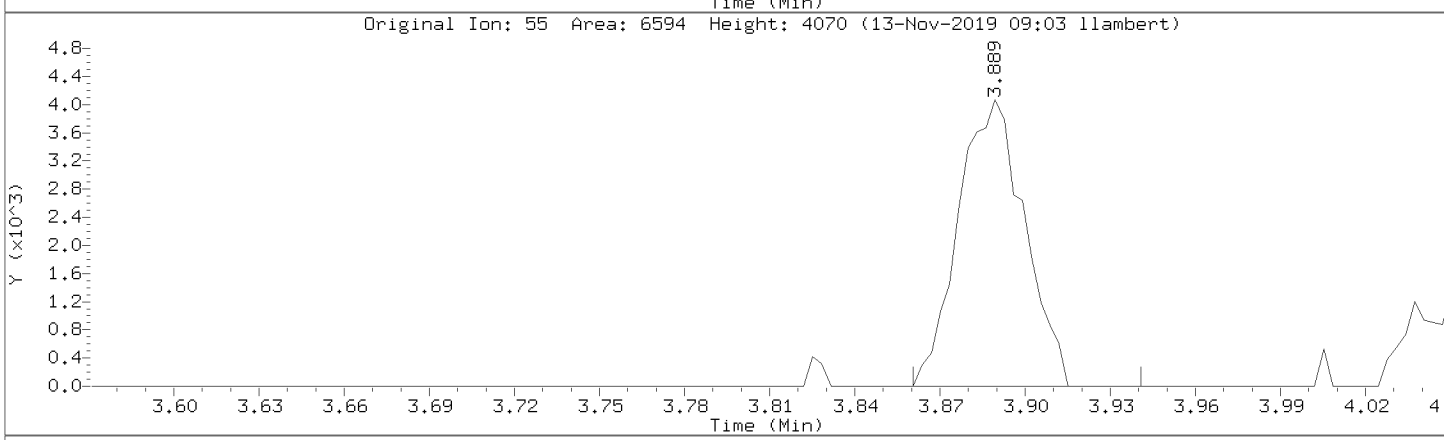
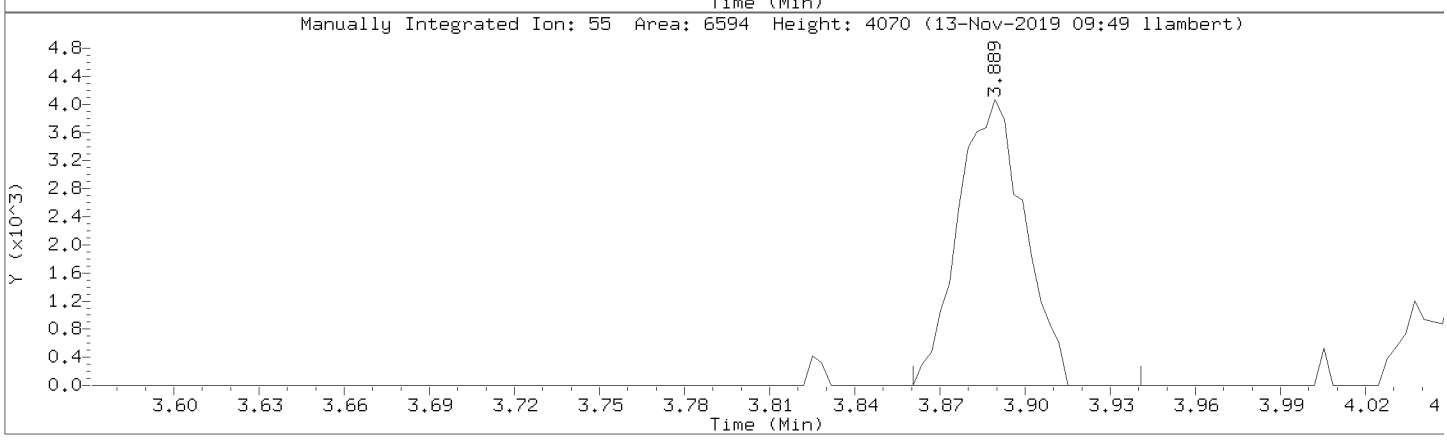
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2



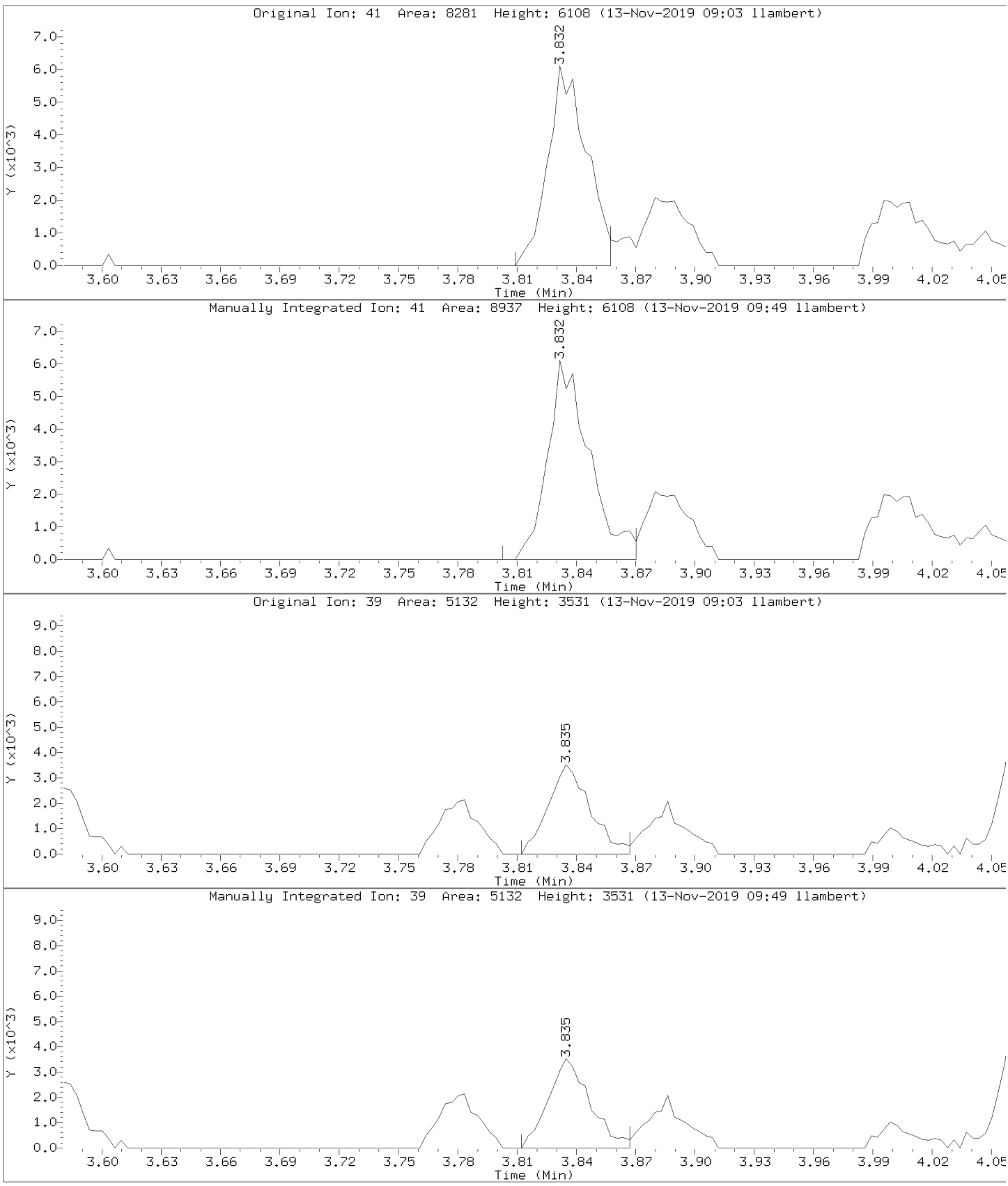






Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: Methacrylonitrile Review Code: LT
CAS Number: 126-98-7



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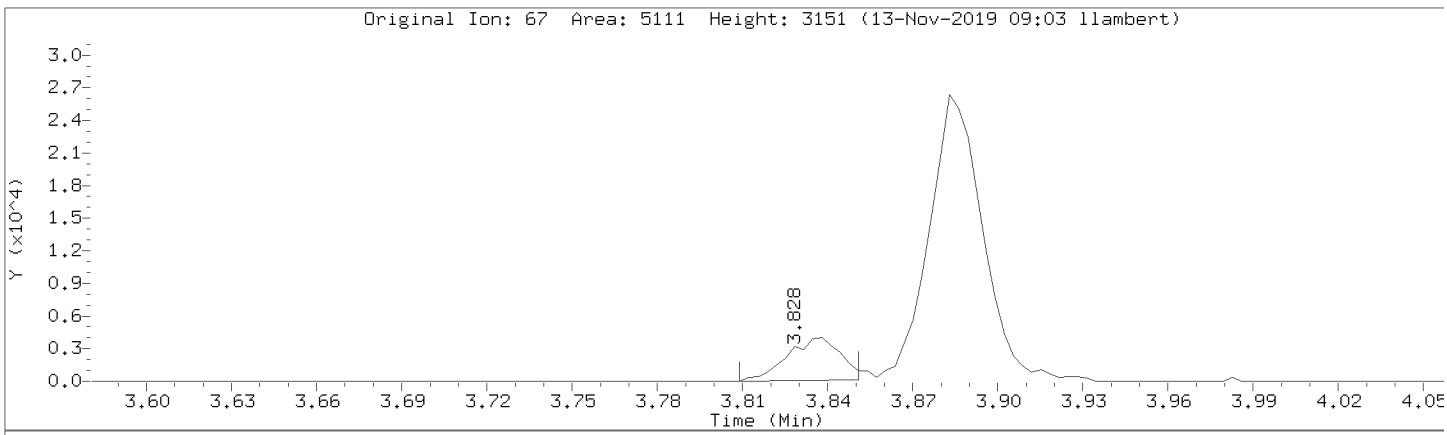
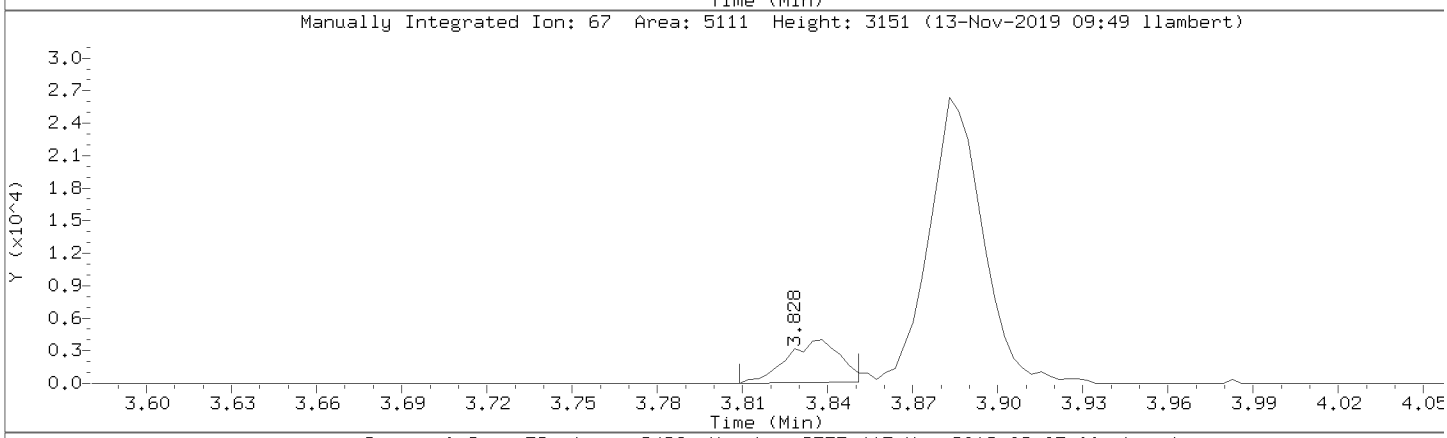
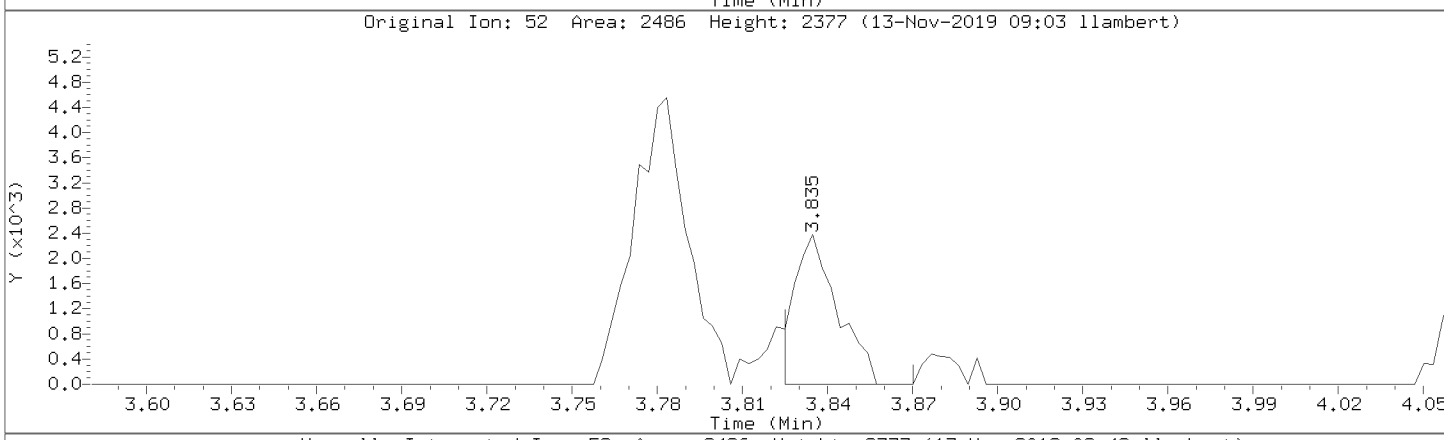
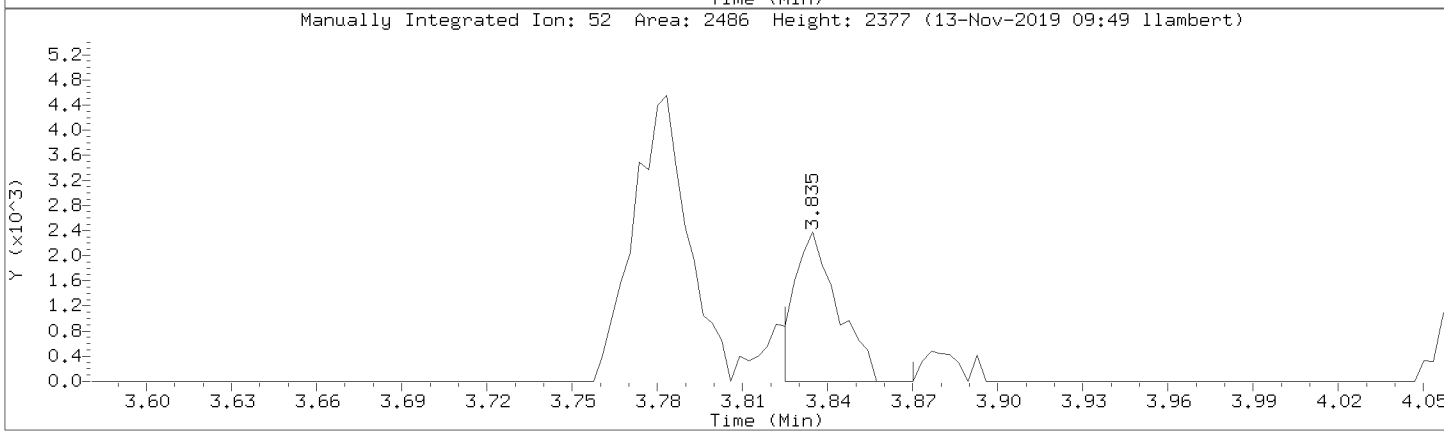
Instrument: 30mv7b.i
Lab Sample ID: CAL2



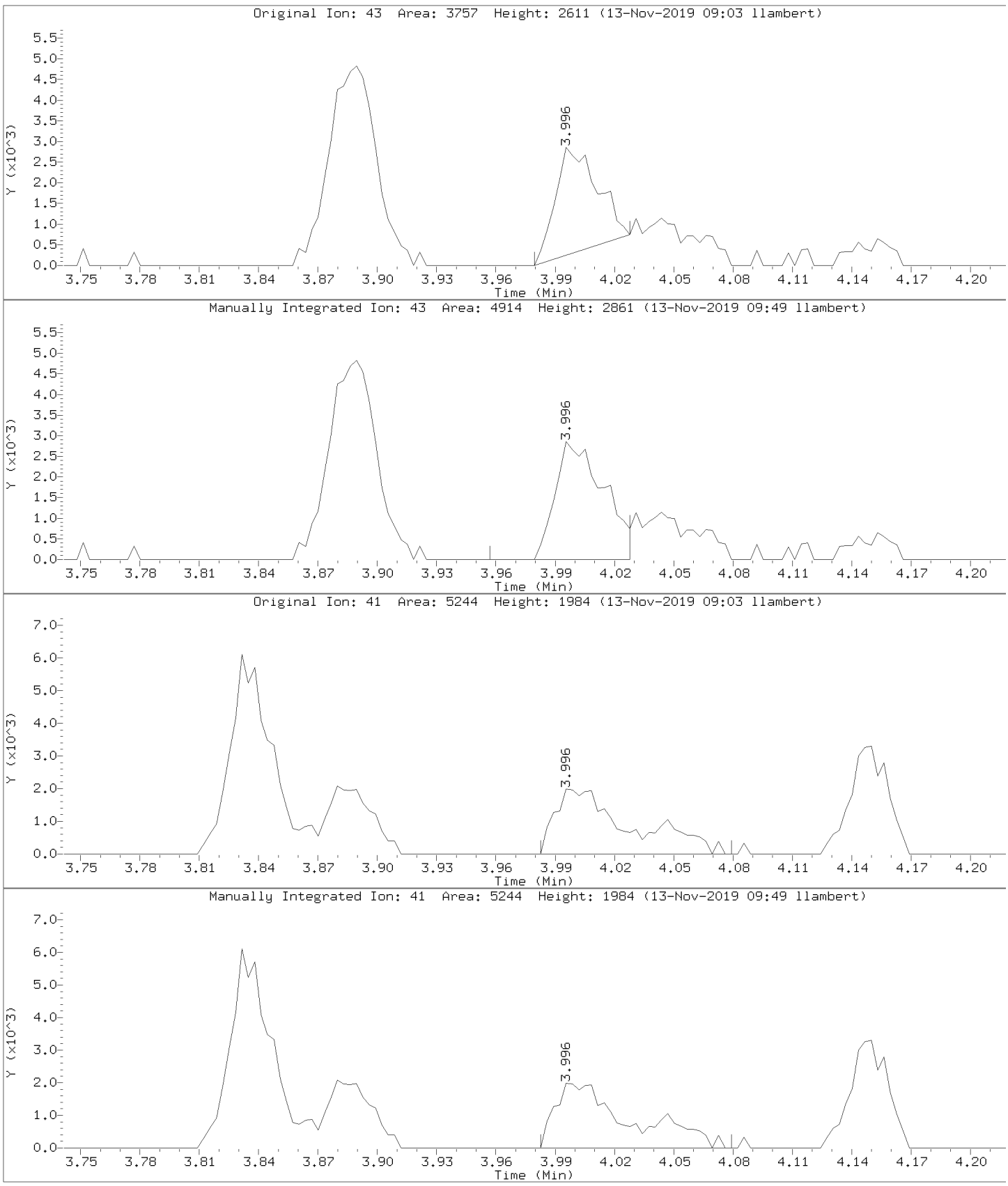






Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: Isobutanol Review Code: BA
CAS Number: 78-83-1



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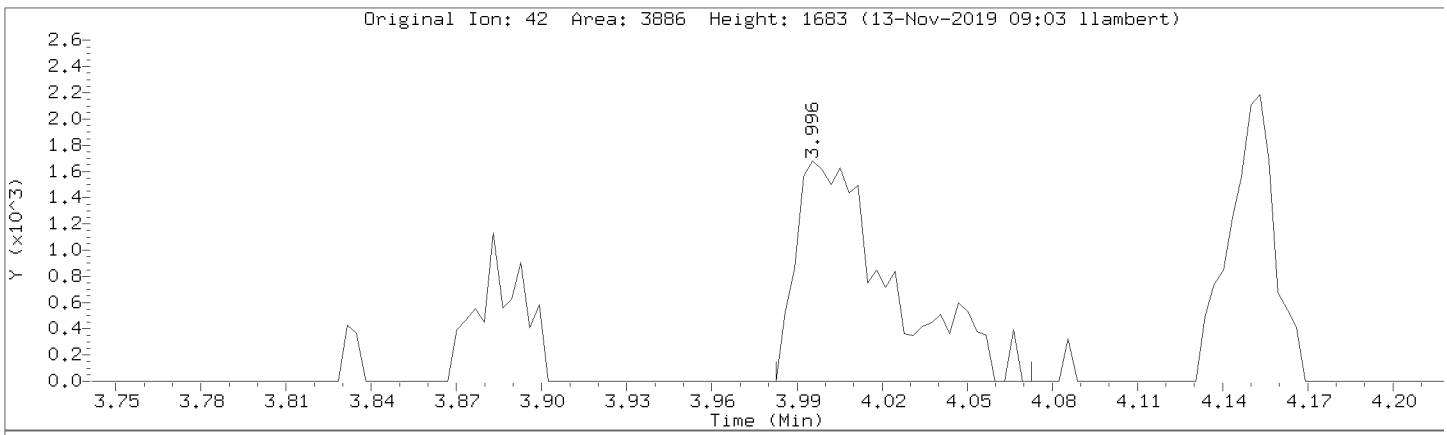
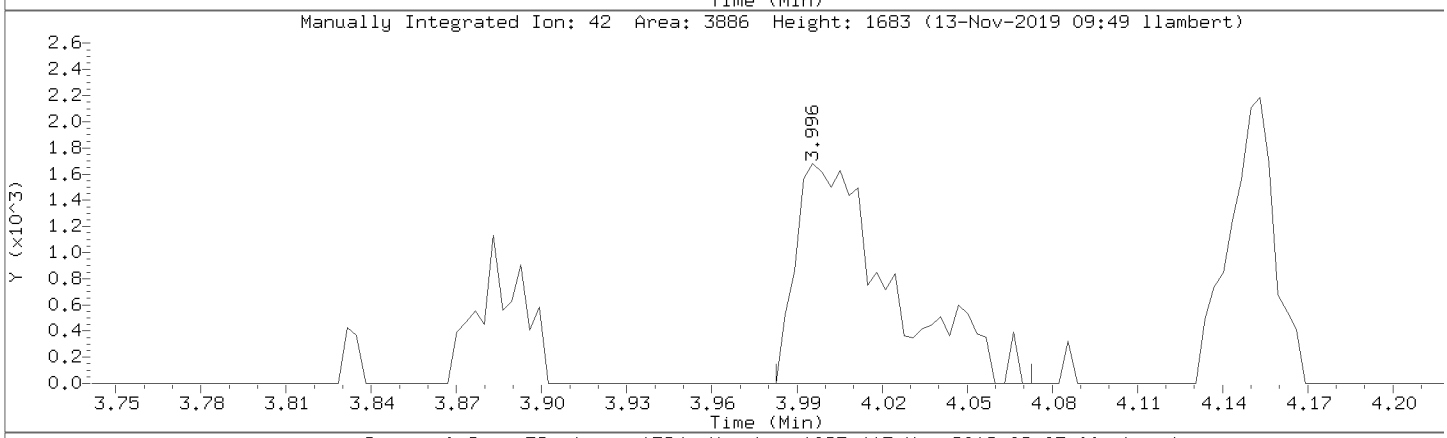
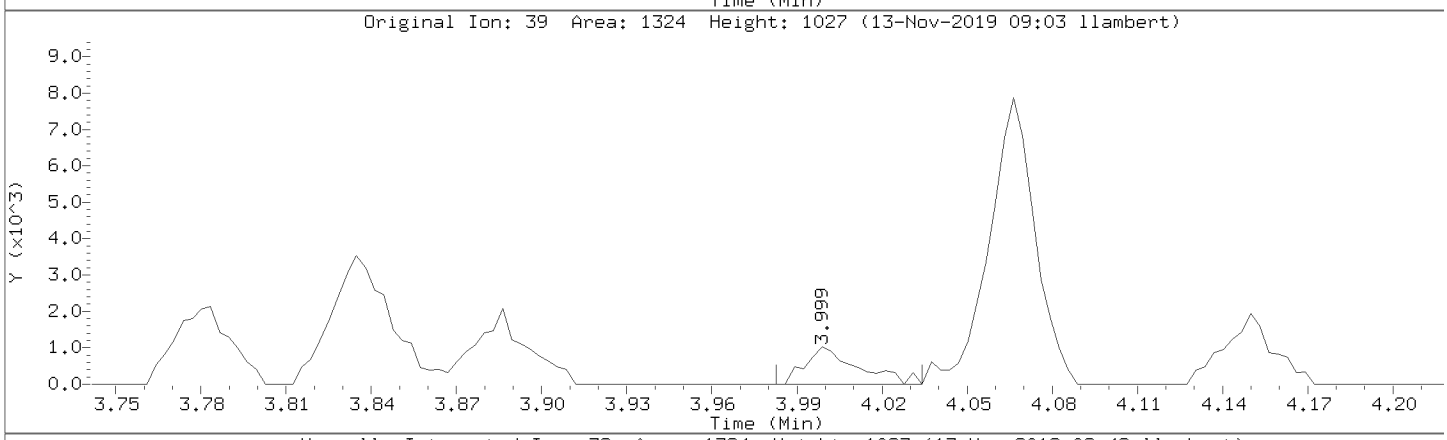
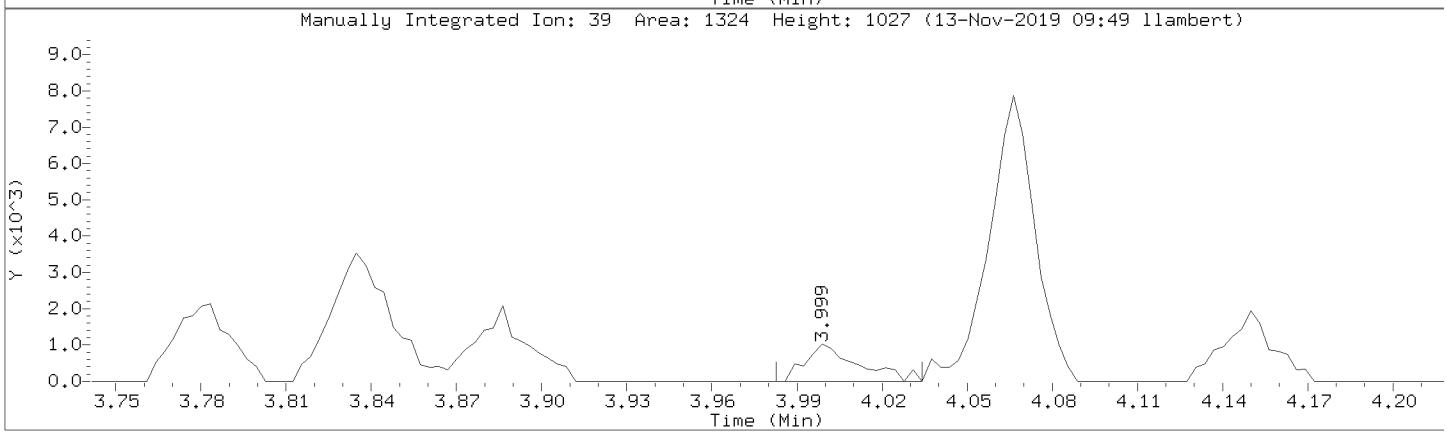
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2



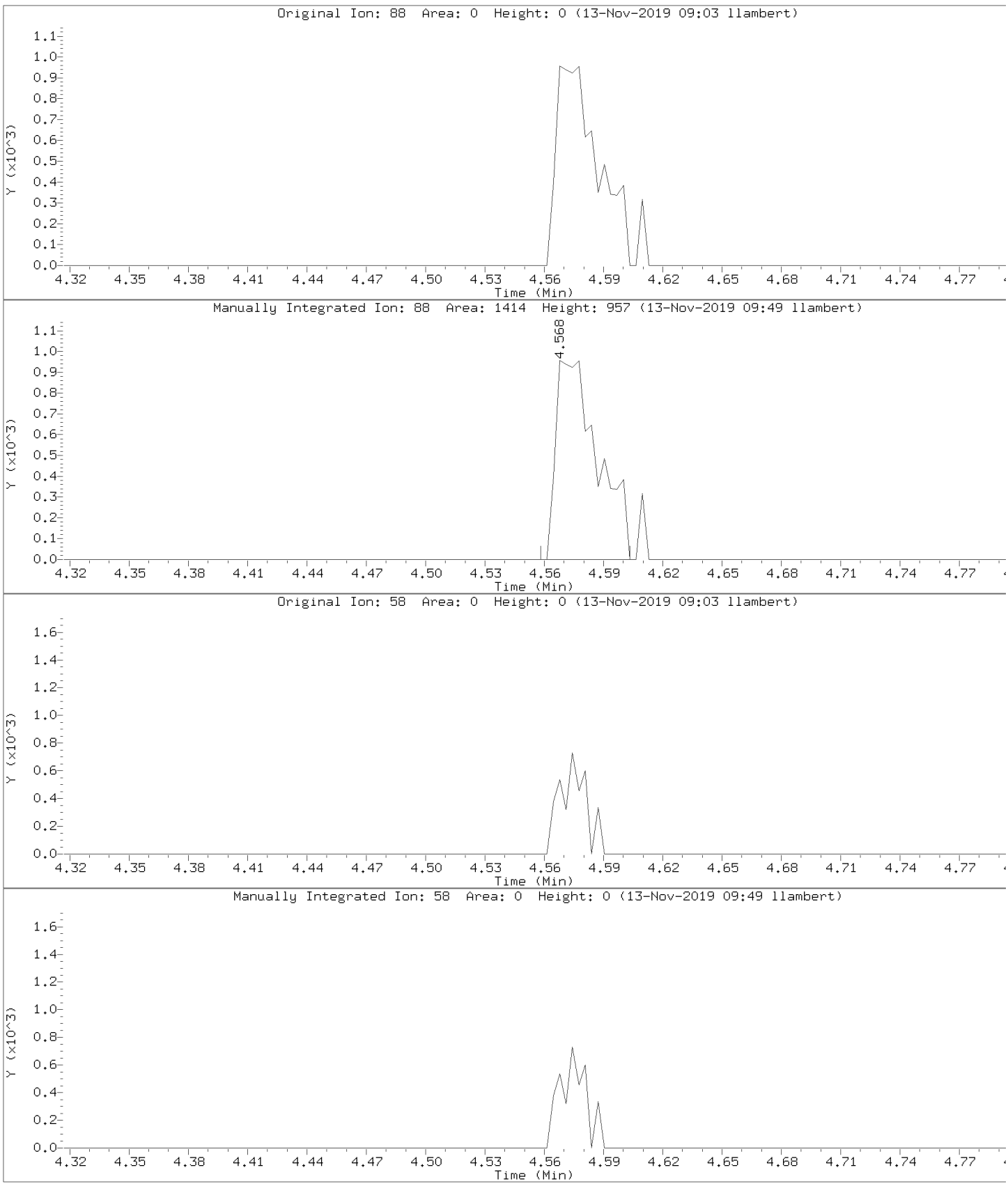




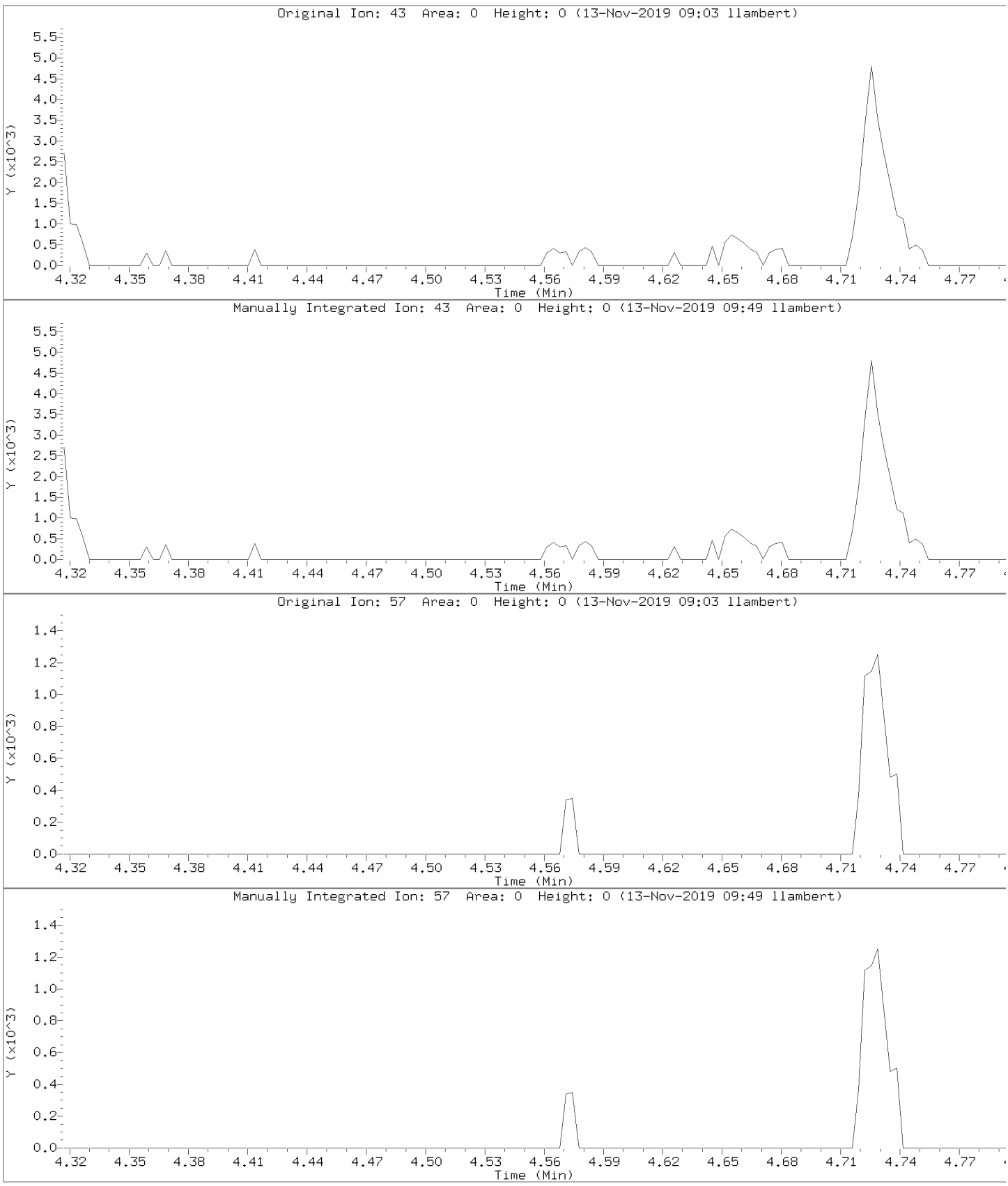


Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: 1,4-Dioxane (p-Dioxane) Review Code: LT
CAS Number: 123-91-1

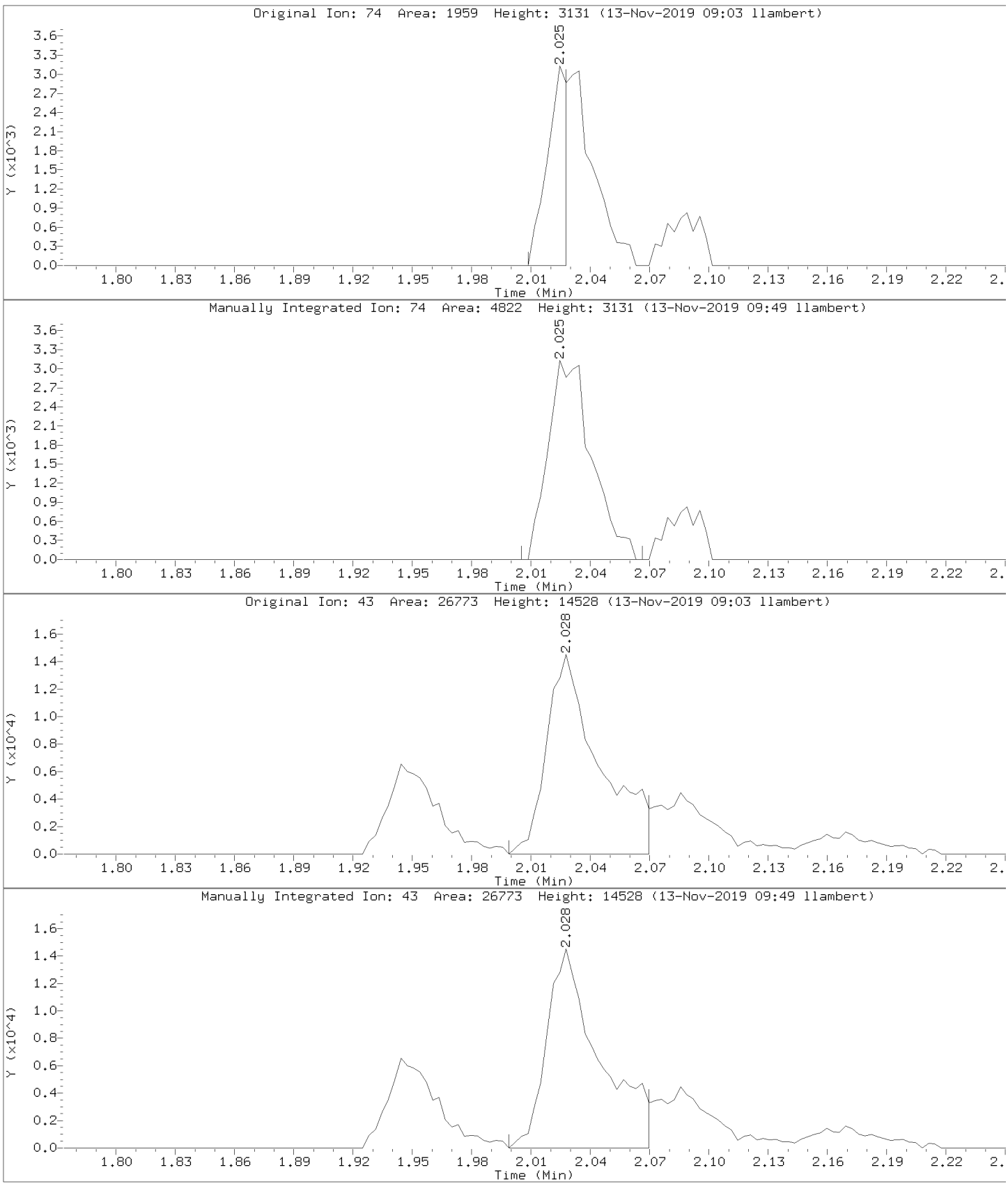


Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2



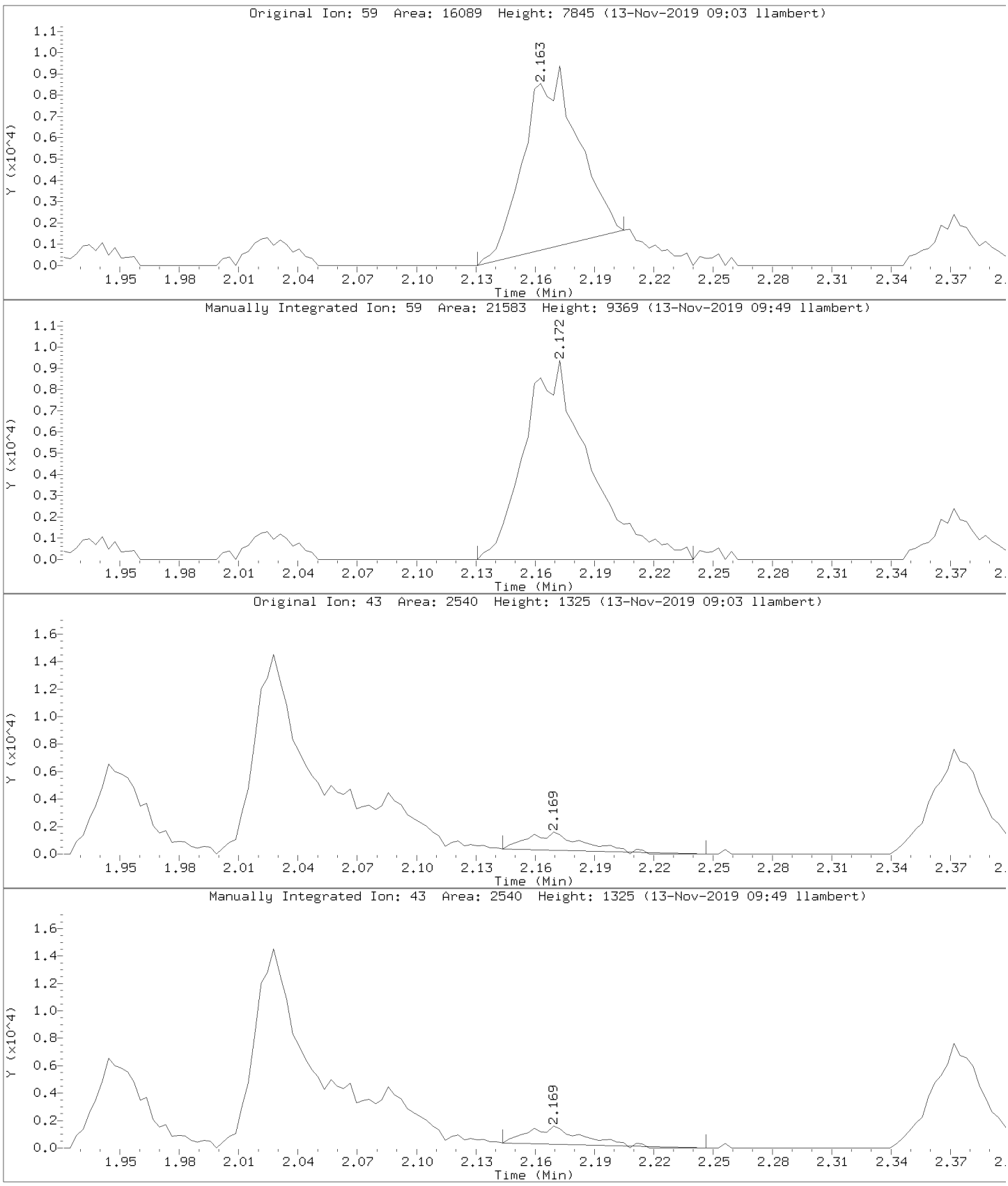
Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: Methyl acetate Review Code: LT
CAS Number: 79-20-9



Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112008.d
Injection Date: 12-NOV-2019 14:37
Instrument: 30mv7b.i
Lab Sample ID: CAL2

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0



Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Lab Smp Id: CAL3 Client Smp ID: CAL3
Inj Date : 12-NOV-2019 15:01
Operator : LEL Inst ID: 30mv7b.i
Smp Info : cal3, 105190:1
Misc Info : 47222,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:01 Cal File: 71112010.d
Als bottle: 10 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.841	0.841	(0.207)	30938	10.0000	10.6(Q)	
2 Chloromethane	50	0.941	0.941	(0.231)	33979	10.0000	10.6	
3 Vinyl chloride	62	0.979	0.979	(0.241)	37064	10.0000	10.7	
4 Bromomethane	94	1.140	1.140	(0.280)	11290	10.0000	10.3	
5 Chloroethane	64	1.198	1.198	(0.295)	10762	10.0000	11.2	
6 Trichlorofluoromethane	101	1.269	1.269	(0.312)	49532	10.0000	10.9	
7 Diethyl ether (Ethyl ether)	59	1.436	1.439	(0.353)	24898	10.0000	10.5	
8 Ethanol	46	1.532	1.542	(0.236)	3209	100.000	102	
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	47199	10.0000	10.6	
10 1,1,2-Trichlorotrifluoroethane	151	1.571	1.571	(0.386)	24418	10.0000	10.3	
11 Carbon disulfide	76	1.568	1.568	(0.386)	71273	10.0000	10.2	
12 Iodomethane	142	1.635	1.635	(0.402)	8431	10.0000	8.05	
13 Acrolein	56	1.757	1.754	(0.432)	7571	10.0000	10.1	
14 Allyl chloride	41	1.834	1.835	(0.451)	197933	50.0000	52.3	
15 Methylene Chloride	49	1.905	1.902	(0.469)	36437	10.0000	11.0	
16 Acetone	58	1.950	1.944	(0.480)	7843	10.0000	11.4	
17 trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	38628	10.0000	10.5	
18 Methyl acetate	74	2.027	2.024	(0.499)	12638	10.0000	10.7(M)	LT
19 n-Hexane	86	2.056	2.063	(0.506)	4434	10.0000	10.2	
20 Methyl-tert-butyl ether	73	2.088	2.089	(0.514)	75909	10.0000	10.5(Q)	
21 tert-Butyl Alcohol	59	2.169	2.172	(0.533)	57960	50.0000	52.6(Q)	
22 Acetonitrile	41	2.281	2.278	(0.561)	30697	50.0000	52.6	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.371	2.375	(0.583)	82029	10.0000	10.4	
	24 Chloroprene	53	2.452	2.452	(0.603)	27764	10.0000	10.2	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	47737	10.0000	10.5	
	26 Acrylonitrile	53	2.532	2.526	(0.623)	20043	10.0000	10.6(Q)	
	27 Ethyl-tert-butyl ether	59	2.686	2.687	(0.661)	77516	10.0000	10.3	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	71067	10.0000	10.2	
	29 cis-1,2-Dichloroethene	61	2.963	2.957	(0.729)	36236	10.0000	10.4	
	30 2,2-Dichloropropane	77	3.063	3.066	(0.753)	37285	10.0000	10.6	
	31 Cyclohexane	56	3.146	3.146	(0.774)	43296	10.0000	10.3	
	32 Bromochloromethane	130	3.162	3.159	(0.778)	18969	10.0000	10.7	
	33 Chloroform	83	3.249	3.246	(0.799)	44927	10.0000	10.4	
	34 Ethyl acetate	43	3.410	3.407	(0.839)	23322	10.0000	10.4	
	35 Carbon tetrachloride	117	3.365	3.365	(0.828)	37039	10.0000	10.4	
	36 Tetrahydrofuran	42	3.413	3.407	(0.839)	21160	10.0000	10.4	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	64988	30.0000	29.3	
	38 1,1,1-Trichloroethane	97	3.439	3.439	(0.846)	39613	10.0000	10.3	
	39 2-Butanone (MEK)	43	3.590	3.584	(0.883)	31764	10.0000	10.4	
	40 1,1-Dichloropropene	75	3.571	3.571	(0.878)	35997	10.0000	10.4	
	41 Benzene	78	3.780	3.780	(0.930)	105438	10.0000	10.5	
	42 Propionitrile	54	3.825	3.822	(0.941)	7342	10.0000	9.89(Q)	
	43 Methacrylonitrile	41	3.831	3.831	(0.942)	24299	10.0000	10.2(QM)	LT
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	63834	10.0000	10.1	
$	46 1,2-Dichloroethane-d4 (S)	65	3.883	3.883	(0.955)	64817	30.0000	29.3	
	45 Isobutanol	43	3.995	3.992	(0.983)	16485	50.0000	53.2(Q)	
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	33943	10.0000	10.6	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	255384	30.0000		
	49 Methylcyclohexane	55	4.149	4.150	(1.021)	25296	10.0000	10.3	
	50 Trichloroethene	132	4.162	4.162	(1.024)	30950	10.0000	10.5	
	51 Dibromomethane	174	4.384	4.384	(1.078)	21204	10.0000	10.5	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.090)	25421	10.0000	10.5	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	27935	10.0000	10.2	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	20090	10.0000	9.50	
	55 1,4-Dioxane (p-Dioxane)	88	4.571	4.568	(1.124)	4285	100.000	98.5	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	19354	10.0000	9.92	
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	34812	10.0000	10.1	
$	58 Toluene-d8 (S)	98	4.821	4.822	(0.875)	219332	30.0000	29.5	
	59 Toluene	91	4.844	4.844	(0.879)	107437	10.0000	10.6	
	60 2-Nitropropane	43	4.956	4.957	(1.219)	65937	50.0000	49.0	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	45378	10.0000	10.3	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	30607	10.0000	10.8	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	31997	10.0000	10.2	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	22021	10.0000	10.3	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	24339	10.0000	10.7	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	25515	10.0000	10.0	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	39882	10.0000	10.6	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	27390	10.0000	10.6	
	69 2-Hexanone	43	5.391	5.391	(0.978)	36751	10.0000	10.2	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	166139	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	33540	10.0000	10.5	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	65270	10.0000	10.6	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	23800	10.0000	10.4	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	85699	20.0000	21.6	
	75 o-Xylene	106	5.770	5.770	(1.047)	40198	10.0000	10.6	
	76 Styrene	104	5.792	5.793	(1.051)	59566	10.0000	10.3	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Report Date: 13-Nov-2019 09:51

							AMOUNTS		
		QUANT SIG					CAL-AMT	ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	REVIEW C
	77 Bromoform	173	5.809	5.809	(0.896)	17792	10.0000	9.91	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	81687	10.0000	10.6	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	67813	30.0000	30.6	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	91332	10.0000	10.7	
	81 Bromobenzene	77	6.066	6.066	(0.936)	39827	10.0000	10.7	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	33307	10.0000	10.5	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	64772	10.0000	10.8	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	21976	10.0000	10.9(Q)	
	85 1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	12191	10.0000	10.8	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.953)	8176	10.0000	9.71	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	9839	50.0000	41.0	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	22668	10.0000	10.7	
	89 tert-Butylbenzene	119	6.278	6.278	(0.969)	52243	10.0000	10.7	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	62532	10.0000	10.5	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	70541	10.0000	10.8	
	92 p-Isopropyltoluene	119	6.407	6.407	(0.989)	59423	10.0000	10.7	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	39630	10.0000	10.9	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	71694	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.487	6.487	(1.001)	42751	10.0000	10.9	
	96 n-Butylbenzene	91	6.583	6.584	(1.016)	44108	10.0000	10.4	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	33842	30.0000	30.7	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	37802	10.0000	10.7	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	11562	10.0000	10.1	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	20450	10.0000	10.7	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	9698	10.0000	11.0	
	101 1,2,4-Trichlorobenzene	180	7.271	7.272	(1.122)	18815	10.0000	10.7	
	102 Naphthalene	128	7.410	7.410	(1.143)	81311	10.0000	10.4	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	18558	10.0000	10.7	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	32869	10.0000	10.3	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	10.6	
74-87-3	Chloromethane	10.6	
75-01-4	Vinyl chloride	10.7	
74-83-9	Bromomethane	10.3	
75-00-3	Chloroethane	11.2	
75-69-4	Trichlorofluoromethane	10.9	
60-29-7	Diethyl ether (Ethyl ether)	10.5	
64-17-5	Ethanol	102	
75-35-4	1,1-Dichloroethene	10.6	
76-13-1	1,1,2-Trichlorotrifluoroetha	10.3	
75-15-0	Carbon disulfide	10.2	
74-88-4	Iodomethane	8.05	
107-02-8	Acrolein	10.1	
107-05-1	Allyl chloride	52.3	
75-09-2	Methylene Chloride	11.0	
67-64-1	Acetone	11.4	
156-60-5	trans-1,2-Dichloroethene	10.5	
79-20-9	Methyl acetate	10.7	
110-54-3	n-Hexane	10.2	
1634-04-4	Methyl-tert-butyl ether	10.5	
75-65-0	tert-Butyl Alcohol	52.6	
75-05-8	Acetonitrile	52.6	
108-20-3	Diisopropyl ether	10.4	
126-99-8	Chloroprene	10.2	
75-34-3	1,1-Dichloroethane	10.5	
107-13-1	Acrylonitrile	10.6	
637-92-3	Ethyl-tert-butyl ether	10.3	
108-05-4	Vinyl acetate	10.2	
156-59-2	cis-1,2-Dichloroethene	10.4	
594-20-7	2,2-Dichloropropane	10.6	
110-82-7	Cyclohexane	10.3	
74-97-5	Bromochloromethane	10.7	
67-66-3	Chloroform	10.4	
141-78-6	Ethyl acetate	10.4	
56-23-5	Carbon tetrachloride	10.4	
109-99-9	Tetrahydrofuran	10.4	
71-55-6	1,1,1-Trichloroethane	10.3	
78-93-3	2-Butanone (MEK)	10.4	
563-58-6	1,1-Dichloropropene	10.4	
71-43-2	Benzene	10.5	
107-12-0	Propionitrile	9.89	
126-98-7	Methacrylonitrile	10.2	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	10.1	
78-83-1	Isobutanol	53.2	
107-06-2	1,2-Dichloroethane	10.6	
108-87-2	Methylcyclohexane	10.3	
79-01-6	Trichloroethene	10.5	
74-95-3	Dibromomethane	10.5	
78-87-5	1,2-Dichloropropane	10.5	
75-27-4	Bromodichloromethane	10.2	
80-62-6	Methyl methacrylate	9.50	
123-91-1	1,4-Dioxane (p-Dioxane)	98.5	
110-75-8	2-Chloroethylvinyl ether	9.92	
10061-01-5	cis-1,3-Dichloropropene	10.1	
108-88-3	Toluene	10.6	
79-46-9	2-Nitropropane	49.0	
108-10-1	4-Methyl-2-pentanone (MIBK)	10.3	
127-18-4	Tetrachloroethene	10.8	
10061-02-6	trans-1,3-Dichloropropene	10.2	
97-63-2	Ethyl methacrylate	10.3	
79-00-5	1,1,2-Trichloroethane	10.7	
124-48-1	Dibromochloromethane	10.0	
142-28-9	1,3-Dichloropropane	10.6	
106-93-4	1,2-Dibromoethane (EDB)	10.6	
591-78-6	2-Hexanone	10.2	
100-41-4	Ethylbenzene	10.5	
108-90-7	Chlorobenzene	10.6	
630-20-6	1,1,1,2-Tetrachloroethane	10.4	
7816-60-0	m&p-Xylene	21.6	
95-47-6	o-Xylene	10.6	
100-42-5	Styrene	10.3	
75-25-2	Bromoform	9.91	
98-82-8	Isopropylbenzene (Cumene)	10.6	
103-65-1	n-Propylbenzene	10.7	
108-86-1	Bromobenzene	10.7	
79-34-5	1,1,2,2-Tetrachloroethane	10.5	
108-67-8	1,3,5-Trimethylbenzene	10.8	
95-49-8	2-Chlorotoluene	10.9	
96-18-4	1,2,3-Trichloropropane	10.8	
110-57-6	trans-1,4-Dichloro-2-butene	9.71	
108-94-1	Cyclohexanone	41.0	
106-43-4	4-Chlorotoluene	10.7	
98-06-6	tert-Butylbenzene	10.7	
95-63-6	1,2,4-Trimethylbenzene	10.5	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Report Date: 13-Nov-2019 09:51

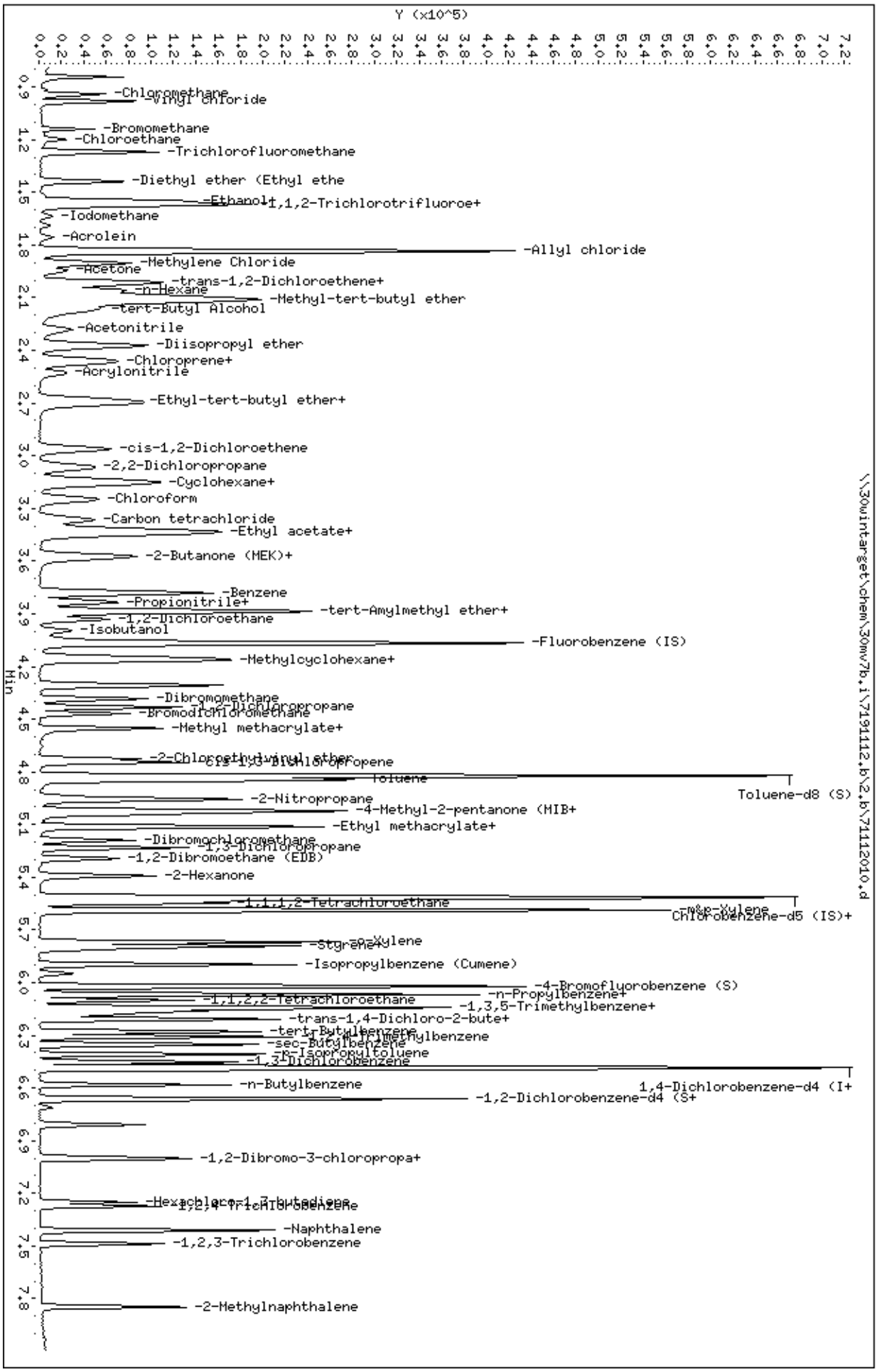
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL3
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL3
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	10.8	
99-87-6	p-Isopropyltoluene	10.7	
541-73-1	1,3-Dichlorobenzene	10.9	
106-46-7	1,4-Dichlorobenzene	10.9	
104-51-8	n-Butylbenzene	10.4	
95-50-1	1,2-Dichlorobenzene	10.7	
96-12-8	1,2-Dibromo-3-chloropropane	10.1	
108-70-3	1,3,5-Trichlorobenzene	10.7	
87-68-3	Hexachloro-1,3-butadiene	11.0	
120-82-1	1,2,4-Trichlorobenzene	10.7	
91-20-3	Naphthalene	10.4	
87-61-6	1,2,3-Trichlorobenzene	10.7	
91-57-6	2-Methylnaphthalene	10.3	
1868-53-7	Dibromofluoromethane (S)	29.3	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.3	
2037-26-5	Toluene-d8 (S)	29.5	
460-00-4	4-Bromofluorobenzene (S)	30.6	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	30.7	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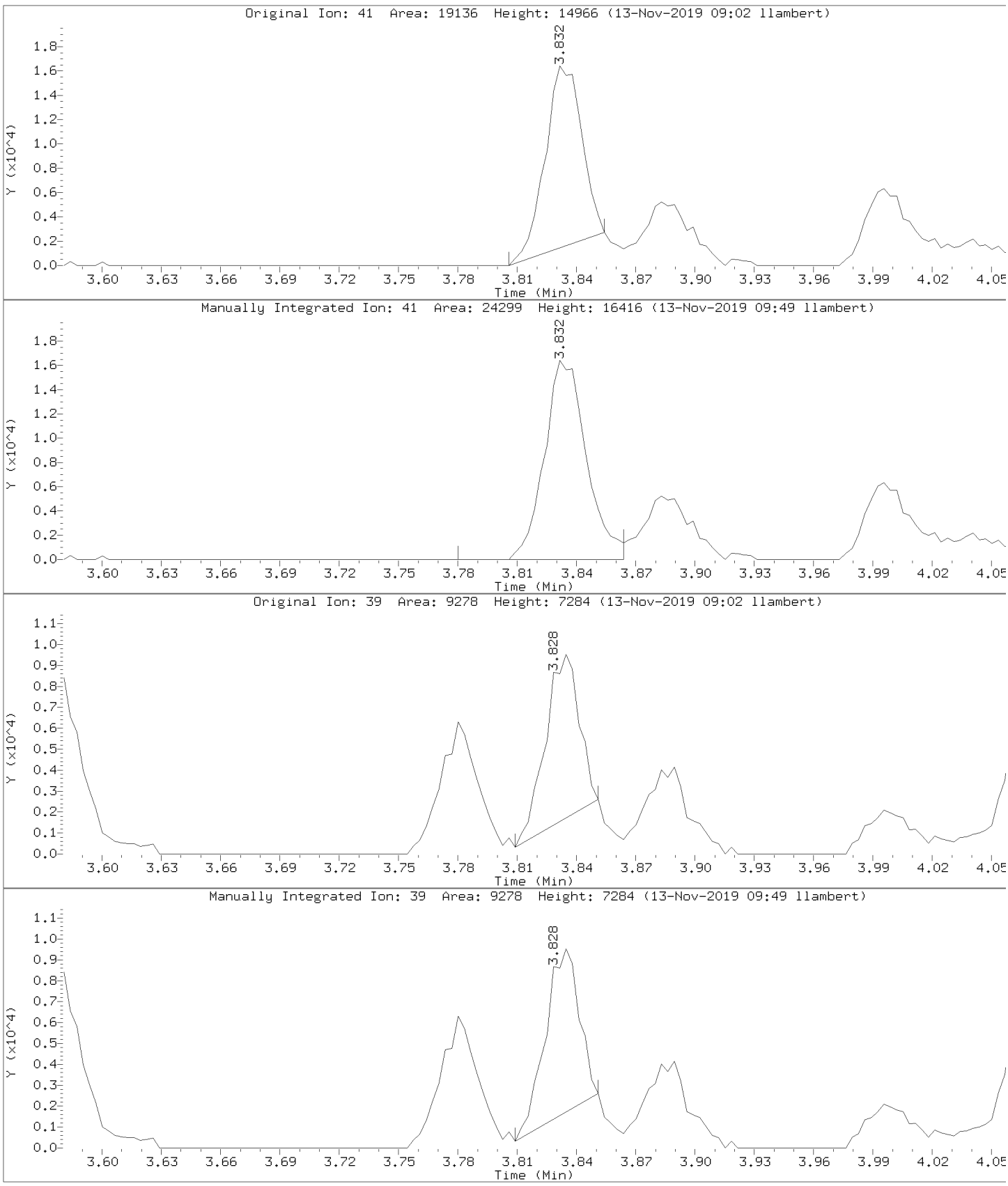
Date : 12-NOV-2019 15:01
Client ID: CAL3
Sample Info: CAL3, 10519:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112010.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
Toluene
Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
Chlorobenzene-d5 (IS)+
-o-Xylene
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-trans-1,4-Dichloro-2-bute+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112010.d
Injection Date: 12-NOV-2019 15:01
Instrument: 30mv7b.i
Lab Sample ID: CAL3

Compound: Methacrylonitrile Review Code: LT
CAS Number: 126-98-7



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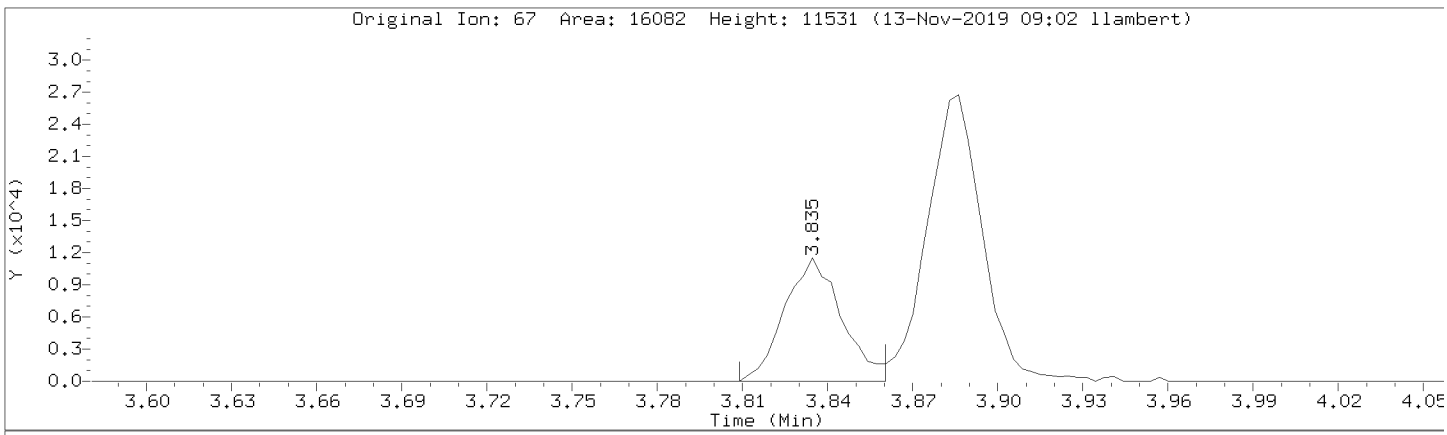
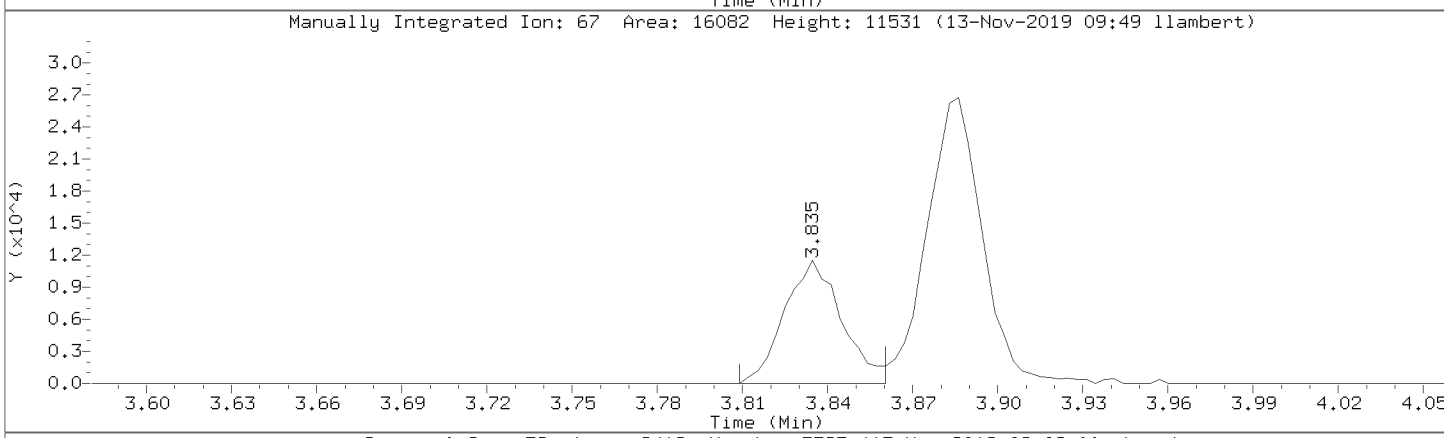
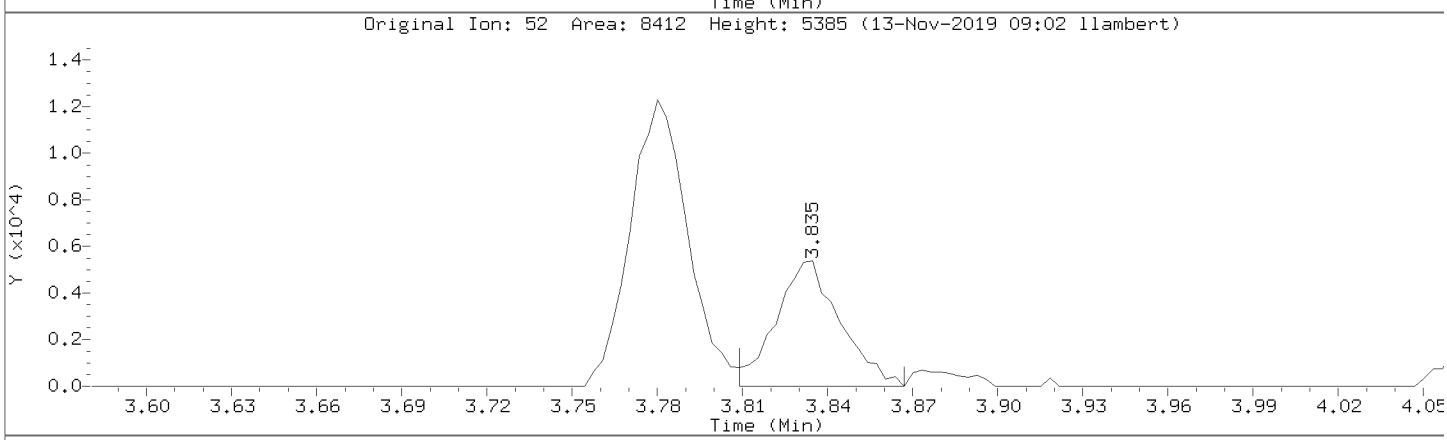
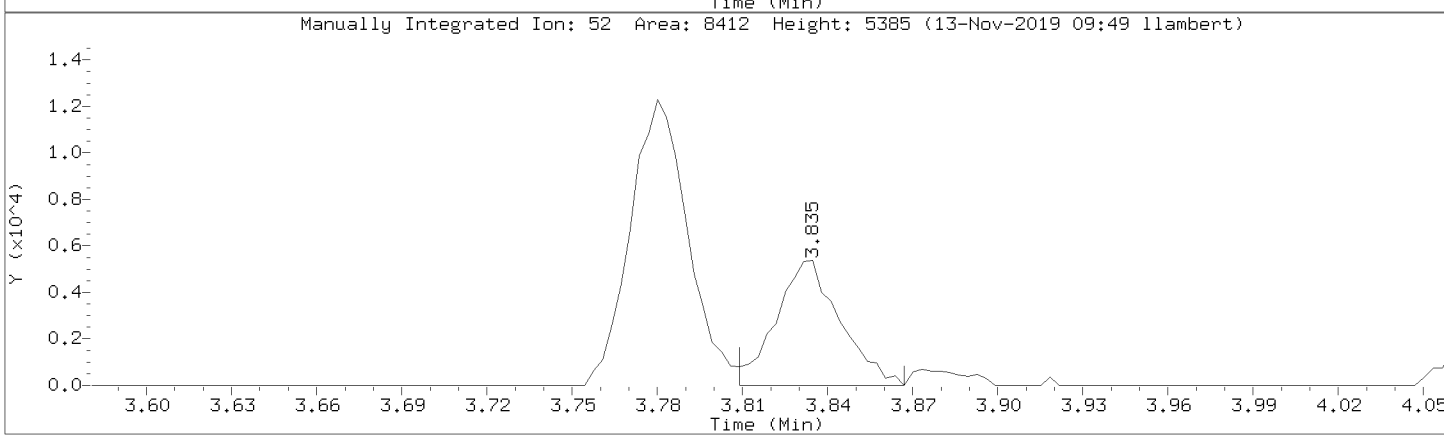
Instrument: 30mv7b.i
Lab Sample ID: CAL3









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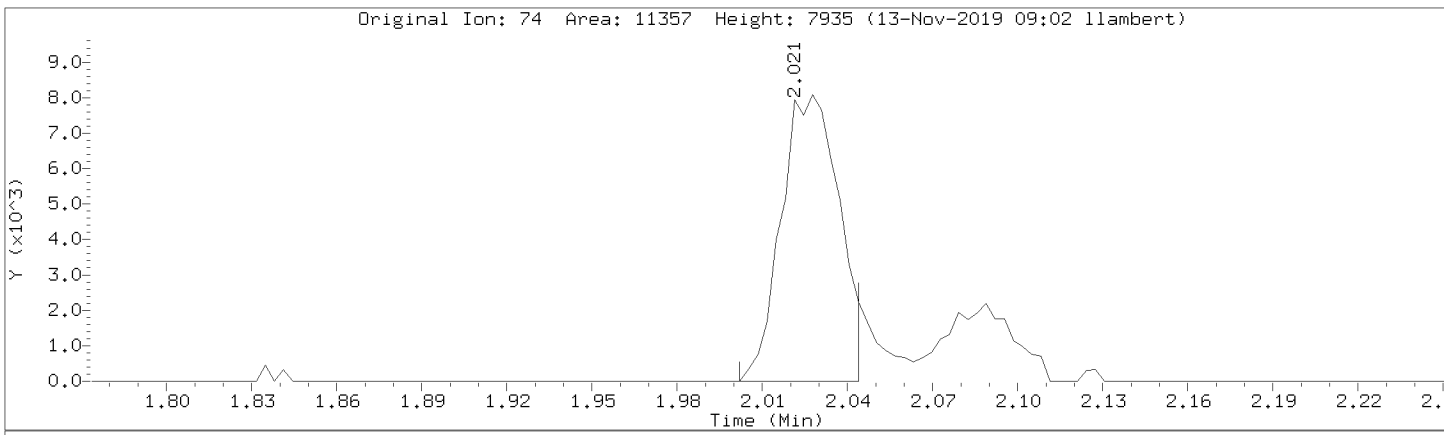
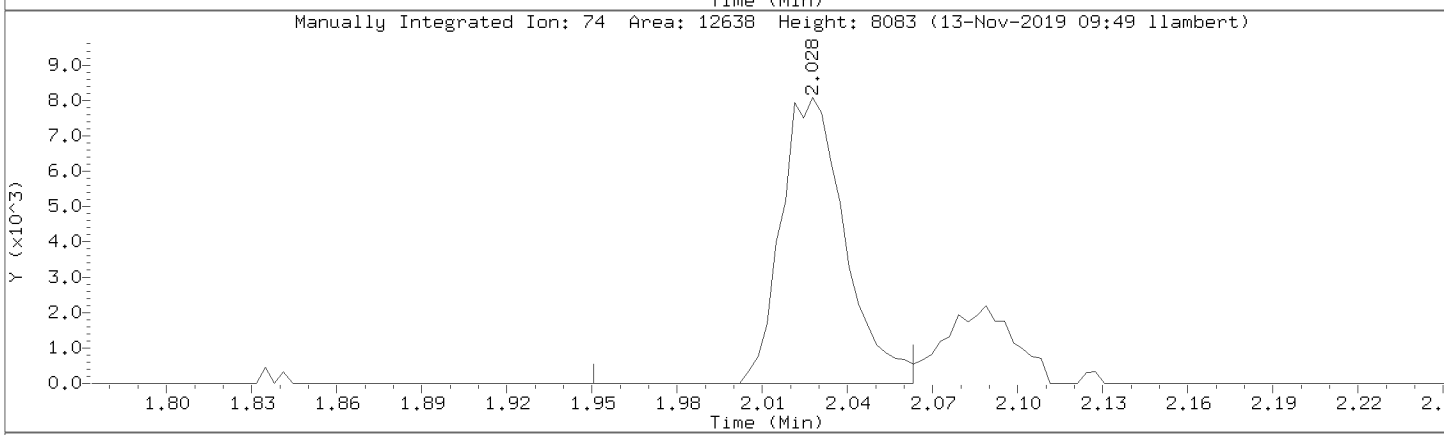
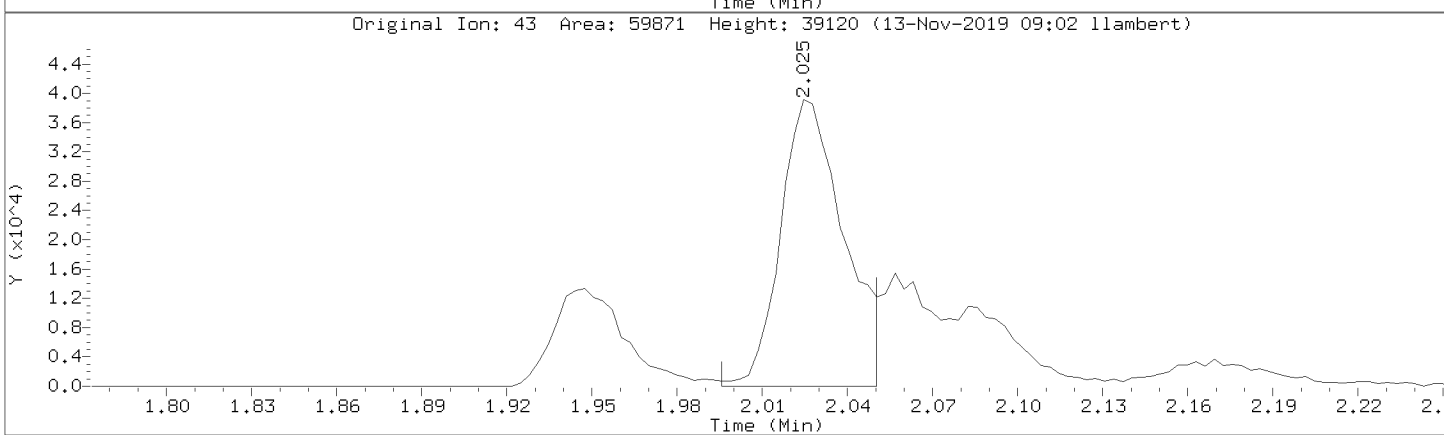
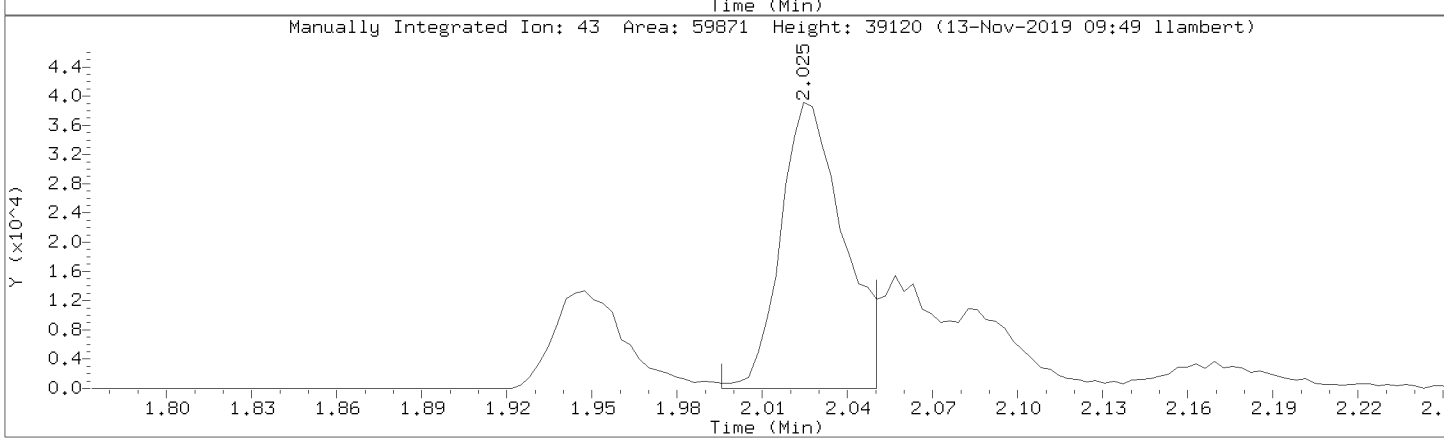
Injection Date: 12-NOV-2019 15:01
Instrument: 30mv7b.i
Lab Sample ID: CAL3

Compound: Methyl acetate Review Code: LT
CAS Number: 79-20-9









Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Lab Smp Id: CAL4 Client Smp ID: CAL4
Inj Date : 12-NOV-2019 15:26
Operator : LEL Inst ID: 30mv7b.i
Smp Info : cal4, 105191:1
Misc Info : 47222,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:26 Cal File: 71112012.d
Als bottle: 12 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.841	0.841	(0.207)	58247	20.0000	20.5(Q)	
2 Chloromethane	50	0.941	0.941	(0.231)	63805	20.0000	20.6	
3 Vinyl chloride	62	0.982	0.979	(0.242)	68187	20.0000	20.5	
4 Bromomethane	94	1.140	1.140	(0.280)	21856	20.0000	20.2	
5 Chloroethane	64	1.198	1.198	(0.295)	18465	20.0000	20.4	
6 Trichlorofluoromethane	101	1.269	1.269	(0.312)	91384	20.0000	21.0	
7 Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	48536	20.0000	20.8	
8 Ethanol	46	1.529	1.542	(0.236)	6960	200.000	214	
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	89165	20.0000	20.6	
10 1,1,2-Trichlorotrifluoroethane	151	1.571	1.571	(0.386)	48113	20.0000	20.6	
11 Carbon disulfide	76	1.568	1.568	(0.386)	139484	20.0000	20.3	
12 Iodomethane	142	1.635	1.635	(0.402)	20319	20.0000	17.6	
13 Acrolein	56	1.757	1.754	(0.432)	15307	20.0000	20.6	
14 Allyl chloride	41	1.835	1.835	(0.451)	384552	100.000	104	
15 Methylene Chloride	49	1.905	1.902	(0.469)	65549	20.0000	20.9	
16 Acetone	58	1.947	1.944	(0.479)	13883	20.0000	21.7	
17 trans-1,2-Dichloroethene	61	2.011	2.008	(0.495)	73923	20.0000	20.7	
18 Methyl acetate	74	2.027	2.024	(0.499)	23525	20.0000	20.7	
19 n-Hexane	86	2.056	2.063	(0.506)	8363	20.0000	19.5(Q)	
20 Methyl-tert-butyl ether	73	2.089	2.089	(0.514)	144507	20.0000	20.6(Q)	
21 tert-Butyl Alcohol	59	2.169	2.172	(0.533)	112715	100.000	105	
22 Acetonitrile	41	2.281	2.278	(0.561)	58770	100.000	103	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.372	2.375	(0.583)	157677	20.0000	20.4	
	24 Chloroprene	53	2.449	2.452	(0.602)	55106	20.0000	20.5	
	25 1,1-Dichloroethane	63	2.474	2.471	(0.609)	91986	20.0000	20.7	
	26 Acrylonitrile	53	2.526	2.526	(0.621)	39030	20.0000	21.1	
	27 Ethyl-tert-butyl ether	59	2.687	2.687	(0.661)	153229	20.0000	20.7	
	28 Vinyl acetate	43	2.703	2.706	(0.665)	141794	20.0000	20.5	
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	70110	20.0000	20.6	
	30 2,2-Dichloropropane	77	3.063	3.066	(0.753)	70080	20.0000	20.5	
	31 Cyclohexane	56	3.143	3.146	(0.773)	84055	20.0000	20.2	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	35448	20.0000	20.8	
	33 Chloroform	83	3.246	3.246	(0.798)	86481	20.0000	20.6	
	34 Ethyl acetate	43	3.407	3.407	(0.838)	45384	20.0000	20.6	
	35 Carbon tetrachloride	117	3.362	3.365	(0.827)	69021	20.0000	19.9	
	36 Tetrahydrofuran	42	3.413	3.407	(0.839)	42121	20.0000	21.0	
$	37 Dibromofluoromethane (S)	111	3.433	3.433	(0.844)	66969	30.0000	29.8	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	77962	20.0000	20.5	
	39 2-Butanone (MEK)	43	3.584	3.584	(0.881)	61974	20.0000	20.6	
	40 1,1-Dichloropropene	75	3.571	3.571	(0.878)	69654	20.0000	20.4(Q)	
	41 Benzene	78	3.780	3.780	(0.930)	201445	20.0000	20.6	
	42 Propionitrile	54	3.822	3.822	(0.940)	15663	20.0000	20.9(Q)	
	43 Methacrylonitrile	41	3.831	3.831	(0.942)	49170	20.0000	20.8	
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	128332	20.0000	20.4	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	67547	30.0000	30.2	
	45 Isobutanol	43	3.992	3.992	(0.982)	30402	100.000	101(QM)	GT
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	64576	20.0000	20.8	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	255922	30.0000		
	49 Methylcyclohexane	55	4.150	4.150	(1.021)	48332	20.0000	20.0	
	50 Trichloroethene	132	4.162	4.162	(1.024)	59203	20.0000	20.6	
	51 Dibromomethane	174	4.384	4.384	(1.078)	40433	20.0000	20.4	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	49337	20.0000	20.7	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	54770	20.0000	20.2	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	44284	20.0000	20.4	
	55 1,4-Dioxane (p-Dioxane)	88	4.571	4.568	(1.124)	9238	200.000	210(Q)	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	39487	20.0000	20.1	
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	69510	20.0000	20.1	
$	58 Toluene-d8 (S)	98	4.822	4.822	(0.875)	227733	30.0000	29.8	
	59 Toluene	91	4.844	4.844	(0.879)	204302	20.0000	20.5	
	60 2-Nitropropane	43	4.957	4.957	(1.219)	137993	100.000	101	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	92453	20.0000	21.1	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	56719	20.0000	20.4	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	63708	20.0000	20.1	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	43463	20.0000	20.4	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	46676	20.0000	20.9	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	52153	20.0000	20.2	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	78450	20.0000	21.0	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	52301	20.0000	20.5	
	69 2-Hexanone	43	5.391	5.391	(0.978)	74689	20.0000	20.5	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	169405	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	65528	20.0000	20.5	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	123426	20.0000	20.4	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.545	(1.006)	46369	20.0000	20.2	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	159722	40.0000	41.1	
	75 o-Xylene	106	5.770	5.770	(1.047)	75479	20.0000	20.2	
	76 Styrene	104	5.793	5.793	(1.051)	117721	20.0000	20.3	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 Bromoform	173	5.809	5.809	(0.896)	36525	20.0000	19.5	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	156128	20.0000	20.1	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	68206	30.0000	29.9	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	172134	20.0000	20.1	
	81 Bromobenzene	77	6.066	6.066	(0.936)	76611	20.0000	20.4	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	64831	20.0000	20.3	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	120900	20.0000	20.1	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	40316	20.0000	20.1(Q)	
	85 1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	22572	20.0000	20.1	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.953)	17288	20.0000	19.5	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	24371	100.000	89.8	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	43634	20.0000	20.4	
	89 tert-Butylbenzene	119	6.281	6.278	(0.969)	97701	20.0000	20.1	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	120209	20.0000	20.0	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	130885	20.0000	20.1	
	92 p-Isopropyltoluene	119	6.407	6.407	(0.989)	111918	20.0000	20.0	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	72530	20.0000	20.0	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	74482	30.0000		
	95 1,4-Dichlorobenzene	146	6.487	6.487	(1.001)	78319	20.0000	20.2	
	96 n-Butylbenzene	91	6.584	6.584	(1.016)	84738	20.0000	19.8	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	33628	30.0000	29.8	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	71506	20.0000	20.1	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	23463	20.0000	19.9	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	38724	20.0000	20.2	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	17927	20.0000	20.5	
	101 1,2,4-Trichlorobenzene	180	7.275	7.272	(1.123)	35299	20.0000	20.0	
	102 Naphthalene	128	7.410	7.410	(1.143)	159143	20.0000	20.1	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	34645	20.0000	20.0	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	63689	20.0000	19.6	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	20.5	
74-87-3	Chloromethane	20.6	
75-01-4	Vinyl chloride	20.5	
74-83-9	Bromomethane	20.2	
75-00-3	Chloroethane	20.4	
75-69-4	Trichlorofluoromethane	21.0	
60-29-7	Diethyl ether (Ethyl ether)	20.8	
64-17-5	Ethanol	214	
75-35-4	1,1-Dichloroethene	20.6	
76-13-1	1,1,2-Trichlorotrifluoroetha	20.6	
75-15-0	Carbon disulfide	20.3	
74-88-4	Iodomethane	17.6	
107-02-8	Acrolein	20.6	
107-05-1	Allyl chloride	104	
75-09-2	Methylene Chloride	20.9	
67-64-1	Acetone	21.7	
156-60-5	trans-1,2-Dichloroethene	20.7	
79-20-9	Methyl acetate	20.7	
110-54-3	n-Hexane	19.5	
1634-04-4	Methyl-tert-butyl ether	20.6	
75-65-0	tert-Butyl Alcohol	105	
75-05-8	Acetonitrile	103	
108-20-3	Diisopropyl ether	20.4	
126-99-8	Chloroprene	20.5	
75-34-3	1,1-Dichloroethane	20.7	
107-13-1	Acrylonitrile	21.1	
637-92-3	Ethyl-tert-butyl ether	20.7	
108-05-4	Vinyl acetate	20.5	
156-59-2	cis-1,2-Dichloroethene	20.6	
594-20-7	2,2-Dichloropropane	20.5	
110-82-7	Cyclohexane	20.2	
74-97-5	Bromochloromethane	20.8	
67-66-3	Chloroform	20.6	
141-78-6	Ethyl acetate	20.6	
56-23-5	Carbon tetrachloride	19.9	
109-99-9	Tetrahydrofuran	21.0	
71-55-6	1,1,1-Trichloroethane	20.5	
78-93-3	2-Butanone (MEK)	20.6	
563-58-6	1,1-Dichloropropene	20.4	
71-43-2	Benzene	20.6	
107-12-0	Propionitrile	20.9	
126-98-7	Methacrylonitrile	20.8	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	20.4	
78-83-1	Isobutanol	101	
107-06-2	1,2-Dichloroethane	20.8	
108-87-2	Methylcyclohexane	20.0	
79-01-6	Trichloroethene	20.6	
74-95-3	Dibromomethane	20.4	
78-87-5	1,2-Dichloropropane	20.7	
75-27-4	Bromodichloromethane	20.2	
80-62-6	Methyl methacrylate	20.4	
123-91-1	1,4-Dioxane (p-Dioxane)	210	
110-75-8	2-Chloroethylvinyl ether	20.1	
10061-01-5	cis-1,3-Dichloropropene	20.1	
108-88-3	Toluene	20.5	
79-46-9	2-Nitropropane	101	
108-10-1	4-Methyl-2-pentanone (MIBK)	21.1	
127-18-4	Tetrachloroethene	20.4	
10061-02-6	trans-1,3-Dichloropropene	20.1	
97-63-2	Ethyl methacrylate	20.4	
79-00-5	1,1,2-Trichloroethane	20.9	
124-48-1	Dibromochloromethane	20.2	
142-28-9	1,3-Dichloropropane	21.0	
106-93-4	1,2-Dibromoethane (EDB)	20.5	
591-78-6	2-Hexanone	20.5	
100-41-4	Ethylbenzene	20.5	
108-90-7	Chlorobenzene	20.4	
630-20-6	1,1,1,2-Tetrachloroethane	20.2	
7816-60-0	m&p-Xylene	41.1	
95-47-6	o-Xylene	20.2	
100-42-5	Styrene	20.3	
75-25-2	Bromoform	19.5	
98-82-8	Isopropylbenzene (Cumene)	20.1	
103-65-1	n-Propylbenzene	20.1	
108-86-1	Bromobenzene	20.4	
79-34-5	1,1,2,2-Tetrachloroethane	20.3	
108-67-8	1,3,5-Trimethylbenzene	20.1	
95-49-8	2-Chlorotoluene	20.1	
96-18-4	1,2,3-Trichloropropane	20.1	
110-57-6	trans-1,4-Dichloro-2-butene	19.5	
108-94-1	Cyclohexanone	89.8	
106-43-4	4-Chlorotoluene	20.4	
98-06-6	tert-Butylbenzene	20.1	
95-63-6	1,2,4-Trimethylbenzene	20.0	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Report Date: 13-Nov-2019 09:51

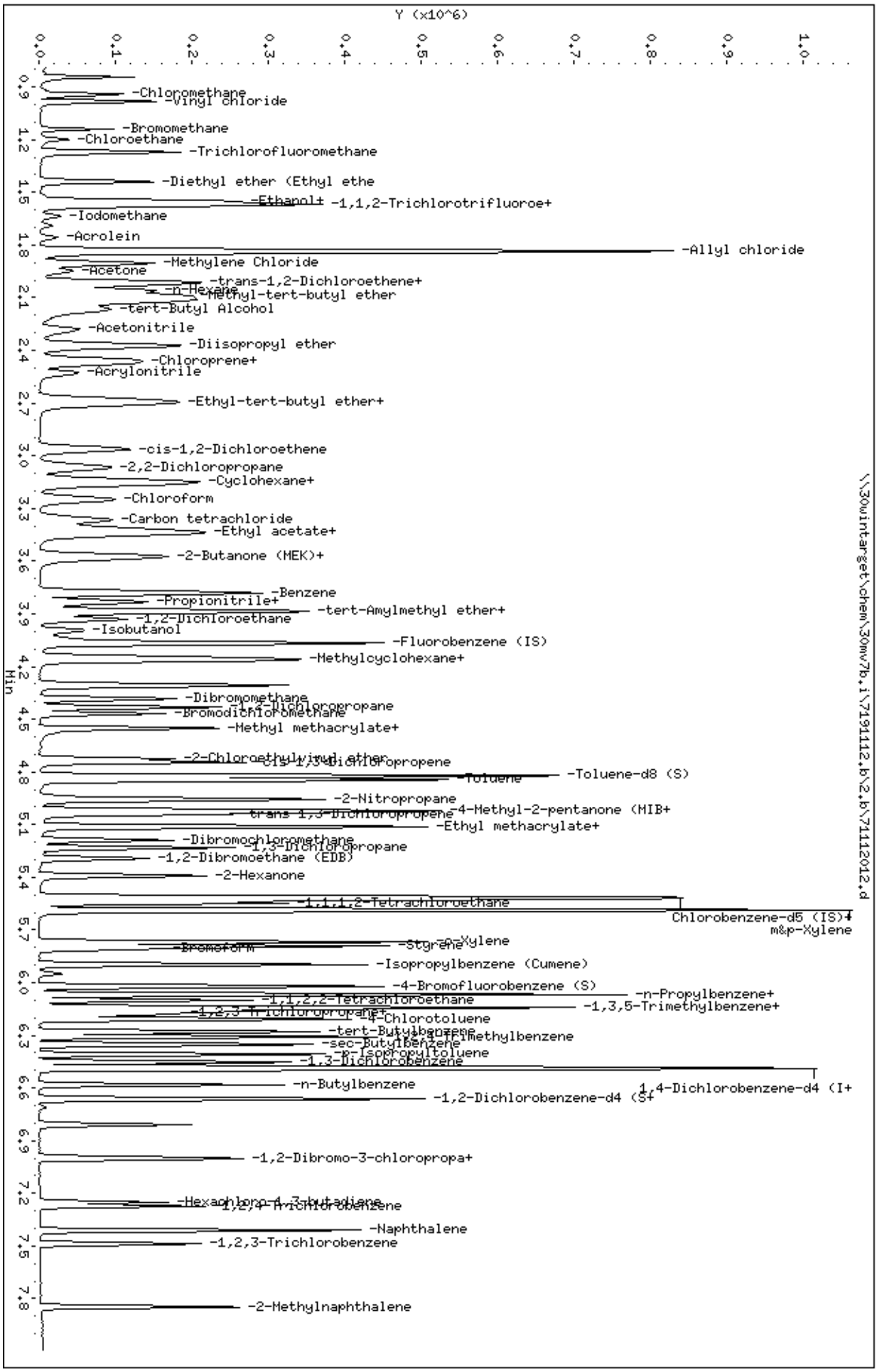
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL4
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL4
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	20.1	
99-87-6	p-Isopropyltoluene	20.0	
541-73-1	1,3-Dichlorobenzene	20.0	
106-46-7	1,4-Dichlorobenzene	20.2	
104-51-8	n-Butylbenzene	19.8	
95-50-1	1,2-Dichlorobenzene	20.1	
96-12-8	1,2-Dibromo-3-chloropropane	19.9	
108-70-3	1,3,5-Trichlorobenzene	20.2	
87-68-3	Hexachloro-1,3-butadiene	20.5	
120-82-1	1,2,4-Trichlorobenzene	20.0	
91-20-3	Naphthalene	20.1	
87-61-6	1,2,3-Trichlorobenzene	20.0	
91-57-6	2-Methylnaphthalene	19.6	
1868-53-7	Dibromofluoromethane (S)	29.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.2	
2037-26-5	Toluene-d8 (S)	29.8	
460-00-4	4-Bromofluorobenzene (S)	29.9	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.8	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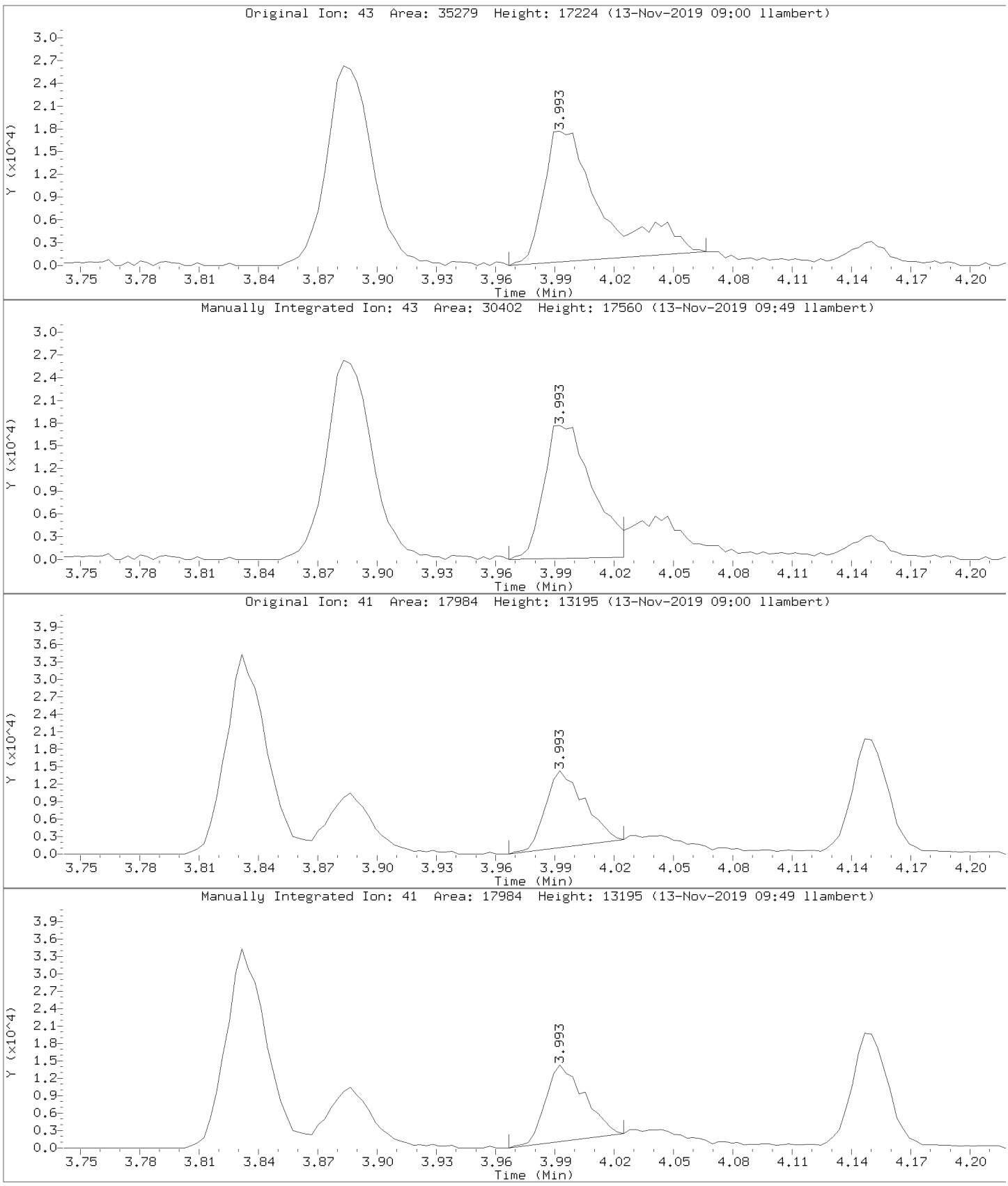
Date : 12-NOV-2019 15:26
Client ID: CAL4
Sample Info: CAL4, 10519111
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112012.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethyl vinyl ether
-cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Chlorobenzene-d5 (IS)+
m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-1,2,3-Trichloropropane
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112012.d
Injection Date: 12-NOV-2019 15:26
Instrument: 30mv7b.i
Lab Sample ID: CAL4

Compound: Isobutanol Review Code: GT
CAS Number: 78-83-1



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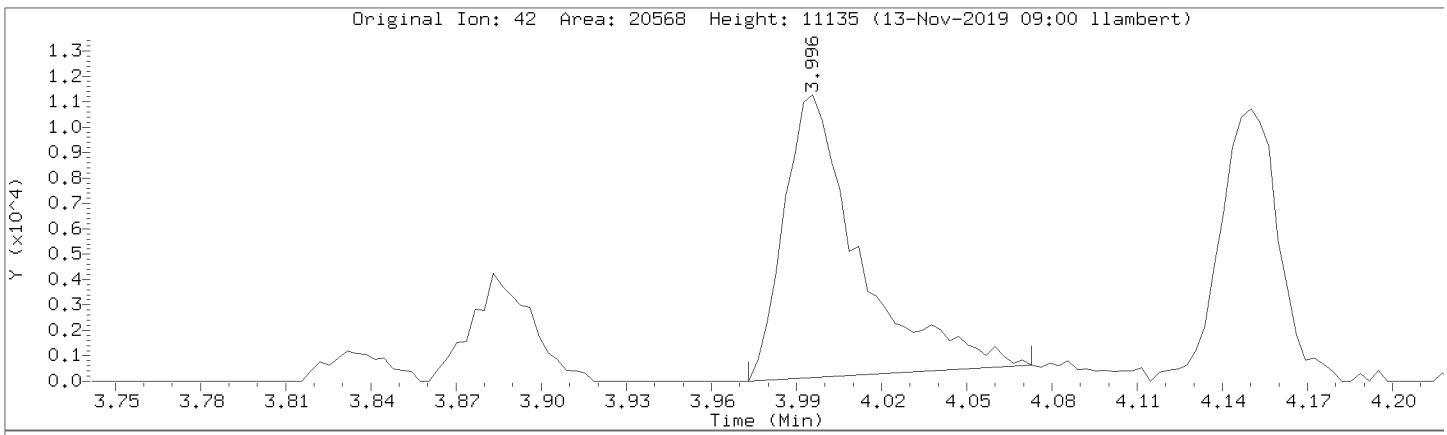
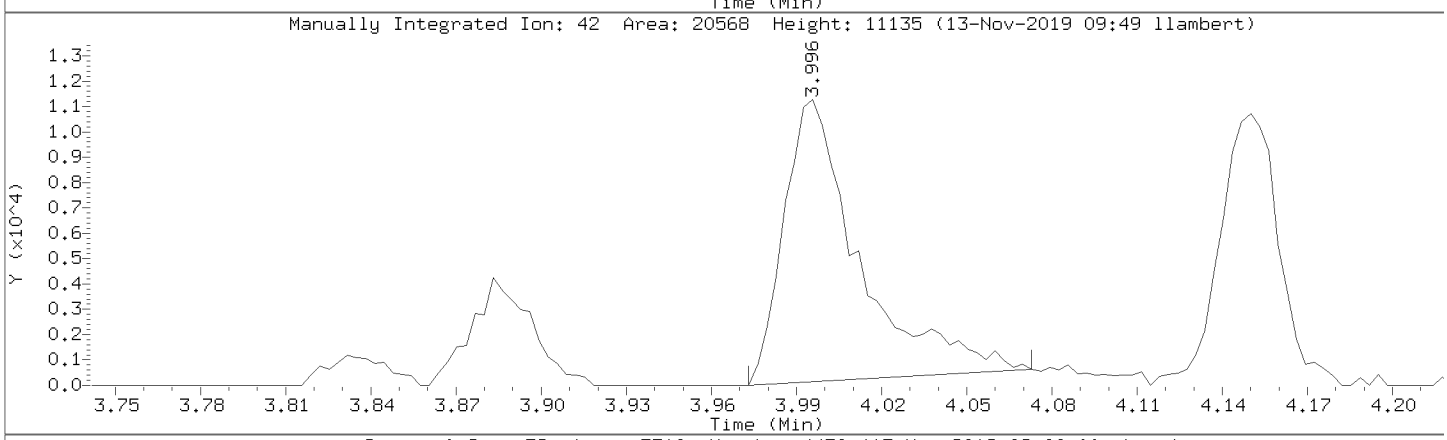
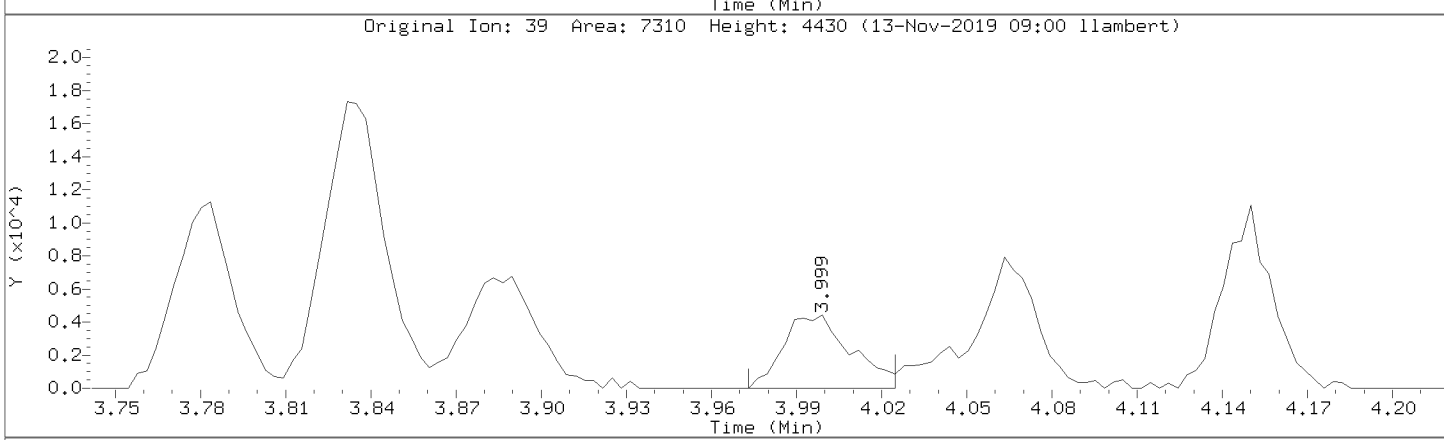
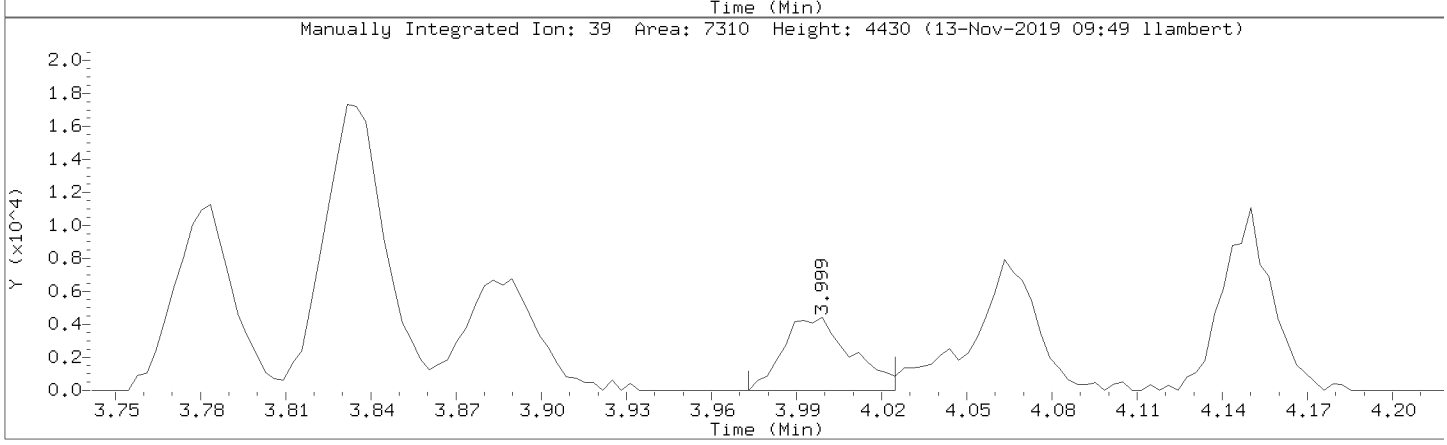
Injection Date: 12-NOV-2019 15:26
Instrument: 30mv7b.i
Lab Sample ID: CAL4









Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Lab Smp Id: CAL5 Client Smp ID: CAL5
Inj Date : 12-NOV-2019 15:51
Operator : LEL Inst ID: 30mv7b.i
Smp Info : cal5, 105192:1
Misc Info : 47222,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.841	0.841	(0.207)	136874	50.0000	52.8	
2	Chloromethane	50	0.941	0.941	(0.231)	149323	50.0000	45.6	
3	Vinyl chloride	62	0.979	0.979	(0.241)	160517	50.0000	51.3	
4	Bromomethane	94	1.140	1.140	(0.280)	52719	50.0000	52.5	
5	Chloroethane	64	1.198	1.198	(0.295)	43839	50.0000	49.9	
6	Trichlorofluoromethane	101	1.269	1.269	(0.312)	203908	50.0000	49.3	
7	Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	110256	50.0000	48.4	
8	Ethanol	46	1.542	1.542	(0.238)	14487	500.000	477	
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	208376	50.0000	51.4	
10	1,1,2-Trichlorotrifluoroethane	151	1.571	1.571	(0.386)	111607	50.0000	51.0	
11	Carbon disulfide	76	1.568	1.568	(0.386)	335323	50.0000	49.3	
12	Iodomethane	142	1.635	1.635	(0.402)	63678	50.0000	53.1	
13	Acrolein	56	1.754	1.754	(0.431)	35811	50.0000	51.0	
14	Allyl chloride	41	1.835	1.835	(0.451)	880415	250.000	255	
15	Methylene Chloride	49	1.902	1.902	(0.468)	148092	50.0000	51.2	
16	Acetone	58	1.944	1.944	(0.478)	29056	50.0000	52.7	
17	trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	171109	50.0000	49.5	
18	Methyl acetate	74	2.024	2.024	(0.498)	54237	50.0000	49.2	
19	n-Hexane	86	2.063	2.063	(0.507)	21693	50.0000	52.9	
20	Methyl-tert-butyl ether	73	2.089	2.089	(0.514)	338269	50.0000	48.2	
21	tert-Butyl Alcohol	59	2.172	2.172	(0.534)	252446	250.000	241	
22	Acetonitrile	41	2.278	2.278	(0.560)	136683	250.000	237	
23	Diisopropyl ether	45	2.375	2.375	(0.584)	373171	50.0000	49.3	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Chloroprene	53	2.452	2.452	(0.603)	129606	50.0000	49.3	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	212434	50.0000	49.8	
	26 Acrylonitrile	53	2.526	2.526	(0.621)	86427	50.0000	48.2	
	27 Ethyl-tert-butyl ether	59	2.687	2.687	(0.661)	352773	50.0000	48.8	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	334446	50.0000	50.8	
	29 cis-1,2-Dichloroethene	61	2.957	2.957	(0.727)	162491	50.0000	49.8	
	30 2,2-Dichloropropane	77	3.066	3.066	(0.754)	164499	50.0000	50.5	
	31 Cyclohexane	56	3.146	3.146	(0.774)	202643	50.0000	52.2	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	81073	50.0000	50.0	
	33 Chloroform	83	3.246	3.246	(0.798)	202272	50.0000	49.1	
	34 Ethyl acetate	43	3.407	3.407	(0.838)	106139	50.0000	48.0	
	35 Carbon tetrachloride	117	3.365	3.365	(0.828)	172343	50.0000	52.0	
	36 Tetrahydrofuran	42	3.407	3.407	(0.838)	94268	50.0000	49.3	
$	37 Dibromofluoromethane (S)	111	3.433	3.433	(0.844)	67031	30.0000	30.6	
	38 1,1,1-Trichloroethane	97	3.439	3.439	(0.846)	182816	50.0000	51.6	
	39 2-Butanone (MEK)	43	3.584	3.584	(0.881)	143815	50.0000	49.6	
	40 1,1-Dichloropropene	75	3.571	3.571	(0.878)	165428	50.0000	51.1	
	41 Benzene	78	3.780	3.780	(0.930)	466669	50.0000	49.1	
	42 Propionitrile	54	3.822	3.822	(0.940)	35289	50.0000	51.0	
	43 Methacrylonitrile	41	3.831	3.831	(0.942)	112486	50.0000	50.2	
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	303625	50.0000	50.1	
$	46 1,2-Dichloroethane-d4 (S)	65	3.883	3.883	(0.955)	66100	30.0000	29.3	
	45 Isobutanol	43	3.992	3.992	(0.982)	73327	250.000	248(M)	BA
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	147712	50.0000	49.3	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	253233	30.0000		
	49 Methylcyclohexane	55	4.150	4.150	(1.021)	118964	50.0000	52.2	
	50 Trichloroethene	132	4.162	4.162	(1.024)	138401	50.0000	50.6	
	51 Dibromomethane	174	4.384	4.384	(1.078)	96297	50.0000	51.0	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	113324	50.0000	50.7	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	132754	50.0000	51.8	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	105437	50.0000	53.5	
	55 1,4-Dioxane (p-Dioxane)	88	4.568	4.568	(1.123)	20576	500.000	484	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	93932	50.0000	49.7(M)	GT
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	170053	50.0000	53.5	
$	58 Toluene-d8 (S)	98	4.822	4.822	(0.875)	227093	30.0000	30.2	
	59 Toluene	91	4.844	4.844	(0.879)	478134	50.0000	49.7	
	60 2-Nitropropane	43	4.957	4.957	(1.219)	333137	250.000	273	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	204041	50.0000	50.4	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	133644	50.0000	50.5	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	155799	50.0000	53.1	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	103104	50.0000	51.5	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	105313	50.0000	49.3	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	125838	50.0000	53.3	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	175096	50.0000	48.7	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	122815	50.0000	50.0	
	69 2-Hexanone	43	5.391	5.391	(0.978)	175486	50.0000	50.8	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	166905	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	153025	50.0000	50.6	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	291408	50.0000	50.7	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	112131	50.0000	52.6	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	372366	100.000	102	
	75 o-Xylene	106	5.770	5.770	(1.047)	181499	50.0000	51.1	
	76 Styrene	104	5.793	5.793	(1.051)	281883	50.0000	52.4	
	77 Bromoform	173	5.809	5.809	(0.896)	92181	50.0000	50.3	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	369146	50.0000	51.2	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	65994	30.0000	29.6	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	410266	50.0000	51.2	
	81 Bromobenzene	77	6.066	6.066	(0.936)	175608	50.0000	49.8	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	150679	50.0000	49.7	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	287880	50.0000	51.6	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	95341	50.0000	50.4	
	85 1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	53626	50.0000	49.7	
	86 trans-1,4-Dichloro-2-butene	53	6.172	6.172	(0.952)	43642	50.0000	44.8	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	71807	250.000	245	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	100109	50.0000	50.0	
	89 tert-Butylbenzene	119	6.278	6.278	(0.969)	232111	50.0000	51.4	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	287196	50.0000	51.9	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	310783	50.0000	51.4	
	92 p-Isopropyltoluene	119	6.407	6.407	(0.989)	267508	50.0000	52.3	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	174127	50.0000	50.2	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	71498	30.0000		
	95 1,4-Dichlorobenzene	146	6.487	6.487	(1.001)	184281	50.0000	49.5	
	96 n-Butylbenzene	91	6.584	6.584	(1.016)	207808	50.0000	52.4	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	32810	30.0000	30.1	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	169232	50.0000	50.0	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	56729	50.0000	51.2	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	91356	50.0000	50.1	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	40890	50.0000	49.4	
	101 1,2,4-Trichlorobenzene	180	7.272	7.272	(1.122)	84995	50.0000	50.5	
	102 Naphthalene	128	7.410	7.410	(1.143)	379211	50.0000	51.0	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	82736	50.0000	49.3	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	159421	50.0000	51.4	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
BA: Indicates that the baseline had to be adjusted correctly by the analyst.
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	52.8	
74-87-3	Chloromethane	45.6	
75-01-4	Vinyl chloride	51.3	
74-83-9	Bromomethane	52.5	
75-00-3	Chloroethane	49.9	
75-69-4	Trichlorofluoromethane	49.3	
60-29-7	Diethyl ether (Ethyl ether)	48.4	
64-17-5	Ethanol	477	
75-35-4	1,1-Dichloroethene	51.4	
76-13-1	1,1,2-Trichlorotrifluoroetha	51.0	
75-15-0	Carbon disulfide	49.3	
74-88-4	Iodomethane	53.1	
107-02-8	Acrolein	51.0	
107-05-1	Allyl chloride	255	
75-09-2	Methylene Chloride	51.2	
67-64-1	Acetone	52.7	
156-60-5	trans-1,2-Dichloroethene	49.5	
79-20-9	Methyl acetate	49.2	
110-54-3	n-Hexane	52.9	
1634-04-4	Methyl-tert-butyl ether	48.2	
75-65-0	tert-Butyl Alcohol	241	
75-05-8	Acetonitrile	237	
108-20-3	Diisopropyl ether	49.3	
126-99-8	Chloroprene	49.3	
75-34-3	1,1-Dichloroethane	49.8	
107-13-1	Acrylonitrile	48.2	
637-92-3	Ethyl-tert-butyl ether	48.8	
108-05-4	Vinyl acetate	50.8	
156-59-2	cis-1,2-Dichloroethene	49.8	
594-20-7	2,2-Dichloropropane	50.5	
110-82-7	Cyclohexane	52.2	
74-97-5	Bromochloromethane	50.0	
67-66-3	Chloroform	49.1	
141-78-6	Ethyl acetate	48.0	
56-23-5	Carbon tetrachloride	52.0	
109-99-9	Tetrahydrofuran	49.3	
71-55-6	1,1,1-Trichloroethane	51.6	
78-93-3	2-Butanone (MEK)	49.6	
563-58-6	1,1-Dichloropropene	51.1	
71-43-2	Benzene	49.1	
107-12-0	Propionitrile	51.0	
126-98-7	Methacrylonitrile	50.2	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	50.1	
78-83-1	Isobutanol	248	
107-06-2	1,2-Dichloroethane	49.3	
108-87-2	Methylcyclohexane	52.2	
79-01-6	Trichloroethene	50.6	
74-95-3	Dibromomethane	51.0	
78-87-5	1,2-Dichloropropane	50.7	
75-27-4	Bromodichloromethane	51.8	
80-62-6	Methyl methacrylate	53.5	
123-91-1	1,4-Dioxane (p-Dioxane)	484	
110-75-8	2-Chloroethylvinyl ether	49.7	
10061-01-5	cis-1,3-Dichloropropene	53.5	
108-88-3	Toluene	49.7	
79-46-9	2-Nitropropane	273	
108-10-1	4-Methyl-2-pentanone (MIBK)	50.4	
127-18-4	Tetrachloroethene	50.5	
10061-02-6	trans-1,3-Dichloropropene	53.1	
97-63-2	Ethyl methacrylate	51.5	
79-00-5	1,1,2-Trichloroethane	49.3	
124-48-1	Dibromochloromethane	53.3	
142-28-9	1,3-Dichloropropane	48.7	
106-93-4	1,2-Dibromoethane (EDB)	50.0	
591-78-6	2-Hexanone	50.8	
100-41-4	Ethylbenzene	50.6	
108-90-7	Chlorobenzene	50.7	
630-20-6	1,1,1,2-Tetrachloroethane	52.6	
7816-60-0	m&p-Xylene	102	
95-47-6	o-Xylene	51.1	
100-42-5	Styrene	52.4	
75-25-2	Bromoform	50.3	
98-82-8	Isopropylbenzene (Cumene)	51.2	
103-65-1	n-Propylbenzene	51.2	
108-86-1	Bromobenzene	49.8	
79-34-5	1,1,2,2-Tetrachloroethane	49.7	
108-67-8	1,3,5-Trimethylbenzene	51.6	
95-49-8	2-Chlorotoluene	50.4	
96-18-4	1,2,3-Trichloropropane	49.7	
110-57-6	trans-1,4-Dichloro-2-butene	44.8	
108-94-1	Cyclohexanone	245	
106-43-4	4-Chlorotoluene	50.0	
98-06-6	tert-Butylbenzene	51.4	
95-63-6	1,2,4-Trimethylbenzene	51.9	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Report Date: 13-Nov-2019 09:51

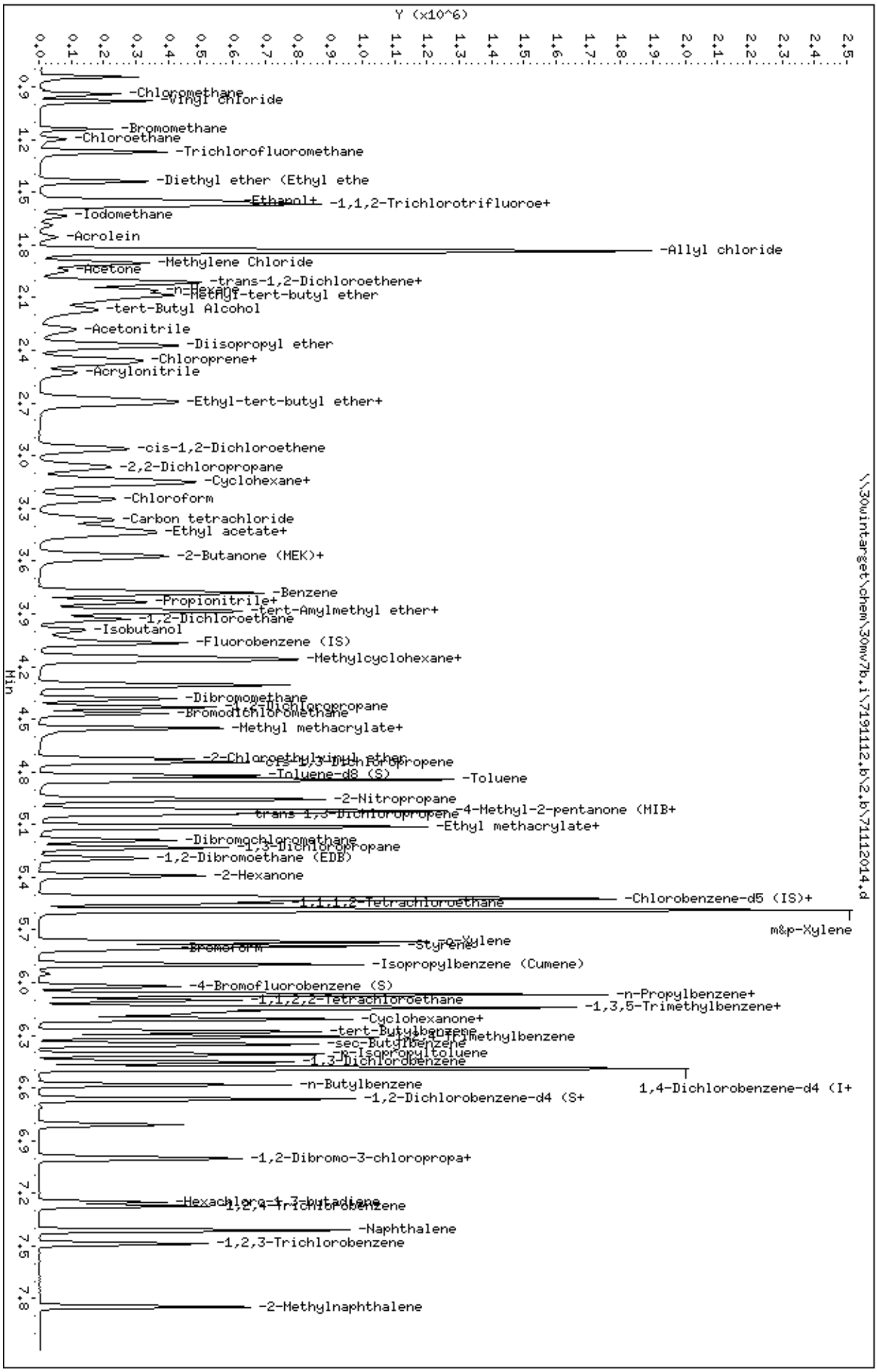
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL5
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL5
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	51.4	
99-87-6	p-Isopropyltoluene	52.3	
541-73-1	1,3-Dichlorobenzene	50.2	
106-46-7	1,4-Dichlorobenzene	49.5	
104-51-8	n-Butylbenzene	52.4	
95-50-1	1,2-Dichlorobenzene	50.0	
96-12-8	1,2-Dibromo-3-chloropropane	51.2	
108-70-3	1,3,5-Trichlorobenzene	50.1	
87-68-3	Hexachloro-1,3-butadiene	49.4	
120-82-1	1,2,4-Trichlorobenzene	50.5	
91-20-3	Naphthalene	51.0	
87-61-6	1,2,3-Trichlorobenzene	49.3	
91-57-6	2-Methylnaphthalene	51.4	
1868-53-7	Dibromofluoromethane (S)	30.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	29.3	
2037-26-5	Toluene-d8 (S)	30.2	
460-00-4	4-Bromofluorobenzene (S)	29.6	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	30.1	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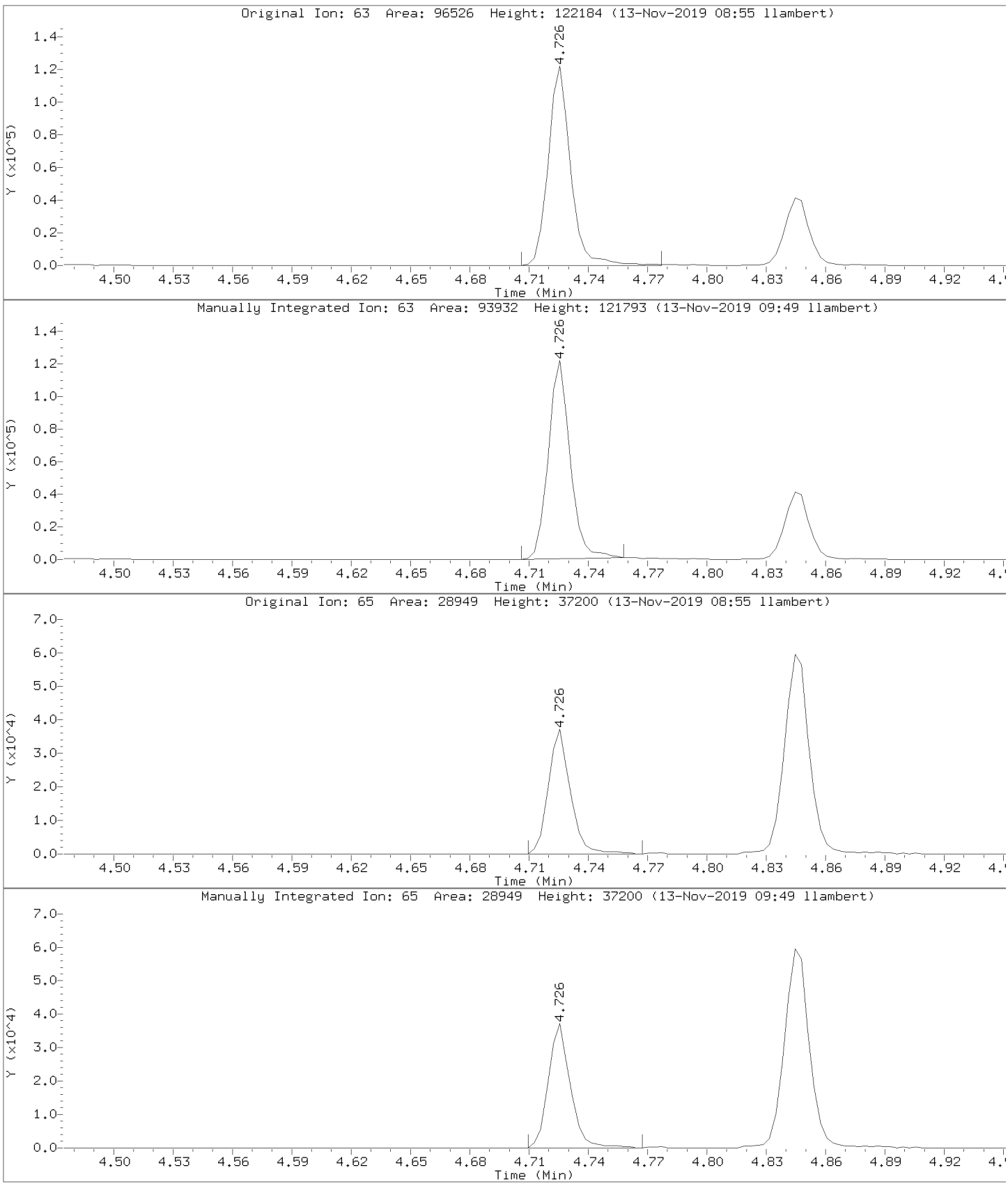
Date : 12-NOV-2019 15:51
Client ID: CAL5
Sample Info: CAL5, 10519211
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112014.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-Bromoform
-Styrene
o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-4-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112014.d
Injection Date: 12-NOV-2019 15:51
Instrument: 30mv7b.i
Lab Sample ID: CAL5

Compound: 2-Chloroethylvinyl ether Review Code: GT
CAS Number: 110-75-8



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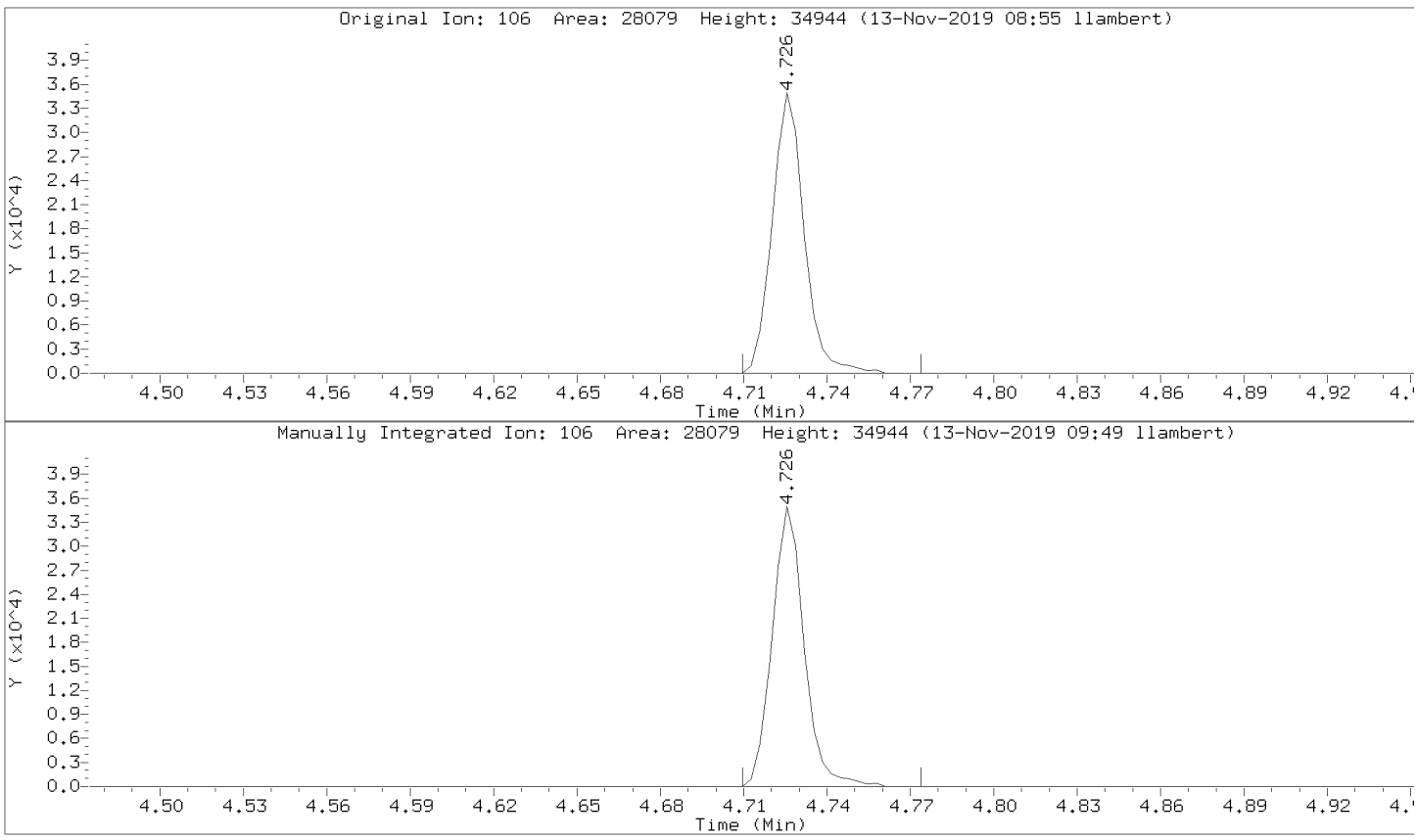
Injection Date: 12-NOV-2019 15:51
Instrument: 30mv7b.i
Lab Sample ID: CAL5



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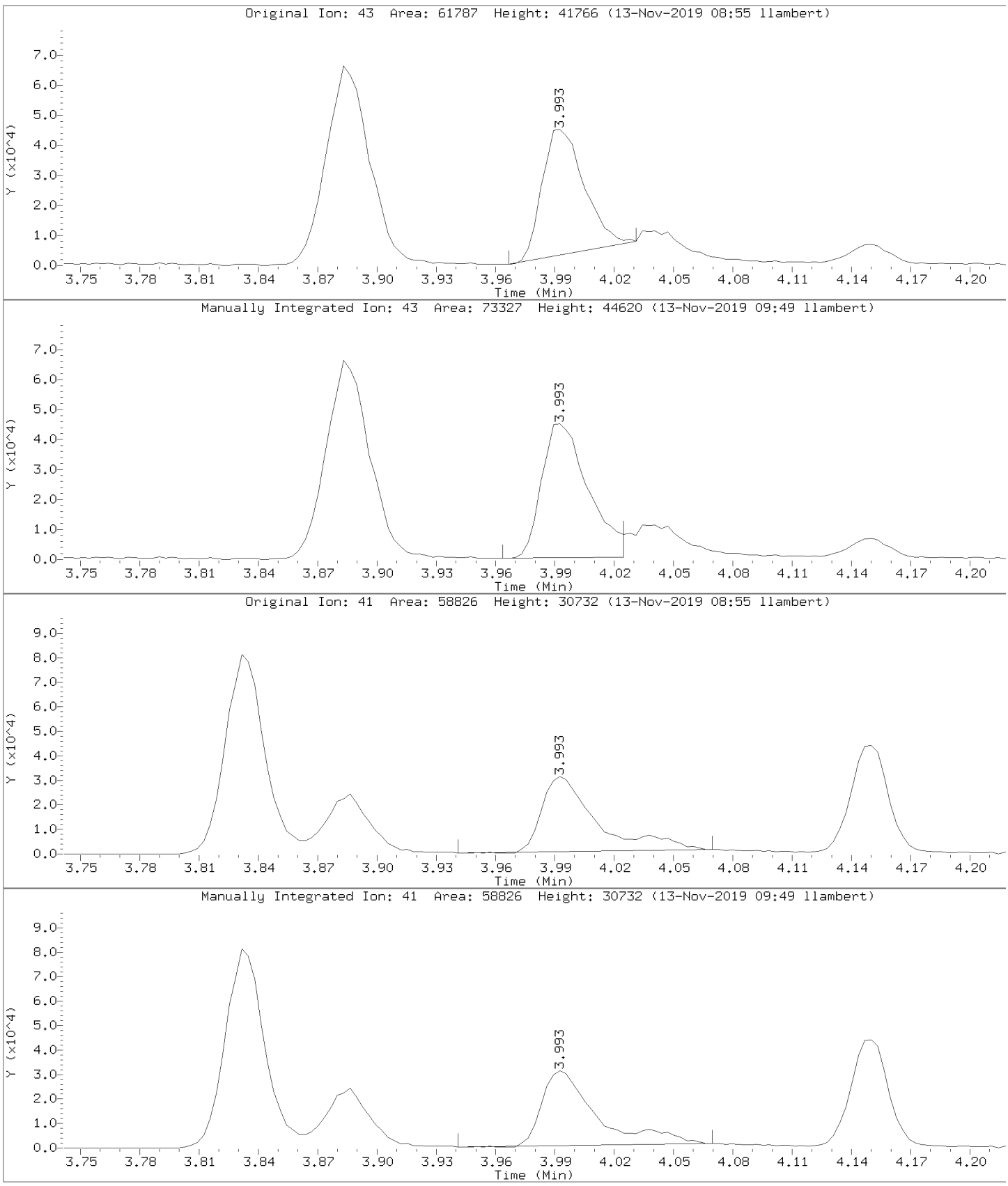
Injection Date: 12-NOV-2019 15:51
Instrument: 30mv7b.i
Lab Sample ID: CAL5

Compound: Isobutanol Review Code: BA
CAS Number: 78-83-1



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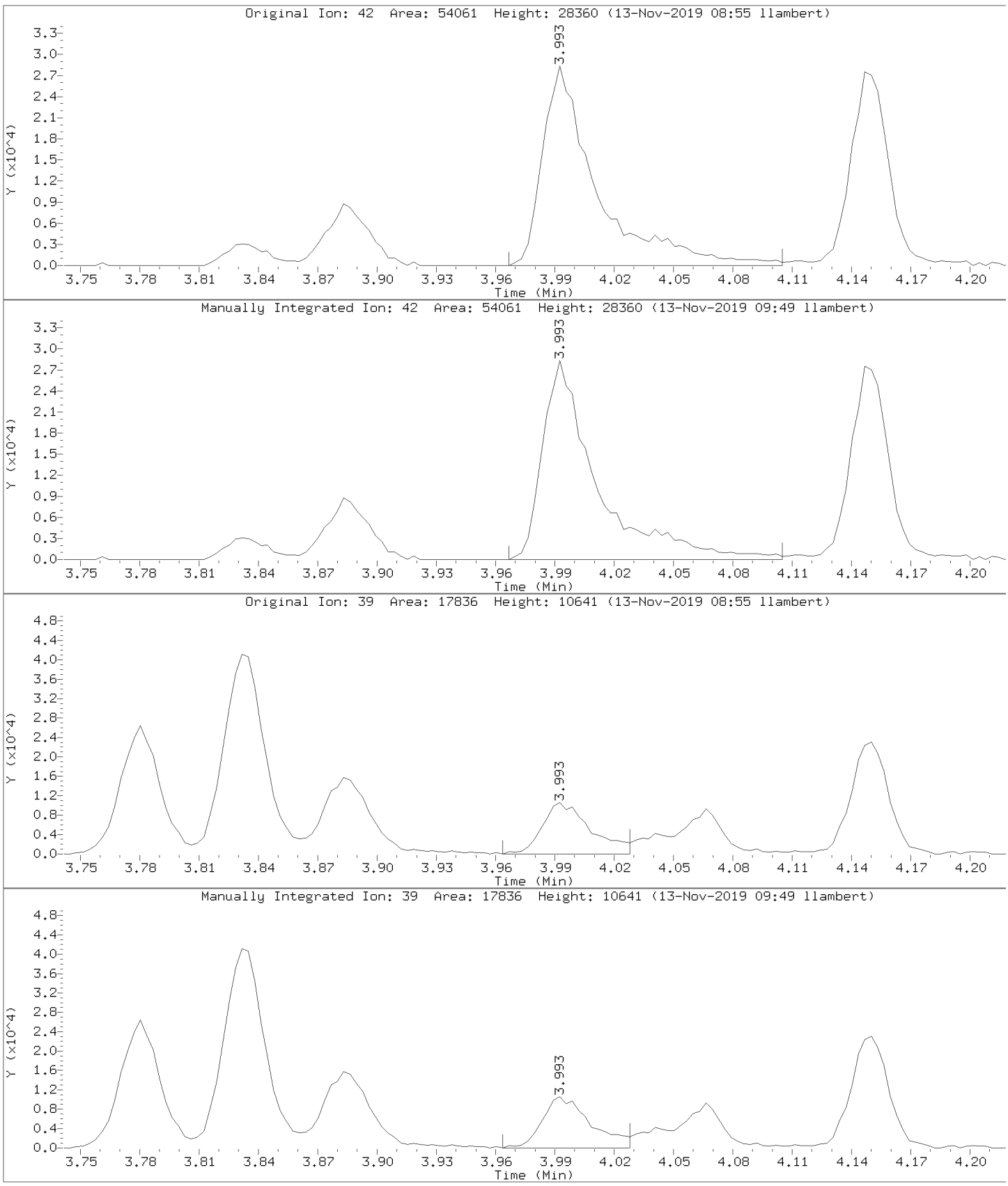
Injection Date: 12-NOV-2019 15:51
Instrument: 30mv7b.i
Lab Sample ID: CAL5



Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Lab Smp Id: CAL6 Client Smp ID: CAL6
Inj Date : 12-NOV-2019 16:16
Operator : LEL Inst ID: 30mv7b.i
Smp Info : cal6, 105193:1
Misc Info : 47222,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 16:16 Cal File: 71112016.d
Als bottle: 16 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.841	0.841	(0.207)	509325	200.000	190(Q)	
2 Chloromethane	50	0.938	0.941	(0.231)	655846	200.000	200	
3 Vinyl chloride	62	0.979	0.979	(0.241)	560381	200.000	171	
4 Bromomethane	94	1.140	1.140	(0.280)	182901	200.000	170	
5 Chloroethane	64	1.195	1.198	(0.294)	124959	200.000	134	
6 Trichlorofluoromethane	101	1.265	1.269	(0.311)	617094	200.000	151	
7 Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	460141	200.000	192	
8 Ethanol	46	1.561	1.542	(0.241)	59495	2000.00	2240	
9 1,1-Dichloroethene	61	1.548	1.548	(0.381)	786633	200.000	185	
10 1,1,2-Trichlorotrifluoroethane	151	1.568	1.571	(0.386)	458882	200.000	203	
11 Carbon disulfide	76	1.564	1.568	(0.385)	1365221	200.000	194	
12 Iodomethane	142	1.632	1.635	(0.401)	210244	200.000	203	
13 Acrolein	56	1.757	1.754	(0.432)	144652	200.000	199	
14 Allyl chloride	41	1.835	1.835	(0.451)	3123116	1000.00	850	
15 Methylene Chloride	49	1.902	1.902	(0.468)	597088	200.000	159	
16 Acetone	58	1.947	1.944	(0.479)	109732	200.000	113	
17 trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	694065	200.000	194	
18 Methyl acetate	74	2.028	2.024	(0.499)	223222	200.000	195(Q)	
19 n-Hexane	86	2.060	2.063	(0.507)	86077	200.000	204	
20 Methyl-tert-butyl ether	73	2.089	2.089	(0.514)	1422340	200.000	196(Q)	
21 tert-Butyl Alcohol	59	2.182	2.172	(0.537)	996588	1000.00	912	
22 Acetonitrile	41	2.285	2.278	(0.562)	554085	1000.00	926	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.375	2.375	(0.584)	1546533	200.000	197	
	24 Chloroprene	53	2.452	2.452	(0.603)	546049	200.000	203	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	849730	200.000	191	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	362820	200.000	195	
	27 Ethyl-tert-butyl ether	59	2.687	2.687	(0.661)	1469126	200.000	196	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	1350590	200.000	200	
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	650839	200.000	192	
	30 2,2-Dichloropropane	77	3.063	3.066	(0.753)	671229	200.000	200	
	31 Cyclohexane	56	3.143	3.146	(0.773)	817779	200.000	206	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	303290	200.000	177	
	33 Chloroform	83	3.249	3.246	(0.799)	807272	200.000	188	
	34 Ethyl acetate	43	3.407	3.407	(0.838)	444605	200.000	216	
	35 Carbon tetrachloride	117	3.365	3.365	(0.828)	705021	200.000	209	
	36 Tetrahydrofuran	42	3.407	3.407	(0.838)	388231	200.000	195	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	67304	30.0000	29.7	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	737784	200.000	203	
	39 2-Butanone (MEK)	43	3.584	3.584	(0.881)	561897	200.000	185	
	40 1,1-Dichloropropene	75	3.571	3.571	(0.878)	663377	200.000	199(Q)	
	41 Benzene	78	3.780	3.780	(0.930)	1851311	200.000	188	
	42 Propionitrile	54	3.825	3.822	(0.941)	152403	200.000	215(Q)	
	43 Methacrylonitrile	41	3.835	3.831	(0.943)	455271	200.000	196	
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	1271580	200.000	203	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	69961	30.0000	30.2	
	45 Isobutanol	43	4.002	3.992	(0.984)	319551	1000.00	1130(M)	LT
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	584265	200.000	187	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	261176	30.0000		
	49 Methylcyclohexane	55	4.150	4.150	(1.021)	472721	200.000	203	
	50 Trichloroethene	132	4.166	4.162	(1.025)	540050	200.000	191	
	51 Dibromomethane	174	4.384	4.384	(1.078)	390317	200.000	199	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	454389	200.000	196	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	550435	200.000	209	
	54 Methyl methacrylate	69	4.552	4.551	(1.119)	452887	200.000	226	
	55 1,4-Dioxane (p-Dioxane)	88	4.571	4.568	(1.124)	84767	2000.00	2000	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	390387	200.000	224	
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	699870	200.000	215	
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	233421	30.0000	30.9	
	59 Toluene	91	4.844	4.844	(0.879)	1866351	200.000	191	
	60 2-Nitropropane	43	4.960	4.957	(1.220)	1384192	1000.00	1100	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	815231	200.000	192	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	517968	200.000	193	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	630834	200.000	214	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	434975	200.000	215	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	415987	200.000	190	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	510397	200.000	216	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	699343	200.000	190	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	489139	200.000	196	
	69 2-Hexanone	43	5.391	5.391	(0.978)	722371	200.000	207	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	169189	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	584577	200.000	189	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	1098156	200.000	187	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	446106	200.000	207	
	74 m&p-Xylene	106	5.590	5.587	(1.014)	1390144	400.000	369	
	75 o-Xylene	106	5.770	5.770	(1.047)	681556	200.000	188	
	76 Styrene	104	5.793	5.793	(1.051)	1087569	200.000	200	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Report Date: 13-Nov-2019 09:51

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 Bromoform	173	5.809	5.809	(0.896)	394451	200.000	246	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	1381573	200.000	197	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	64477	30.0000	30.0	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	1504060	200.000	192	
	81 Bromobenzene	77	6.066	6.066	(0.936)	674700	200.000	196	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	596880	200.000	203	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	1066001	200.000	196	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	359177	200.000	195(Q)	
	85 1,2,3-Trichloropropane	110	6.162	6.159	(0.950)	211428	200.000	201	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.952)	189240	200.000	255	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	283022	1000.00	1340	
	88 4-Chlorotoluene	126	6.207	6.207	(0.957)	378051	200.000	194	
	89 tert-Butylbenzene	119	6.281	6.278	(0.969)	851998	200.000	194	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	1064449	200.000	198	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	1132562	200.000	192	
	92 p-Isopropyltoluene	119	6.410	6.407	(0.989)	968583	200.000	195	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	649754	200.000	193	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	69134	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	6.490	6.487	(1.001)	678353	200.000	186	
	96 n-Butylbenzene	91	6.584	6.584	(1.015)	752176	200.000	196	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.027)	32114	30.0000	30.4(Q)	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	635274	200.000	193	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	239828	200.000	229	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.080)	337908	200.000	190	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	153256	200.000	190	
	101 1,2,4-Trichlorobenzene	180	7.275	7.272	(1.122)	324158	200.000	200	
	102 Naphthalene	128	7.410	7.410	(1.143)	1508373	200.000	212	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	314652	200.000	193	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.210)	639103	200.000	216	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	190	
74-87-3	Chloromethane	200	
75-01-4	Vinyl chloride	171	
74-83-9	Bromomethane	170	
75-00-3	Chloroethane	134	
75-69-4	Trichlorofluoromethane	151	
60-29-7	Diethyl ether (Ethyl ether)	192	
64-17-5	Ethanol	2240	
75-35-4	1,1-Dichloroethene	185	
76-13-1	1,1,2-Trichlorotrifluoroetha	203	
75-15-0	Carbon disulfide	194	
74-88-4	Iodomethane	203	
107-02-8	Acrolein	199	
107-05-1	Allyl chloride	850	
75-09-2	Methylene Chloride	159	
67-64-1	Acetone	113	
156-60-5	trans-1,2-Dichloroethene	194	
79-20-9	Methyl acetate	195	
110-54-3	n-Hexane	204	
1634-04-4	Methyl-tert-butyl ether	196	
75-65-0	tert-Butyl Alcohol	912	
75-05-8	Acetonitrile	926	
108-20-3	Diisopropyl ether	197	
126-99-8	Chloroprene	203	
75-34-3	1,1-Dichloroethane	191	
107-13-1	Acrylonitrile	195	
637-92-3	Ethyl-tert-butyl ether	196	
108-05-4	Vinyl acetate	200	
156-59-2	cis-1,2-Dichloroethene	192	
594-20-7	2,2-Dichloropropane	200	
110-82-7	Cyclohexane	206	
74-97-5	Bromochloromethane	177	
67-66-3	Chloroform	188	
141-78-6	Ethyl acetate	216	
56-23-5	Carbon tetrachloride	209	
109-99-9	Tetrahydrofuran	195	
71-55-6	1,1,1-Trichloroethane	203	
78-93-3	2-Butanone (MEK)	185	
563-58-6	1,1-Dichloropropene	199	
71-43-2	Benzene	188	
107-12-0	Propionitrile	215	
126-98-7	Methacrylonitrile	196	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Report Date: 13-Nov-2019 09:51

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	203	
78-83-1	Isobutanol	1130	
107-06-2	1,2-Dichloroethane	187	
108-87-2	Methylcyclohexane	203	
79-01-6	Trichloroethene	191	
74-95-3	Dibromomethane	199	
78-87-5	1,2-Dichloropropane	196	
75-27-4	Bromodichloromethane	209	
80-62-6	Methyl methacrylate	226	
123-91-1	1,4-Dioxane (p-Dioxane)	2000	
110-75-8	2-Chloroethylvinyl ether	224	
10061-01-5	cis-1,3-Dichloropropene	215	
108-88-3	Toluene	191	
79-46-9	2-Nitropropane	1100	
108-10-1	4-Methyl-2-pentanone (MIBK)	192	
127-18-4	Tetrachloroethene	193	
10061-02-6	trans-1,3-Dichloropropene	214	
97-63-2	Ethyl methacrylate	215	
79-00-5	1,1,2-Trichloroethane	190	
124-48-1	Dibromochloromethane	216	
142-28-9	1,3-Dichloropropane	190	
106-93-4	1,2-Dibromoethane (EDB)	196	
591-78-6	2-Hexanone	207	
100-41-4	Ethylbenzene	189	
108-90-7	Chlorobenzene	187	
630-20-6	1,1,1,2-Tetrachloroethane	207	
7816-60-0	m&p-Xylene	369	
95-47-6	o-Xylene	188	
100-42-5	Styrene	200	
75-25-2	Bromoform	246	
98-82-8	Isopropylbenzene (Cumene)	197	
103-65-1	n-Propylbenzene	192	
108-86-1	Bromobenzene	196	
79-34-5	1,1,2,2-Tetrachloroethane	203	
108-67-8	1,3,5-Trimethylbenzene	196	
95-49-8	2-Chlorotoluene	195	
96-18-4	1,2,3-Trichloropropane	201	
110-57-6	trans-1,4-Dichloro-2-butene	255	
108-94-1	Cyclohexanone	1340	
106-43-4	4-Chlorotoluene	194	
98-06-6	tert-Butylbenzene	194	
95-63-6	1,2,4-Trimethylbenzene	198	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Report Date: 13-Nov-2019 09:51

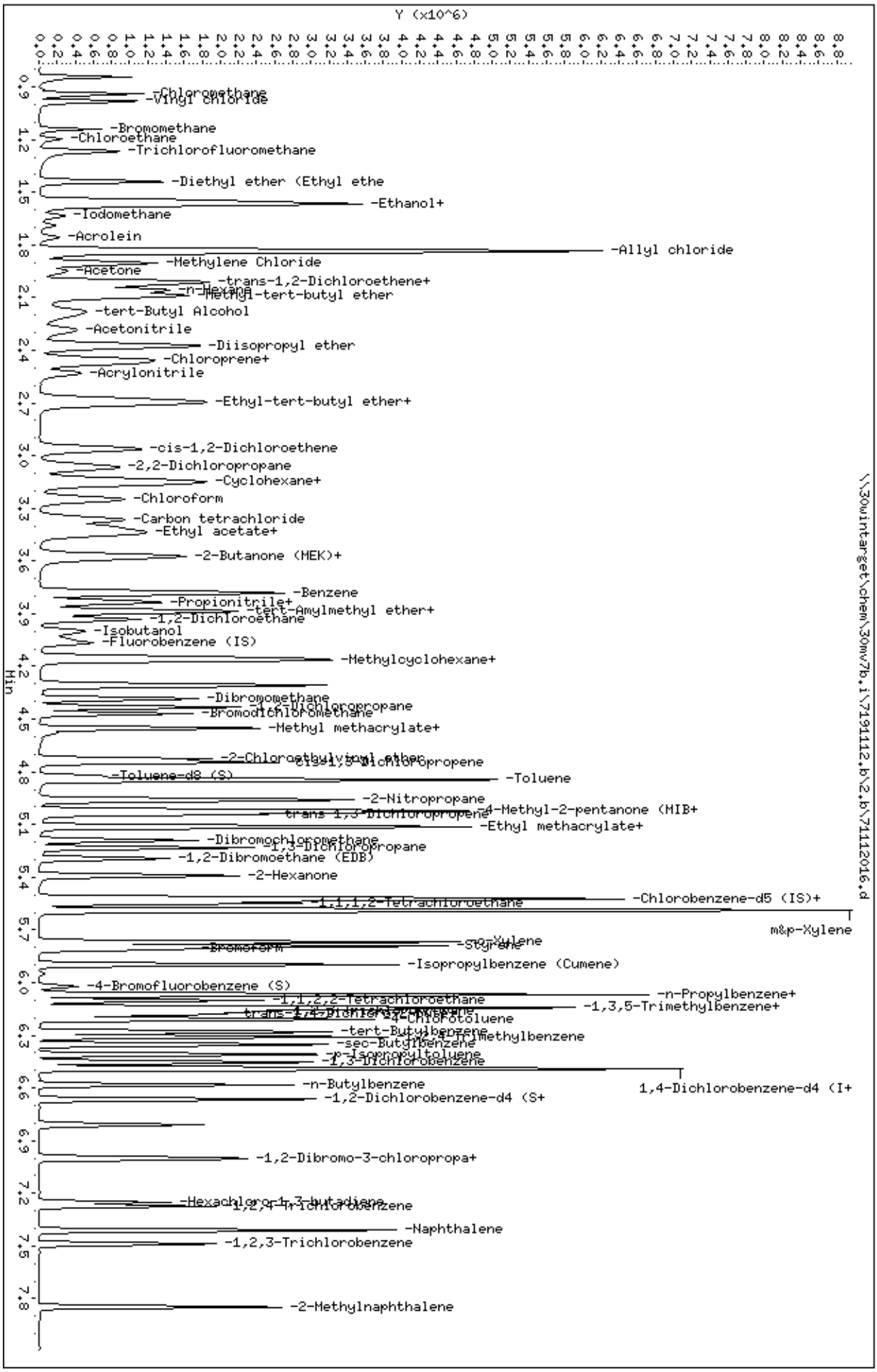
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL6
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL6
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	192	
99-87-6	p-Isopropyltoluene	195	
541-73-1	1,3-Dichlorobenzene	193	
106-46-7	1,4-Dichlorobenzene	186	
104-51-8	n-Butylbenzene	196	
95-50-1	1,2-Dichlorobenzene	193	
96-12-8	1,2-Dibromo-3-chloropropane	229	
108-70-3	1,3,5-Trichlorobenzene	190	
87-68-3	Hexachloro-1,3-butadiene	190	
120-82-1	1,2,4-Trichlorobenzene	200	
91-20-3	Naphthalene	212	
87-61-6	1,2,3-Trichlorobenzene	193	
91-57-6	2-Methylnaphthalene	216	
1868-53-7	Dibromofluoromethane (S)	29.7	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.2	
2037-26-5	Toluene-d8 (S)	30.9	
460-00-4	4-Bromofluorobenzene (S)	30.0	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	30.4	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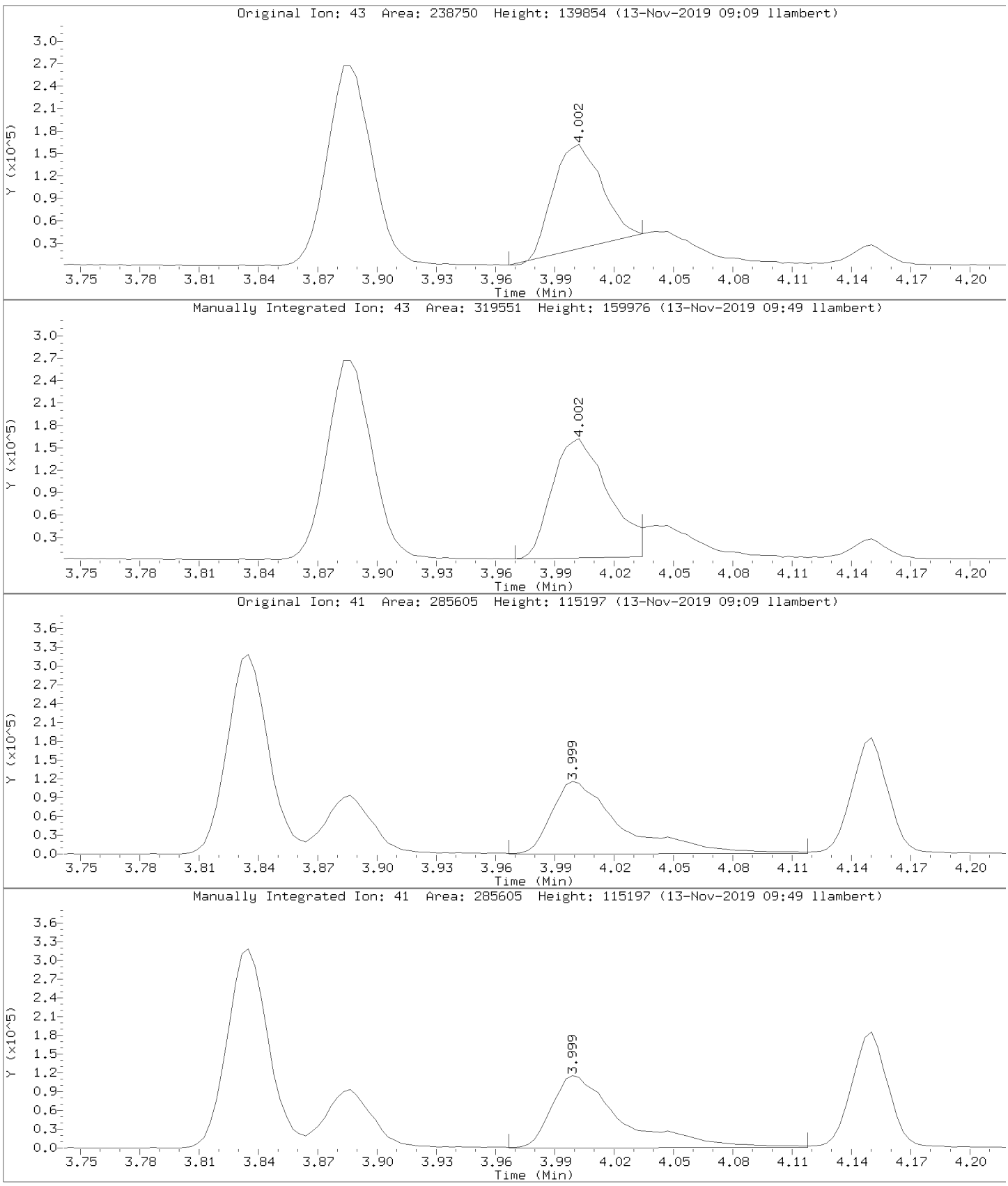
Date : 12-NOV-2019 16:16
Client ID: CAL6
Sample Info: CAL6, 10519311
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112016.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
o-Xylene
-Bromoform
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
trans-1,4-Dichloro-2-butene
4-Chlorotoluene
-tert-Butylbenzene
1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112016.d
Injection Date: 12-NOV-2019 16:16
Instrument: 30mv7b.i
Lab Sample ID: CAL6

Compound: Isobutanol Review Code: LT
CAS Number: 78-83-1



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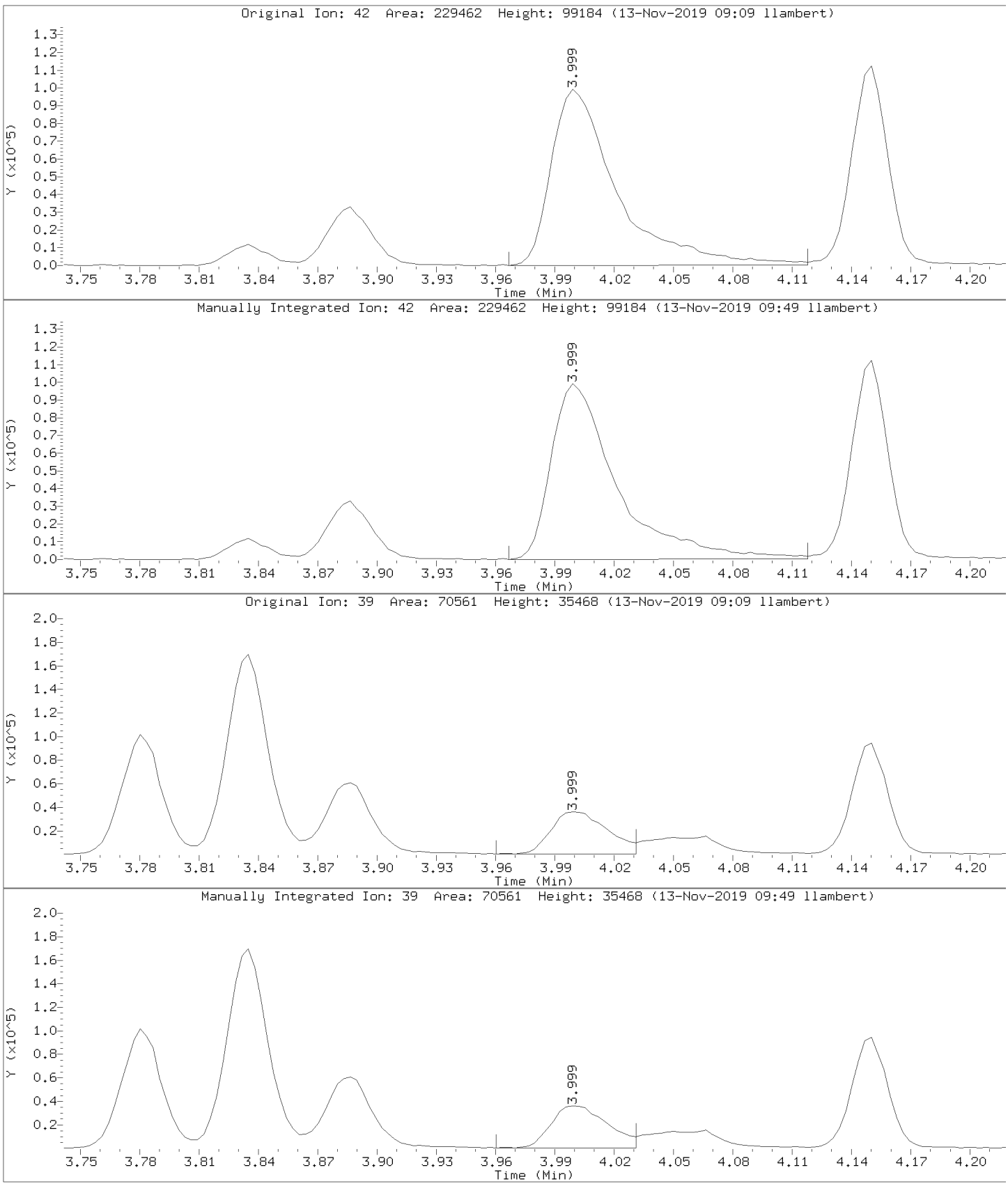
Injection Date: 12-NOV-2019 16:16
Instrument: 30mv7b.i
Lab Sample ID: CAL6



Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Report Date: 13-Nov-2019 09:52

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Lab Smp Id: CAL7 Client Smp ID: CAL7
Inj Date : 12-NOV-2019 16:40
Operator : LEL Inst ID: 30mv7b.i
Smp Info : cal7, 105194:1
Misc Info : 47222,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 16:40 Cal File: 71112018.d
Als bottle: 18 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	0.841	0.841	(0.207)	1105471	400.000	396(Q)	
2 Chloromethane	50	0.938	0.941	(0.231)	1647073	400.000	467(A)	
3 Vinyl chloride	62	0.979	0.979	(0.241)	1226438	400.000	364	
4 Bromomethane	94	1.140	1.140	(0.280)	321232	400.000	297	
5 Chloroethane	64	1.195	1.198	(0.294)	233068	400.000	254	
6 Trichlorofluoromethane	101	1.259	1.269	(0.310)	914054	400.000	229(A)	
7 Diethyl ether (Ethyl ether)	59	1.436	1.439	(0.353)	862907	400.000	351	
8 Ethanol	46	1.558	1.542	(0.240)	126047	4000.00	4440(A)	
9 1,1-Dichloroethene	61	1.542	1.548	(0.379)	1574739	400.000	361	
10 1,1,2-Trichlorotrifluoroethane	151	1.561	1.571	(0.384)	934532	400.000	396	
11 Carbon disulfide	76	1.561	1.568	(0.384)	2865696	400.000	390	
12 Iodomethane	142	1.629	1.635	(0.401)	234423	400.000	232	
13 Acrolein	56	1.757	1.754	(0.432)	296334	400.000	391	
14 Allyl chloride	41	1.831	1.835	(0.450)	5999527	2000.00	1610	
15 Methylene Chloride	49	1.902	1.902	(0.468)	1270968	400.000	333	
16 Acetone	58	1.957	1.944	(0.481)	225453	400.000	237	
17 trans-1,2-Dichloroethene	61	2.005	2.008	(0.493)	1480286	400.000	397	
18 Methyl acetate	74	2.028	2.024	(0.499)	460536	400.000	388(Q)	
19 n-Hexane	86	2.053	2.063	(0.505)	180885	400.000	409(AQ)	
20 Methyl-tert-butyl ether	73	2.089	2.089	(0.514)	2960694	400.000	391(Q)	
21 tert-Butyl Alcohol	59	2.211	2.172	(0.544)	2101793	2000.00	1860(QM)	LT
22 Acetonitrile	41	2.285	2.278	(0.562)	1197624	2000.00	1930	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Report Date: 13-Nov-2019 09:52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.375	2.375	(0.584)	3200829	400.000	392	
	24 Chloroprene	53	2.449	2.452	(0.602)	1180432	400.000	417(A)	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	1715377	400.000	373	
	26 Acrylonitrile	53	2.532	2.526	(0.623)	744193	400.000	385	
	27 Ethyl-tert-butyl ether	59	2.690	2.687	(0.662)	3051936	400.000	392	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	2914063	400.000	411(A)	
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	1346068	400.000	383	
	30 2,2-Dichloropropane	77	3.063	3.066	(0.753)	1432829	400.000	408(A)	
	31 Cyclohexane	56	3.140	3.146	(0.772)	1780285	400.000	426(A)	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	609074	400.000	348	
	33 Chloroform	83	3.249	3.246	(0.799)	1688368	400.000	380	
	34 Ethyl acetate	43	3.410	3.407	(0.839)	886938	400.000	411(A)	
	35 Carbon tetrachloride	117	3.362	3.365	(0.827)	1531946	400.000	429(A)	
	36 Tetrahydrofuran	42	3.410	3.407	(0.839)	773479	400.000	375	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	69769	30.0000	29.6	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	1569957	400.000	411(A)	
	39 2-Butanone (MEK)	43	3.593	3.584	(0.884)	1136473	400.000	364	
	40 1,1-Dichloropropene	75	3.571	3.571	(0.878)	1424057	400.000	408(AQ)	
	41 Benzene	78	3.780	3.780	(0.930)	3957246	400.000	386	
	42 Propionitrile	54	3.831	3.822	(0.942)	315073	400.000	422(AQM)	LT
	43 Methacrylonitrile	41	3.838	3.831	(0.944)	928993	400.000	384	
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	2616708	400.000	400(A)	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	74075	30.0000	30.5(Q)	
	45 Isobutanol	43	4.018	3.992	(0.988)	894657	2000.00	2820(AQ)	
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	1206005	400.000	373	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	273010	30.0000	(Q)	
	49 Methylcyclohexane	55	4.146	4.150	(1.020)	1029135	400.000	419(A)	
	50 Trichloroethene	132	4.166	4.162	(1.025)	1153291	400.000	391	
	51 Dibromomethane	174	4.384	4.384	(1.078)	783005	400.000	385	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	936858	400.000	388	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	1143110	400.000	414(A)	
	54 Methyl methacrylate	69	4.552	4.551	(1.119)	909411	400.000	428(A)	
	55 1,4-Dioxane (p-Dioxane)	88	4.580	4.568	(1.127)	212172	4000.00	4630(AQ)	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	770982	400.000	420(A)	
	57 cis-1,3-Dichloropropene	75	4.748	4.744	(1.168)	1435934	400.000	419(A)	
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	242873	30.0000	31.5	
	59 Toluene	91	4.847	4.844	(0.879)	3908406	400.000	396	
	60 2-Nitropropane	43	4.963	4.957	(1.221)	2699262	2000.00	2050(A)	
	61 4-Methyl-2-pentanone (MIBK)	43	5.027	5.024	(1.236)	1572488	400.000	360	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	1077715	400.000	397	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	1274177	400.000	423(A)	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	838164	400.000	408(A)	
	65 1,1,2-Trichloroethane	97	5.114	5.111	(0.928)	819281	400.000	374	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	1039742	400.000	429(A)	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	1388877	400.000	377	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	987190	400.000	392	
	69 2-Hexanone	43	5.391	5.391	(0.978)	1441731	400.000	406(A)	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	171237	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	1185195	400.000	382	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	2221480	400.000	377	
	73 1,1,1,2-Tetrachloroethane	131	5.548	5.545	(1.006)	897025	400.000	410(A)	
	74 m&p-Xylene	106	5.590	5.587	(1.014)	2766468	800.000	736	
	75 o-Xylene	106	5.770	5.770	(1.047)	1387257	400.000	380	
	76 Styrene	104	5.793	5.793	(1.051)	2230002	400.000	404(A)	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Report Date: 13-Nov-2019 09:52

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77	Bromoform	173	5.809	5.809	(0.896)	819531	400.000	473(A)	
	78	Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	2849989	400.000	390	
$	79	4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	68965	30.0000	30.5	
	80	n-Propylbenzene	91	6.069	6.069	(0.936)	3052155	400.000	375	
	81	Bromobenzene	77	6.066	6.066	(0.936)	1367160	400.000	382	
	82	1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	1213186	400.000	395	
	83	1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	2167667	400.000	384	
	84	2-Chlorotoluene	126	6.140	6.140	(0.947)	734328	400.000	383(Q)	
	85	1,2,3-Trichloropropane	110	6.162	6.159	(0.950)	420335	400.000	384	
	86	trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.952)	385018	400.000	479(A)	
	87	Cyclohexanone	55	6.188	6.185	(0.954)	581507	2000.00	2520(A)	
	88	4-Chlorotoluene	126	6.211	6.207	(0.958)	792359	400.000	390	
	89	tert-Butylbenzene	119	6.281	6.278	(0.969)	1746972	400.000	382	
	90	1,2,4-Trimethylbenzene	105	6.310	6.307	(0.973)	2198288	400.000	392	
	91	sec-Butylbenzene	105	6.352	6.352	(0.980)	2323896	400.000	380	
	92	p-Isopropyltoluene	119	6.410	6.407	(0.989)	2010421	400.000	388	
	93	1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	1363652	400.000	388	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	72473	30.0000	(Q)	
	95	1,4-Dichlorobenzene	146	6.490	6.487	(1.001)	1398043	400.000	371	
	96	n-Butylbenzene	91	6.584	6.584	(1.015)	1574220	400.000	392	
$	98	1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.027)	32660	30.0000	29.6(Q)	
	97	1,2-Dichlorobenzene	146	6.667	6.664	(1.028)	1340116	400.000	391	
	99	1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	509385	400.000	453(A)	
	103	1,3,5-Trichlorobenzene	180	7.005	7.005	(1.080)	713555	400.000	386	
	100	Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	321228	400.000	383	
	101	1,2,4-Trichlorobenzene	180	7.275	7.272	(1.122)	694018	400.000	407(A)	
	102	Naphthalene	128	7.410	7.410	(1.143)	3190968	400.000	423(A)	
	104	1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	671723	400.000	395	
	105	2-Methylnaphthalene	142	7.847	7.847	(1.210)	1361506	400.000	433(A)	

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Report Date: 13-Nov-2019 09:52

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	396	
74-87-3	Chloromethane	467	E
75-01-4	Vinyl chloride	364	
74-83-9	Bromomethane	297	
75-00-3	Chloroethane	254	
75-69-4	Trichlorofluoromethane	229	E
60-29-7	Diethyl ether (Ethyl ether)	351	
64-17-5	Ethanol	4440	E
75-35-4	1,1-Dichloroethene	361	
76-13-1	1,1,2-Trichlorotrifluoroetha	396	
75-15-0	Carbon disulfide	390	
74-88-4	Iodomethane	232	
107-02-8	Acrolein	391	
107-05-1	Allyl chloride	1610	
75-09-2	Methylene Chloride	333	
67-64-1	Acetone	237	
156-60-5	trans-1,2-Dichloroethene	397	
79-20-9	Methyl acetate	388	
110-54-3	n-Hexane	409	E
1634-04-4	Methyl-tert-butyl ether	391	
75-65-0	tert-Butyl Alcohol	1860	
75-05-8	Acetonitrile	1930	
108-20-3	Diisopropyl ether	392	
126-99-8	Chloroprene	417	E
75-34-3	1,1-Dichloroethane	373	
107-13-1	Acrylonitrile	385	
637-92-3	Ethyl-tert-butyl ether	392	
108-05-4	Vinyl acetate	411	E
156-59-2	cis-1,2-Dichloroethene	383	
594-20-7	2,2-Dichloropropane	408	E
110-82-7	Cyclohexane	426	E
74-97-5	Bromochloromethane	348	
67-66-3	Chloroform	380	
141-78-6	Ethyl acetate	411	E
56-23-5	Carbon tetrachloride	429	E
109-99-9	Tetrahydrofuran	375	
71-55-6	1,1,1-Trichloroethane	411	E
78-93-3	2-Butanone (MEK)	364	
563-58-6	1,1-Dichloropropene	408	E
71-43-2	Benzene	386	
107-12-0	Propionitrile	422	E
126-98-7	Methacrylonitrile	384	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Report Date: 13-Nov-2019 09:52

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	400	E
78-83-1	Isobutanol	2820	E
107-06-2	1,2-Dichloroethane	373	
108-87-2	Methylcyclohexane	419	E
79-01-6	Trichloroethene	391	
74-95-3	Dibromomethane	385	
78-87-5	1,2-Dichloropropane	388	
75-27-4	Bromodichloromethane	414	E
80-62-6	Methyl methacrylate	428	E
123-91-1	1,4-Dioxane (p-Dioxane)	4630	E
110-75-8	2-Chloroethylvinyl ether	420	E
10061-01-5	cis-1,3-Dichloropropene	419	E
108-88-3	Toluene	396	
79-46-9	2-Nitropropane	2050	E
108-10-1	4-Methyl-2-pentanone (MIBK)	360	
127-18-4	Tetrachloroethene	397	
10061-02-6	trans-1,3-Dichloropropene	423	E
97-63-2	Ethyl methacrylate	408	E
79-00-5	1,1,2-Trichloroethane	374	
124-48-1	Dibromochloromethane	429	E
142-28-9	1,3-Dichloropropane	377	
106-93-4	1,2-Dibromoethane (EDB)	392	
591-78-6	2-Hexanone	406	E
100-41-4	Ethylbenzene	382	
108-90-7	Chlorobenzene	377	
630-20-6	1,1,1,2-Tetrachloroethane	410	E
7816-60-0	m&p-Xylene	736	
95-47-6	o-Xylene	380	
100-42-5	Styrene	404	E
75-25-2	Bromoform	473	E
98-82-8	Isopropylbenzene (Cumene)	390	
103-65-1	n-Propylbenzene	375	
108-86-1	Bromobenzene	382	
79-34-5	1,1,2,2-Tetrachloroethane	395	
108-67-8	1,3,5-Trimethylbenzene	384	
95-49-8	2-Chlorotoluene	383	
96-18-4	1,2,3-Trichloropropane	384	
110-57-6	trans-1,4-Dichloro-2-butene	479	E
108-94-1	Cyclohexanone	2520	E
106-43-4	4-Chlorotoluene	390	
98-06-6	tert-Butylbenzene	382	
95-63-6	1,2,4-Trimethylbenzene	392	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Report Date: 13-Nov-2019 09:52

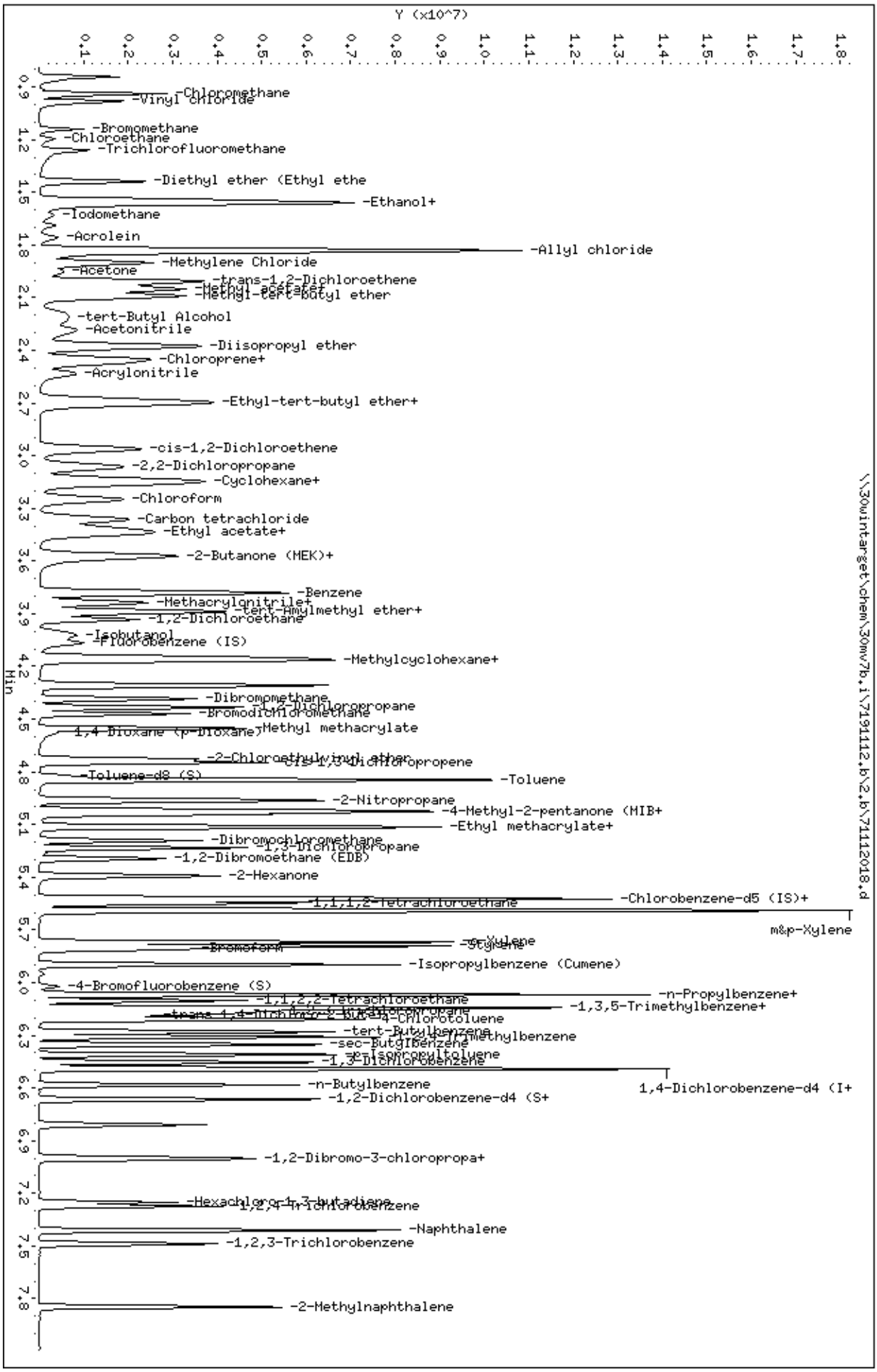
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: CAL7
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47222,

Client SDG: 30MV7B-2
Client Smp ID: CAL7
Sample Point:
Date Received:
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	380	
99-87-6	p-Isopropyltoluene	388	
541-73-1	1,3-Dichlorobenzene	388	
106-46-7	1,4-Dichlorobenzene	371	
104-51-8	n-Butylbenzene	392	
95-50-1	1,2-Dichlorobenzene	391	
96-12-8	1,2-Dibromo-3-chloropropane	453	E
108-70-3	1,3,5-Trichlorobenzene	386	
87-68-3	Hexachloro-1,3-butadiene	383	
120-82-1	1,2,4-Trichlorobenzene	407	E
91-20-3	Naphthalene	423	E
87-61-6	1,2,3-Trichlorobenzene	395	
91-57-6	2-Methylnaphthalene	433	E
1868-53-7	Dibromofluoromethane (S)	29.6	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.5	
2037-26-5	Toluene-d8 (S)	31.5	
460-00-4	4-Bromofluorobenzene (S)	30.5	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.6	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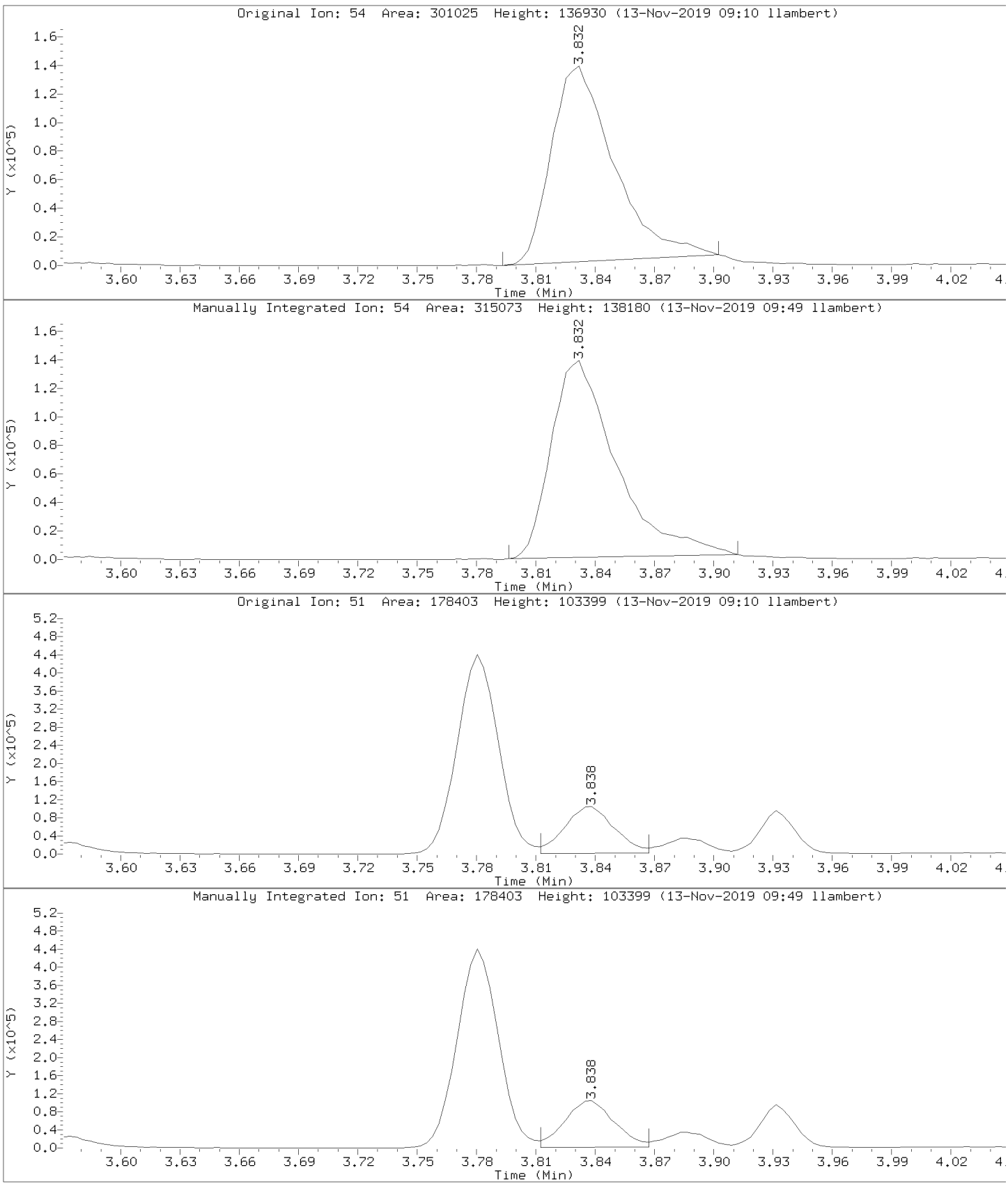
Date : 12-NOV-2019 16:40
Client ID: CAL7
Sample Info: CAL7, 10519411
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112018.d
Y (x10^7)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene
-Methyl acetate+
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
1,4-Dioxane (p-Dioxane)
-Methyl methacrylate
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
o-Xylene
-Bromoform
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
trans-1,4-Dichloro-2-butene
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112018.d
Injection Date: 12-NOV-2019 16:40
Instrument: 30mv7b.i
Lab Sample ID: CAL7

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0



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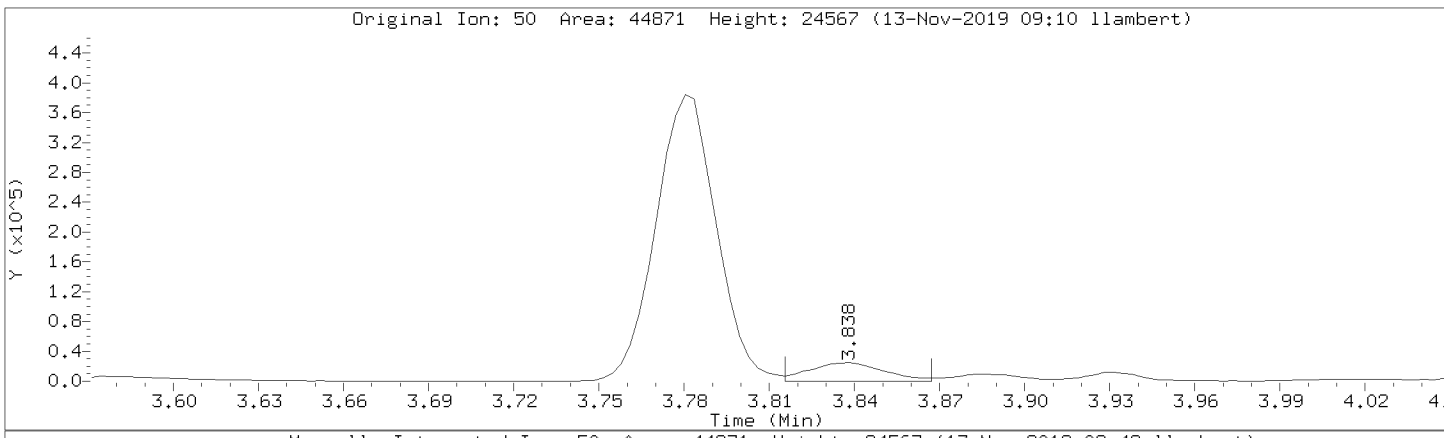
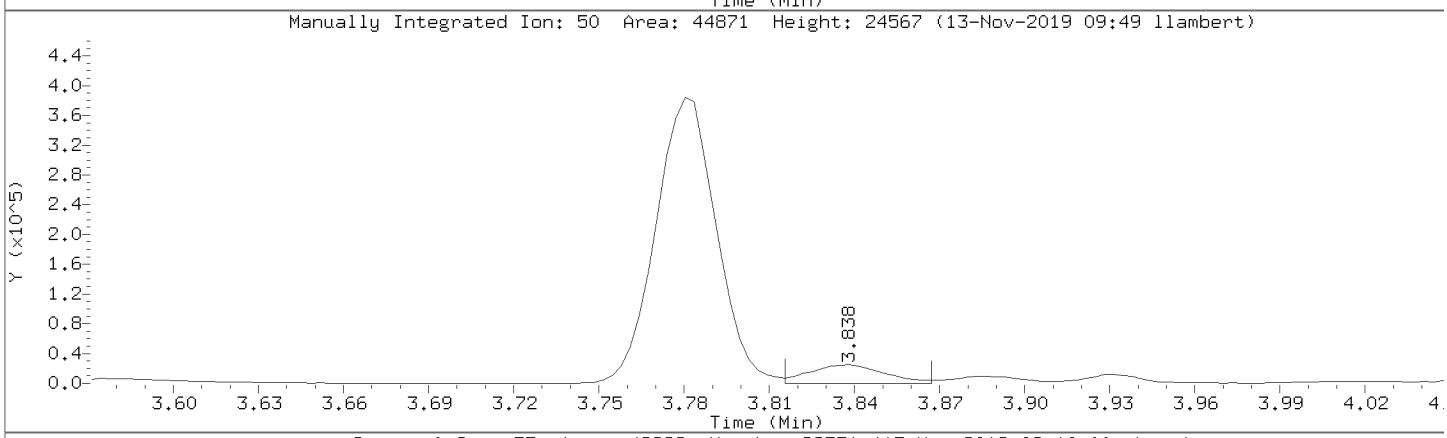
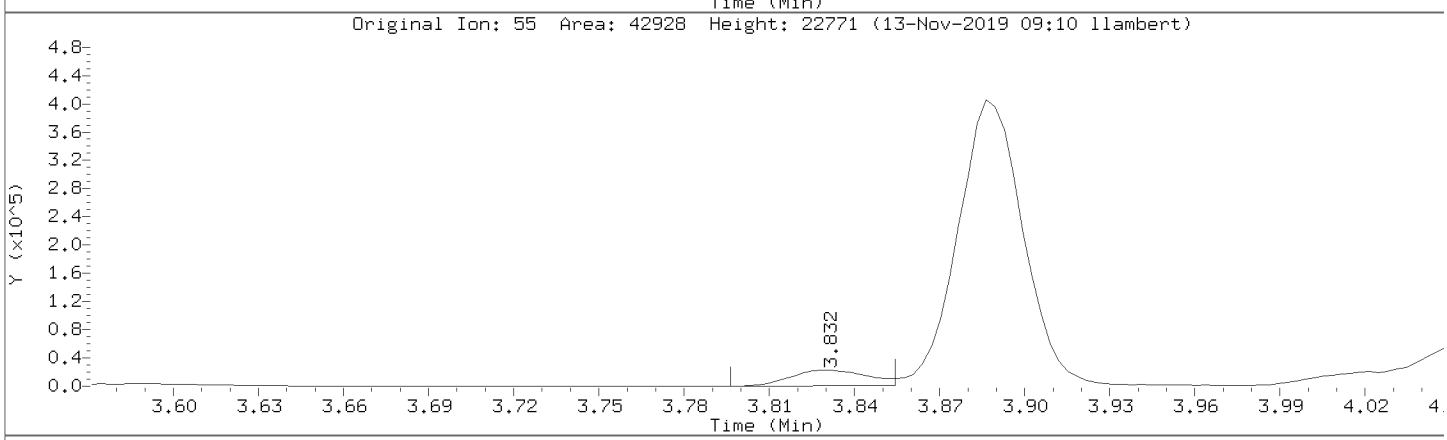
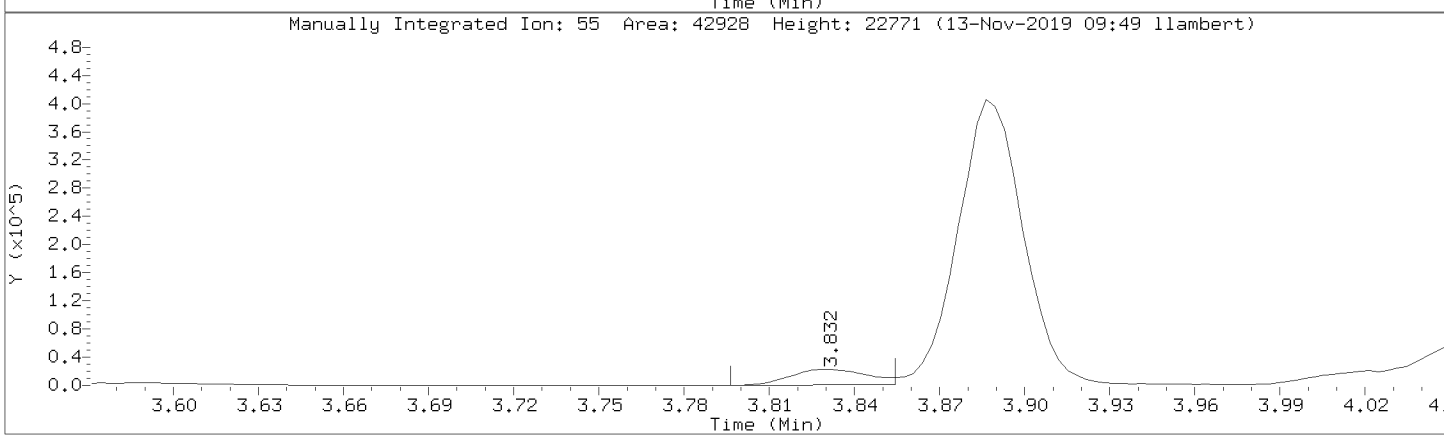
Injection Date: 12-NOV-2019 16:40
Instrument: 30mv7b.i
Lab Sample ID: CAL7









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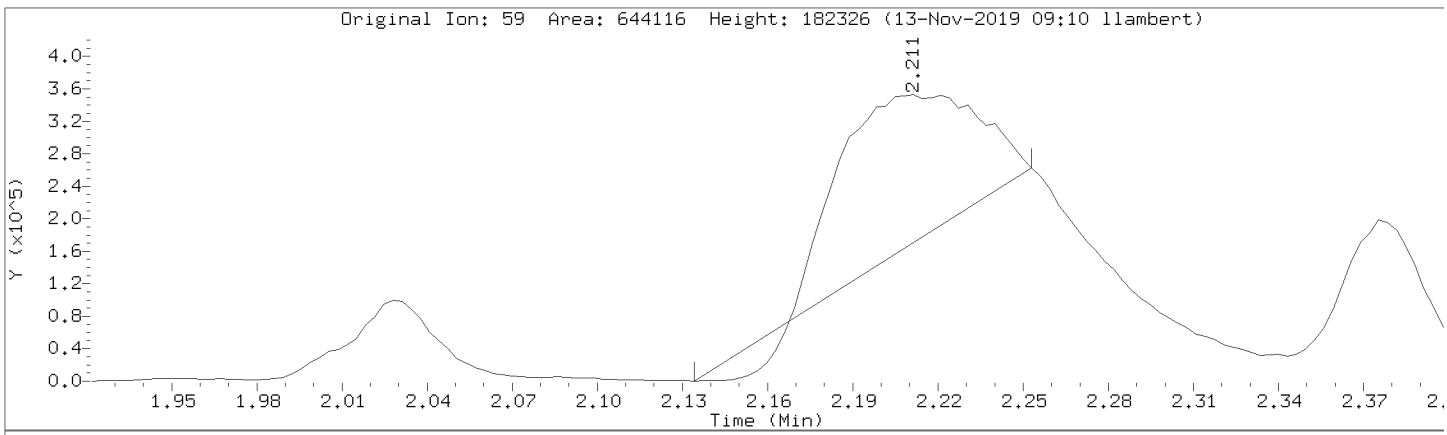
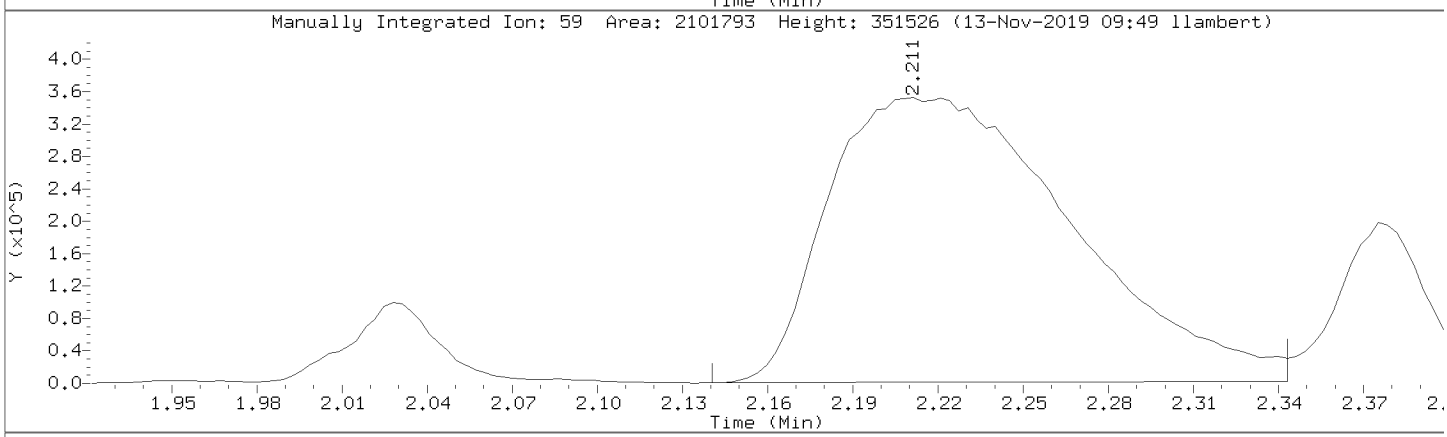
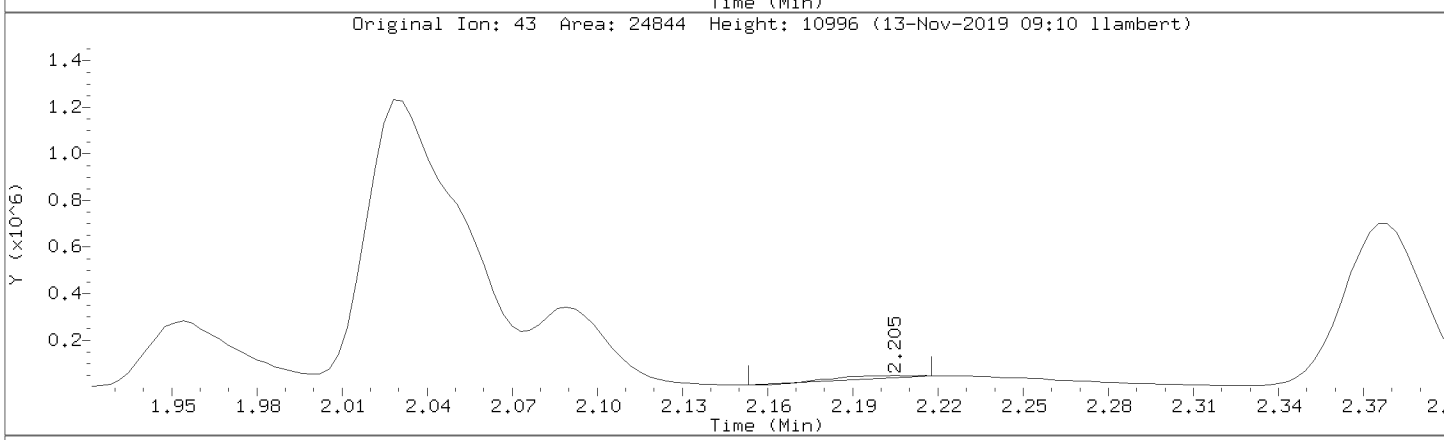
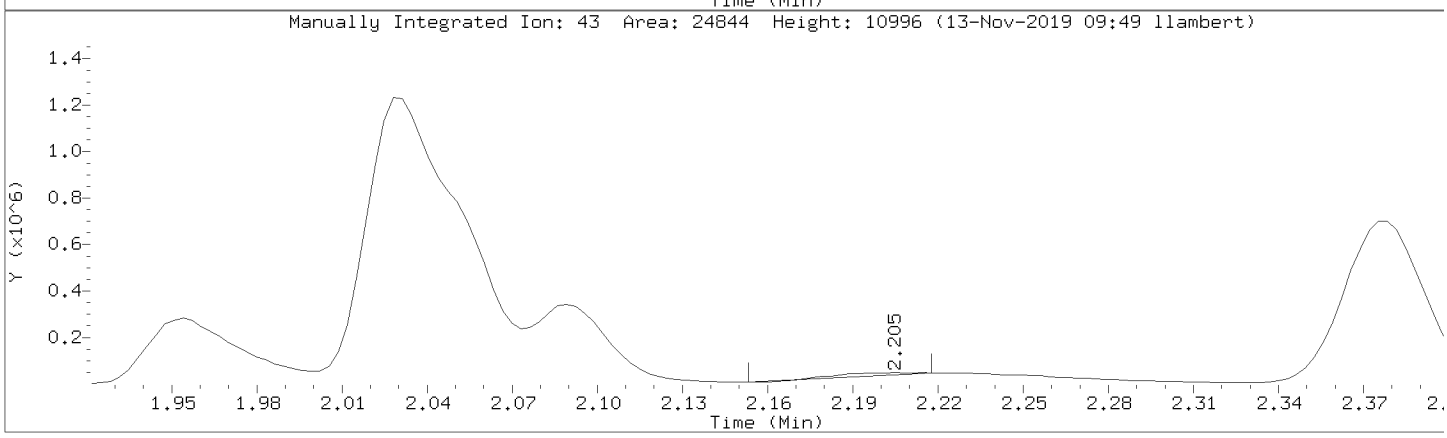
Injection Date: 12-NOV-2019 16:40
Instrument: 30mv7b.i
Lab Sample ID: CAL7

Compound: tert-Butyl Alcohol Review Code: LT
CAS Number: 75-65-0









SAMPLE NO.

11876188ICV

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 11/12/2019 Time: 18:07

Instrument ID: 30MV7A GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191112.B\1.B\71112025.D Init. Calib. Time(s): 14:00 16:28

SDG No.: 30337003

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Quadratic	20	19.90647	0.0100	-0.4676	30.0000
Benzene	Averaged	0.99066	1.11210	0.0100	12.2581	30.0000
Bromobenzene	Averaged	1.29332	1.41646	0.0100	9.5206	30.0000
Bromochloromethane	Averaged	0.17419	0.20089	0.0100	15.3284	30.0000
Bromodichloromethane	Quadratic	20	21.63527	0.0100	8.1764	30.0000
Bromoform	Quadratic	20	19.79397	0.1000	-1.0301	30.0000
Bromomethane	Quadratic	20	25.20041	0.0100	26.0021	30.0000
2-Butanone (MEK)	Averaged	0.36224	0.33978	0.0100	-6.1986	30.0000
n-Butylbenzene	Averaged	1.49340	1.69077	0.0100	13.2165	30.0000
sec-Butylbenzene	Averaged	2.24088	2.68069	0.0100	19.6264	30.0000
tert-Butylbenzene	Averaged	1.66572	2.01537	0.0100	20.9906	30.0000
Carbon disulfide	Averaged	0.70674	0.66253	0.0100	-6.2554	30.0000
Carbon tetrachloride	Averaged	0.34756	0.38614	0.0100	11.1000	30.0000
Chlorobenzene	Averaged	0.89760	1.06369	0.3000	18.5046	30.0000
Chloroethane	Quadratic	20	22.78740	0.0100	13.9370	30.0000
2-Chloroethylvinyl ether	Quadratic	20	19.47899	0.0100	-2.6050	30.0000
Chloroform	Averaged	0.42985	0.44154	0.0100	2.7185	30.0000
Chloromethane	Quadratic	20	21.10985	0.1000	5.5493	30.0000
2-Chlorotoluene	Averaged	0.69509	0.80307	0.0100	15.5360	30.0000
4-Chlorotoluene	Averaged	0.71553	0.84747	0.0100	18.4386	30.0000
1,2-Dibromo-3-chloropropane	Quadratic	20	19.53419	0.0100	-2.3290	30.0000
Dibromochloromethane	Quadratic	20	20.78254	0.0100	3.9127	30.0000
1,2-Dibromoethane (EDB)	Averaged	0.38221	0.45736	0.0100	19.6623	30.0000
Dibromomethane	Averaged	0.20357	0.21796	0.0100	7.0676	30.0000
1,2-Dichlorobenzene	Averaged	1.21991	1.45742	0.0100	19.4696	30.0000
1,3-Dichlorobenzene	Averaged	1.26774	1.47901	0.0100	16.6656	30.0000
1,4-Dichlorobenzene	Averaged	1.31442	1.49144	0.0100	13.4676	30.0000
Dichlorodifluoromethane	Quadratic	20	24.54269	0.0100	22.7135	30.0000
1,1-Dichloroethane	Averaged	0.45777	0.50632	0.1000	10.6058	30.0000
1,2-Dichloroethane	Averaged	0.31993	0.35158	0.0100	9.8931	30.0000
1,1-Dichloroethene	Averaged	0.40713	0.42571	0.0100	4.5636	30.0000
cis-1,2-Dichloroethene	Averaged	0.34374	0.37644	0.0100	9.5122	30.0000
trans-1,2-Dichloroethene	Averaged	0.36866	0.39850	0.0100	8.0935	30.0000
1,2-Dichloropropane	Averaged	0.23870	0.27878	0.0100	16.7907	30.0000
1,3-Dichloropropane	Averaged	0.55418	0.60919	0.0100	9.9263	30.0000
2,2-Dichloropropane	Averaged	0.34310	0.37998	0.0100	10.7486	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11876188ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 11/12/2019 Time: 18:07

Instrument ID: 30MV7A GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191112.B\1.B\71112025.D Init. Calib. Time(s): 14:00 16:28

SDG No.: 30337003

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,1-Dichloropropene	Averaged	0.33260	0.37620	0.0100	13.1103	30.0000
cis-1,3-Dichloropropene	Quadratic	20	20.52734	0.0100	2.6367	30.0000
trans-1,3-Dichloropropene	Quadratic	20	21.95899	0.0100	9.7950	30.0000
Ethylbenzene	Averaged	0.45764	0.56105	0.0100	22.5968	30.0000
Hexachloro-1,3-butadiene	Averaged	0.30745	0.31592	0.0100	2.7551	30.0000
2-Hexanone	Averaged	0.58371	0.58059	0.0100	-0.5339	30.0000
Isopropylbenzene (Cumene)	Quadratic	20	24.47627	0.0100	22.3814	30.0000
p-Isopropyltoluene	Averaged	1.90880	2.29095	0.0100	20.0207	30.0000
Methylene Chloride	Quadratic	20	22.67729	0.0100	13.3865	30.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.45905	0.45521	0.0100	-0.8365	30.0000
Methyl-tert-butyl ether	Averaged	0.73625	0.70523	0.0100	-4.2129	30.0000
Naphthalene	Averaged	2.69745	3.14377	0.0100	16.5459	30.0000
n-Propylbenzene	Averaged	2.90257	3.52512	0.0100	21.4482	30.0000
Styrene	Averaged	0.84634	1.05396	0.0100	24.5312	30.0000
1,1,1,2-Tetrachloroethane	Averaged	0.33999	0.39289	0.0100	15.5599	30.0000
1,1,2,2-Tetrachloroethane	Averaged	1.12788	1.37996	0.3000	22.3496	30.0000
Tetrachloroethene	Averaged	0.39548	0.46863	0.0100	18.4989	30.0000
Toluene	Averaged	1.45692	1.72368	0.0100	18.3093	30.0000
1,2,3-Trichlorobenzene	Averaged	0.62170	0.68086	0.0100	9.5159	30.0000
1,2,4-Trichlorobenzene	Averaged	0.62799	0.73316	0.0100	16.7483	30.0000
1,1,1-Trichloroethane	Averaged	0.37739	0.44869	0.0100	18.8931	30.0000
1,1,2-Trichloroethane	Averaged	0.33003	0.39466	0.0100	19.5819	30.0000
Trichloroethene	Averaged	0.28474	0.32667	0.0100	14.7281	30.0000
Trichlorofluoromethane	Averaged	0.39459	0.48975	0.0100	24.1178	30.0000
1,2,4-Trimethylbenzene	Averaged	2.05102	2.45457	0.0100	19.6754	30.0000
1,3,5-Trimethylbenzene	Averaged	2.04456	2.45189	0.0100	19.9225	30.0000
Vinyl acetate	Quadratic	20	16.31523	0.0100	-18.4238	30.0000
Vinyl chloride	Averaged	0.34831	0.41869	0.0100	20.2061	30.0000
m&p-Xylene	Averaged	0.56746	0.68037	0.0100	19.8968	30.0000
o-Xylene	Averaged	0.55015	0.63871	0.0100	16.0967	30.0000
4-Bromofluorobenzene (S)	Averaged	0.92984	0.93099	0.0100	0.1234	30.0000
Dibromofluoromethane (S)	Averaged	0.26420	0.26211	0.0100	-0.7890	30.0000
1,2-Dichlorobenzene-d4 (S)	Averaged		0.00000	0.0100	0.0000	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.26745	0.25391	0.0100	-5.0606	30.0000
Toluene-d8 (S)	Averaged	1.29365	1.30853	0.0100	1.1497	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

11969722CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 12/02/2019 Time: 11:40

Instrument ID: 30MV7A GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191202.B\1.B\71202009.D Init. Calib. Time(s): 14:00 16:28

SDG No.: 30337003

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Quadratic	50	57.01909	0.0100	14.0382	20.0000
Benzene	Averaged	0.99066	0.95574	0.0100	-3.5248	20.0000
Bromobenzene	Averaged	1.29332	1.29001	0.0100	-0.2563	20.0000
Bromochloromethane	Averaged	0.17419	0.18756	0.0100	7.6785	20.0000
Bromodichloromethane	Quadratic	50	52.0184	0.0100	4.0368	20.0000
Bromoform	Quadratic	50	46.94063	0.1000	-6.1187	20.0000
Bromomethane	Quadratic	50	37.75575	0.0100	-24.4885	20.0000
2-Butanone (MEK)	Averaged	0.36224	0.43039	0.0100	18.8137	20.0000
n-Butylbenzene	Averaged	1.49340	1.53337	0.0100	2.6767	20.0000
sec-Butylbenzene	Averaged	2.24088	2.27459	0.0100	1.5041	20.0000
tert-Butylbenzene	Averaged	1.66572	1.71745	0.0100	3.1056	20.0000
Carbon disulfide	Averaged	0.70674	0.69476	0.0100	-1.6958	20.0000
Carbon tetrachloride	Averaged	0.34756	0.38458	0.0100	10.6499	20.0000
Chlorobenzene	Averaged	0.89760	0.96114	0.3000	7.0789	20.0000
Chloroethane	Quadratic	50	58.87003	0.0100	17.7401	20.0000
2-Chloroethylvinyl ether	Quadratic	50	49.03800	0.0100	-1.9240	20.0000
Chloroform	Averaged	0.42985	0.45389	0.0100	5.5928	20.0000
Chloromethane	Quadratic	50	50.47632	0.1000	0.9526	20.0000
2-Chlorotoluene	Averaged	0.69509	0.71773	0.0100	3.2583	20.0000
4-Chlorotoluene	Averaged	0.71553	0.75172	0.0100	5.0570	20.0000
1,2-Dibromo-3-chloropropane	Quadratic	50	44.63396	0.0100	-10.7321	20.0000
Dibromochloromethane	Quadratic	50	50.09592	0.0100	0.1919	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.38221	0.39463	0.0100	3.2513	20.0000
Dibromomethane	Averaged	0.20357	0.21589	0.0100	6.0553	20.0000
1,2-Dichlorobenzene	Averaged	1.21991	1.24370	0.0100	1.9500	20.0000
1,3-Dichlorobenzene	Averaged	1.26774	1.26717	0.0100	-0.0446	20.0000
1,4-Dichlorobenzene	Averaged	1.31442	1.36793	0.0100	4.0714	20.0000
Dichlorodifluoromethane	Quadratic	50	56.46632	0.0100	12.9327	20.0000
1,1-Dichloroethane	Averaged	0.45777	0.49328	0.1000	7.7580	20.0000
1,2-Dichloroethane	Averaged	0.31993	0.34766	0.0100	8.6687	20.0000
1,1-Dichloroethene	Averaged	0.40713	0.45450	0.0100	11.6338	20.0000
cis-1,2-Dichloroethene	Averaged	0.34374	0.38377	0.0100	11.6441	20.0000
trans-1,2-Dichloroethene	Averaged	0.36866	0.40113	0.0100	8.8082	20.0000
1,2-Dichloropropane	Averaged	0.23870	0.25685	0.0100	7.6065	20.0000
1,3-Dichloropropane	Averaged	0.55418	0.57477	0.0100	3.7144	20.0000
2,2-Dichloropropane	Averaged	0.34310	0.37057	0.0100	8.0056	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11969722CCV

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 12/02/2019 Time: 11:40

Instrument ID: 30MV7A GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191202.B\1.B\71202009.D Init. Calib. Time(s): 14:00 16:28

SDG No.: 30337003

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,1-Dichloropropene	Averaged	0.33260	0.34853	0.0100	4.7908	20.0000
cis-1,3-Dichloropropene	Quadratic	50	48.31080	0.0100	-3.3784	20.0000
trans-1,3-Dichloropropene	Quadratic	50	50.03705	0.0100	0.0741	20.0000
Ethylbenzene	Averaged	0.45764	0.47923	0.0100	4.7185	20.0000
Hexachloro-1,3-butadiene	Averaged	0.30745	0.30474	0.0100	-0.8835	20.0000
2-Hexanone	Averaged	0.58371	0.73539	0.0100	25.9850	20.0000
Isopropylbenzene (Cumene)	Quadratic	50	46.96337	0.0100	-6.0732	20.0000
p-Isopropyltoluene	Averaged	1.90880	1.94996	0.0100	2.1564	20.0000
Methylene Chloride	Quadratic	50	58.62158	0.0100	17.2432	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.45905	0.57429	0.0100	25.1046	20.0000
Methyl-tert-butyl ether	Averaged	0.73625	0.74201	0.0100	0.7833	20.0000
Naphthalene	Averaged	2.69745	2.64375	0.0100	-1.9907	20.0000
n-Propylbenzene	Averaged	2.90257	2.99514	0.0100	3.1895	20.0000
Styrene	Averaged	0.84634	0.89898	0.0100	6.2193	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.33999	0.38155	0.0100	12.2262	20.0000
1,1,2,2-Tetrachloroethane	Averaged	1.12788	1.13996	0.3000	1.0711	20.0000
Tetrachloroethene	Averaged	0.39548	0.42821	0.0100	8.2762	20.0000
Toluene	Averaged	1.45692	1.49470	0.0100	2.5931	20.0000
1,2,3-Trichlorobenzene	Averaged	0.62170	0.55828	0.0100	-10.2009	20.0000
1,2,4-Trichlorobenzene	Averaged	0.62799	0.59096	0.0100	-5.8966	20.0000
1,1,1-Trichloroethane	Averaged	0.37739	0.40344	0.0100	6.9044	20.0000
1,1,2-Trichloroethane	Averaged	0.33003	0.33277	0.0100	0.8304	20.0000
Trichloroethene	Averaged	0.28474	0.31551	0.0100	10.8090	20.0000
Trichlorofluoromethane	Averaged	0.39459	0.50114	0.0100	27.0035	20.0000
1,2,4-Trimethylbenzene	Averaged	2.05102	2.06410	0.0100	0.6378	20.0000
1,3,5-Trimethylbenzene	Averaged	2.04456	2.08140	0.0100	1.8018	20.0000
Vinyl acetate	Quadratic	50	58.99942	0.0100	17.9988	20.0000
Vinyl chloride	Averaged	0.34831	0.39814	0.0100	14.3078	20.0000
m&p-Xylene	Averaged	0.56746	0.58288	0.0100	2.7179	20.0000
o-Xylene	Averaged	0.55015	0.55795	0.0100	1.4166	20.0000
4-Bromofluorobenzene (S)	Averaged	0.92984	0.92974	0.0100	-0.0104	20.0000
Dibromofluoromethane (S)	Averaged	0.26420	0.28005	0.0100	6.0002	20.0000
1,2-Dichlorobenzene-d4 (S)	Averaged		0.00000	0.0100	0.0000	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.26745	0.28727	0.0100	7.4123	20.0000
Toluene-d8 (S)	Averaged	1.29365	1.26411	0.0100	-2.2833	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSV - FORM VII VOA-1
MSV INITIAL CALIBRATION DATA

11876055ICV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 11/12/2019 Time: 18:19

Instrument ID: 30MV7B GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191112.B\2.B\71112026.D Init. Calib. Time(s): 14:12 16:40

SDG No.: 30337003

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Quadratic	20	19.0508	0.0100	-4.7460	30.0000
Benzene	Averaged	1.12575	0.97300	0.0100	-13.5682	30.0000
Bromobenzene	Averaged	1.48017	1.24307	0.0100	-16.0184	30.0000
Bromochloromethane	Averaged	0.19214	0.16767	0.0100	-12.7371	30.0000
Bromodichloromethane	Averaged	0.30364	0.27195	0.0100	-10.4381	30.0000
Bromoform	Quadratic	20	15.78844	0.1000	-21.0578	30.0000
Bromomethane	Quadratic	20	15.59279	0.0100	-22.0360	30.0000
2-Butanone (MEK)	Averaged	0.34345	0.26743	0.0100	-22.1352	30.0000
n-Butylbenzene	Averaged	1.66230	1.45112	0.0100	-12.7037	30.0000
sec-Butylbenzene	Averaged	2.53417	2.27560	0.0100	-10.2034	30.0000
tert-Butylbenzene	Averaged	1.89469	1.75164	0.0100	-7.5502	30.0000
Carbon disulfide	Averaged	0.80634	0.57426	0.0100	-28.7821	30.0000
Carbon tetrachloride	Averaged	0.39251	0.32797	0.0100	-16.4439	30.0000
Chlorobenzene	Averaged	1.03314	0.93306	0.3000	-9.6868	30.0000
Chloroethane	Quadratic	20	19.44718	0.0100	-2.7641	30.0000
2-Chloroethylvinyl ether	Quadratic	20	14.13961	0.0100	-29.3020	30.0000
Chloroform	Averaged	0.48830	0.42012	0.0100	-13.9630	30.0000
Chloromethane	Averaged	0.38756	0.30914	0.1000	-20.2351	30.0000
2-Chlorotoluene	Averaged	0.79336	0.70701	0.0100	-10.8844	30.0000
4-Chlorotoluene	Averaged	0.83974	0.75762	0.0100	-9.7787	30.0000
1,2-Dibromo-3-chloropropane	Averaged	0.46536	0.39236	0.0100	-15.6855	30.0000
Dibromochloromethane	Averaged	0.42445	0.37154	0.0100	-12.4635	30.0000
1,2-Dibromoethane (EDB)	Averaged	0.44116	0.38470	0.0100	-12.7978	30.0000
Dibromomethane	Averaged	0.22345	0.19201	0.0100	-14.0728	30.0000
1,2-Dichlorobenzene	Averaged	1.42010	1.29781	0.0100	-8.6112	30.0000
1,3-Dichlorobenzene	Averaged	1.45531	1.33345	0.0100	-8.3731	30.0000
1,4-Dichlorobenzene	Averaged	1.56069	1.38311	0.0100	-11.3783	30.0000
Dichlorodifluoromethane	Averaged	0.30714	0.32777	0.0100	6.7155	30.0000
1,1-Dichloroethane	Averaged	0.50535	0.44261	0.1000	-12.4153	30.0000
1,2-Dichloroethane	Averaged	0.35499	0.30967	0.0100	-12.7674	30.0000
1,1-Dichloroethene	Averaged	0.47971	0.38466	0.0100	-19.8136	30.0000
cis-1,2-Dichloroethene	Averaged	0.38632	0.32612	0.0100	-15.5818	30.0000
trans-1,2-Dichloroethene	Averaged	0.40969	0.34956	0.0100	-14.6783	30.0000
1,2-Dichloropropane	Averaged	0.26499	0.24440	0.0100	-7.7715	30.0000
1,3-Dichloropropane	Averaged	0.64584	0.53749	0.0100	-16.7756	30.0000
2,2-Dichloropropane	Averaged	0.38586	0.33610	0.0100	-12.8970	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

11876055ICV

MSV - FORM VII VOA-2
MSV INITIAL CALIBRATION DATA

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 11/12/2019 Time: 18:19

Instrument ID: 30MV7B GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191112.B\2.B\71112026.D Init. Calib. Time(s): 14:12 16:40

SDG No.: 30337003

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,1-Dichloropropene	Averaged	0.38360	0.32574	0.0100	-15.0845	30.0000
cis-1,3-Dichloropropene	Averaged	0.37650	0.33826	0.0100	-10.1568	30.0000
trans-1,3-Dichloropropene	Averaged	0.52729	0.47883	0.0100	-9.1892	30.0000
Ethylbenzene	Averaged	0.54357	0.48650	0.0100	-10.4980	30.0000
Hexachloro-1,3-butadiene	Averaged	0.34716	0.26262	0.0100	-24.3527	30.0000
2-Hexanone	Averaged	0.62147	0.46996	0.0100	-24.3797	30.0000
Isopropylbenzene (Cumene)	Averaged	3.02632	3.00821	0.0100	-0.5984	30.0000
p-Isopropyltoluene	Averaged	2.14551	1.93360	0.0100	-9.8771	30.0000
Methylene Chloride	Quadratic	20	18.84727	0.0100	-5.7636	30.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.47989	0.39585	0.0100	-17.5139	30.0000
Methyl-tert-butyl ether	Averaged	0.83214	0.63389	0.0100	-23.8244	30.0000
Naphthalene	Averaged	3.12104	2.86881	0.0100	-8.0817	30.0000
n-Propylbenzene	Averaged	3.36482	3.03455	0.0100	-9.8153	30.0000
Styrene	Averaged	0.96775	0.87859	0.0100	-9.2136	30.0000
1,1,1,2-Tetrachloroethane	Averaged	0.38292	0.33816	0.0100	-11.6888	30.0000
1,1,2,2-Tetrachloroethane	Averaged	1.27125	1.19515	0.3000	-5.9859	30.0000
Tetrachloroethene	Averaged	0.47605	0.40516	0.0100	-14.8910	30.0000
Toluene	Averaged	1.73002	1.48434	0.0100	-14.2011	30.0000
1,2,3-Trichlorobenzene	Averaged	0.70444	0.61175	0.0100	-13.1579	30.0000
1,2,4-Trichlorobenzene	Averaged	0.70643	0.65469	0.0100	-7.3238	30.0000
1,1,1-Trichloroethane	Averaged	0.41999	0.38724	0.0100	-7.7968	30.0000
1,1,2-Trichloroethane	Averaged	0.38425	0.35613	0.0100	-7.3175	30.0000
Trichloroethene	Averaged	0.32382	0.28041	0.0100	-13.4054	30.0000
Trichlorofluoromethane	Quadratic	20	17.25427	0.0100	-13.7286	30.0000
1,2,4-Trimethylbenzene	Averaged	2.32092	2.14431	0.0100	-7.6092	30.0000
1,3,5-Trimethylbenzene	Averaged	2.33834	2.11425	0.0100	-9.5831	30.0000
Vinyl acetate	Averaged	0.77981	0.57930	0.0100	-25.7132	30.0000
Vinyl chloride	Averaged	0.37049	0.34433	0.0100	-7.0593	30.0000
m&p-Xylene	Averaged	0.65871	0.58588	0.0100	-11.0566	30.0000
o-Xylene	Averaged	0.63882	0.56487	0.0100	-11.5758	30.0000
4-Bromofluorobenzene (S)	Averaged	0.93508	0.95631	0.0100	2.2710	30.0000
Dibromofluoromethane (S)	Averaged	0.25935	0.25788	0.0100	-0.5656	30.0000
1,2-Dichlorobenzene-d4 (S)	Averaged	0.45742	0.45049	0.0100	-1.5138	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.26681	0.26078	0.0100	-2.2607	30.0000
Toluene-d8 (S)	Averaged	1.34948	1.31227	0.0100	-2.7576	30.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSV - FORM VII VOA-1
MSV CONTINUING CALIBRATION DATA

12314985CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 11/29/2019 Time: 09:08

Instrument ID: 30MV7B GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191129.B\2.B\71129006.D Init. Calib. Time(s): 14:12 16:40

SDG No.: 30337003

COMPOUND	CURVE	$\overline{\text{RRF}}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
Acetone	Quadratic	50	60.99330	0.0100	21.9866	20.0000
Benzene	Averaged	1.12575	1.02563	0.0100	-8.8930	20.0000
Bromobenzene	Averaged	1.48017	1.36613	0.0100	-7.7044	20.0000
Bromochloromethane	Averaged	0.19214	0.18520	0.0100	-3.6132	20.0000
Bromodichloromethane	Averaged	0.30364	0.29909	0.0100	-1.4986	20.0000
Bromoform	Quadratic	50	42.11033	0.1000	-15.7793	20.0000
Bromomethane	Quadratic	50	43.33562	0.0100	-13.3288	20.0000
2-Butanone (MEK)	Averaged	0.34345	0.39798	0.0100	15.8769	20.0000
n-Butylbenzene	Averaged	1.66230	1.55217	0.0100	-6.6248	20.0000
sec-Butylbenzene	Averaged	2.53417	2.35425	0.0100	-7.0997	20.0000
tert-Butylbenzene	Averaged	1.89469	1.81015	0.0100	-4.4618	20.0000
Carbon disulfide	Averaged	0.80634	0.67473	0.0100	-16.3211	20.0000
Carbon tetrachloride	Averaged	0.39251	0.40376	0.0100	2.8670	20.0000
Chlorobenzene	Averaged	1.03314	1.02018	0.3000	-1.2542	20.0000
Chloroethane	Quadratic	50	46.27021	0.0100	-7.4596	20.0000
2-Chloroethylvinyl ether	Quadratic	50	43.75842	0.0100	-12.4832	20.0000
Chloroform	Averaged	0.48830	0.46631	0.0100	-4.5030	20.0000
Chloromethane	Averaged	0.38756	0.36384	0.1000	-6.1202	20.0000
2-Chlorotoluene	Averaged	0.79336	0.75392	0.0100	-4.9715	20.0000
4-Chlorotoluene	Averaged	0.83974	0.78623	0.0100	-6.3724	20.0000
1,2-Dibromo-3-chloropropane	Averaged	0.46536	0.41689	0.0100	-10.4155	20.0000
Dibromochloromethane	Averaged	0.42445	0.40734	0.0100	-4.0293	20.0000
1,2-Dibromoethane (EDB)	Averaged	0.44116	0.42120	0.0100	-4.5240	20.0000
Dibromomethane	Averaged	0.22345	0.22072	0.0100	-1.2231	20.0000
1,2-Dichlorobenzene	Averaged	1.42010	1.30959	0.0100	-7.7819	20.0000
1,3-Dichlorobenzene	Averaged	1.45531	1.33053	0.0100	-8.5737	20.0000
1,4-Dichlorobenzene	Averaged	1.56069	1.40844	0.0100	-9.7556	20.0000
Dichlorodifluoromethane	Averaged	0.30714	0.29151	0.0100	-5.0904	20.0000
1,1-Dichloroethane	Averaged	0.50535	0.52019	0.1000	2.9351	20.0000
1,2-Dichloroethane	Averaged	0.35499	0.35176	0.0100	-0.9093	20.0000
1,1-Dichloroethene	Averaged	0.47971	0.47012	0.0100	-1.9989	20.0000
cis-1,2-Dichloroethene	Averaged	0.38632	0.40425	0.0100	4.6423	20.0000
trans-1,2-Dichloroethene	Averaged	0.40969	0.42823	0.0100	4.5251	20.0000
1,2-Dichloropropane	Averaged	0.26499	0.27650	0.0100	4.3405	20.0000
1,3-Dichloropropane	Averaged	0.64584	0.60404	0.0100	-6.4709	20.0000
2,2-Dichloropropane	Averaged	0.38586	0.37744	0.0100	-2.1830	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

SAMPLE NO.

MSV - FORM VII VOA-2
MSV CONTINUING CALIBRATION DATA

12314985CCV

Lab Name: Pace Analytical - Pittsburgh Calibration Date: 11/29/2019 Time: 09:08

Instrument ID: 30MV7B GC Column: Col 1 Init. Calib. Date(s): 11/12/2019 11/12/2019

Lab File ID: 7191129.B\2.B\71129006.D Init. Calib. Time(s): 14:12 16:40

SDG No.: 30337003

COMPOUND	CURVE	$\overline{RRF}$ or Amount	RRF or Amount	MIN RRF	%D	MAX %D
1,1-Dichloropropene	Averaged	0.38360	0.37741	0.0100	-1.6136	20.0000
cis-1,3-Dichloropropene	Averaged	0.37650	0.38612	0.0100	2.5559	20.0000
trans-1,3-Dichloropropene	Averaged	0.52729	0.52324	0.0100	-0.7684	20.0000
Ethylbenzene	Averaged	0.54357	0.51743	0.0100	-4.8084	20.0000
Hexachloro-1,3-butadiene	Averaged	0.34716	0.28541	0.0100	-17.7867	20.0000
2-Hexanone	Averaged	0.62147	0.70698	0.0100	13.7590	20.0000
Isopropylbenzene (Cumene)	Averaged	3.02632	2.82174	0.0100	-6.7599	20.0000
p-Isopropyltoluene	Averaged	2.14551	2.00932	0.0100	-6.3477	20.0000
Methylene Chloride	Quadratic	50	57.21143	0.0100	14.4229	20.0000
4-Methyl-2-pentanone (MIBK)	Averaged	0.47989	0.56979	0.0100	18.7314	20.0000
Methyl-tert-butyl ether	Averaged	0.83214	0.77484	0.0100	-6.8861	20.0000
Naphthalene	Averaged	3.12104	2.83279	0.0100	-9.2358	20.0000
n-Propylbenzene	Averaged	3.36482	3.19173	0.0100	-5.1441	20.0000
Styrene	Averaged	0.96775	0.96043	0.0100	-0.7565	20.0000
1,1,1,2-Tetrachloroethane	Averaged	0.38292	0.39970	0.0100	4.3819	20.0000
1,1,2,2-Tetrachloroethane	Averaged	1.27125	1.17829	0.3000	-7.3118	20.0000
Tetrachloroethene	Averaged	0.47605	0.47325	0.0100	-0.5874	20.0000
Toluene	Averaged	1.73002	1.65368	0.0100	-4.4131	20.0000
1,2,3-Trichlorobenzene	Averaged	0.70444	0.59033	0.0100	-16.1997	20.0000
1,2,4-Trichlorobenzene	Averaged	0.70643	0.61599	0.0100	-12.8023	20.0000
1,1,1-Trichloroethane	Averaged	0.41999	0.41652	0.0100	-0.8258	20.0000
1,1,2-Trichloroethane	Averaged	0.38425	0.35610	0.0100	-7.3267	20.0000
Trichloroethene	Averaged	0.32382	0.32905	0.0100	1.6151	20.0000
Trichlorofluoromethane	Quadratic	50	44.85398	0.0100	-10.2920	20.0000
1,2,4-Trimethylbenzene	Averaged	2.32092	2.18592	0.0100	-5.8165	20.0000
1,3,5-Trimethylbenzene	Averaged	2.33834	2.16926	0.0100	-7.2307	20.0000
Vinyl acetate	Averaged	0.77981	0.87503	0.0100	12.2108	20.0000
Vinyl chloride	Averaged	0.37049	0.37121	0.0100	0.1954	20.0000
m&p-Xylene	Averaged	0.65871	0.62394	0.0100	-5.2789	20.0000
o-Xylene	Averaged	0.63882	0.59185	0.0100	-7.3521	20.0000
4-Bromofluorobenzene (S)	Averaged	0.93508	0.90612	0.0100	-3.0970	20.0000
Dibromofluoromethane (S)	Averaged	0.25935	0.26749	0.0100	3.1395	20.0000
1,2-Dichlorobenzene-d4 (S)	Averaged	0.45742	0.47486	0.0100	3.8135	20.0000
1,2-Dichloroethane-d4 (S)	Averaged	0.26681	0.27676	0.0100	3.7285	20.0000
Toluene-d8 (S)	Averaged	1.34948	1.33592	0.0100	-1.0055	20.0000

The values for compounds reported as total are based on a summation of the components within the laboratory information management system.

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 12-NOV-2019 18:07
Operator : LEL Inst ID: 30mv7a.i
Smp Info : icv, 105195:1
Misc Info : 47221,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m
Meth Date : 13-Nov-2019 08:49 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:00 Cal File: 71112005.d
Als bottle: 25 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.851	0.851	(0.209)	63119	20.0000	24.5(Q)	
2	Chloromethane	50	0.954	0.951	(0.234)	64572	20.0000	21.1	
3	Vinyl chloride	62	0.989	0.989	(0.243)	66844	20.0000	24.0	
4	Bromomethane	94	1.150	1.147	(0.283)	15976	20.0000	25.2	
5	Chloroethane	64	1.208	1.208	(0.297)	19571	20.0000	22.8	
6	Trichlorofluoromethane	101	1.278	1.282	(0.314)	78190	20.0000	24.8	
7	Diethyl ether (Ethyl ether)	59	1.446	1.443	(0.355)	35822	20.0000	19.3	
8	Ethanol	46	1.539	1.571	(0.237)	5877	200.000	152(M)	LT
9	1,1-Dichloroethene	61	1.558	1.555	(0.383)	67966	20.0000	20.9	
10	1,1,2-Trichlorotrifluoroethane	151	1.577	1.584	(0.388)	34506	20.0000	19.9	
11	Carbon disulfide	76	1.577	1.578	(0.388)	105775	20.0000	18.7	
12	Iodomethane	142	1.648	1.639	(0.405)	9419	20.0000	14.9(M)	LT
13	Acrolein	56	1.767	1.764	(0.434)	18414	20.0000	23.5	
14	Allyl chloride	41	1.841	1.841	(0.452)	287170	100.000	99.0	
15	Methylene Chloride	49	1.912	1.915	(0.470)	59250	20.0000	22.7	
16	Acetone	58	1.954	1.947	(0.480)	12687	20.0000	19.9	
17	trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	63621	20.0000	21.6	
18	Methyl acetate	74	2.031	2.033	(0.499)	22294	20.0000	20.8	
19	n-Hexane	86	2.069	2.063	(0.509)	6380	20.0000	19.8	
20	Methyl-tert-butyl ether	73	2.092	2.092	(0.514)	112591	20.0000	19.2	
21	tert-Butyl Alcohol	59	2.169	2.166	(0.533)	111016	100.000	99.2	
22	Acetonitrile	41	2.288	2.295	(0.562)	64680	100.000	97.0	
23	Diisopropyl ether	45	2.378	2.385	(0.584)	121124	20.0000	19.2	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Chloroprene	53	2.458	2.462	(0.604)	41408	20.0000	19.5	
	25 1,1-Dichloroethane	63	2.481	2.484	(0.610)	80835	20.0000	22.1	
	26 Acrylonitrile	53	2.532	2.536	(0.622)	36526	20.0000	21.1	
	27 Ethyl-tert-butyl ether	59	2.690	2.693	(0.661)	115628	20.0000	19.5	
	28 Vinyl acetate	43	2.712	2.719	(0.667)	94595	20.0000	16.3	
	29 cis-1,2-Dichloroethene	61	2.966	2.963	(0.729)	60099	20.0000	21.9	
	30 2,2-Dichloropropane	77	3.076	3.073	(0.756)	60665	20.0000	22.1	
	31 Cyclohexane	56	3.150	3.153	(0.774)	63917	20.0000	20.3	
	32 Bromochloromethane	130	3.166	3.163	(0.778)	32072	20.0000	23.1	
	33 Chloroform	83	3.259	3.253	(0.801)	70492	20.0000	20.5	
	34 Ethyl acetate	43	3.413	3.436	(0.839)	35409	20.0000	16.7	
	35 Carbon tetrachloride	117	3.368	3.359	(0.828)	61648	20.0000	22.2	
	36 Tetrahydrofuran	42	3.416	3.433	(0.840)	35874	20.0000	19.7	
$	37 Dibromofluoromethane (S)	111	3.442	3.439	(0.846)	62770	30.0000	29.8	
	38 1,1,1-Trichloroethane	97	3.449	3.452	(0.848)	71634	20.0000	23.8	
	39 2-Butanone (MEK)	43	3.593	3.603	(0.883)	54247	20.0000	18.8	
	40 1,1-Dichloropropene	75	3.577	3.578	(0.879)	60061	20.0000	22.6	
	41 Benzene	78	3.783	3.783	(0.930)	177549	20.0000	22.4	
	42 Propionitrile	54	3.828	3.828	(0.941)	16880	20.0000	18.1	
	43 Methacrylonitrile	41	3.838	3.841	(0.943)	39572	20.0000	19.7	
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	96169	20.0000	19.2	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.889	(0.955)	60807	30.0000	28.5	
	45 Isobutanol	43	3.992	4.011	(0.981)	31495	100.000	99.8	
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	56130	20.0000	22.0	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	239478	30.0000		
	49 Methylcyclohexane	55	4.153	4.152	(1.021)	36554	20.0000	20.1	
	50 Trichloroethene	132	4.169	4.168	(1.024)	52154	20.0000	22.9	
	51 Dibromomethane	174	4.384	4.388	(1.077)	34797	20.0000	21.4	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.089)	44507	20.0000	23.4	
	53 Bromodichloromethane	83	4.471	4.468	(1.099)	50084	20.0000	21.6	
	54 Methyl methacrylate	69	4.551	4.558	(1.119)	33590	20.0000	17.1	
	55 1,4-Dioxane (p-Dioxane)	88	4.568	4.578	(1.122)	10653	200.000	197	
	56 2-Chloroethylvinyl ether	63	4.725	4.732	(1.161)	32224	20.0000	19.5	
	57 cis-1,3-Dichloropropene	75	4.748	4.741	(1.167)	62042	20.0000	20.5	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	212201	30.0000	30.3	
	59 Toluene	91	4.847	4.848	(0.879)	186350	20.0000	23.7	
	60 2-Nitropropane	43	4.957	4.960	(1.218)	112316	100.000	78.2	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.028	(1.235)	72675	20.0000	19.8	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	50665	20.0000	23.7	
	63 trans-1,3-Dichloropropene	75	5.040	5.044	(0.914)	59360	20.0000	22.0	
	64 Ethyl methacrylate	41	5.111	5.114	(0.927)	34059	20.0000	18.4	
	65 1,1,2-Trichloroethane	97	5.114	5.118	(0.928)	42667	20.0000	23.9	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	45998	20.0000	20.8	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	65861	20.0000	22.0	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	49446	20.0000	23.9	
	69 2-Hexanone	43	5.391	5.397	(0.978)	62769	20.0000	19.9	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	162168	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	60656	20.0000	24.5	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	114998	20.0000	23.7	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.548	(1.006)	42476	20.0000	23.1	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	147112	40.0000	48.0	
	75 o-Xylene	106	5.770	5.770	(1.047)	69052	20.0000	23.2	
	76 Styrene	104	5.793	5.793	(1.051)	113946	20.0000	24.9	
	77 Bromoform	173	5.809	5.809	(0.896)	33760	20.0000	19.8	

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	159634	20.0000	24.5	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	64740	30.0000	30.0	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	163422	20.0000	24.3	
	81 Bromobenzene	77	6.066	6.069	(0.936)	65666	20.0000	21.9	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	63974	20.0000	24.5	
	83 1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	113668	20.0000	24.0	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	37230	20.0000	23.1	
	85 1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	22316	20.0000	23.1	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.952)	13981	20.0000	16.2	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	23328	100.000	62.2	
	88 4-Chlorotoluene	126	6.207	6.211	(0.957)	39288	20.0000	23.7	
	89 tert-Butylbenzene	119	6.281	6.282	(0.969)	93431	20.0000	24.2	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	113792	20.0000	23.9	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	124275	20.0000	23.9	
	92 p-Isopropyltoluene	119	6.407	6.410	(0.988)	106207	20.0000	24.0	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	68566	20.0000	23.3	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	69539	30.0000		
	95 1,4-Dichlorobenzene	146	6.490	6.491	(1.001)	69142	20.0000	22.7	
	96 n-Butylbenzene	91	6.584	6.584	(1.015)	78383	20.0000	22.6	
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	67565	20.0000	23.9	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	22706	20.0000	19.5	
	103 1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	36788	20.0000	22.9	
	100 Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	14646	20.0000	20.6	
	101 1,2,4-Trichlorobenzene	180	7.275	7.278	(1.122)	33989	20.0000	23.3	
	102 Naphthalene	128	7.410	7.413	(1.143)	145743	20.0000	23.3	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	31564	20.0000	21.9	
	105 2-Methylnaphthalene	142	7.847	7.844	(1.210)	42035	20.0000	24.4	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7a.i Injection Date: 12-NOV-2019 18:07
Lab File ID: 71112025.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:00 16:28
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m

	COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	20.00000	24.54270	0.39535	0.010	22.71348	20.00000	Quad	(Q)	<-
	2 Chloromethane	20.00000	21.10986	0.40445	0.100	5.54928	20.00000	Quad		
	3 Vinyl chloride	0.34831	0.41869	0.41869	0.010	20.20613	20.00000	Aver		<-
	4 Bromomethane	20.00000	25.20041	0.10007	0.010	26.00207	20.00000	Quad		<-
	5 Chloroethane	20.00000	22.78740	0.12259	0.010	13.93702	20.00000	Quad		
	6 Trichlorofluoromethane	0.39459	0.48975	0.48975	0.010	24.11782	20.00000	Aver		<-
	7 Diethyl ether (Ethyl ether)	0.23192	0.22438	0.22438	0.010	-3.25505	20.00000	Aver		
	8 Ethanol	200	152	0.01268	0.010	-23.97397	20.00000	Quad	(M)	<-
	9 1,1-Dichloroethene	0.40713	0.42571	0.42571	0.010	4.56356	20.00000	Aver		
	10 1,1,2-Trichlorotrifluoroeth	0.21706	0.21613	0.21613	0.010	-0.42615	20.00000	Aver		
	11 Carbon disulfide	0.70674	0.66253	0.66253	0.010	-6.25536	20.00000	Aver		
	12 Iodomethane	20.00000	14.93510	0.05900	0.010	-25.32451	20.00000	Quad	(M)	<-
	13 Acrolein	0.09798	0.11534	0.11534	0.010	17.71127	20.00000	Aver		
	14 Allyl chloride	0.36323	0.35974	0.35974	0.010	-0.95821	20.00000	Aver		
	15 Methylene Chloride	20.00000	22.67729	0.37112	0.010	13.38646	20.00000	Quad		
	16 Acetone	20.00000	19.90647	0.07947	0.010	-0.46765	20.00000	Quad		
	17 trans-1,2-Dichloroethene	0.36866	0.39850	0.39850	0.010	8.09347	20.00000	Aver		
	18 Methyl acetate	0.13436	0.13964	0.13964	0.010	3.93189	20.00000	Aver		
	19 n-Hexane	0.04031	0.03996	0.03996	0.010	-0.86751	20.00000	Aver		
	20 Methyl-tert-butyl ether	0.73625	0.70523	0.70523	0.010	-4.21293	20.00000	Aver		
	21 tert-Butyl Alcohol	0.14026	0.13907	0.13907	0.010	-0.84764	20.00000	Aver		
	22 Acetonitrile	0.08356	0.08103	0.08103	0.010	-3.02730	20.00000	Aver		
	23 Diisopropyl ether	0.79114	0.75868	0.75868	0.010	-4.10393	20.00000	Aver		
	24 Chloroprene	0.26606	0.25936	0.25936	0.010	-2.51695	20.00000	Aver		
	25 1,1-Dichloroethane	0.45777	0.50632	0.50632	0.100	10.60580	20.00000	Aver		
	26 Acrylonitrile	0.21677	0.22879	0.22879	0.010	5.54298	20.00000	Aver		
	27 Ethyl-tert-butyl ether	0.74172	0.72425	0.72425	0.010	-2.35500	20.00000	Aver		
	28 Vinyl acetate	20.00000	16.31523	0.59251	0.010	-18.42383	20.00000	Quad		
	29 cis-1,2-Dichloroethene	0.34374	0.37644	0.37644	0.010	9.51223	20.00000	Aver		
	30 2,2-Dichloropropane	0.34310	0.37998	0.37998	0.010	10.74863	20.00000	Aver		
	31 Cyclohexane	0.39445	0.40035	0.40035	0.010	1.49648	20.00000	Aver		
	32 Bromochloromethane	0.17419	0.20089	0.20089	0.010	15.32844	20.00000	Aver		
	33 Chloroform	0.42985	0.44154	0.44154	0.010	2.71854	20.00000	Aver		
	34 Ethyl acetate	20.00000	16.70894	0.22179	0.010	-16.45531	20.00000	Quad		
	35 Carbon tetrachloride	0.34756	0.38614	0.38614	0.010	11.09999	20.00000	Aver		
	36 Tetrahydrofuran	0.22773	0.22470	0.22470	0.010	-1.32804	20.00000	Aver		
$	37 Dibromofluoromethane (S)	0.26420	0.26211	0.26211	0.010	-0.78899	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.37739	0.44869	0.44869	0.010	18.89315	20.00000	Aver		
	39 2-Butanone (MEK)	0.36224	0.33978	0.33978	0.010	-6.19859	20.00000	Aver		
	40 1,1-Dichloropropene	0.33260	0.37620	0.37620	0.010	13.11028	20.00000	Aver		
	41 Benzene	0.99066	1.11210	1.11210	0.010	12.25808	20.00000	Aver		

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

QC Flag Legend

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M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7a.i Injection Date: 12-NOV-2019 18:07
Lab File ID: 71112025.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:00 16:28
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m

	COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	20.00000	18.07464	0.10573	0.010	-9.62680	20.00000	Quad		
	43 Methacrylonitrile	0.25127	0.24786	0.24786	0.010	-1.35609	20.00000	Aver		
	44 tert-Amylmethyl ether	0.62769	0.60237	0.60237	0.010	-4.03389	20.00000	Aver		
$	46 1,2-Dichloroethane-d4 (S)	0.26745	0.25391	0.25391	0.010	-5.06055	20.00000	Aver		
	45 Isobutanol	100	100	0.03945	0.010	-0.17260	20.00000	Quad		
	47 1,2-Dichloroethane	0.31993	0.35158	0.35158	0.010	9.89315	20.00000	Aver		
	49 Methylcyclohexane	0.22751	0.22896	0.22896	0.010	0.63725	20.00000	Aver		
	50 Trichloroethene	0.28474	0.32667	0.32667	0.010	14.72807	20.00000	Aver		
	51 Dibromomethane	0.20357	0.21796	0.21796	0.010	7.06757	20.00000	Aver		
	52 1,2-Dichloropropane	0.23870	0.27878	0.27878	0.010	16.79070	20.00000	Aver		
	53 Bromodichloromethane	20.00000	21.63528	0.31371	0.010	8.17638	20.00000	Quad		
	54 Methyl methacrylate	20.00000	17.13938	0.21040	0.010	-14.30312	20.00000	Quad		
	55 1,4-Dioxane (p-Dioxane)	0.00678	0.00667	0.00667	0.010	-1.57568	20.00000	Aver		<-
	56 2-Chloroethylvinyl ether	20.00000	19.47900	0.20184	0.010	-2.60502	20.00000	Quad		
	57 cis-1,3-Dichloropropene	20.00000	20.52735	0.38861	0.010	2.63675	20.00000	Quad		
$	58 Toluene-d8 (S)	1.29365	1.30853	1.30853	0.010	1.14975	20.00000	Aver		
	59 Toluene	1.45692	1.72368	1.72368	0.010	18.30927	20.00000	Aver		
	60 2-Nitropropane	100	78.15064	0.14070	0.010	-21.84936	20.00000	Quad		<-
	61 4-Methyl-2-pentanone (MIBK)	0.45905	0.45521	0.45521	0.010	-0.83652	20.00000	Aver		
	62 Tetrachloroethene	0.39548	0.46863	0.46863	0.010	18.49891	20.00000	Aver		
	63 trans-1,3-Dichloropropene	20.00000	21.95900	0.54906	0.010	9.79499	20.00000	Quad		
	64 Ethyl methacrylate	20.00000	18.43130	0.31503	0.010	-7.84348	20.00000	Quad		
	65 1,1,2-Trichloroethane	0.33003	0.39466	0.39466	0.010	19.58192	20.00000	Aver		
	66 Dibromochloromethane	20.00000	20.78254	0.42547	0.010	3.91271	20.00000	Quad		
	67 1,3-Dichloropropane	0.55418	0.60919	0.60919	0.010	9.92633	20.00000	Aver		
	68 1,2-Dibromoethane (EDB)	0.38221	0.45736	0.45736	0.010	19.66230	20.00000	Aver		
	69 2-Hexanone	0.58371	0.58059	0.58059	0.010	-0.53389	20.00000	Aver		
	71 Ethylbenzene	0.45764	0.56105	0.56105	0.010	22.59680	20.00000	Aver		<-
	72 Chlorobenzene	0.89760	1.06369	1.06369	0.300	18.50464	20.00000	Aver		
	73 1,1,1,2-Tetrachloroethane	0.33999	0.39289	0.39289	0.010	15.55991	20.00000	Aver		
	74 m&p-Xylene	0.56746	0.68037	0.68037	0.010	19.89681	20.00000	Aver		
	75 o-Xylene	0.55015	0.63871	0.63871	0.010	16.09673	20.00000	Aver		
	76 Styrene	0.84634	1.05396	1.05396	0.010	24.53120	20.00000	Aver		<-
	77 Bromoform	20.00000	19.79398	0.72822	0.100	-1.03011	20.00000	Quad		
	78 Isopropylbenzene (Cumene)	20.00000	24.47628	3.44341	0.010	22.38138	20.00000	Quad		<-
$	79 4-Bromofluorobenzene (S)	0.92984	0.93099	0.93099	0.010	0.12343	20.00000	Aver		
	80 n-Propylbenzene	2.90257	3.52512	3.52512	0.010	21.44820	20.00000	Aver		<-
	81 Bromobenzene	1.29332	1.41646	1.41646	0.010	9.52058	20.00000	Aver		
	82 1,1,2,2-Tetrachloroethane	1.12788	1.37996	1.37996	0.300	22.34961	20.00000	Aver		<-
	83 1,3,5-Trimethylbenzene	2.04456	2.45189	2.45189	0.010	19.92250	20.00000	Aver		
	84 2-Chlorotoluene	0.69509	0.80307	0.80307	0.010	15.53600	20.00000	Aver		

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Report Date: 13-Nov-2019 08:53

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7a.i Injection Date: 12-NOV-2019 18:07
Lab File ID: 71112025.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:00 16:28
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\msv7191112a.m

	COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	85 1,2,3-Trichloropropane	0.41695	0.48137	0.48137	0.010	15.44917	20.00000	Aver		
	86 trans-1,4-Dichloro-2-butene	20.00000	16.18140	0.30158	0.010	-19.09298	20.00000	Quad		
	87 Cyclohexanone	100	62.22125	0.10064	0.010	-37.77875	20.00000	Quad		<-
	88 4-Chlorotoluene	0.71553	0.84747	0.84747	0.010	18.43864	20.00000	Aver		
	89 tert-Butylbenzene	1.66572	2.01537	2.01537	0.010	20.99064	20.00000	Aver		<-
	90 1,2,4-Trimethylbenzene	2.05102	2.45457	2.45457	0.010	19.67543	20.00000	Aver		
	91 sec-Butylbenzene	2.24088	2.68069	2.68069	0.010	19.62642	20.00000	Aver		
	92 p-Isopropyltoluene	1.90880	2.29095	2.29095	0.010	20.02070	20.00000	Aver		<-
	93 1,3-Dichlorobenzene	1.26774	1.47901	1.47901	0.010	16.66564	20.00000	Aver		
	95 1,4-Dichlorobenzene	1.31442	1.49144	1.49144	0.010	13.46763	20.00000	Aver		
	96 n-Butylbenzene	1.49340	1.69077	1.69077	0.010	13.21649	20.00000	Aver		
$	98 1,2-Dichlorobenzene-d4 (S)	++++	++++	++++	0.010	++++	20.00000	Averaged		<-
	97 1,2-Dichlorobenzene	1.21991	1.45742	1.45742	0.010	19.46961	20.00000	Aver		
	99 1,2-Dibromo-3-chloropropane	20.00000	19.53420	0.48978	0.010	-2.32902	20.00000	Quad		
	103 1,3,5-Trichlorobenzene	0.69240	0.79354	0.79354	0.010	14.60675	20.00000	Aver		
	100 Hexachloro-1,3-butadiene	0.30745	0.31592	0.31592	0.010	2.75509	20.00000	Aver		
	101 1,2,4-Trichlorobenzene	0.62799	0.73316	0.73316	0.010	16.74831	20.00000	Aver		
	102 Naphthalene	2.69745	3.14377	3.14377	0.010	16.54591	20.00000	Aver		
	104 1,2,3-Trichlorobenzene	0.62170	0.68086	0.68086	0.010	9.51592	20.00000	Aver		
	105 2-Methylnaphthalene	0.74159	0.90672	0.90672	0.010	22.26789	20.00000	Aver		<-

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Average %D / Drift Results.
Calculated Average %D/Drift = 11.60432
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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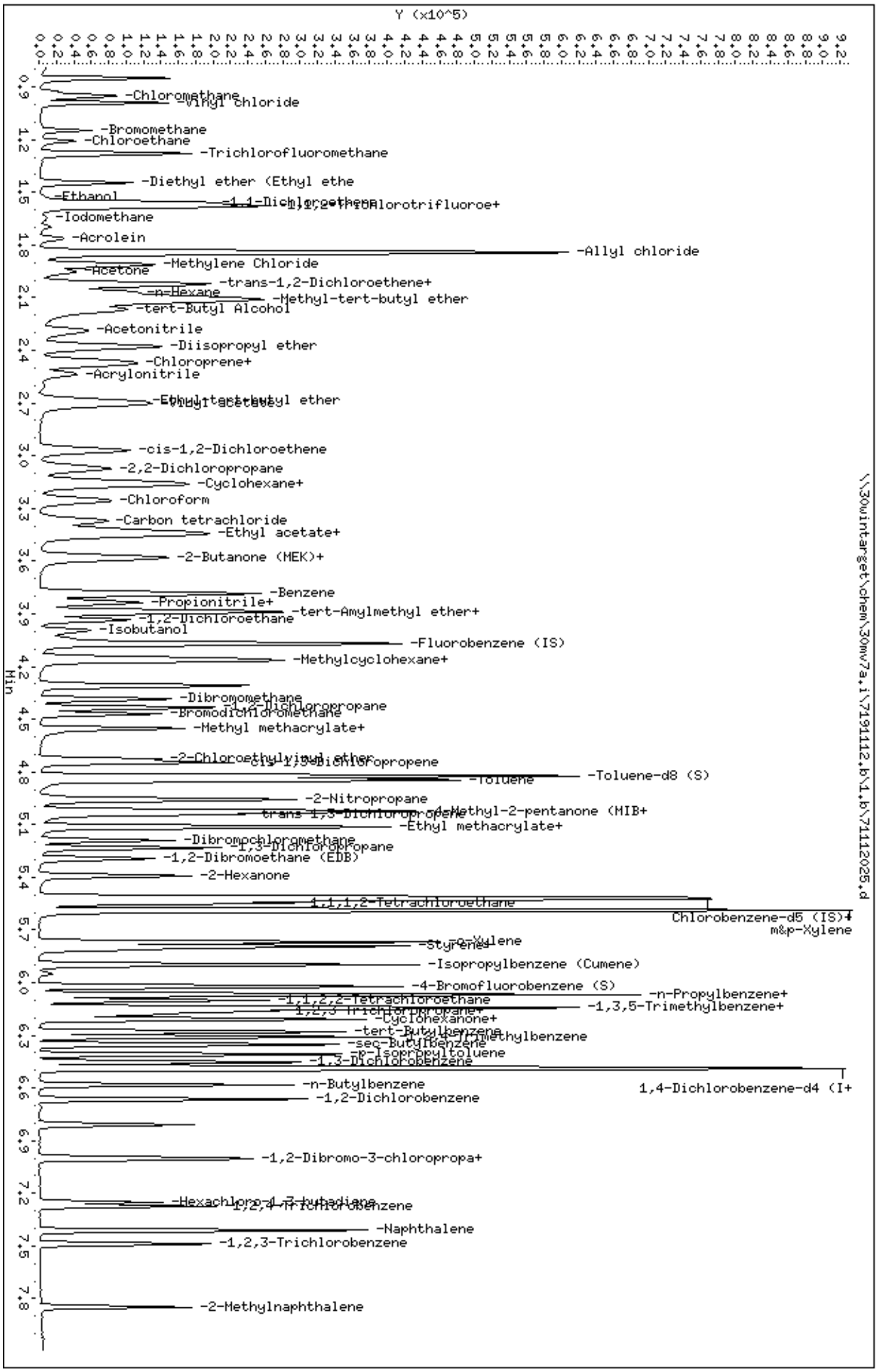
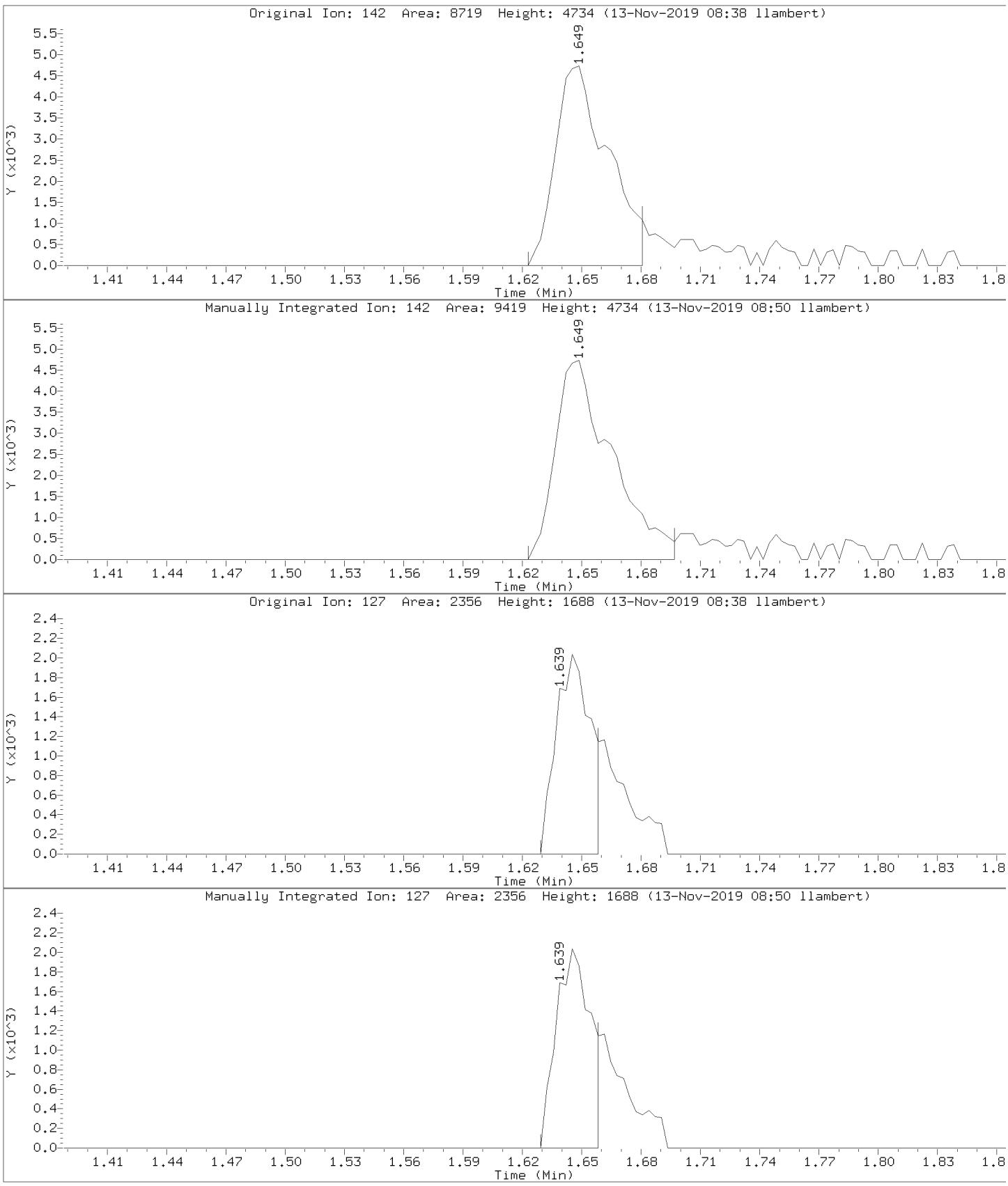
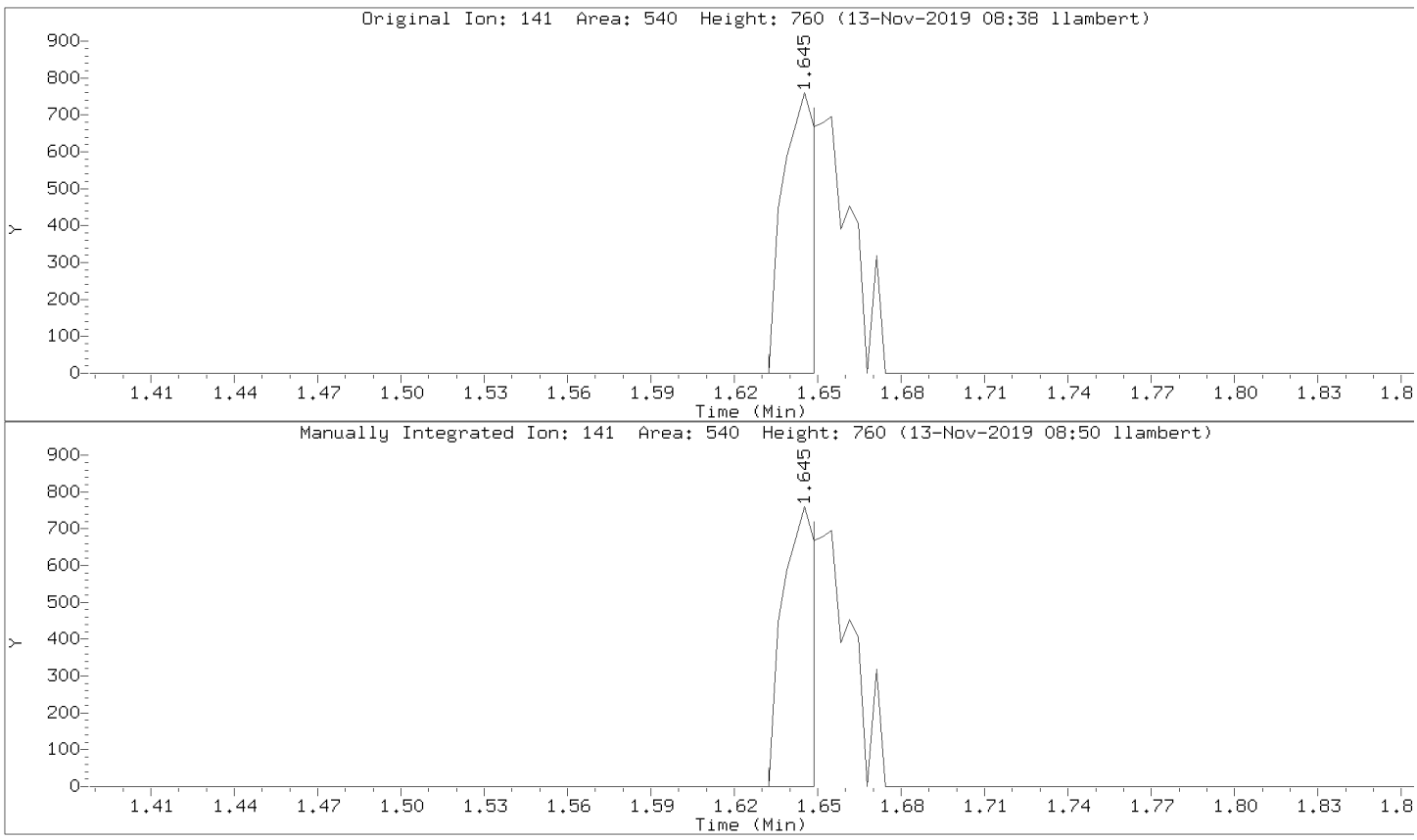

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Date : 12-NOV-2019 18:07
Client ID: ICV
Sample Info: ICV, 10519:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112025.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1-Dichloroethene
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl tert-butyl ether
-Vinyl acetate+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Chlorobenzene-d5 (IS)+
m&p-Xylene
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-1,2,3-Trichloropropane+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112025.d
Injection Date: 12-NOV-2019 18:07
Instrument: 30mv7a.i
Lab Sample ID: ICV

Compound: Iodomethane Review Code: LT
CAS Number: 74-88-4



Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b/71112025.d
Injection Date: 12-NOV-2019 18:07
Instrument: 30mv7a.i
Lab Sample ID: ICV



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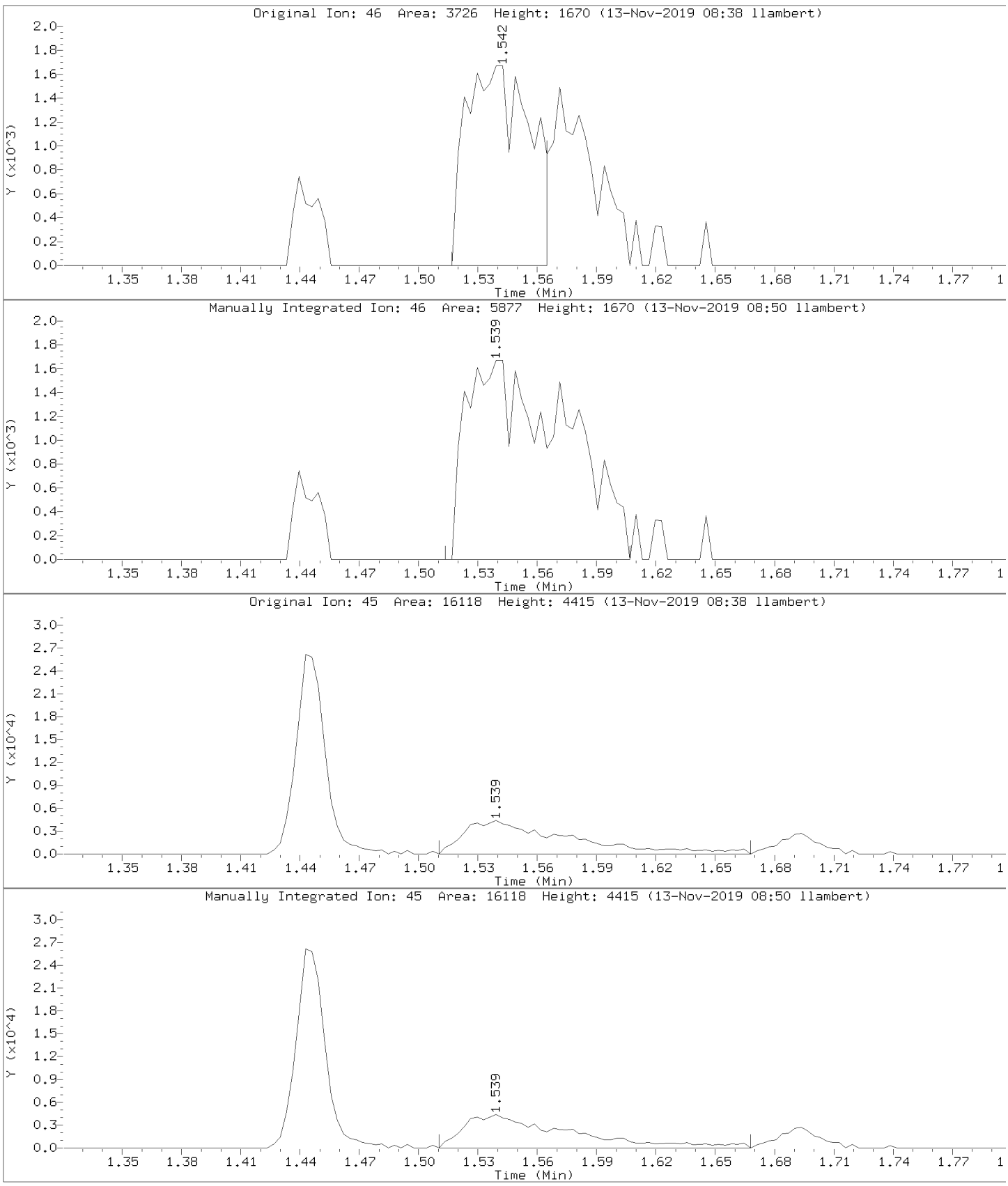
Injection Date: 12-NOV-2019 18:07
Instrument: 30mv7a.i
Lab Sample ID: ICV

Compound: Ethanol Review Code: LT
CAS Number: 64-17-5



Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 02-DEC-2019 11:40
Operator : LEL Inst ID: 30mv7a.i
Smp Info : ccv, 107047:1
Misc Info : 47221,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv7a.i\7191202.B\1.b\msv7191112a.m
Meth Date : 02-Dec-2019 11:54 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 14:00 Cal File: 71112005.d
Als bottle: 9 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.847	0.851	(0.208)	92171	50.0000	56.5(Q)	
2	Chloromethane	50	0.950	0.951	(0.234)	99810	50.0000	50.5	
3	Vinyl chloride	62	0.989	0.989	(0.243)	100755	50.0000	57.2	
4	Bromomethane	94	1.146	1.147	(0.282)	15201	50.0000	37.8	
5	Chloroethane	64	1.204	1.208	(0.296)	30244	50.0000	58.9	
6	Trichlorofluoromethane	101	1.278	1.282	(0.314)	126820	50.0000	63.5	
7	Diethyl ether (Ethyl ether)	59	1.446	1.443	(0.355)	63438	50.0000	54.0	
8	Ethanol	46	1.542	1.571	(0.238)	11579	500.000	443	
9	1,1-Dichloroethene	61	1.558	1.555	(0.383)	115017	50.0000	55.8	
10	1,1,2-Trichlorotrifluoroethane	151	1.577	1.584	(0.388)	62856	50.0000	57.2	
11	Carbon disulfide	76	1.577	1.578	(0.388)	175818	50.0000	49.2	
12	Iodomethane	142	1.642	1.639	(0.404)	26132	50.0000	68.8	
13	Acrolein	56	1.764	1.764	(0.434)	27021	50.0000	54.5	
14	Allyl chloride	41	1.841	1.841	(0.452)	583586	250.000	317	
15	Methylene Chloride	49	1.912	1.915	(0.470)	98204	50.0000	58.6	
16	Acetone	58	1.950	1.947	(0.479)	22844	50.0000	57.0	
17	trans-1,2-Dichloroethene	61	2.018	2.017	(0.496)	101512	50.0000	54.4	
18	Methyl acetate	74	2.034	2.033	(0.500)	32951	50.0000	48.4	
19	n-Hexane	86	2.066	2.063	(0.508)	10856	50.0000	53.2	
20	Methyl-tert-butyl ether	73	2.095	2.092	(0.515)	187776	50.0000	50.4	
21	tert-Butyl Alcohol	59	2.172	2.166	(0.534)	197753	250.000	278	
22	Acetonitrile	41	2.285	2.295	(0.562)	113088	250.000	267	

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.381	2.385	(0.585)	234187	50.0000	58.5	
	24 Chloroprene	53	2.458	2.462	(0.604)	83801	50.0000	62.2	
	25 1,1-Dichloroethane	63	2.478	2.484	(0.609)	124832	50.0000	53.9	
	26 Acrylonitrile	53	2.539	2.536	(0.624)	66792	50.0000	60.9	
	27 Ethyl-tert-butyl ether	59	2.693	2.693	(0.662)	217582	50.0000	58.0	
	28 Vinyl acetate	43	2.712	2.719	(0.667)	219368	50.0000	59.0	
	29 cis-1,2-Dichloroethene	61	2.970	2.963	(0.730)	97117	50.0000	55.8	
	30 2,2-Dichloropropane	77	3.072	3.073	(0.755)	93778	50.0000	54.0	
	31 Cyclohexane	56	3.153	3.153	(0.775)	119886	50.0000	60.0	
	32 Bromochloromethane	130	3.169	3.163	(0.779)	47465	50.0000	53.8	
	33 Chloroform	83	3.253	3.253	(0.799)	114863	50.0000	52.8	
	34 Ethyl acetate	43	3.416	3.436	(0.840)	75904	50.0000	56.4	
	35 Carbon tetrachloride	117	3.371	3.359	(0.829)	97322	50.0000	55.3	
	36 Tetrahydrofuran	42	3.420	3.433	(0.840)	82832	50.0000	71.9	
$	37 Dibromofluoromethane (S)	111	3.445	3.439	(0.847)	42522	30.0000	31.8	
	38 1,1,1-Trichloroethane	97	3.449	3.452	(0.848)	102097	50.0000	53.4	
	39 2-Butanone (MEK)	43	3.593	3.603	(0.883)	108915	50.0000	59.4	
	40 1,1-Dichloropropene	75	3.577	3.578	(0.879)	88200	50.0000	52.4	
	41 Benzene	78	3.786	3.783	(0.930)	241864	50.0000	48.2	
	42 Propionitrile	54	3.828	3.828	(0.941)	29302	50.0000	49.7	
	43 Methacrylonitrile	41	3.838	3.841	(0.943)	79150	50.0000	62.2	
	44 tert-Amylmethyl ether	73	3.889	3.896	(0.956)	168123	50.0000	52.9	
$	46 1,2-Dichloroethane-d4 (S)	65	3.889	3.889	(0.956)	43619	30.0000	32.2	
	45 Isobutanol	43	3.998	4.011	(0.983)	59298	250.000	267	
	47 1,2-Dichloroethane	62	3.934	3.931	(0.967)	87980	50.0000	54.3	
*	48 Fluorobenzene (IS)	96	4.069	4.069	(1.000)	151838	30.0000		
	49 Methylcyclohexane	55	4.153	4.152	(1.021)	72417	50.0000	62.9	
	50 Trichloroethene	132	4.166	4.168	(1.024)	79845	50.0000	55.4	
	51 Dibromomethane	174	4.388	4.388	(1.078)	54635	50.0000	53.0	
	52 1,2-Dichloropropane	63	4.436	4.433	(1.090)	65000	50.0000	53.8	
	53 Bromodichloromethane	83	4.471	4.468	(1.099)	77031	50.0000	52.0	
	54 Methyl methacrylate	69	4.551	4.558	(1.119)	60334	50.0000	48.3	
	55 1,4-Dioxane (p-Dioxane)	88	4.571	4.578	(1.123)	14831	500.000	432	
	56 2-Chloroethylvinyl ether	63	4.725	4.732	(1.161)	50734	50.0000	49.0	
	57 cis-1,3-Dichloropropene	75	4.748	4.741	(1.167)	93051	50.0000	48.3	
$	58 Toluene-d8 (S)	98	4.825	4.825	(0.875)	135805	30.0000	29.3	
	59 Toluene	91	4.847	4.848	(0.879)	267629	50.0000	51.3	
	60 2-Nitropropane	43	4.960	4.960	(1.219)	256734	250.000	283	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.028	(1.235)	145332	50.0000	62.6	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	76671	50.0000	54.1	
	63 trans-1,3-Dichloropropene	75	5.040	5.044	(0.914)	90330	50.0000	50.0	
	64 Ethyl methacrylate	41	5.111	5.114	(0.927)	68750	50.0000	55.7	
	65 1,1,2-Trichloroethane	97	5.111	5.118	(0.927)	59583	50.0000	50.4	
	66 Dibromochloromethane	129	5.191	5.192	(0.942)	74139	50.0000	50.1	
	67 1,3-Dichloropropane	76	5.233	5.230	(0.949)	102913	50.0000	51.8	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.298	(0.960)	70660	50.0000	51.6	
	69 2-Hexanone	43	5.391	5.397	(0.978)	131672	50.0000	63.0	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	107431	30.0000		
	71 Ethylbenzene	106	5.529	5.526	(1.003)	85807	50.0000	52.4	
	72 Chlorobenzene	112	5.519	5.520	(1.001)	172093	50.0000	53.5	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.548	(1.006)	68318	50.0000	56.1	
	74 m&p-Xylene	106	5.590	5.590	(1.014)	208733	100.000	103	
	75 o-Xylene	106	5.770	5.770	(1.047)	99901	50.0000	50.7	
	76 Styrene	104	5.793	5.793	(1.051)	160964	50.0000	53.1	

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77 Bromoform	173	5.809	5.809	(0.896)	55186	50.0000	46.9	
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	208960	50.0000	47.0	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	44108	30.0000	30.0	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	236821	50.0000	51.6	
	81 Bromobenzene	77	6.066	6.069	(0.936)	101999	50.0000	49.9	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.102	(0.941)	90135	50.0000	50.5	
	83 1,3,5-Trimethylbenzene	105	6.146	6.147	(0.948)	164573	50.0000	50.9	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	56750	50.0000	51.6	
	85 1,2,3-Trichloropropane	110	6.162	6.163	(0.950)	33624	50.0000	51.0	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.175	(0.952)	32302	50.0000	54.1	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	40830	250.000	160	
	88 4-Chlorotoluene	126	6.207	6.211	(0.957)	59437	50.0000	52.5	
	89 tert-Butylbenzene	119	6.281	6.282	(0.969)	135796	50.0000	51.6	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	163205	50.0000	50.3	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	179848	50.0000	50.8	
	92 p-Isopropyltoluene	119	6.407	6.410	(0.988)	154180	50.0000	51.1	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	100193	50.0000	50.0	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	47441	30.0000		
	95 1,4-Dichlorobenzene	146	6.487	6.491	(1.000)	108160	50.0000	52.0	
	96 n-Butylbenzene	91	6.584	6.584	(1.015)	121241	50.0000	51.3	
$	98 1,2-Dichlorobenzene-d4 (S)	152	Compound Not Detected.						
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	98337	50.0000	51.0	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.992	(1.079)	35580	50.0000	44.6	
	103 1,3,5-Trichlorobenzene	180	7.005	7.008	(1.080)	50472	50.0000	46.1	
	100 Hexachloro-1,3-butadiene	225	7.252	7.253	(1.119)	24095	50.0000	49.6	
	101 1,2,4-Trichlorobenzene	180	7.275	7.278	(1.122)	46726	50.0000	47.0	
	102 Naphthalene	128	7.410	7.413	(1.143)	209037	50.0000	49.0	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	44142	50.0000	44.9	
	105 2-Methylnaphthalene	142	7.847	7.844	(1.210)	72759	50.0000	62.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Review Codes Legend

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Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7a.i Injection Date: 02-DEC-2019 11:40
Lab File ID: 71202009.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:00 16:28
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7a.i\7191202.B\1.b\msv7191112a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	1 Dichlorodifluoromethane	50.00000	56.46633	0.36422	0.010	12.93265	20.00000	Quad	(Q)	
	2 Chloromethane	50.00000	50.47632	0.39441	0.100	0.95265	20.00000	Quad		
	3 Vinyl chloride	0.34831	0.39814	0.39814	0.010	14.30781	20.00000	Aver		
	4 Bromomethane	50.00000	37.75576	0.06007	0.010	-24.48849	20.00000	Quad		<-
	5 Chloroethane	50.00000	58.87003	0.11951	0.010	17.74007	20.00000	Quad		
	6 Trichlorofluoromethane	0.39459	0.50114	0.50114	0.010	27.00354	20.00000	Aver		<-
	7 Diethyl ether (Ethyl ether)	0.23192	0.25068	0.25068	0.010	8.08691	20.00000	Aver		
	8 Ethanol	500	443	0.01464	0.010	-11.30143	20.00000	Quad		
	9 1,1-Dichloroethene	0.40713	0.45450	0.45450	0.010	11.63383	20.00000	Aver		
	10 1,1,2-Trichlorotrifluoroeth	0.21706	0.24838	0.24838	0.010	14.43070	20.00000	Aver		
	11 Carbon disulfide	0.70674	0.69476	0.69476	0.010	-1.69584	20.00000	Aver		
	12 Iodomethane	50.00000	68.81568	0.10326	0.010	37.63136	20.00000	Quad		<-
	13 Acrolein	0.09798	0.10678	0.10678	0.010	8.97239	20.00000	Aver		
	14 Allyl chloride	0.36323	0.46122	0.46122	0.010	26.97827	20.00000	Aver		<-
	15 Methylene Chloride	50.00000	58.62158	0.38806	0.010	17.24317	20.00000	Quad		
	16 Acetone	50.00000	57.01909	0.09027	0.010	14.03819	20.00000	Quad		
	17 trans-1,2-Dichloroethene	0.36866	0.40113	0.40113	0.010	8.80816	20.00000	Aver		
	18 Methyl acetate	0.13436	0.13021	0.13021	0.010	-3.08866	20.00000	Aver		
	19 n-Hexane	0.04031	0.04290	0.04290	0.010	6.41683	20.00000	Aver		
	20 Methyl-tert-butyl ether	0.73625	0.74201	0.74201	0.010	0.78327	20.00000	Aver		
	21 tert-Butyl Alcohol	0.14026	0.15629	0.15629	0.010	11.42579	20.00000	Aver		
	22 Acetonitrile	0.08356	0.08938	0.08938	0.010	6.96486	20.00000	Aver		
	23 Diisopropyl ether	0.79114	0.92541	0.92541	0.010	16.97109	20.00000	Aver		
	24 Chloroprene	0.26606	0.33115	0.33115	0.010	24.46269	20.00000	Aver		<-
	25 1,1-Dichloroethane	0.45777	0.49328	0.49328	0.100	7.75800	20.00000	Aver		
	26 Acrylonitrile	0.21677	0.26393	0.26393	0.010	21.75781	20.00000	Aver		<-
	27 Ethyl-tert-butyl ether	0.74172	0.85979	0.85979	0.010	15.91913	20.00000	Aver		
	28 Vinyl acetate	50.00000	58.99942	0.86685	0.010	17.99884	20.00000	Quad		
	29 cis-1,2-Dichloroethene	0.34374	0.38377	0.38377	0.010	11.64410	20.00000	Aver		
	30 2,2-Dichloropropane	0.34310	0.37057	0.37057	0.010	8.00560	20.00000	Aver		
	31 Cyclohexane	0.39445	0.47374	0.47374	0.010	20.10144	20.00000	Aver		<-
	32 Bromochloromethane	0.17419	0.18756	0.18756	0.010	7.67850	20.00000	Aver		
	33 Chloroform	0.42985	0.45389	0.45389	0.010	5.59280	20.00000	Aver		
	34 Ethyl acetate	50.00000	56.38180	0.29994	0.010	12.76361	20.00000	Quad		
	35 Carbon tetrachloride	0.34756	0.38458	0.38458	0.010	10.64994	20.00000	Aver		
	36 Tetrahydrofuran	0.22773	0.32732	0.32732	0.010	43.73325	20.00000	Aver		<-
$	37 Dibromofluoromethane (S)	0.26420	0.28005	0.28005	0.010	6.00017	20.00000	Aver		
	38 1,1,1-Trichloroethane	0.37739	0.40344	0.40344	0.010	6.90444	20.00000	Aver		
	39 2-Butanone (MEK)	0.36224	0.43039	0.43039	0.010	18.81369	20.00000	Aver		
	40 1,1-Dichloropropene	0.33260	0.34853	0.34853	0.010	4.79082	20.00000	Aver		
	41 Benzene	0.99066	0.95574	0.95574	0.010	-3.52479	20.00000	Aver		

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7a.i Injection Date: 02-DEC-2019 11:40
Lab File ID: 71202009.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:00 16:28
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7a.i\7191202.B\1.b\msv7191112a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	50.00000	49.69353	0.11579	0.010	-0.61293	20.00000	Quad		
	43 Methacrylonitrile	0.25127	0.31277	0.31277	0.010	24.47391	20.00000	Aver		<-
	44 tert-Amylmethyl ether	0.62769	0.66435	0.66435	0.010	5.84127	20.00000	Aver		
$	46 1,2-Dichloroethane-d4 (S)	0.26745	0.28727	0.28727	0.010	7.41229	20.00000	Aver		
	45 Isobutanol	250	267	0.04686	0.010	6.87188	20.00000	Quad		
	47 1,2-Dichloroethane	0.31993	0.34766	0.34766	0.010	8.66875	20.00000	Aver		
	49 Methylcyclohexane	0.22751	0.28616	0.28616	0.010	25.77940	20.00000	Aver		<-
	50 Trichloroethene	0.28474	0.31551	0.31551	0.010	10.80897	20.00000	Aver		
	51 Dibromomethane	0.20357	0.21589	0.21589	0.010	6.05526	20.00000	Aver		
	52 1,2-Dichloropropane	0.23870	0.25685	0.25685	0.010	7.60648	20.00000	Aver		
	53 Bromodichloromethane	50.00000	52.01840	0.30439	0.010	4.03680	20.00000	Quad		
	54 Methyl methacrylate	50.00000	48.30377	0.23841	0.010	-3.39246	20.00000	Quad		
	55 1,4-Dioxane (p-Dioxane)	0.00678	0.00586	0.00586	0.010	-13.55377	20.00000	Aver		<-
	56 2-Chloroethylvinyl ether	50.00000	49.03800	0.20048	0.010	-1.92400	20.00000	Quad		
	57 cis-1,3-Dichloropropene	50.00000	48.31080	0.36770	0.010	-3.37840	20.00000	Quad		
$	58 Toluene-d8 (S)	1.29365	1.26411	1.26411	0.010	-2.28333	20.00000	Aver		
	59 Toluene	1.45692	1.49470	1.49470	0.010	2.59308	20.00000	Aver		
	60 2-Nitropropane	250	283	0.20290	0.010	13.09904	20.00000	Quad		
	61 4-Methyl-2-pentanone (MIBK)	0.45905	0.57429	0.57429	0.010	25.10455	20.00000	Aver		<-
	62 Tetrachloroethene	0.39548	0.42821	0.42821	0.010	8.27620	20.00000	Aver		
	63 trans-1,3-Dichloropropene	50.00000	50.03705	0.50449	0.010	0.07411	20.00000	Quad		
	64 Ethyl methacrylate	50.00000	55.72106	0.38397	0.010	11.44212	20.00000	Quad		
	65 1,1,2-Trichloroethane	0.33003	0.33277	0.33277	0.010	0.83036	20.00000	Aver		
	66 Dibromochloromethane	50.00000	50.09593	0.41406	0.010	0.19186	20.00000	Quad		
	67 1,3-Dichloropropane	0.55418	0.57477	0.57477	0.010	3.71443	20.00000	Aver		
	68 1,2-Dibromoethane (EDB)	0.38221	0.39463	0.39463	0.010	3.25126	20.00000	Aver		
	69 2-Hexanone	0.58371	0.73539	0.73539	0.010	25.98502	20.00000	Aver		<-
	71 Ethylbenzene	0.45764	0.47923	0.47923	0.010	4.71855	20.00000	Aver		
	72 Chlorobenzene	0.89760	0.96114	0.96114	0.300	7.07888	20.00000	Aver		
	73 1,1,1,2-Tetrachloroethane	0.33999	0.38155	0.38155	0.010	12.22620	20.00000	Aver		
	74 m&p-Xylene	0.56746	0.58288	0.58288	0.010	2.71791	20.00000	Aver		
	75 o-Xylene	0.55015	0.55795	0.55795	0.010	1.41661	20.00000	Aver		
	76 Styrene	0.84634	0.89898	0.89898	0.010	6.21929	20.00000	Aver		
	77 Bromoform	50.00000	46.94064	0.69795	0.100	-6.11872	20.00000	Quad		
	78 Isopropylbenzene (Cumene)	50.00000	46.96338	2.64278	0.010	-6.07325	20.00000	Quad		
$	79 4-Bromofluorobenzene (S)	0.92984	0.92974	0.92974	0.010	-0.01036	20.00000	Aver		
	80 n-Propylbenzene	2.90257	2.99514	2.99514	0.010	3.18947	20.00000	Aver		
	81 Bromobenzene	1.29332	1.29001	1.29001	0.010	-0.25625	20.00000	Aver		
	82 1,1,2,2-Tetrachloroethane	1.12788	1.13996	1.13996	0.300	1.07114	20.00000	Aver		
	83 1,3,5-Trimethylbenzene	2.04456	2.08140	2.08140	0.010	1.80185	20.00000	Aver		
	84 2-Chlorotoluene	0.69509	0.71773	0.71773	0.010	3.25825	20.00000	Aver		

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Report Date: 03-Dec-2019 09:18

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7a.i Injection Date: 02-DEC-2019 11:40
Lab File ID: 71202009.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:00 16:28
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7a.i\7191202.B\1.b\msv7191112a.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	85 1,2,3-Trichloropropane	0.41695	0.42525	0.42525	0.010	1.99020	20.00000	Aver		
	86 trans-1,4-Dichloro-2-butene	50.00000	54.09699	0.40853	0.010	8.19397	20.00000	Quad		
	87 Cyclohexanone	250	160	0.10328	0.010	-35.83954	20.00000	Quad		<-
	88 4-Chlorotoluene	0.71553	0.75172	0.75172	0.010	5.05699	20.00000	Aver		
	89 tert-Butylbenzene	1.66572	1.71745	1.71745	0.010	3.10562	20.00000	Aver		
	90 1,2,4-Trimethylbenzene	2.05102	2.06410	2.06410	0.010	0.63784	20.00000	Aver		
	91 sec-Butylbenzene	2.24088	2.27459	2.27459	0.010	1.50409	20.00000	Aver		
	92 p-Isopropyltoluene	1.90880	1.94996	1.94996	0.010	2.15642	20.00000	Aver		
	93 1,3-Dichlorobenzene	1.26774	1.26717	1.26717	0.010	-0.04463	20.00000	Aver		
	95 1,4-Dichlorobenzene	1.31442	1.36793	1.36793	0.010	4.07138	20.00000	Aver		
	96 n-Butylbenzene	1.49340	1.53337	1.53337	0.010	2.67670	20.00000	Aver		
$	98 1,2-Dichlorobenzene-d4 (S)	++++	++++	++++	0.010	++++	20.00000	Averaged		<-
	97 1,2-Dichlorobenzene	1.21991	1.24370	1.24370	0.010	1.95000	20.00000	Aver		
	99 1,2-Dibromo-3-chloropropane	50.00000	44.63396	0.44999	0.010	-10.73208	20.00000	Quad		
	103 1,3,5-Trichlorobenzene	0.69240	0.63833	0.63833	0.010	-7.80887	20.00000	Aver		
	100 Hexachloro-1,3-butadiene	0.30745	0.30474	0.30474	0.010	-0.88352	20.00000	Aver		
	101 1,2,4-Trichlorobenzene	0.62799	0.59096	0.59096	0.010	-5.89658	20.00000	Aver		
	102 Naphthalene	2.69745	2.64375	2.64375	0.010	-1.99074	20.00000	Aver		
	104 1,2,3-Trichlorobenzene	0.62170	0.55828	0.55828	0.010	-10.20093	20.00000	Aver		
	105 2-Methylnaphthalene	0.74159	0.92020	0.92020	0.010	24.08597	20.00000	Aver		<-

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Average %D / Drift Results.

Calculated Average %D/Drift = 9.54693
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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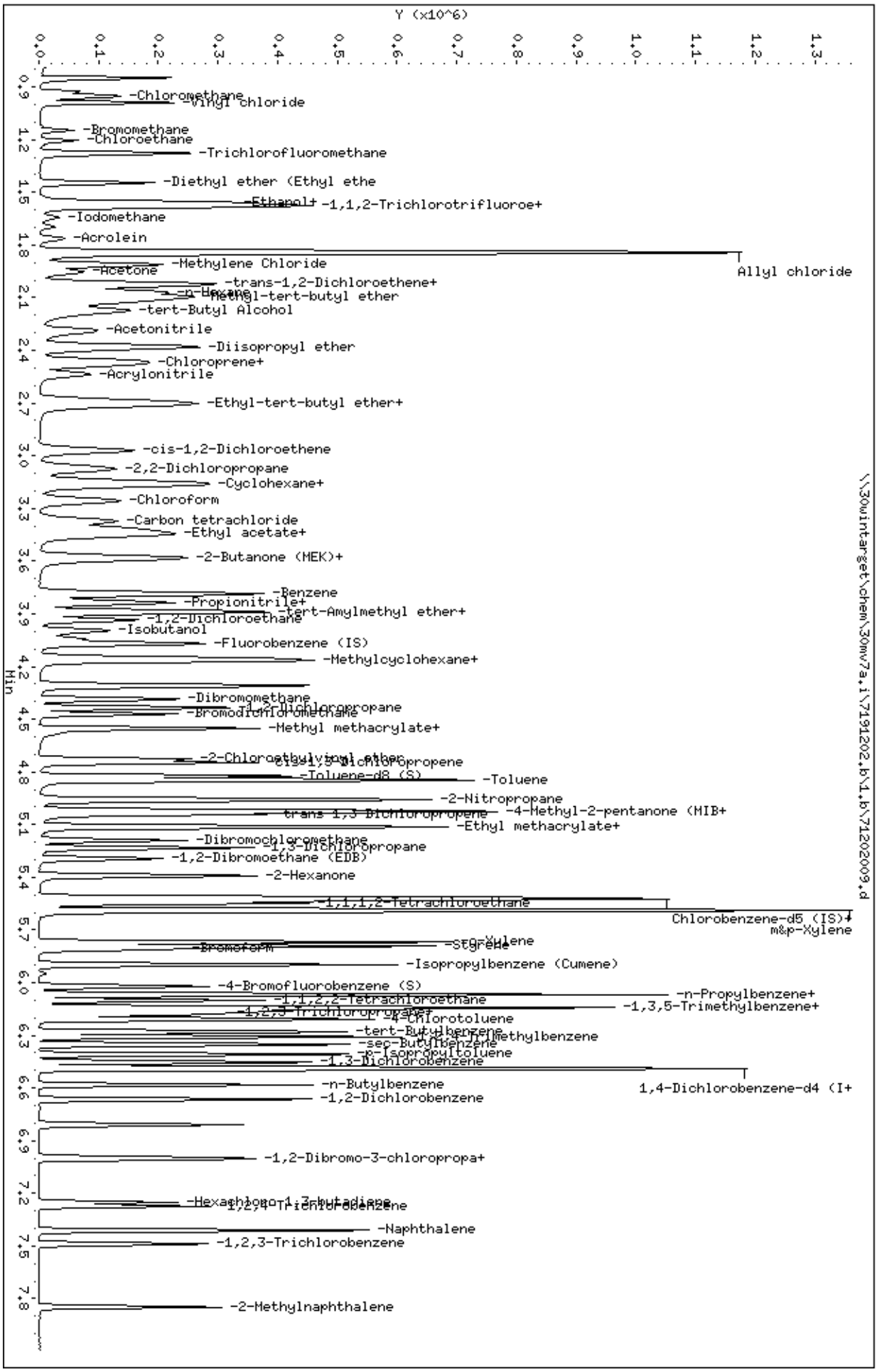
Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Date : 02-DEC-2019 11:40
Client ID: CCV
Sample Info: CCV, 107047:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7a.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202009.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Methylene Chloride
Allyl chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Chlorobenzene-d5 (IS)+
m&p-Xylene
-Bromoform
-Styrene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-1,2,3-Trichloropropane
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b/71202009.d
Injection Date: 02-DEC-2019 11:40
Instrument: 30mv7a.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Report Date: 13-Nov-2019 09:52

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 12-NOV-2019 18:19
Operator : LEL Inst ID: 30mv7b.i
Smp Info : icv, 105195:1
Misc Info : 47222,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m
Meth Date : 13-Nov-2019 09:48 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 26 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.841	0.841	(0.207)	59736	20.0000	21.3	
2	Chloromethane	50	0.941	0.941	(0.231)	56340	20.0000	16.0	
3	Vinyl chloride	62	0.979	0.979	(0.241)	62755	20.0000	18.6	
4	Bromomethane	94	1.140	1.140	(0.280)	17354	20.0000	15.6	
5	Chloroethane	64	1.198	1.198	(0.295)	19618	20.0000	19.4	
6	Trichlorofluoromethane	101	1.272	1.269	(0.313)	81523	20.0000	17.2	
7	Diethyl ether (Ethyl ether)	59	1.436	1.439	(0.353)	36800	20.0000	15.0	
8	Ethanol	46	1.526	1.542	(0.235)	4637	200.000	143	
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	70105	20.0000	16.0	
10	1,1,2-Trichlorotrifluoroethane	151	1.574	1.571	(0.387)	35965	20.0000	15.2	
11	Carbon disulfide	76	1.568	1.568	(0.386)	104658	20.0000	14.2	
12	Iodomethane	142	1.635	1.635	(0.402)	16935	20.0000	12.6	
13	Acrolein	56	1.754	1.754	(0.431)	15211	20.0000	20.1	
14	Allyl chloride	41	1.835	1.835	(0.451)	294189	100.000	78.9	
15	Methylene Chloride	49	1.905	1.902	(0.469)	58700	20.0000	18.8	
16	Acetone	58	1.947	1.944	(0.479)	11405	20.0000	19.0	
17	trans-1,2-Dichloroethene	61	2.011	2.008	(0.495)	63707	20.0000	17.1	
18	Methyl acetate	74	2.031	2.024	(0.500)	20882	20.0000	17.6	
19	n-Hexane	86	2.056	2.063	(0.506)	6298	20.0000	14.2	
20	Methyl-tert-butyl ether	73	2.085	2.089	(0.513)	115526	20.0000	15.2	
21	tert-Butyl Alcohol	59	2.169	2.172	(0.533)	92755	100.000	82.0	
22	Acetonitrile	41	2.282	2.278	(0.561)	49582	100.000	79.7	
23	Diisopropyl ether	45	2.375	2.375	(0.584)	126527	20.0000	15.5	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Report Date: 13-Nov-2019 09:52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	24 Chloroprene	53	2.449	2.452	(0.602)	42405	20.0000	15.0	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	80666	20.0000	17.5	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	29708	20.0000	15.3	
	27 Ethyl-tert-butyl ether	59	2.687	2.687	(0.661)	119809	20.0000	15.4	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	105577	20.0000	14.8	
	29 cis-1,2-Dichloroethene	61	2.963	2.957	(0.729)	59436	20.0000	16.9	
	30 2,2-Dichloropropane	77	3.069	3.066	(0.755)	61254	20.0000	17.4	
	31 Cyclohexane	56	3.140	3.146	(0.772)	66063	20.0000	15.8	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	30558	20.0000	17.4	
	33 Chloroform	83	3.246	3.246	(0.798)	76567	20.0000	17.2	
	34 Ethyl acetate	43	3.407	3.407	(0.838)	36091	20.0000	15.0	
	35 Carbon tetrachloride	117	3.362	3.365	(0.827)	59772	20.0000	16.7	
	36 Tetrahydrofuran	42	3.410	3.407	(0.839)	33044	20.0000	16.0	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	70499	30.0000	29.8	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	70575	20.0000	18.4	
	39 2-Butanone (MEK)	43	3.587	3.584	(0.882)	48739	20.0000	15.6	
	40 1,1-Dichloropropene	75	3.571	3.571	(0.878)	59366	20.0000	17.0	
	41 Benzene	78	3.780	3.780	(0.930)	177330	20.0000	17.3	
	42 Propionitrile	54	3.822	3.822	(0.940)	12774	20.0000	17.1(M)	LT
	43 Methacrylonitrile	41	3.831	3.831	(0.942)	39150	20.0000	16.2(M)	LT
	44 tert-Amylmethyl ether	73	3.883	3.886	(0.955)	103926	20.0000	15.9(M)	LT
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	71291	30.0000	29.3	
	45 Isobutanol	43	3.992	3.992	(0.982)	26004	100.000	82.2	
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	56437	20.0000	17.4	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	273375	30.0000		
	49 Methylcyclohexane	55	4.150	4.150	(1.021)	38275	20.0000	15.6	
	50 Trichloroethene	132	4.162	4.162	(1.024)	51105	20.0000	17.3	
	51 Dibromomethane	174	4.384	4.384	(1.078)	34993	20.0000	17.2	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	44542	20.0000	18.4	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	49562	20.0000	17.9	
	54 Methyl methacrylate	69	4.552	4.551	(1.119)	34942	20.0000	16.4	
	55 1,4-Dioxane (p-Dioxane)	88	4.568	4.568	(1.123)	6356	200.000	139	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	28827	20.0000	14.1	
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	61648	20.0000	18.0	
$	58 Toluene-d8 (S)	98	4.822	4.822	(0.875)	241240	30.0000	29.2	
	59 Toluene	91	4.844	4.844	(0.879)	181915	20.0000	17.2	
	60 2-Nitropropane	43	4.957	4.957	(1.219)	102948	100.000	78.0	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	72143	20.0000	16.5	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	49655	20.0000	17.0	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.915)	58684	20.0000	18.2	
	64 Ethyl methacrylate	41	5.111	5.111	(0.928)	33817	20.0000	15.3	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.928)	43646	20.0000	18.5	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	45535	20.0000	17.5	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.950)	65873	20.0000	16.6	
	68 1,2-Dibromoethane (EDB)	107	5.291	5.294	(0.960)	47147	20.0000	17.4	
	69 2-Hexanone	43	5.391	5.391	(0.978)	57596	20.0000	15.1	
*	70 Chlorobenzene-d5 (IS)	117	5.510	5.513	(1.000)	183834	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.003)	59624	20.0000	17.9	
	72 Chlorobenzene	112	5.519	5.519	(1.002)	114352	20.0000	18.1	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	41444	20.0000	17.7	
	74 m&p-Xylene	106	5.587	5.587	(1.014)	143607	40.0000	35.6	
	75 o-Xylene	106	5.770	5.770	(1.047)	69228	20.0000	17.7	
	76 Styrene	104	5.793	5.793	(1.051)	107676	20.0000	18.2	
	77 Bromoform	173	5.809	5.809	(0.896)	30267	20.0000	15.8	

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Report Date: 13-Nov-2019 09:52

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	153928	20.0000	19.9	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	73401	30.0000	30.7	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	155276	20.0000	18.0	
	81 Bromobenzene	77	6.066	6.066	(0.936)	63607	20.0000	16.8	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	61155	20.0000	18.8	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	108185	20.0000	18.1	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	36177	20.0000	17.8	
	85 1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	20972	20.0000	18.1	
	86 trans-1,4-Dichloro-2-butene	53	6.172	6.172	(0.952)	11591	20.0000	11.1	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	16309	100.000	51.8	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	38767	20.0000	18.0	
	89 tert-Butylbenzene	119	6.278	6.278	(0.969)	89630	20.0000	18.5	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	109723	20.0000	18.5	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	116441	20.0000	18.0	
	92 p-Isopropyltoluene	119	6.407	6.407	(0.989)	98941	20.0000	18.0	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	68232	20.0000	18.3	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	76754	30.0000		
	95 1,4-Dichlorobenzene	146	6.487	6.487	(1.001)	70773	20.0000	17.7	
	96 n-Butylbenzene	91	6.584	6.584	(1.016)	74253	20.0000	17.4	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	34577	30.0000	29.5	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	66408	20.0000	18.3	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	20077	20.0000	16.9	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	33368	20.0000	17.0	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	13438	20.0000	15.1	
	101 1,2,4-Trichlorobenzene	180	7.272	7.272	(1.122)	33500	20.0000	18.5	
	102 Naphthalene	128	7.410	7.410	(1.143)	146795	20.0000	18.4	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	31303	20.0000	17.4	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	62046	20.0000	18.6	

QC Flag Legend

M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Report Date: 13-Nov-2019 09:52

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7b.i Injection Date: 12-NOV-2019 18:19
Lab File ID: 71112026.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:12 16:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF20	RRF20	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.30714	0.32777	0.32777	0.010	6.71549	20.00000	Aver		
2 Chloromethane	0.38756	0.30914	0.30914	0.100	-20.23508	20.00000	Aver		<-
3 Vinyl chloride	0.37049	0.34433	0.34433	0.010	-7.05931	20.00000	Aver		
4 Bromomethane	20.00000	15.59280	0.09522	0.010	-22.03602	20.00000	Quad		<-
5 Chloroethane	20.00000	19.44718	0.10764	0.010	-2.76410	20.00000	Quad		
6 Trichlorofluoromethane	20.00000	17.25427	0.44731	0.010	-13.72863	20.00000	Quad		
7 Diethyl ether (Ethyl ether)	0.26994	0.20192	0.20192	0.010	-25.19675	20.00000	Aver		<-
8 Ethanol	200	143	0.00906	0.010	-28.68262	20.00000	Quad		<-
9 1,1-Dichloroethene	0.47971	0.38466	0.38466	0.010	-19.81362	20.00000	Aver		
10 1,1,2-Trichlorotrifluoroeth	0.25919	0.19734	0.19734	0.010	-23.86260	20.00000	Aver		<-
11 Carbon disulfide	0.80634	0.57426	0.57426	0.010	-28.78208	20.00000	Aver		<-
12 Iodomethane	20.00000	12.56533	0.09292	0.010	-37.17333	20.00000	Quad		<-
13 Acrolein	0.08319	0.08346	0.08346	0.010	0.32697	20.00000	Aver		
14 Allyl chloride	0.40894	0.32284	0.32284	0.010	-21.05397	20.00000	Aver		<-
15 Methylene Chloride	20.00000	18.84728	0.32209	0.010	-5.76361	20.00000	Quad		
16 Acetone	20.00000	19.05080	0.06258	0.010	-4.74600	20.00000	Quad		
17 trans-1,2-Dichloroethene	0.40969	0.34956	0.34956	0.010	-14.67834	20.00000	Aver		
18 Methyl acetate	0.13050	0.11458	0.11458	0.010	-12.19954	20.00000	Aver		
19 n-Hexane	0.04858	0.03456	0.03456	0.010	-28.86985	20.00000	Aver		<-
20 Methyl-tert-butyl ether	0.83214	0.63389	0.63389	0.010	-23.82443	20.00000	Aver		<-
21 tert-Butyl Alcohol	0.12406	0.10179	0.10179	0.010	-17.94931	20.00000	Aver		
22 Acetonitrile	0.06829	0.05441	0.05441	0.010	-20.32627	20.00000	Aver		<-
23 Diisopropyl ether	0.89684	0.69425	0.69425	0.010	-22.58940	20.00000	Aver		<-
24 Chloroprene	0.31119	0.23267	0.23267	0.010	-25.22983	20.00000	Aver		<-
25 1,1-Dichloroethane	0.50535	0.44261	0.44261	0.100	-12.41534	20.00000	Aver		
26 Acrylonitrile	0.21247	0.16301	0.16301	0.010	-23.28140	20.00000	Aver		<-
27 Ethyl-tert-butyl ether	0.85573	0.65739	0.65739	0.010	-23.17786	20.00000	Aver		<-
28 Vinyl acetate	0.77981	0.57930	0.57930	0.010	-25.71318	20.00000	Aver		<-
29 cis-1,2-Dichloroethene	0.38632	0.32612	0.32612	0.010	-15.58181	20.00000	Aver		
30 2,2-Dichloropropane	0.38586	0.33610	0.33610	0.010	-12.89698	20.00000	Aver		
31 Cyclohexane	0.45969	0.36249	0.36249	0.010	-21.14488	20.00000	Aver		<-
32 Bromochloromethane	0.19214	0.16767	0.16767	0.010	-12.73706	20.00000	Aver		
33 Chloroform	0.48830	0.42012	0.42012	0.010	-13.96296	20.00000	Aver		
34 Ethyl acetate	20.00000	15.00599	0.19803	0.010	-24.97005	20.00000	Quad		<-
35 Carbon tetrachloride	0.39251	0.32797	0.32797	0.010	-16.44388	20.00000	Aver		
36 Tetrahydrofuran	0.22657	0.18131	0.18131	0.010	-19.97717	20.00000	Aver		
$ 37 Dibromofluoromethane (S)	0.25935	0.25788	0.25788	0.010	-0.56561	20.00000	Aver		
38 1,1,1-Trichloroethane	0.41999	0.38724	0.38724	0.010	-7.79677	20.00000	Aver		
39 2-Butanone (MEK)	0.34345	0.26743	0.26743	0.010	-22.13523	20.00000	Aver		<-
40 1,1-Dichloropropene	0.38360	0.32574	0.32574	0.010	-15.08447	20.00000	Aver		
41 Benzene	1.12575	0.97300	0.97300	0.010	-13.56819	20.00000	Aver		

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Report Date: 13-Nov-2019 09:52

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7b.i Injection Date: 12-NOV-2019 18:19
Lab File ID: 71112026.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:12 16:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m

COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
42 Propionitrile	0.08205	0.07009	0.07009	0.010	-14.57201	20.00000	Aver	(M)	
43 Methacrylonitrile	0.26564	0.21481	0.21481	0.010	-19.13399	20.00000	Aver	(M)	
44 tert-Amylmethyl ether	0.71814	0.57024	0.57024	0.010	-20.59512	20.00000	Aver	(M)	<-
$ 46 1,2-Dichloroethane-d4 (S)	0.26681	0.26078	0.26078	0.010	-2.26066	20.00000	Aver		
45 Isobutanol	100	82.22011	0.02854	0.010	-17.77989	20.00000	Quad		
47 1,2-Dichloroethane	0.35499	0.30967	0.30967	0.010	-12.76738	20.00000	Aver		
49 Methylcyclohexane	0.27004	0.21001	0.21001	0.010	-22.22960	20.00000	Aver		<-
50 Trichloroethene	0.32382	0.28041	0.28041	0.010	-13.40541	20.00000	Aver		
51 Dibromomethane	0.22345	0.19201	0.19201	0.010	-14.07277	20.00000	Aver		
52 1,2-Dichloropropane	0.26499	0.24440	0.24440	0.010	-7.77145	20.00000	Aver		
53 Bromodichloromethane	0.30364	0.27195	0.27195	0.010	-10.43805	20.00000	Aver		
54 Methyl methacrylate	0.23339	0.19173	0.19173	0.010	-17.85155	20.00000	Aver		
55 1,4-Dioxane (p-Dioxane)	0.00503	0.00349	0.00349	0.010	-30.69537	20.00000	Aver		<-
56 2-Chloroethylvinyl ether	20.00000	14.13961	0.15817	0.010	-29.30195	20.00000	Quad		<-
57 cis-1,3-Dichloropropene	0.37650	0.33826	0.33826	0.010	-10.15680	20.00000	Aver		
$ 58 Toluene-d8 (S)	1.34948	1.31227	1.31227	0.010	-2.75760	20.00000	Aver		
59 Toluene	1.73002	1.48434	1.48434	0.010	-14.20107	20.00000	Aver		
60 2-Nitropropane	0.14474	0.11297	0.11297	0.010	-21.94500	20.00000	Aver		<-
61 4-Methyl-2-pentanone (MIBK)	0.47989	0.39585	0.39585	0.010	-17.51387	20.00000	Aver		
62 Tetrachloroethene	0.47605	0.40516	0.40516	0.010	-14.89099	20.00000	Aver		
63 trans-1,3-Dichloropropene	0.52729	0.47883	0.47883	0.010	-9.18924	20.00000	Aver		
64 Ethyl methacrylate	0.36007	0.27593	0.27593	0.010	-23.36698	20.00000	Aver		<-
65 1,1,2-Trichloroethane	0.38425	0.35613	0.35613	0.010	-7.31746	20.00000	Aver		
66 Dibromochloromethane	0.42445	0.37154	0.37154	0.010	-12.46349	20.00000	Aver		
67 1,3-Dichloropropane	0.64584	0.53749	0.53749	0.010	-16.77556	20.00000	Aver		
68 1,2-Dibromoethane (EDB)	0.44116	0.38470	0.38470	0.010	-12.79783	20.00000	Aver		
69 2-Hexanone	0.62147	0.46996	0.46996	0.010	-24.37968	20.00000	Aver		<-
71 Ethylbenzene	0.54357	0.48650	0.48650	0.010	-10.49804	20.00000	Aver		
72 Chlorobenzene	1.03314	0.93306	0.93306	0.300	-9.68680	20.00000	Aver		
73 1,1,1,2-Tetrachloroethane	0.38292	0.33816	0.33816	0.010	-11.68877	20.00000	Aver		
74 m&p-Xylene	0.65871	0.58588	0.58588	0.010	-11.05661	20.00000	Aver		
75 o-Xylene	0.63882	0.56487	0.56487	0.010	-11.57578	20.00000	Aver		
76 Styrene	0.96775	0.87859	0.87859	0.010	-9.21364	20.00000	Aver		
77 Bromoform	20.00000	15.78844	0.59151	0.100	-21.05778	20.00000	Quad		<-
78 Isopropylbenzene (Cumene)	3.02632	3.00821	3.00821	0.010	-0.59841	20.00000	Aver		
$ 79 4-Bromofluorobenzene (S)	0.93508	0.95631	0.95631	0.010	2.27102	20.00000	Aver		
80 n-Propylbenzene	3.36482	3.03455	3.03455	0.010	-9.81526	20.00000	Aver		
81 Bromobenzene	1.48017	1.24307	1.24307	0.010	-16.01841	20.00000	Aver		
82 1,1,2,2-Tetrachloroethane	1.27125	1.19515	1.19515	0.300	-5.98591	20.00000	Aver		
83 1,3,5-Trimethylbenzene	2.33834	2.11425	2.11425	0.010	-9.58313	20.00000	Aver		
84 2-Chlorotoluene	0.79336	0.70701	0.70701	0.010	-10.88440	20.00000	Aver		

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Report Date: 13-Nov-2019 09:52

QC Flag Legend

M - Compound response manually integrated.

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Report Date: 13-Nov-2019 09:52

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7b.i Injection Date: 12-NOV-2019 18:19
Lab File ID: 71112026.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:12 16:40
Lab Sample ID: ICV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\msv7191112b.m

	COMPOUND	RRF / AMOUNT	RF20	CCAL RRF20	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	85 1,2,3-Trichloropropane	0.45275	0.40985	0.40985	0.010	-9.47355	20.00000	Aver		
	86 trans-1,4-Dichloro-2-butene	20.00000	11.06696	0.22652	0.010	-44.66518	20.00000	Quad		<-
	87 Cyclohexanone	100	51.76811	0.06375	0.010	-48.23189	20.00000	Quad		<-
	88 4-Chlorotoluene	0.83974	0.75762	0.75762	0.010	-9.77868	20.00000	Aver		
	89 tert-Butylbenzene	1.89469	1.75164	1.75164	0.010	-7.55020	20.00000	Aver		
	90 1,2,4-Trimethylbenzene	2.32092	2.14431	2.14431	0.010	-7.60924	20.00000	Aver		
	91 sec-Butylbenzene	2.53417	2.27560	2.27560	0.010	-10.20338	20.00000	Aver		
	92 p-Isopropyltoluene	2.14551	1.93360	1.93360	0.010	-9.87713	20.00000	Aver		
	93 1,3-Dichlorobenzene	1.45531	1.33345	1.33345	0.010	-8.37310	20.00000	Aver		
	95 1,4-Dichlorobenzene	1.56069	1.38311	1.38311	0.010	-11.37826	20.00000	Aver		
	96 n-Butylbenzene	1.66230	1.45112	1.45112	0.010	-12.70371	20.00000	Aver		
$	98 1,2-Dichlorobenzene-d4 (S)	0.45742	0.45049	0.45049	0.010	-1.51377	20.00000	Aver		
	97 1,2-Dichlorobenzene	1.42010	1.29781	1.29781	0.010	-8.61122	20.00000	Aver		
	99 1,2-Dibromo-3-chloropropane	0.46536	0.39236	0.39236	0.010	-15.68546	20.00000	Aver		
	103 1,3,5-Trichlorobenzene	0.76499	0.65211	0.65211	0.010	-14.75602	20.00000	Aver		
	100 Hexachloro-1,3-butadiene	0.34716	0.26262	0.26262	0.010	-24.35268	20.00000	Aver		<-
	101 1,2,4-Trichlorobenzene	0.70643	0.65469	0.65469	0.010	-7.32378	20.00000	Aver		
	102 Naphthalene	3.12104	2.86881	2.86881	0.010	-8.08173	20.00000	Aver		
	104 1,2,3-Trichlorobenzene	0.70444	0.61175	0.61175	0.010	-13.15792	20.00000	Aver		
	105 2-Methylnaphthalene	1.30256	1.21256	1.21256	0.010	-6.90958	20.00000	Aver		

QC Flag Legend

M - Compound response manually integrated.

Average %D / Drift Results.

Calculated Average %D/Drift = 15.25354
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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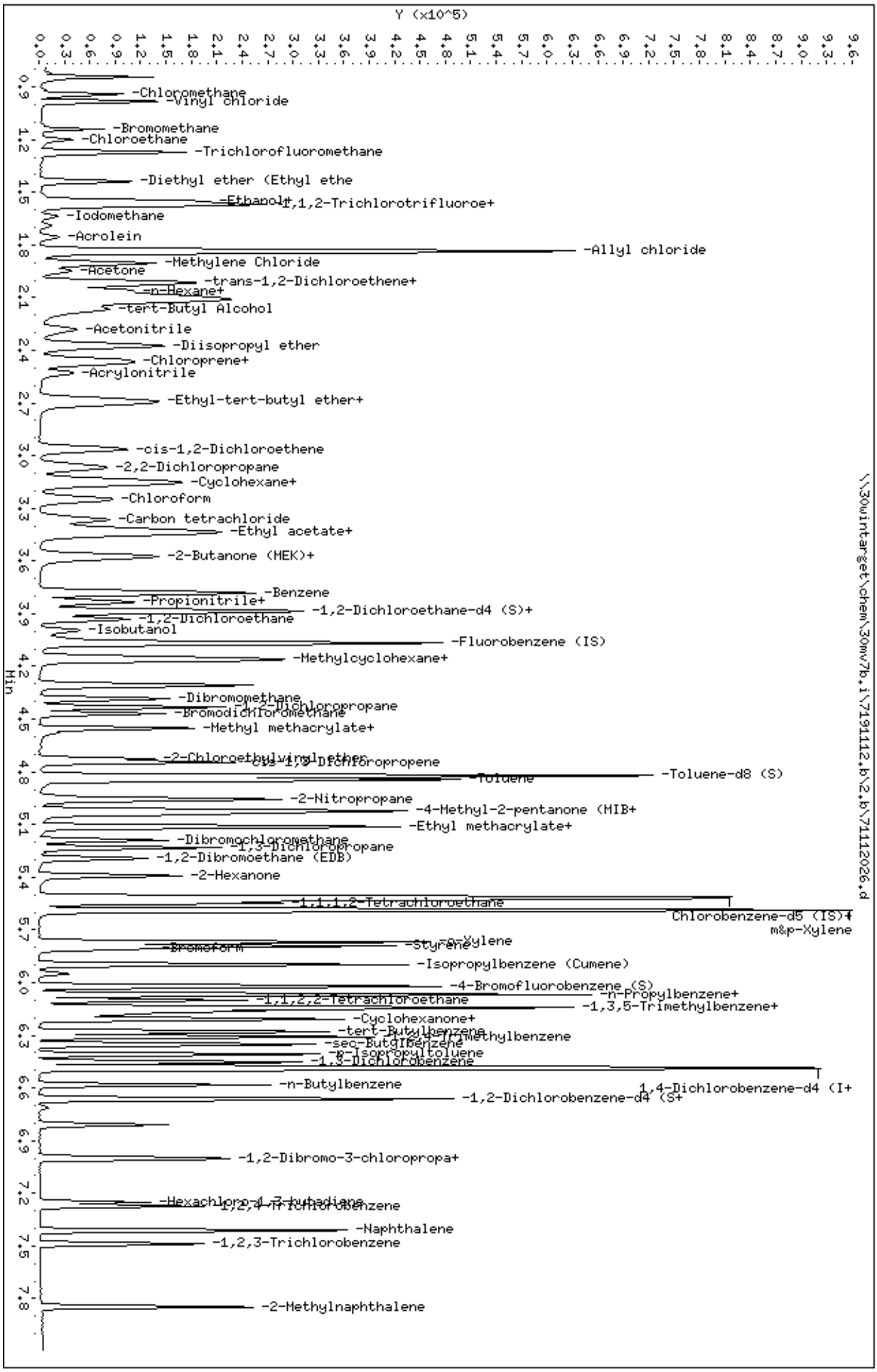
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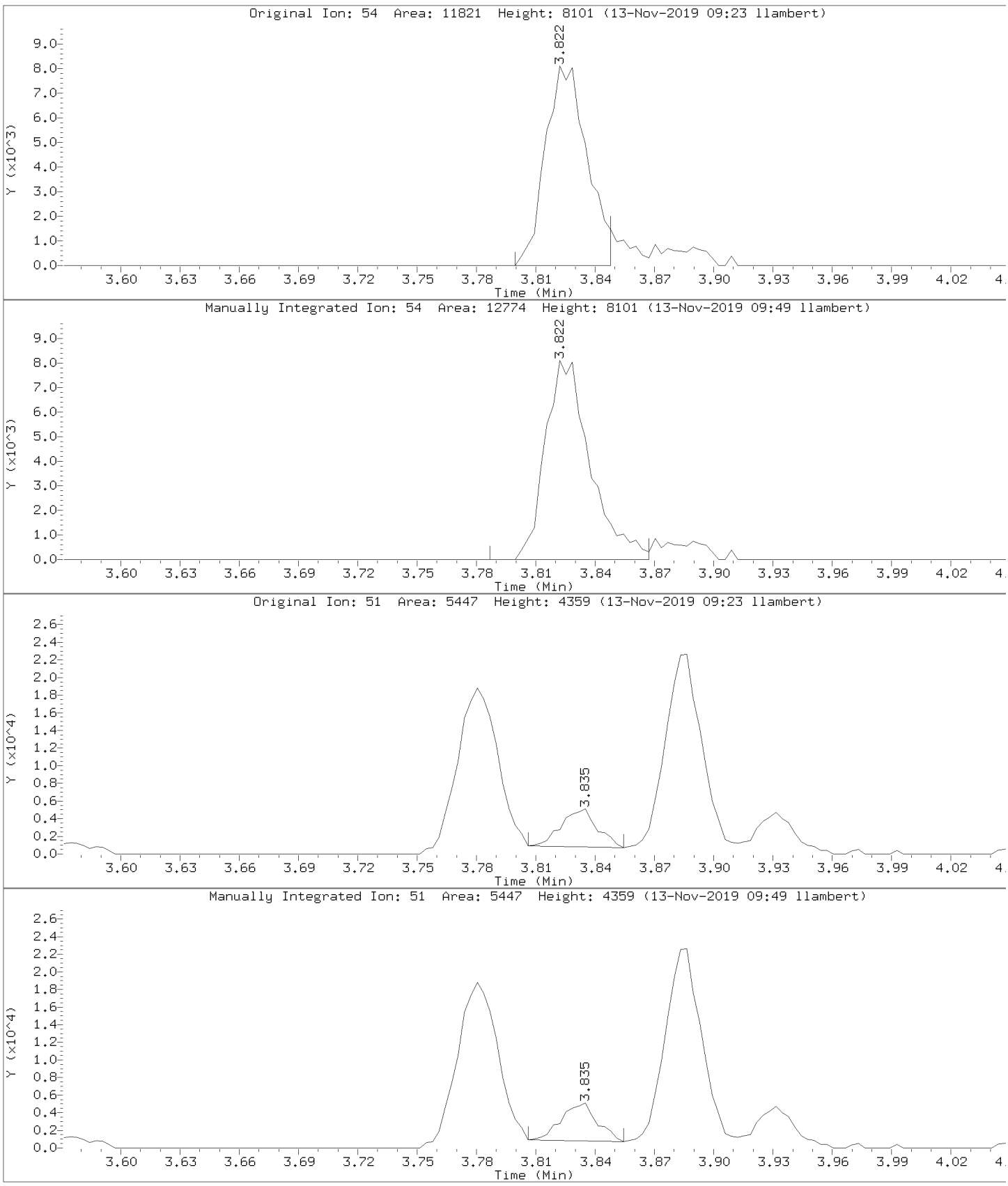
Date : 12-NOV-2019 18:19
Client ID: ICV
Sample Info: ICV, 10519:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112026.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane+
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-1,2-Dichloroethane-d4 (S)+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
-cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Chlorobenzene-d5 (IS)+
m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112026.d
Injection Date: 12-NOV-2019 18:19
Instrument: 30mv7b.i
Lab Sample ID: ICV

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0



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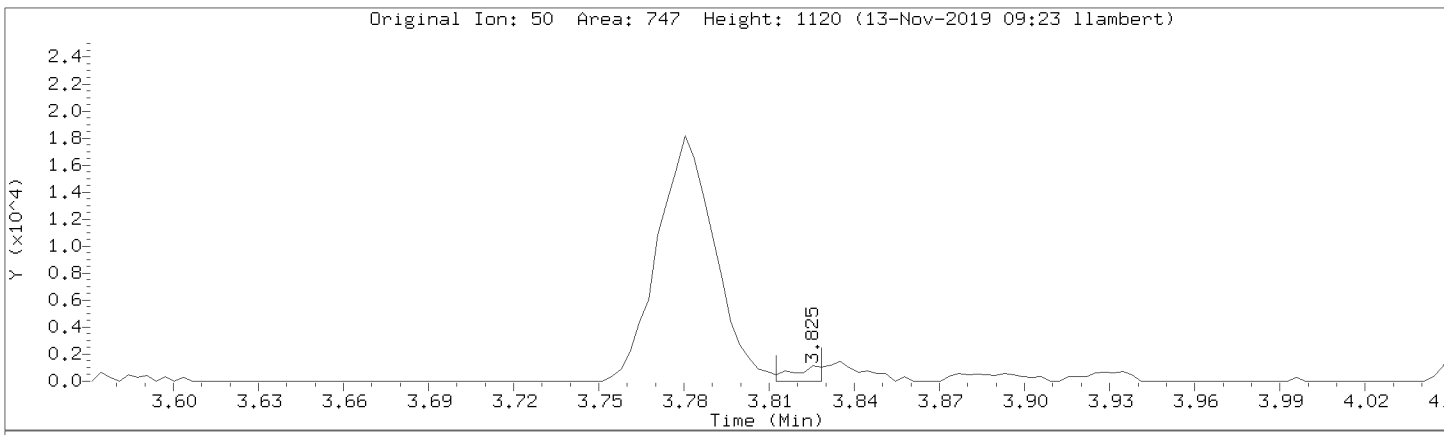
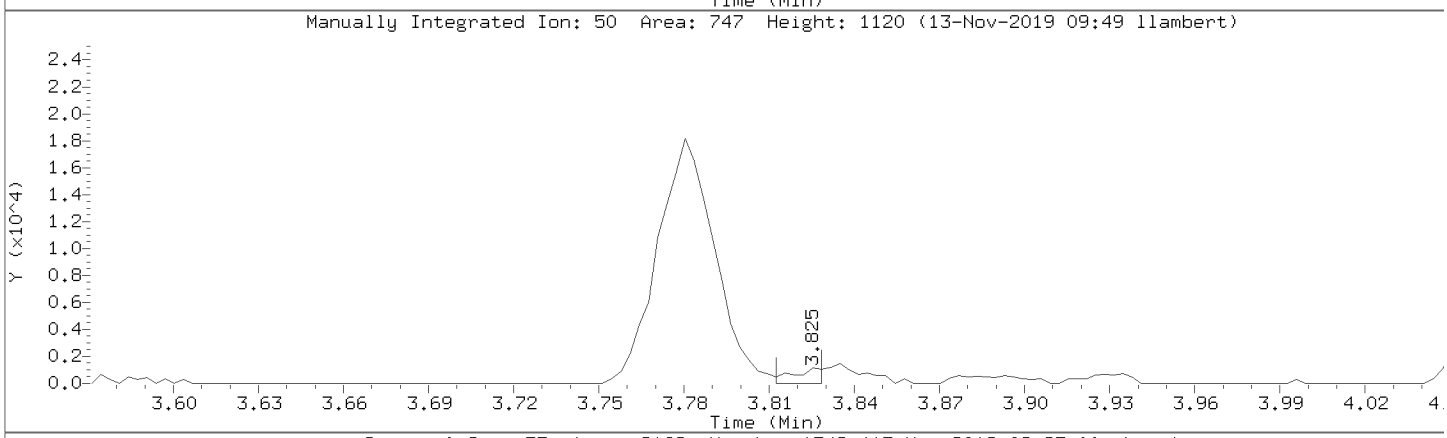
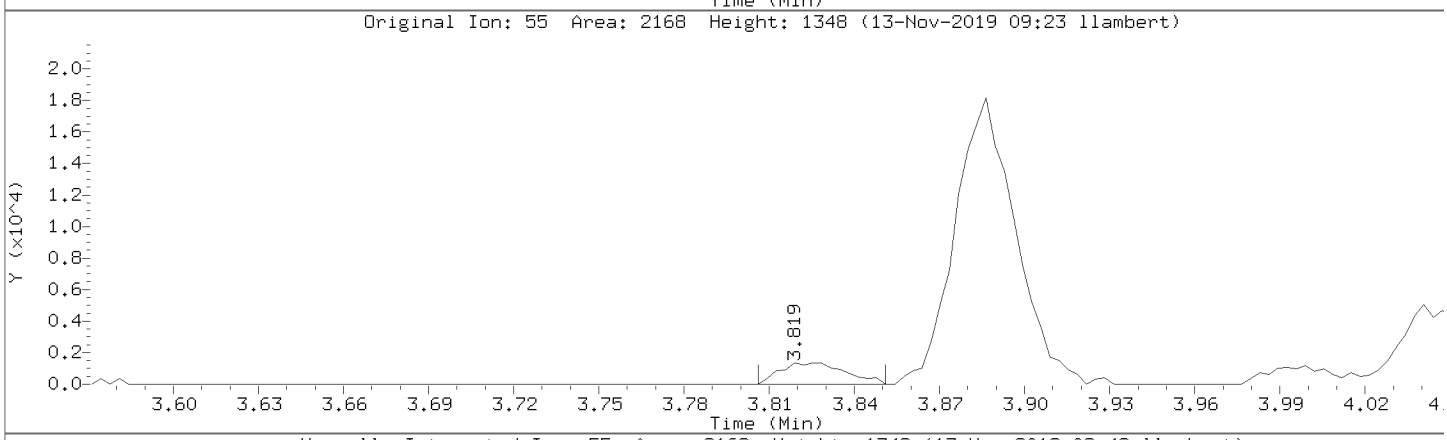
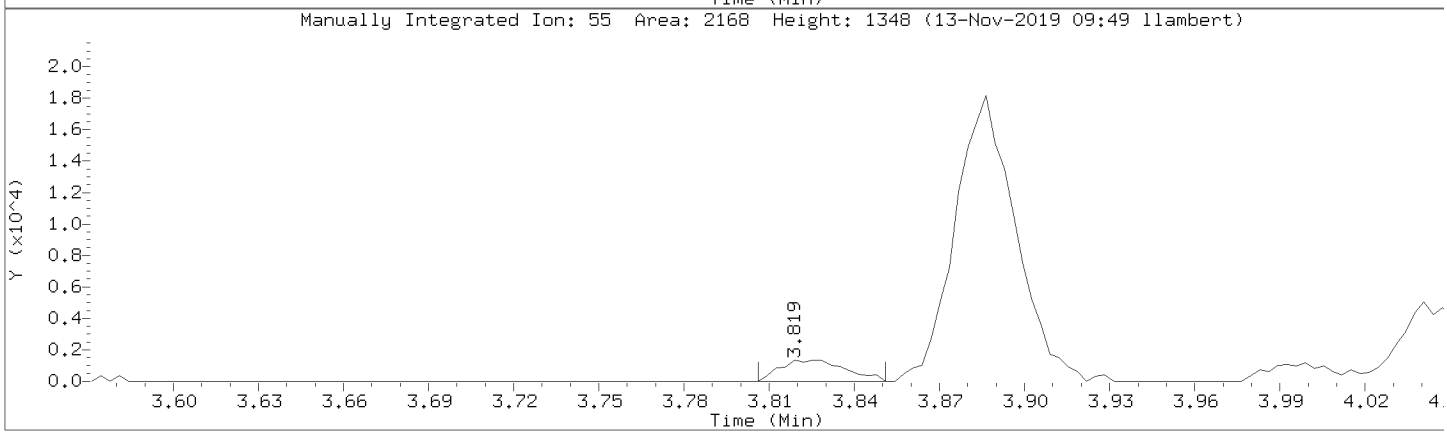
Injection Date: 12-NOV-2019 18:19
Instrument: 30mv7b.i
Lab Sample ID: ICV



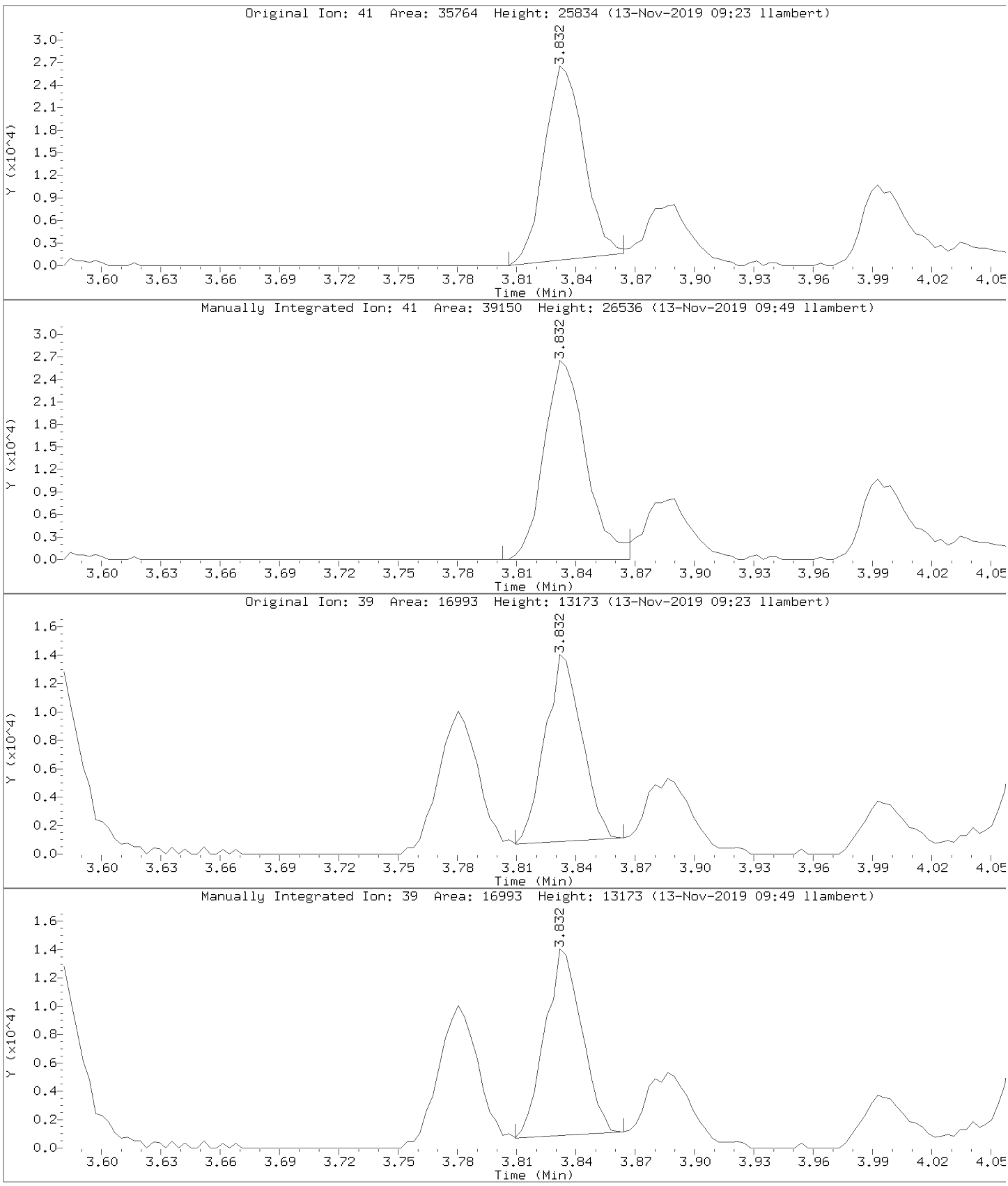




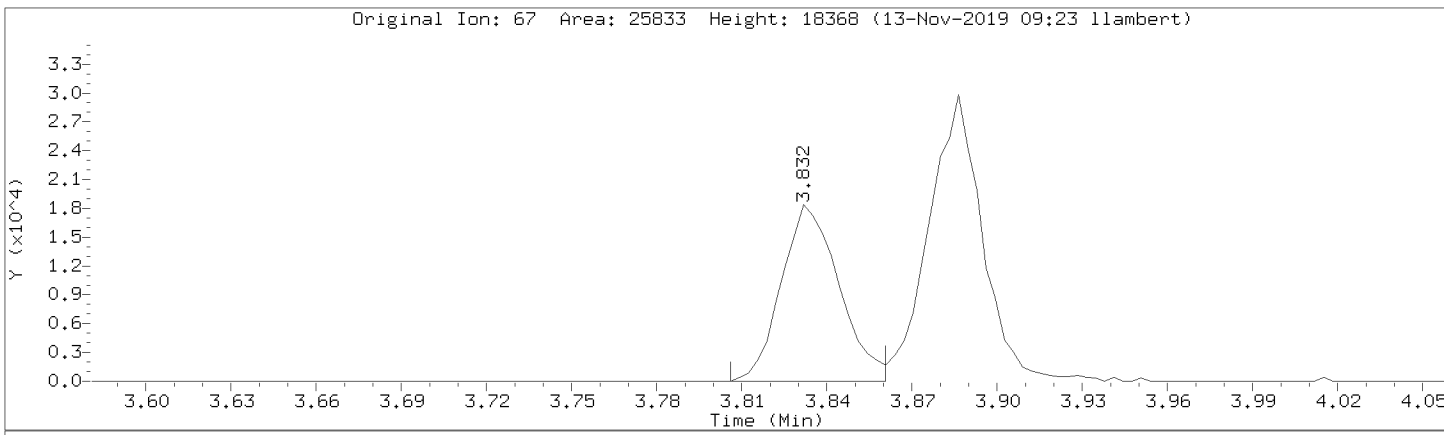


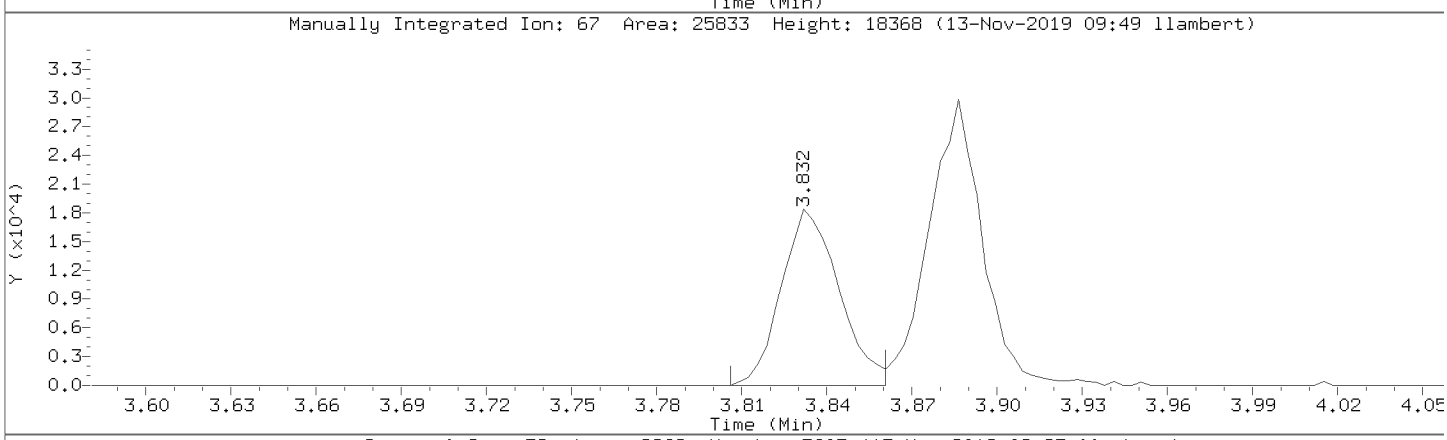
Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112026.d
Injection Date: 12-NOV-2019 18:19
Instrument: 30mv7b.i
Lab Sample ID: ICV

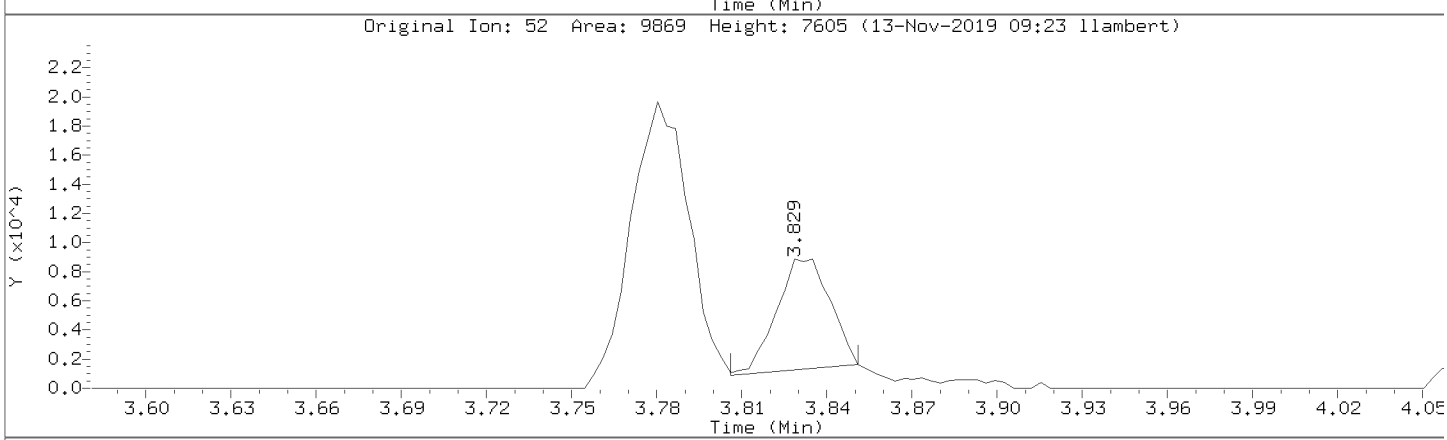
Compound: Methacrylonitrile Review Code: LT
CAS Number: 126-98-7

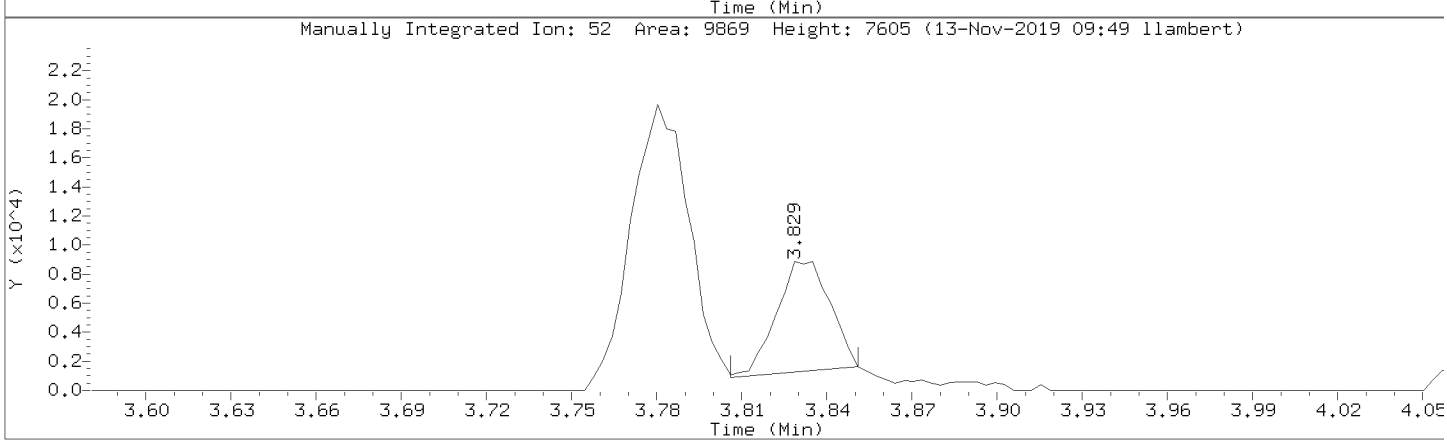


Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112026.d
Injection Date: 12-NOV-2019 18:19
Instrument: 30mv7b.i
Lab Sample ID: ICV



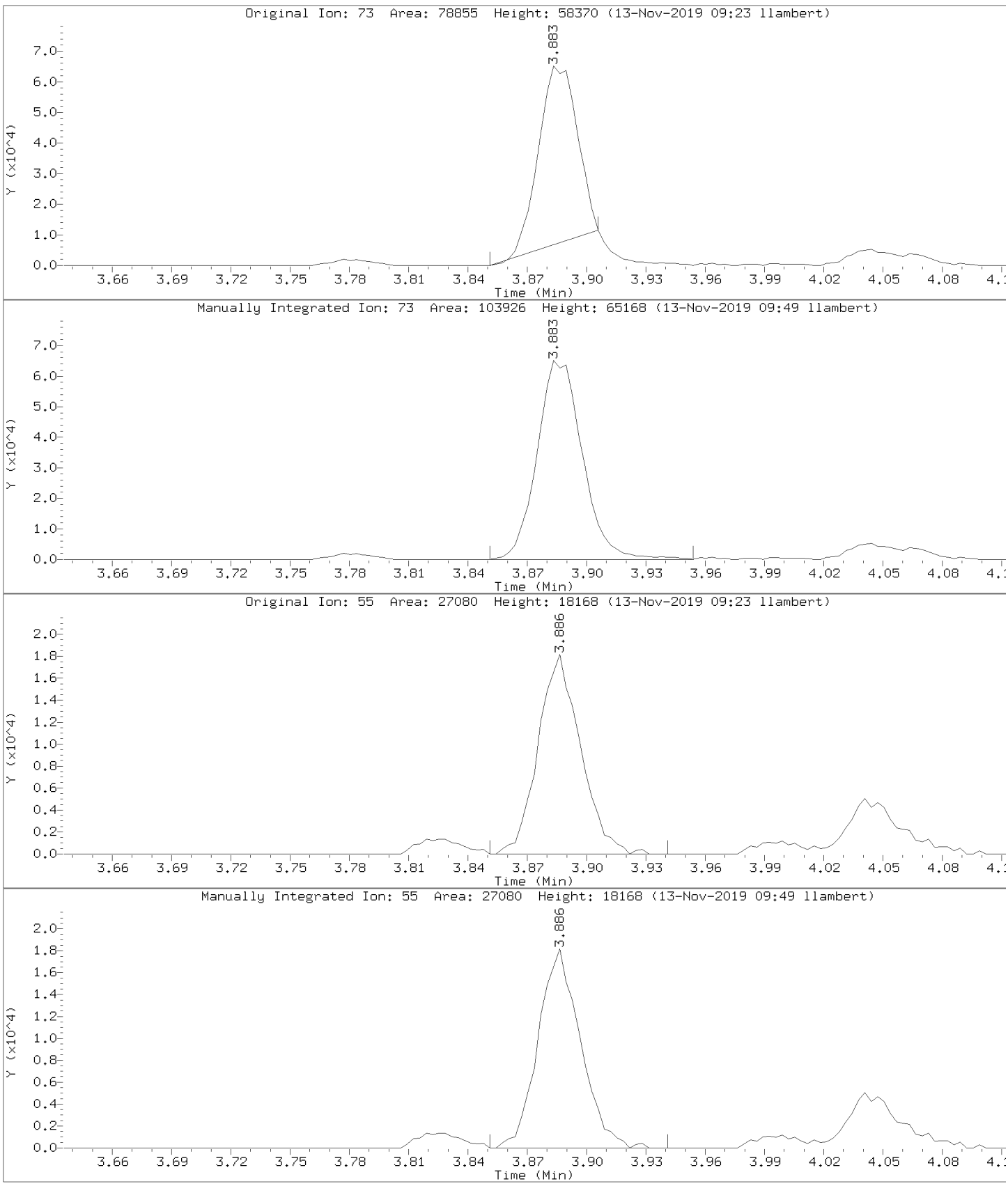






Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b/71112026.d
Injection Date: 12-NOV-2019 18:19
Instrument: 30mv7b.i
Lab Sample ID: ICV

Compound: tert-Amylmethyl ether Review Code: LT
CAS Number: 994-05-8



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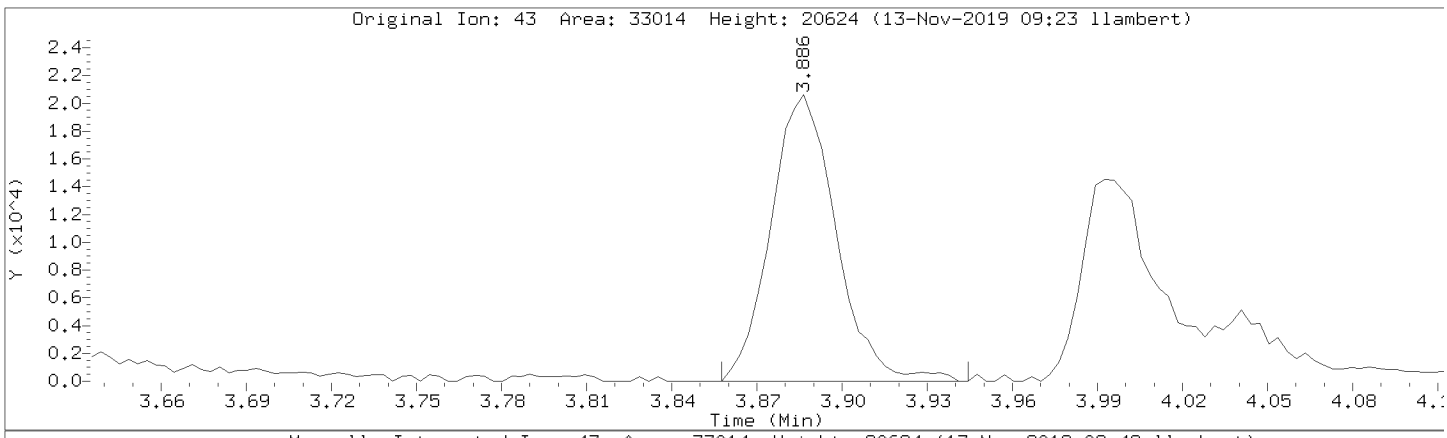
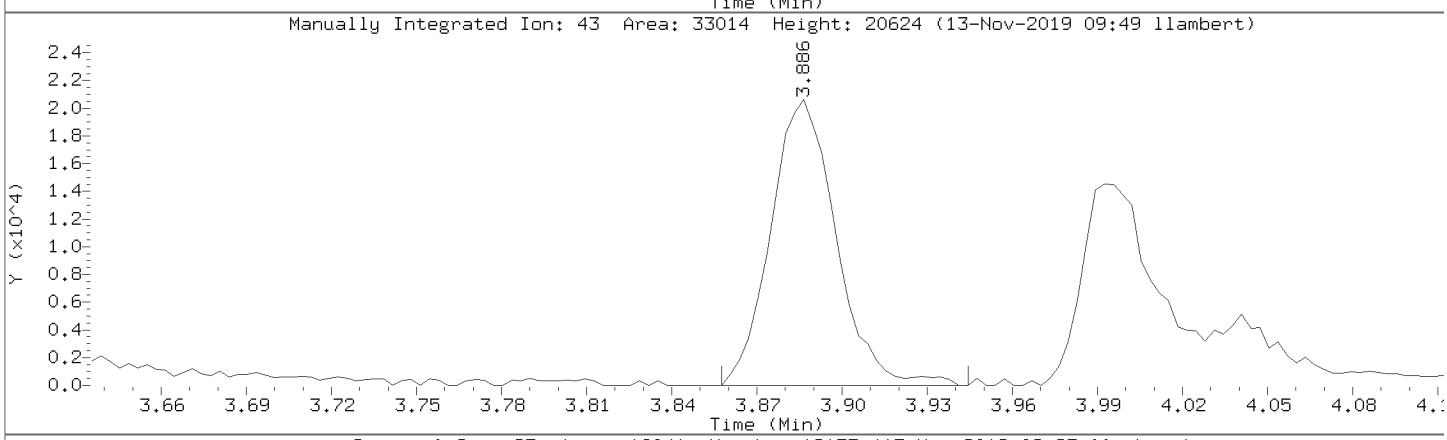
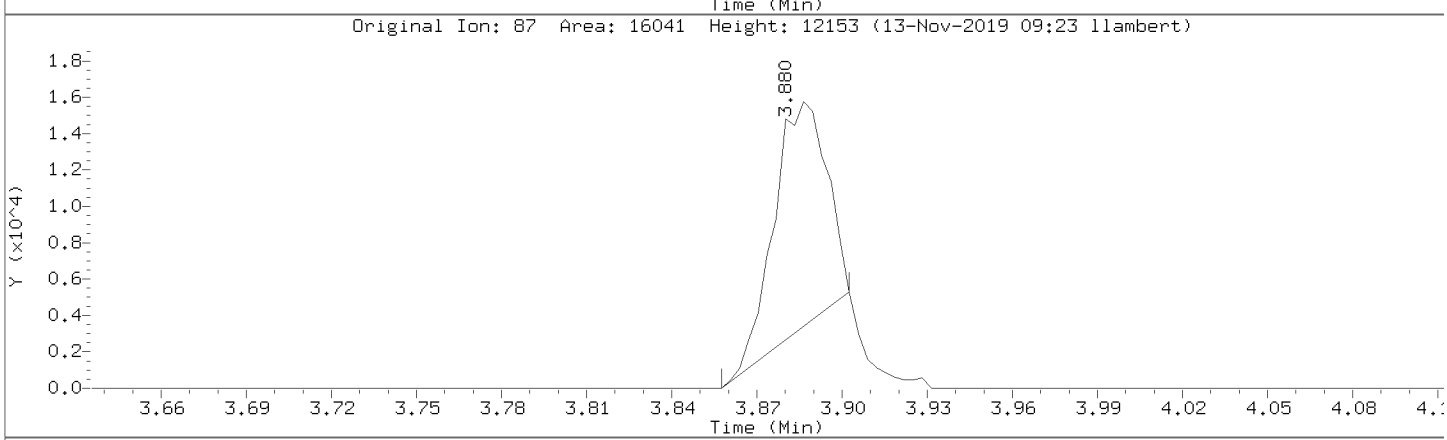
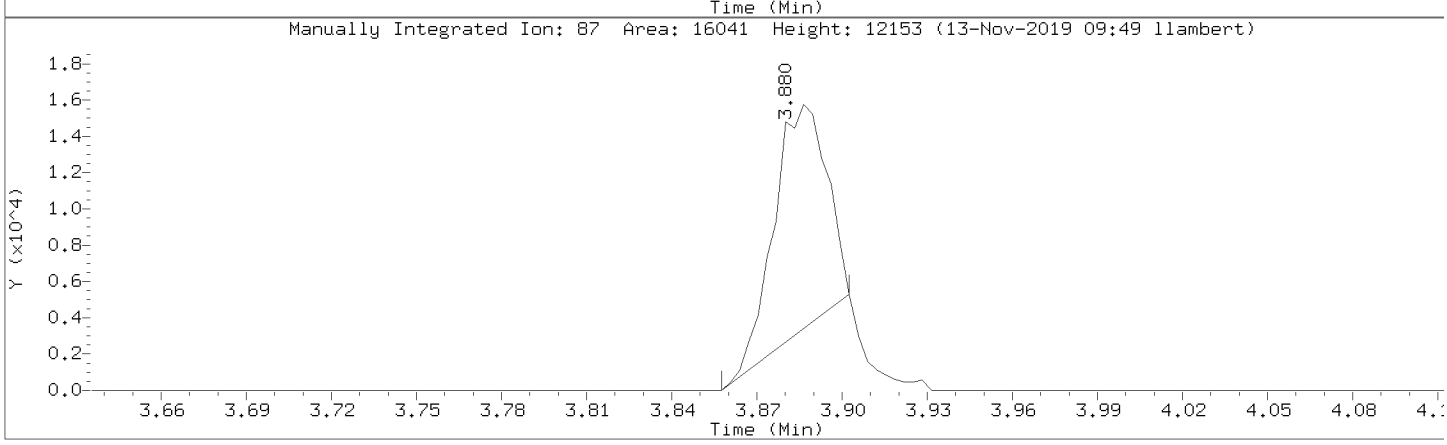
Injection Date: 12-NOV-2019 18:19
Instrument: 30mv7b.i
Lab Sample ID: ICV









Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Report Date: 02-Dec-2019 10:30

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 29-NOV-2019 09:08
Operator : LEL Inst ID: 30mv7b.i
Smp Info : ccv, 107035:1
Misc Info : 47222,
Comment   : Heated Purge
Method   : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 6 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A
Processing Host: 30MSV4WS0967

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.841	0.841	(0.207)	90063	50.0000	47.4	
2	Chloromethane	50	0.941	0.941	(0.231)	112410	50.0000	46.9	
3	Vinyl chloride	62	0.979	0.979	(0.241)	114688	50.0000	50.1	
4	Bromomethane	94	1.140	1.140	(0.280)	32048	50.0000	43.3	
5	Chloroethane	64	1.195	1.198	(0.294)	29997	50.0000	46.3	
6	Trichlorofluoromethane	101	1.269	1.269	(0.312)	136834	50.0000	44.8	
7	Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	81227	50.0000	48.7	
8	Ethanol	46	1.532	1.542	(0.236)	11520	500.000	489	
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	145247	50.0000	49.0	
10	1,1,2-Trichlorotrifluoroethane	151	1.571	1.571	(0.386)	75064	50.0000	46.9	
11	Carbon disulfide	76	1.568	1.568	(0.386)	208462	50.0000	41.8	
12	Iodomethane	142	1.635	1.635	(0.402)	53956	50.0000	62.0	
13	Acrolein	56	1.757	1.754	(0.432)	27557	50.0000	53.6	
14	Allyl chloride	41	1.835	1.835	(0.451)	697802	250.000	276	
15	Methylene Chloride	49	1.905	1.902	(0.469)	121079	50.0000	57.2	
16	Acetone	58	1.947	1.944	(0.479)	24600	50.0000	61.0	
17	trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	132305	50.0000	52.3	
18	Methyl acetate	74	2.024	2.024	(0.498)	39748	50.0000	49.3	
19	n-Hexane	86	2.056	2.063	(0.506)	12928	50.0000	43.1	
20	Methyl-tert-butyl ether	73	2.089	2.089	(0.514)	239390	50.0000	46.6	
21	tert-Butyl Alcohol	59	2.175	2.172	(0.535)	208474	250.000	272	
22	Acetonitrile	41	2.278	2.278	(0.560)	118332	250.000	280	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Report Date: 02-Dec-2019 10:30

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	23 Diisopropyl ether	45	2.375	2.375	(0.584)	304204	50.0000	54.9	
	24 Chloroprene	53	2.452	2.452	(0.603)	106216	50.0000	55.2	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	160714	50.0000	51.5	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	76640	50.0000	58.4	
	27 Ethyl-tert-butyl ether	59	2.687	2.687	(0.661)	276351	50.0000	52.3	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	270346	50.0000	56.1	
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	124896	50.0000	52.3	
	30 2,2-Dichloropropane	77	3.069	3.066	(0.755)	116612	50.0000	48.9	
	31 Cyclohexane	56	3.146	3.146	(0.774)	154882	50.0000	54.5	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	57219	50.0000	48.2	
	33 Chloroform	83	3.246	3.246	(0.798)	144070	50.0000	47.7	
	34 Ethyl acetate	43	3.410	3.407	(0.839)	86817	50.0000	53.6	
	35 Carbon tetrachloride	117	3.362	3.365	(0.827)	124745	50.0000	51.4	
	36 Tetrahydrofuran	42	3.410	3.407	(0.839)	83978	50.0000	60.0	
$	37 Dibromofluoromethane (S)	111	3.433	3.433	(0.844)	49586	30.0000	30.9	
	38 1,1,1-Trichloroethane	97	3.445	3.439	(0.847)	128686	50.0000	49.6	
	39 2-Butanone (MEK)	43	3.587	3.584	(0.882)	122959	50.0000	57.9	
	40 1,1-Dichloropropene	75	3.574	3.571	(0.879)	116604	50.0000	49.2	
	41 Benzene	78	3.780	3.780	(0.930)	316875	50.0000	45.6	
	42 Propionitrile	54	3.825	3.822	(0.941)	30463	50.0000	60.1	
	43 Methacrylonitrile	41	3.834	3.831	(0.943)	93820	50.0000	57.2	
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	213713	50.0000	48.2	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	51304	30.0000	31.1	
	45 Isobutanol	43	3.995	3.992	(0.983)	66119	250.000	304	
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	108679	50.0000	49.5	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	185373	30.0000		
	49 Methylcyclohexane	55	4.150	4.150	(1.021)	92235	50.0000	55.3	
	50 Trichloroethene	132	4.166	4.162	(1.025)	101662	50.0000	50.8	
	51 Dibromomethane	174	4.384	4.384	(1.078)	68192	50.0000	49.4	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	85425	50.0000	52.2	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	92405	50.0000	49.2	
	54 Methyl methacrylate	69	4.552	4.551	(1.119)	74245	50.0000	51.5	
	55 1,4-Dioxane (p-Dioxane)	88	4.571	4.568	(1.124)	15041	500.000	484	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	60514	50.0000	43.8	
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	119295	50.0000	51.3	
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	168467	30.0000	29.7	
	59 Toluene	91	4.844	4.844	(0.879)	347564	50.0000	47.8	
	60 2-Nitropropane	43	4.957	4.957	(1.219)	278380	250.000	311	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	176038	50.0000	59.4	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	99467	50.0000	49.7	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	109972	50.0000	49.6	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	84506	50.0000	55.8	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	74843	50.0000	46.3	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	85614	50.0000	48.0	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	126956	50.0000	46.8	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	88526	50.0000	47.7	
	69 2-Hexanone	43	5.391	5.391	(0.978)	148590	50.0000	56.9	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	126106	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	108752	50.0000	47.6	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	214418	50.0000	49.4	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	84008	50.0000	52.2	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	262276	100.000	94.7	
	75 o-Xylene	106	5.770	5.770	(1.047)	124393	50.0000	46.3	
	76 Styrene	104	5.793	5.793	(1.051)	201860	50.0000	49.6	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Report Date: 02-Dec-2019 10:30

			QUANT SIG					AMOUNTS		
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)	REVIEW C
	77	Bromoform	173	5.809	5.809	(0.896)	59567	50.0000	42.1	
	78	Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	261044	50.0000	46.6	
$	79	4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	50296	30.0000	29.1	
	80	n-Propylbenzene	91	6.069	6.069	(0.936)	295272	50.0000	47.4	
	81	Bromobenzene	77	6.066	6.066	(0.936)	126383	50.0000	46.1	
	82	1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	109006	50.0000	46.3	
	83	1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	200682	50.0000	46.4	
	84	2-Chlorotoluene	126	6.140	6.140	(0.947)	69746	50.0000	47.5	
	85	1,2,3-Trichloropropane	110	6.162	6.159	(0.950)	38738	50.0000	46.2	
	86	trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.952)	30522	50.0000	40.4	
	87	Cyclohexanone	55	6.185	6.185	(0.954)	41544	250.000	183	
	88	4-Chlorotoluene	126	6.207	6.207	(0.957)	72735	50.0000	46.8	
	89	tert-Butylbenzene	119	6.281	6.278	(0.969)	167460	50.0000	47.8	
	90	1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	202223	50.0000	47.1	
	91	sec-Butylbenzene	105	6.352	6.352	(0.980)	217796	50.0000	46.4	
	92	p-Isopropyltoluene	119	6.407	6.407	(0.988)	185886	50.0000	46.8	
	93	1,3-Dichlorobenzene	146	6.452	6.452	(0.995)	123090	50.0000	45.7	
*	94	1,4-Dichlorobenzene-d4 (IS)	152	6.484	6.481	(1.000)	55507	30.0000		
	95	1,4-Dichlorobenzene	146	6.490	6.487	(1.001)	130297	50.0000	45.1	
	96	n-Butylbenzene	91	6.584	6.584	(1.015)	143594	50.0000	46.7	
$	98	1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.027)	26358	30.0000	31.1	
	97	1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	121152	50.0000	46.1	
	99	1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	38567	50.0000	44.8	
	103	1,3,5-Trichlorobenzene	180	7.005	7.005	(1.080)	61108	50.0000	43.2	
	100	Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	26404	50.0000	41.1	
	101	1,2,4-Trichlorobenzene	180	7.272	7.272	(1.121)	56986	50.0000	43.6	
	102	Naphthalene	128	7.410	7.410	(1.143)	262066	50.0000	45.4	
	104	1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	54612	50.0000	41.9	
	105	2-Methylnaphthalene	142	7.847	7.847	(1.210)	107221	50.0000	44.5	

Review Codes Legend

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Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Report Date: 02-Dec-2019 10:30

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7b.i Injection Date: 29-NOV-2019 09:08
Lab File ID: 71129006.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:12 16:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m

			CCAL	MIN		MAX	CURVE	QC	
COMPOUND	RRF / AMOUNT	RF50	RRF50	RRF	%D / %DRIFT	%D / %DRIFT	TYPE	FLAGS	
1 Dichlorodifluoromethane	0.30714	++++	0.00000	0.010	++++	20.00000	Aver		<-
2 Chloromethane	0.38756	++++	0.00000	0.100	++++	20.00000	Aver		<-
3 Vinyl chloride	0.37049	++++	0.00000	0.010	++++	20.00000	Aver		<-
4 Bromomethane	++++	43.33562	0.00000	0.010	++++	20.00000	Quad		<-
5 Chloroethane	++++	46.27022	0.00000	0.010	++++	20.00000	Quad		<-
6 Trichlorofluoromethane	++++	44.85398	0.00000	0.010	++++	20.00000	Quad		<-
7 Diethyl ether (Ethyl ether)	0.26994	++++	0.00000	0.010	++++	20.00000	Aver		<-
8 Ethanol	++++	489	0.00000	0.010	++++	20.00000	Quad		<-
9 1,1-Dichloroethene	0.47971	++++	0.00000	0.010	++++	20.00000	Aver		<-
10 1,1,2-Trichlorotrifluoroeth	0.25919	++++	0.00000	0.010	++++	20.00000	Aver		<-
11 Carbon disulfide	0.80634	++++	0.00000	0.010	++++	20.00000	Aver		<-
12 Iodomethane	++++	62.03443	0.00000	0.010	++++	20.00000	Quad		<-
13 Acrolein	0.08319	++++	0.00000	0.010	++++	20.00000	Aver		<-
14 Allyl chloride	0.40894	++++	0.00000	0.010	++++	20.00000	Aver		<-
15 Methylene Chloride	++++	57.21144	0.00000	0.010	++++	20.00000	Quad		<-
16 Acetone	++++	60.99330	0.00000	0.010	++++	20.00000	Quad		<-
17 trans-1,2-Dichloroethene	0.40969	++++	0.00000	0.010	++++	20.00000	Aver		<-
18 Methyl acetate	0.13050	++++	0.00000	0.010	++++	20.00000	Aver		<-
19 n-Hexane	0.04858	++++	0.00000	0.010	++++	20.00000	Aver		<-
20 Methyl-tert-butyl ether	0.83214	++++	0.00000	0.010	++++	20.00000	Aver		<-
21 tert-Butyl Alcohol	0.12406	++++	0.00000	0.010	++++	20.00000	Aver		<-
22 Acetonitrile	0.06829	++++	0.00000	0.010	++++	20.00000	Aver		<-
23 Diisopropyl ether	0.89684	++++	0.00000	0.010	++++	20.00000	Aver		<-
24 Chloroprene	0.31119	++++	0.00000	0.010	++++	20.00000	Aver		<-
25 1,1-Dichloroethane	0.50535	++++	0.00000	0.100	++++	20.00000	Aver		<-
26 Acrylonitrile	0.21247	++++	0.00000	0.010	++++	20.00000	Aver		<-
27 Ethyl-tert-butyl ether	0.85573	++++	0.00000	0.010	++++	20.00000	Aver		<-
28 Vinyl acetate	0.77981	++++	0.00000	0.010	++++	20.00000	Aver		<-
29 cis-1,2-Dichloroethene	0.38632	++++	0.00000	0.010	++++	20.00000	Aver		<-
30 2,2-Dichloropropane	0.38586	++++	0.00000	0.010	++++	20.00000	Aver		<-
31 Cyclohexane	0.45969	++++	0.00000	0.010	++++	20.00000	Aver		<-
32 Bromochloromethane	0.19214	++++	0.00000	0.010	++++	20.00000	Aver		<-
33 Chloroform	0.48830	++++	0.00000	0.010	++++	20.00000	Aver		<-
34 Ethyl acetate	++++	53.64451	0.00000	0.010	++++	20.00000	Quad		<-
35 Carbon tetrachloride	0.39251	++++	0.00000	0.010	++++	20.00000	Aver		<-
36 Tetrahydrofuran	0.22657	++++	0.00000	0.010	++++	20.00000	Aver		<-
$ 37 Dibromofluoromethane (S)	0.25935	++++	0.00000	0.010	++++	20.00000	Aver		<-
38 1,1,1-Trichloroethane	0.41999	++++	0.00000	0.010	++++	20.00000	Aver		<-
39 2-Butanone (MEK)	0.34345	++++	0.00000	0.010	++++	20.00000	Aver		<-
40 1,1-Dichloropropene	0.38360	++++	0.00000	0.010	++++	20.00000	Aver		<-
41 Benzene	1.12575	++++	0.00000	0.010	++++	20.00000	Aver		<-

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Report Date: 02-Dec-2019 10:30

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7b.i Injection Date: 29-NOV-2019 09:08
Lab File ID: 71129006.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:12 16:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	42 Propionitrile	0.08205	++++	0.00000	0.010	++++	20.00000	Aver		<-
	43 Methacrylonitrile	0.26564	++++	0.00000	0.010	++++	20.00000	Aver		<-
	44 tert-Amylmethyl ether	0.71814	++++	0.00000	0.010	++++	20.00000	Aver		<-
$	46 1,2-Dichloroethane-d4 (S)	0.26681	++++	0.00000	0.010	++++	20.00000	Aver		<-
	45 Isobutanol	++++	304	0.00000	0.010	++++	20.00000	Quad		<-
	47 1,2-Dichloroethane	0.35499	++++	0.00000	0.010	++++	20.00000	Aver		<-
	49 Methylcyclohexane	0.27004	++++	0.00000	0.010	++++	20.00000	Aver		<-
	50 Trichloroethene	0.32382	++++	0.00000	0.010	++++	20.00000	Aver		<-
	51 Dibromomethane	0.22345	++++	0.00000	0.010	++++	20.00000	Aver		<-
	52 1,2-Dichloropropane	0.26499	++++	0.00000	0.010	++++	20.00000	Aver		<-
	53 Bromodichloromethane	0.30364	++++	0.00000	0.010	++++	20.00000	Aver		<-
	54 Methyl methacrylate	0.23339	++++	0.00000	0.010	++++	20.00000	Aver		<-
	55 1,4-Dioxane (p-Dioxane)	0.00503	++++	0.00000	0.010	++++	20.00000	Aver		<-
	56 2-Chloroethylvinyl ether	++++	43.75842	0.00000	0.010	++++	20.00000	Quad		<-
	57 cis-1,3-Dichloropropene	0.37650	++++	0.00000	0.010	++++	20.00000	Aver		<-
$	58 Toluene-d8 (S)	1.34948	++++	0.00000	0.010	++++	20.00000	Aver		<-
	59 Toluene	1.73002	++++	0.00000	0.010	++++	20.00000	Aver		<-
	60 2-Nitropropane	0.14474	++++	0.00000	0.010	++++	20.00000	Aver		<-
	61 4-Methyl-2-pentanone (MIBK)	0.47989	++++	0.00000	0.010	++++	20.00000	Aver		<-
	62 Tetrachloroethene	0.47605	++++	0.00000	0.010	++++	20.00000	Aver		<-
	63 trans-1,3-Dichloropropene	0.52729	++++	0.00000	0.010	++++	20.00000	Aver		<-
	64 Ethyl methacrylate	0.36007	++++	0.00000	0.010	++++	20.00000	Aver		<-
	65 1,1,2-Trichloroethane	0.38425	++++	0.00000	0.010	++++	20.00000	Aver		<-
	66 Dibromochloromethane	0.42445	++++	0.00000	0.010	++++	20.00000	Aver		<-
	67 1,3-Dichloropropane	0.64584	++++	0.00000	0.010	++++	20.00000	Aver		<-
	68 1,2-Dibromoethane (EDB)	0.44116	++++	0.00000	0.010	++++	20.00000	Aver		<-
	69 2-Hexanone	0.62147	++++	0.00000	0.010	++++	20.00000	Aver		<-
	71 Ethylbenzene	0.54357	++++	0.00000	0.010	++++	20.00000	Aver		<-
	72 Chlorobenzene	1.03314	++++	0.00000	0.300	++++	20.00000	Aver		<-
	73 1,1,1,2-Tetrachloroethane	0.38292	++++	0.00000	0.010	++++	20.00000	Aver		<-
	74 m&p-Xylene	0.65871	++++	0.00000	0.010	++++	20.00000	Aver		<-
	75 o-Xylene	0.63882	++++	0.00000	0.010	++++	20.00000	Aver		<-
	76 Styrene	0.96775	++++	0.00000	0.010	++++	20.00000	Aver		<-
	77 Bromoform	++++	42.11034	0.00000	0.100	++++	20.00000	Quad		<-
	78 Isopropylbenzene (Cumene)	3.02632	++++	0.00000	0.010	++++	20.00000	Aver		<-
$	79 4-Bromofluorobenzene (S)	0.93508	++++	0.00000	0.010	++++	20.00000	Aver		<-
	80 n-Propylbenzene	3.36482	++++	0.00000	0.010	++++	20.00000	Aver		<-
	81 Bromobenzene	1.48017	++++	0.00000	0.010	++++	20.00000	Aver		<-
	82 1,1,2,2-Tetrachloroethane	1.27125	++++	0.00000	0.300	++++	20.00000	Aver		<-
	83 1,3,5-Trimethylbenzene	2.33834	++++	0.00000	0.010	++++	20.00000	Aver		<-
	84 2-Chlorotoluene	0.79336	++++	0.00000	0.010	++++	20.00000	Aver		<-

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Report Date: 02-Dec-2019 10:30

Pace Analytical Services, Inc.

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: 30mv7b.i Injection Date: 29-NOV-2019 09:08
Lab File ID: 71129006.d Init. Cal. Date(s): 12-NOV-2019 12-NOV-2019
Analysis Type: WATER Init. Cal. Times: 14:12 16:40
Lab Sample ID: CCV Quant Type: ISTD
Method: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m

	COMPOUND	RRF / AMOUNT	RF50	CCAL RRF50	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	QC FLAGS	
	85 1,2,3-Trichloropropane	0.45275	++++	0.00000	0.010	++++	20.00000	Aver		<-
	86 trans-1,4-Dichloro-2-butene	++++	40.37320	0.00000	0.010	++++	20.00000	Quad		<-
	87 Cyclohexanone	++++	183	0.00000	0.010	++++	20.00000	Quad		<-
	88 4-Chlorotoluene	0.83974	++++	0.00000	0.010	++++	20.00000	Aver		<-
	89 tert-Butylbenzene	1.89469	++++	0.00000	0.010	++++	20.00000	Aver		<-
	90 1,2,4-Trimethylbenzene	2.32092	++++	0.00000	0.010	++++	20.00000	Aver		<-
	91 sec-Butylbenzene	2.53417	++++	0.00000	0.010	++++	20.00000	Aver		<-
	92 p-Isopropyltoluene	2.14551	++++	0.00000	0.010	++++	20.00000	Aver		<-
	93 1,3-Dichlorobenzene	1.45531	++++	0.00000	0.010	++++	20.00000	Aver		<-
	95 1,4-Dichlorobenzene	1.56069	++++	0.00000	0.010	++++	20.00000	Aver		<-
	96 n-Butylbenzene	1.66230	++++	0.00000	0.010	++++	20.00000	Aver		<-
$	98 1,2-Dichlorobenzene-d4 (S)	0.45742	++++	0.00000	0.010	++++	20.00000	Aver		<-
	97 1,2-Dichlorobenzene	1.42010	++++	0.00000	0.010	++++	20.00000	Aver		<-
	99 1,2-Dibromo-3-chloropropane	0.46536	++++	0.00000	0.010	++++	20.00000	Aver		<-
	103 1,3,5-Trichlorobenzene	0.76499	++++	0.00000	0.010	++++	20.00000	Aver		<-
	100 Hexachloro-1,3-butadiene	0.34716	++++	0.00000	0.010	++++	20.00000	Aver		<-
	101 1,2,4-Trichlorobenzene	0.70643	++++	0.00000	0.010	++++	20.00000	Aver		<-
	102 Naphthalene	3.12104	++++	0.00000	0.010	++++	20.00000	Aver		<-
	104 1,2,3-Trichlorobenzene	0.70444	++++	0.00000	0.010	++++	20.00000	Aver		<-
	105 2-Methylnaphthalene	1.30256	++++	0.00000	0.010	++++	20.00000	Aver		<-

Average %D / Drift Results.

Calculated Average %D/Drift = 8.18525
Maximun Average %D/Drift = 0.000e+000
* Failed Average %D/Drift Test.

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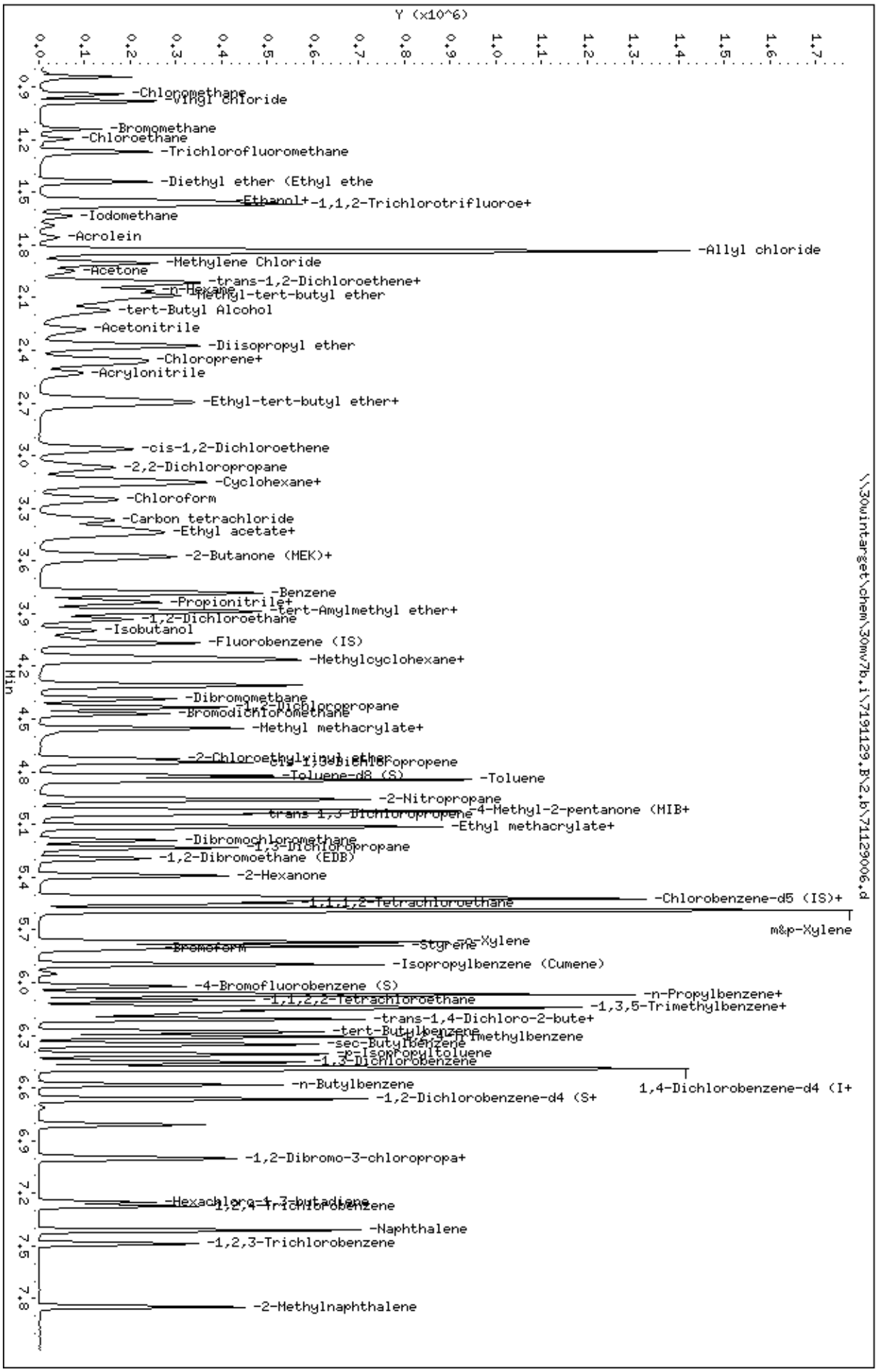

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Date : 29-NOV-2019 09:08
Client ID: CCV
Sample Info: CCV, 107035:1
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129006.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
trans-1,3-Dichloropropene
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-trans-1,4-Dichloro-2-bute+
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129006.d
Injection Date: 29-NOV-2019 09:08
Instrument: 30mv7b.i
Lab Sample ID: CCV
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

Data File: \\30wintarget\chem\30mv7a.i\7191112.b\1.b\71112003.d

Page 1

Date : 12-NOV-2019 13:35

Client ID: BFB

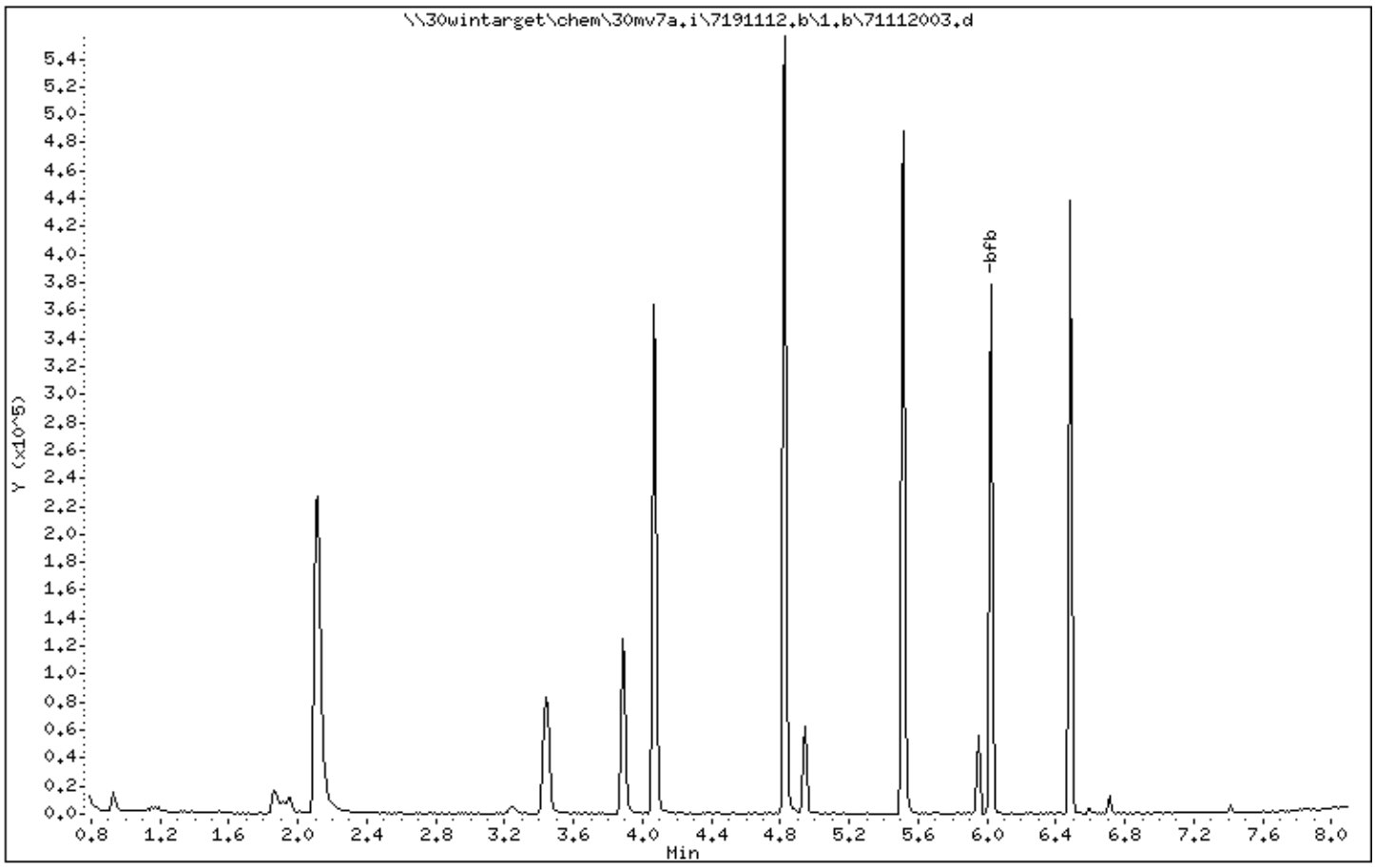
Instrument: 30mv7a.i

Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18



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Date : 12-NOV-2019 13:35

Client ID: BFB

Instrument: 30mv7a.i

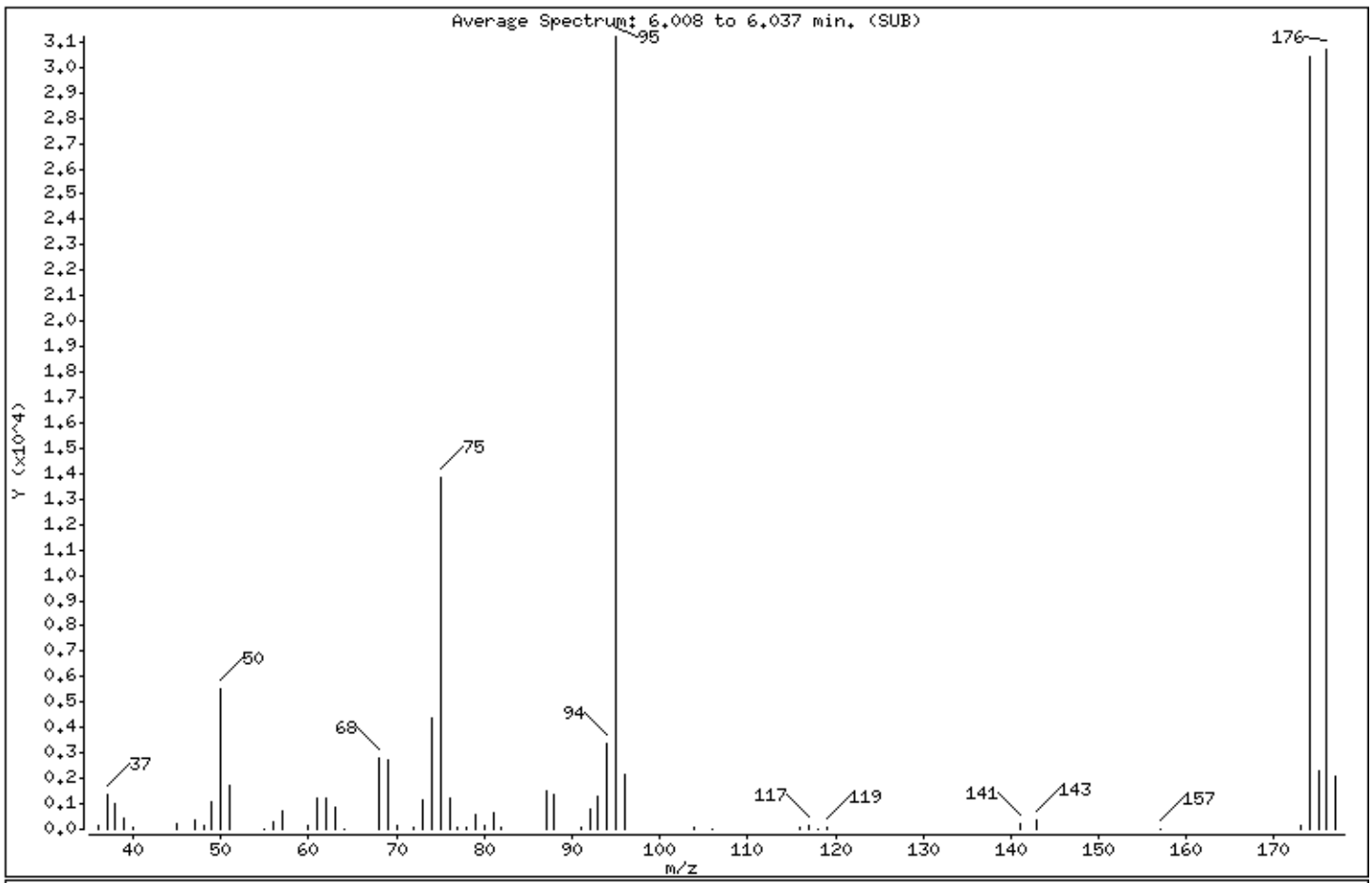
Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.72
75	30.00 - 60.00% of mass 95	44.30
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.56 (0.57)
174	Greater than 50.00% of mass 95	97.39
175	5.00 - 9.00% of mass 174	7.32 (7.51)
176	95.00 - 101.00% of mass 174	98.35 (100.98)
177	5.00 - 9.00% of mass 176	6.63 (6.74)

Date : 12-NOV-2019 13:35

Client ID: BFB Instrument: 30mv7a.i

Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS Column diameter: 0.18

Data File: 71112003.d
Spectrum: Average Spectrum: 6.008 to 6.037 min. (SUB)
Location of Maximum: 95.00
Number of points: 55

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	155	60.00	169	78.00	86	106.00	30
37.00	1342	61.00	1220	79.00	600	116.00	47
38.00	1037	62.00	1242	80.00	121	117.00	146
39.00	420	63.00	859	81.00	659	118.00	31
40.00	64	64.00	32	82.00	79	119.00	40
45.00	220	68.00	2782	87.00	1527	141.00	225
47.00	370	69.00	2725	88.00	1368	143.00	340
48.00	157	70.00	177	91.00	39	157.00	32
49.00	1085	72.00	37	92.00	816	173.00	174
50.00	5530	73.00	1113	93.00	1312	174.00	30392
51.00	1750	74.00	4350	94.00	3370	175.00	2284
55.00	33	75.00	13825	95.00	31200	176.00	30688
56.00	317	76.00	1245	96.00	2129	177.00	2070
57.00	749	77.00	39	104.00	86		

Data File: \\30wintarget\chem\30mv7a.i\7191202.b\1.b\71202007.d

Date : 02-DEC-2019 11:15

Client ID: BFB

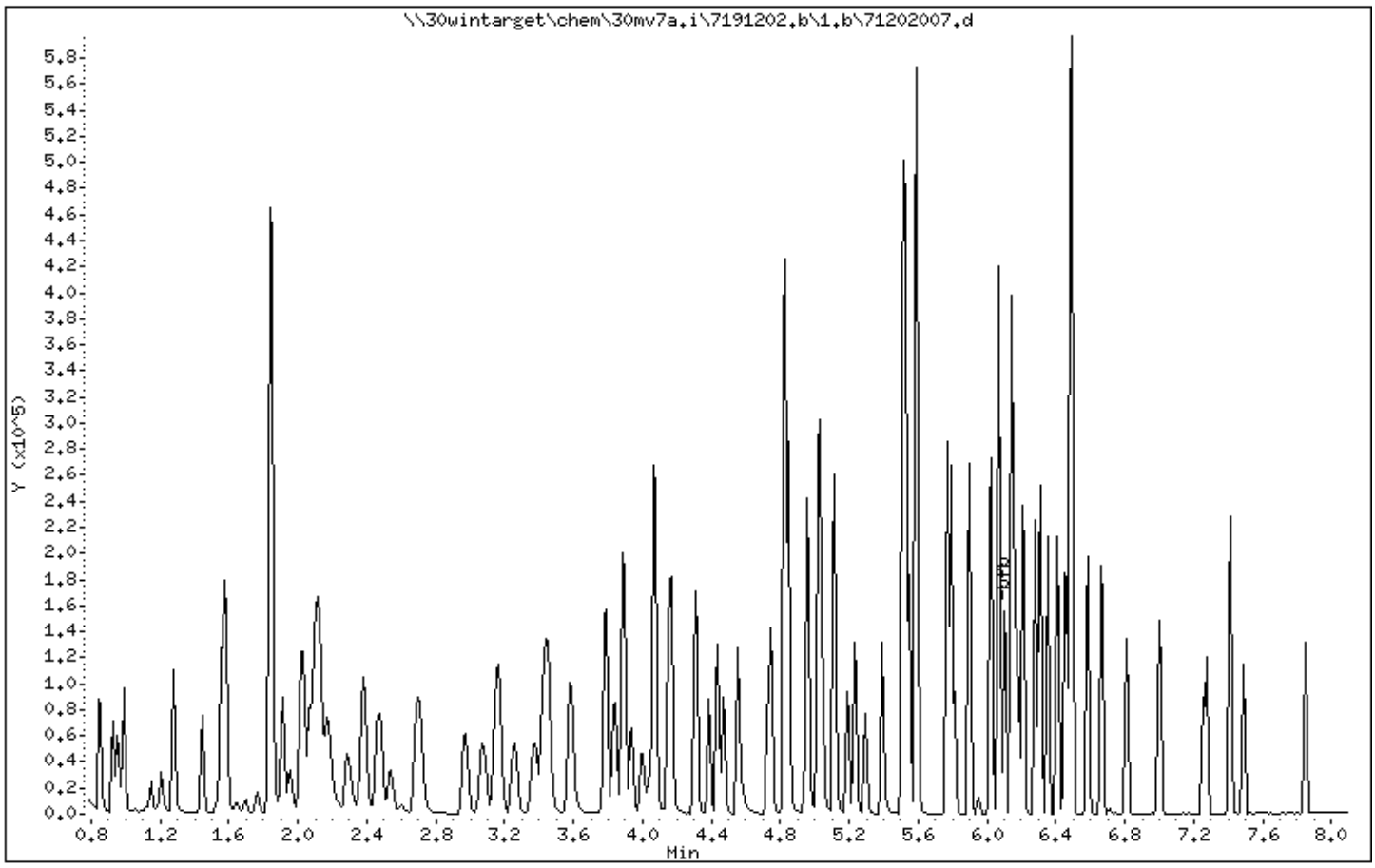
Instrument: 30mv7a.i

Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18



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Date : 02-DEC-2019 11:15

Client ID: BFB

Instrument: 30mv7a.i

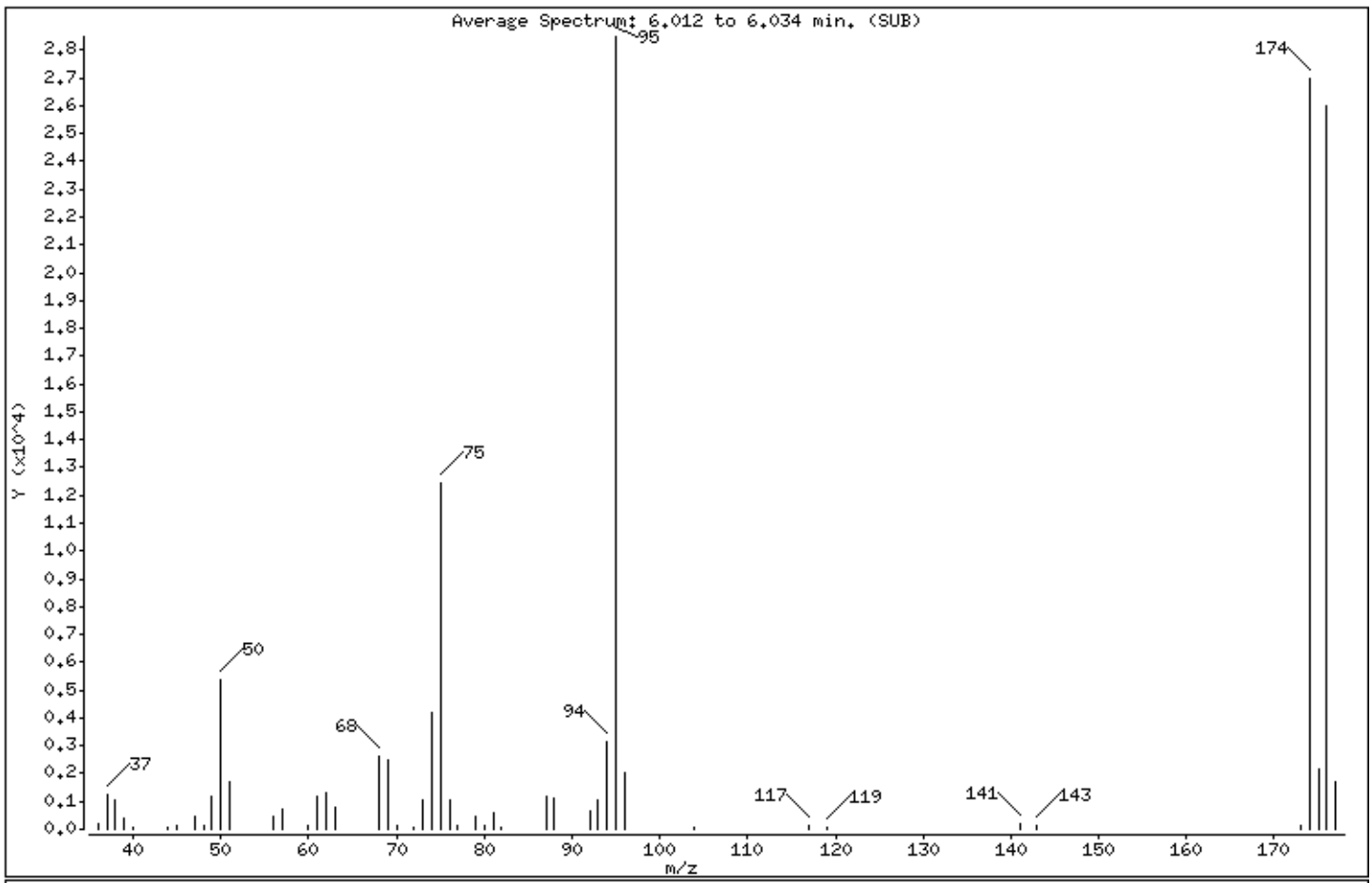
Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.95
75	30.00 - 60.00% of mass 95	43.62
96	5.00 - 9.00% of mass 95	7.16
173	Less than 2.00% of mass 174	0.39 (0.41)
174	Greater than 50.00% of mass 95	94.62
175	5.00 - 9.00% of mass 174	7.69 (8.13)
176	95.00 - 101.00% of mass 174	91.23 (96.42)
177	5.00 - 9.00% of mass 176	6.08 (6.67)

Date : 02-DEC-2019 11:15

Client ID: BFB Instrument: 30mv7a.i

Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS Column diameter: 0.18

Data File: 71202007.d
Spectrum: Average Spectrum: 6.012 to 6.034 min. (SUB)
Location of Maximum: 95.00
Number of points: 48

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	177	57.00	728	77.00	146	117.00	99
37.00	1213	60.00	107	79.00	472	119.00	88
38.00	1026	61.00	1174	80.00	101	141.00	220
39.00	417	62.00	1290	81.00	619	143.00	138
40.00	38	63.00	769	82.00	44	173.00	110
44.00	69	68.00	2595	87.00	1149	174.00	26944
45.00	125	69.00	2471	88.00	1113	175.00	2191
47.00	452	70.00	100	92.00	642	176.00	25976
48.00	112	72.00	37	93.00	1027	177.00	1733
49.00	1194	73.00	1022	94.00	3129		
50.00	5398	74.00	4170	95.00	28480		
51.00	1673	75.00	12423	96.00	2040		
56.00	457	76.00	1054	104.00	38		

Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006-bfb.d

Date : 12-NOV-2019 14:12

Client ID: BFB

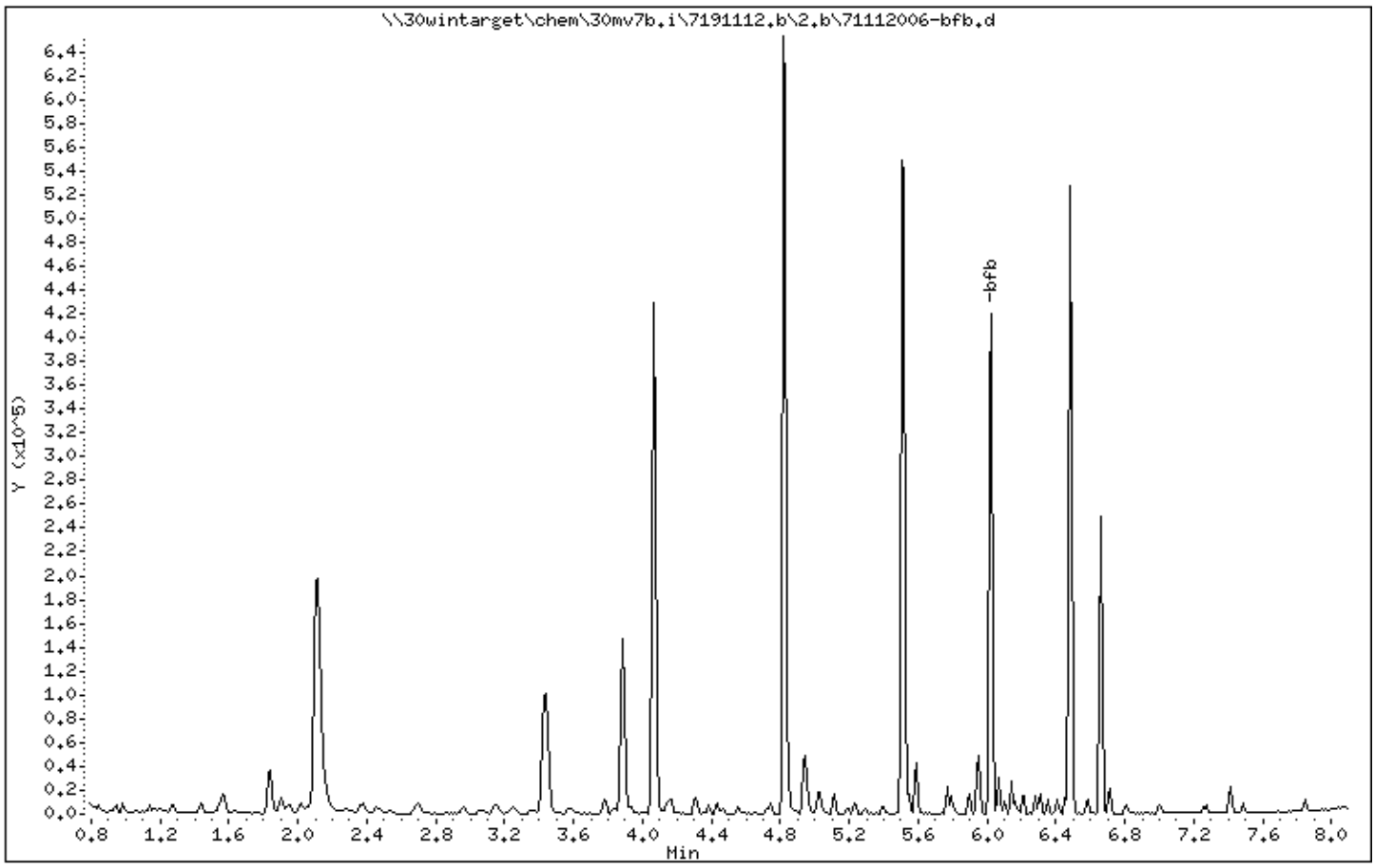
Instrument: 30mv7b.i

Sample Info: BFB, 102072:10,

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mv7b.i\7191112.b\2.b\71112006-bfb.d

Date : 12-NOV-2019 14:12

Client ID: BFB

Instrument: 30mv7b.i

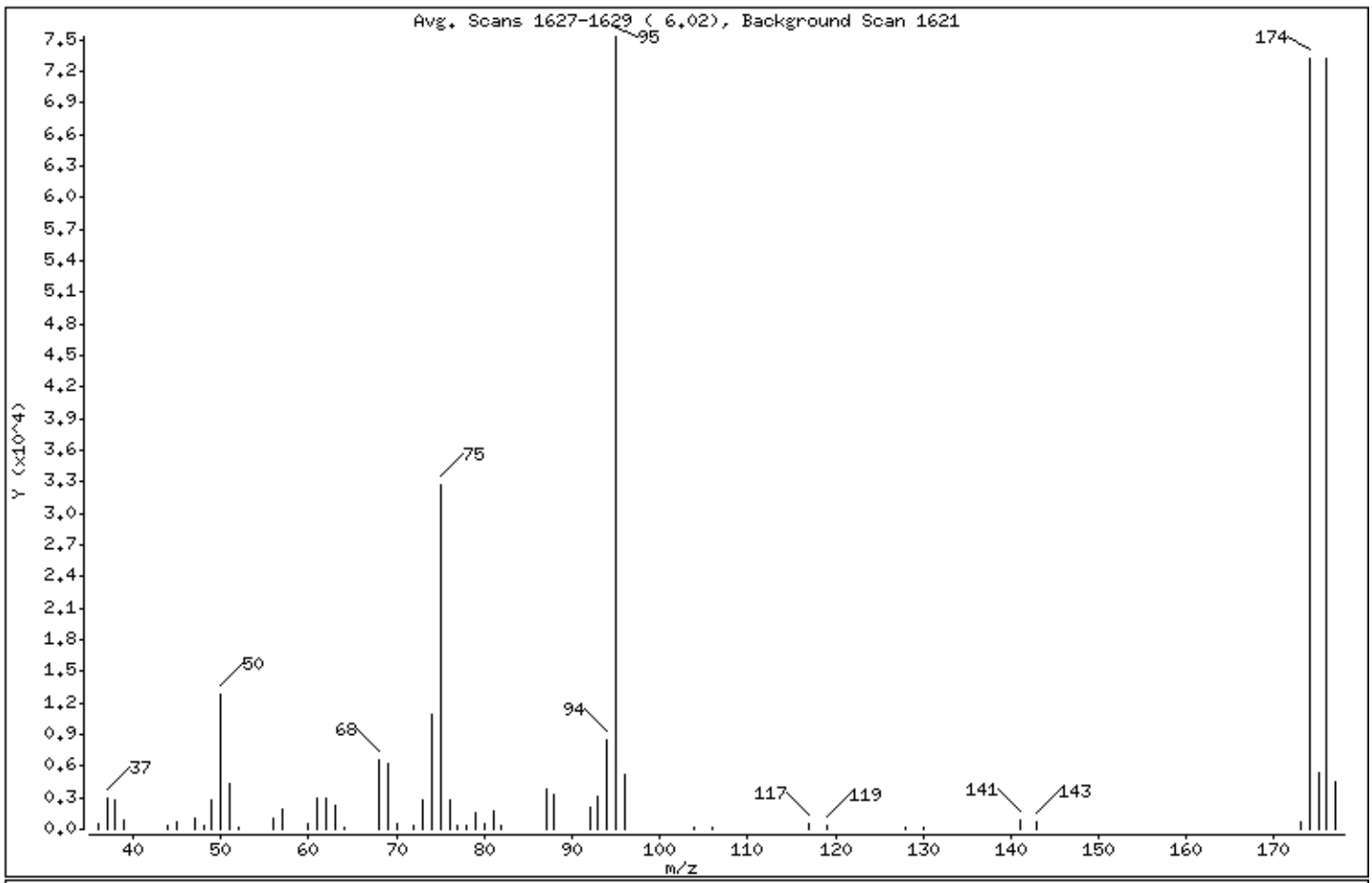
Sample Info: BFB, 102072:10,

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.93
75	30.00 - 60.00% of mass 95	43.41
96	5.00 - 9.00% of mass 95	7.01
173	Less than 2.00% of mass 174	0.86 (0.89)
174	Greater than 50.00% of mass 95	97.27
175	5.00 - 9.00% of mass 174	7.21 (7.41)
176	95.00 - 101.00% of mass 174	97.26 (99.99)
177	5.00 - 9.00% of mass 176	6.08 (6.25)

Date : 12-NOV-2019 14:12

Client ID: BFB Instrument: 30mv7b.i

Sample Info: BFB, 102072:10,

Operator: LEL

Column phase: RTx-VMS Column diameter: 0.18

Data File: 71112006-bfb.d
Spectrum: Avg. Scans 1627-1629 (6.02), Background Scan 1621
Location of Maximum: 95.00
Number of points: 53

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	601	60.00	546	78.00	287	117.00	513
37.00	2982	61.00	2897	79.00	1571	119.00	396
38.00	2705	62.00	2952	80.00	438	128.00	106
39.00	881	63.00	2209	81.00	1675	130.00	171
44.00	394	64.00	111	82.00	260	141.00	844
45.00	638	68.00	6493	87.00	3849	143.00	749
47.00	1110	69.00	6219	88.00	3361	173.00	650
48.00	300	70.00	457	92.00	2039	174.00	73232
49.00	2851	72.00	261	93.00	3154	175.00	5426
50.00	12744	73.00	2723	94.00	8455	176.00	73224
51.00	4245	74.00	10908	95.00	75288	177.00	4575
52.00	104	75.00	32680	96.00	5278		
56.00	958	76.00	2774	104.00	210		
57.00	1841	77.00	300	106.00	136		

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129004.d

Date : 29-NOV-2019 08:43

Client ID: BFB

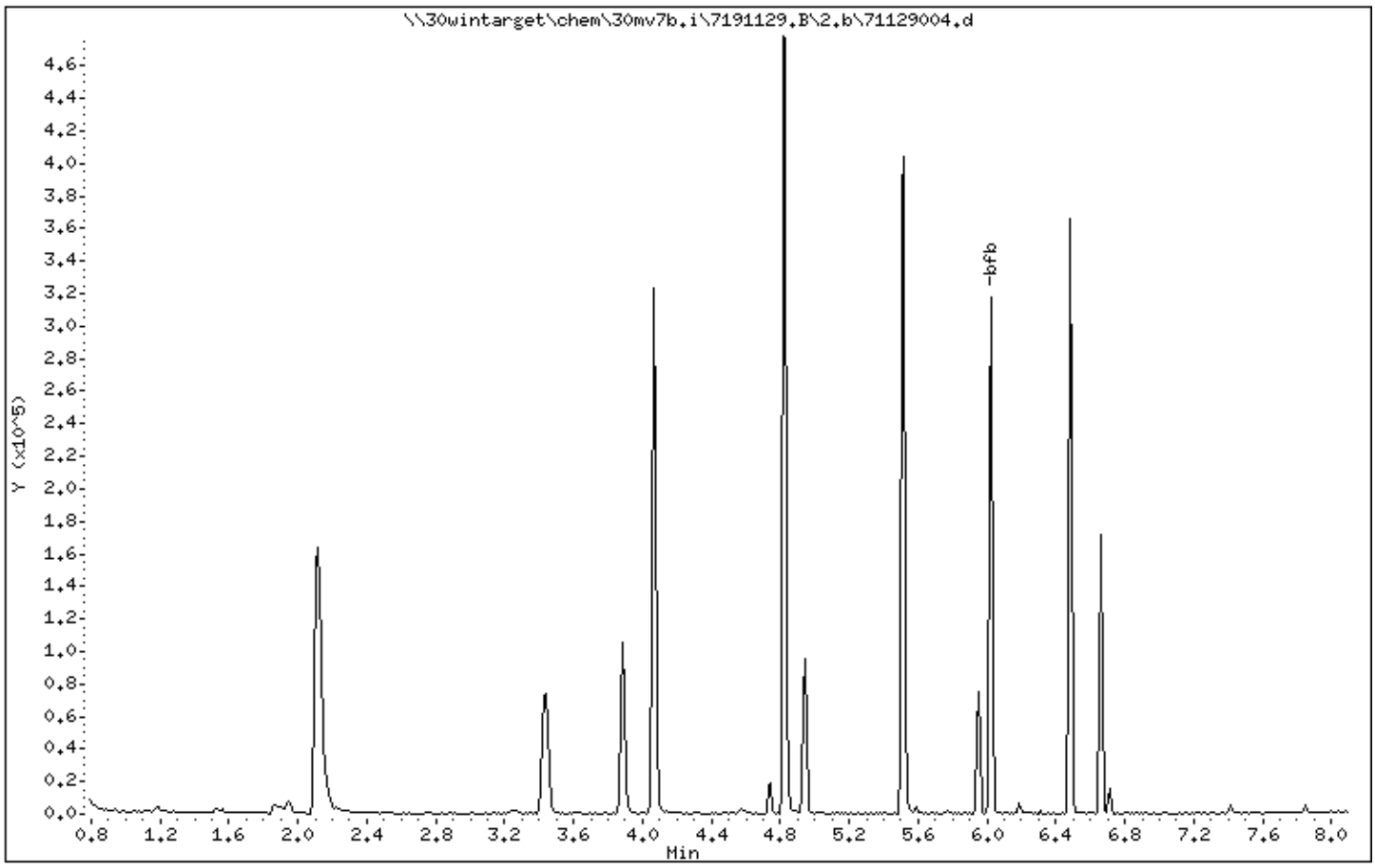
Instrument: 30mv7b.i

Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18



Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129004.d

Date : 29-NOV-2019 08:43

Client ID: BFB

Instrument: 30mv7b.i

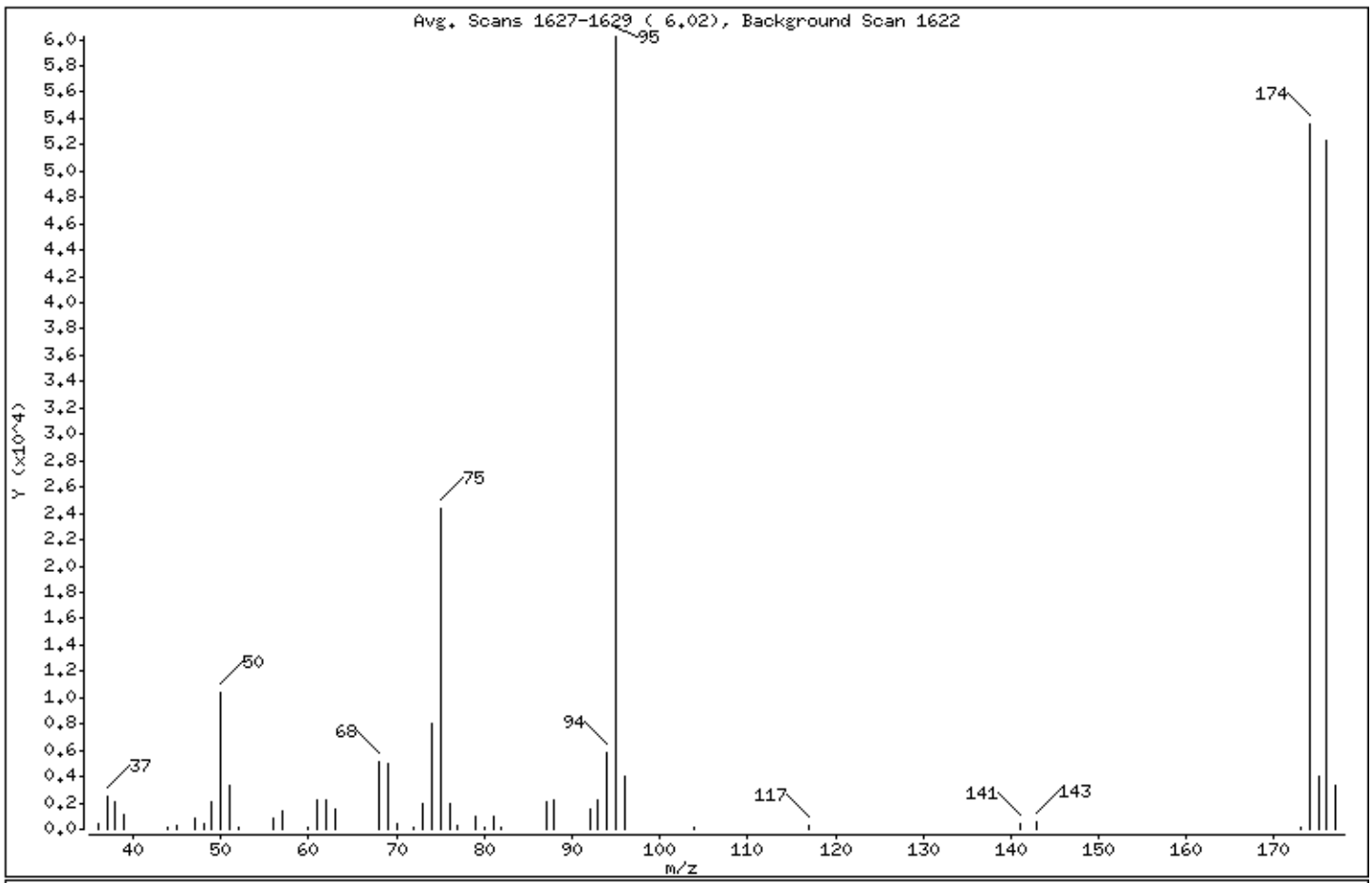
Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS

Column diameter: 0.18

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.18
75	30.00 - 60.00% of mass 95	40.52
96	5.00 - 9.00% of mass 95	6.60
173	Less than 2.00% of mass 174	0.28 (0.31)
174	Greater than 50.00% of mass 95	89.04
175	5.00 - 9.00% of mass 174	6.63 (7.45)
176	95.00 - 101.00% of mass 174	86.94 (97.64)
177	5.00 - 9.00% of mass 176	5.48 (6.30)

Date : 29-NOV-2019 08:43

Client ID: BFB Instrument: 30mv7b.i

Sample Info: BFB, 102072:10

Operator: LEL

Column phase: RTx-VMS Column diameter: 0.18

Data File: 71129004.d
Spectrum: Avg. Scans 1627-1629 (6.02), Background Scan 1622
Location of Maximum: 95.00
Number of points: 47

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	407	56.00	866	75.00	24400	95.00	60216
37.00	2434	57.00	1411	76.00	1907	96.00	3975
38.00	2046	60.00	144	77.00	274	104.00	111
39.00	1094	61.00	2154	79.00	1020	117.00	313
44.00	91	62.00	2184	80.00	108	141.00	437
45.00	335	63.00	1581	81.00	935	143.00	519
47.00	881	68.00	5139	82.00	131	173.00	166
48.00	376	69.00	4915	87.00	2144	174.00	53616
49.00	2089	70.00	403	88.00	2280	175.00	3993
50.00	10344	72.00	122	92.00	1572	176.00	52352
51.00	3344	73.00	1958	93.00	2154	177.00	3298
52.00	105	74.00	8051	94.00	5789		

SAMPLE NO.

BLANK

MSV - FORM I VOA-1
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042
Date Received: Matrix: Water SDG No.: 30337003
Date Extracted: 11/29/2019 10:22 Lab Sample ID: 1811177
Date Analyzed: 11/29/2019 10:22 Lab File ID: 7191129.B\2.B\71129012.D
Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	ND	U
71-43-2	Benzene	ND	U
108-86-1	Bromobenzene	ND	U
74-97-5	Bromochloromethane	ND	U
75-27-4	Bromodichloromethane	ND	U
75-25-2	Bromoform	ND	U
74-83-9	Bromomethane	ND	U
78-93-3	2-Butanone (MEK)	ND	U
104-51-8	n-Butylbenzene	ND	U
135-98-8	sec-Butylbenzene	ND	U
98-06-6	tert-Butylbenzene	ND	U
75-15-0	Carbon disulfide	ND	U
56-23-5	Carbon tetrachloride	ND	U
108-90-7	Chlorobenzene	ND	U
75-00-3	Chloroethane	ND	U
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	ND	U
74-87-3	Chloromethane	ND	U
95-49-8	2-Chlorotoluene	ND	U
106-43-4	4-Chlorotoluene	ND	U
96-12-8	1,2-Dibromo-3-chloropropane	ND	U
124-48-1	Dibromochloromethane	ND	U
106-93-4	1,2-Dibromoethane (EDB)	ND	U
74-95-3	Dibromomethane	ND	U
95-50-1	1,2-Dichlorobenzene	ND	U
541-73-1	1,3-Dichlorobenzene	ND	U
106-46-7	1,4-Dichlorobenzene	ND	U
75-71-8	Dichlorodifluoromethane	ND	U
75-34-3	1,1-Dichloroethane	ND	U
107-06-2	1,2-Dichloroethane	ND	U
75-35-4	1,1-Dichloroethene	ND	U
156-59-2	cis-1,2-Dichloroethene	ND	U
156-60-5	trans-1,2-Dichloroethene	ND	U
78-87-5	1,2-Dichloropropane	ND	U
142-28-9	1,3-Dichloropropane	ND	U
594-20-7	2,2-Dichloropropane	ND	U
563-58-6	1,1-Dichloropropene	ND	U

SAMPLE NO.

BLANK

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 10:22 Lab Sample ID: 1811177

Date Analyzed: 11/29/2019 10:22 Lab File ID: 7191129.B\2.B\71129012.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	ND	U
10061-02-6	trans-1,3-Dichloropropene	ND	U
100-41-4	Ethylbenzene	ND	U
87-68-3	Hexachloro-1,3-butadiene	ND	U
591-78-6	2-Hexanone	ND	U
98-82-8	Isopropylbenzene (Cumene)	ND	U
99-87-6	p-Isopropyltoluene	ND	U
75-09-2	Methylene Chloride	ND	U
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	U
1634-04-4	Methyl-tert-butyl ether	ND	U
91-20-3	Naphthalene	ND	U
103-65-1	n-Propylbenzene	ND	U
100-42-5	Styrene	ND	U
630-20-6	1,1,1,2-Tetrachloroethane	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	ND	U
127-18-4	Tetrachloroethene	ND	U
108-88-3	Toluene	ND	U
87-61-6	1,2,3-Trichlorobenzene	ND	U
120-82-1	1,2,4-Trichlorobenzene	ND	U
71-55-6	1,1,1-Trichloroethane	ND	U
79-00-5	1,1,2-Trichloroethane	ND	U
79-01-6	Trichloroethene	ND	U
75-69-4	Trichlorofluoromethane	ND	U
95-63-6	1,2,4-Trimethylbenzene	ND	U
108-67-8	1,3,5-Trimethylbenzene	ND	U
108-05-4	Vinyl acetate	ND	U
75-01-4	Vinyl chloride	ND	U
1330-20-7	Xylene (Total)	ND	U
179601-23-1	m&p-Xylene	ND	U
95-47-6	o-Xylene	ND	U

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d
Lab Smp Id: 1811177 Client Smp ID: MB
Inj Date : 29-NOV-2019 10:22
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 1811177
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 12 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1 Dichlorodifluoromethane	85	Compound Not Detected.						
2 Chloromethane	50	Compound Not Detected.						
3 Vinyl chloride	62	Compound Not Detected.						
4 Bromomethane	94	Compound Not Detected.						
5 Chloroethane	64	Compound Not Detected.						
6 Trichlorofluoromethane	101	Compound Not Detected.						
7 Diethyl ether (Ethyl ether)	59	Compound Not Detected.						
8 Ethanol	46	Compound Not Detected.						
9 1,1-Dichloroethene	61	Compound Not Detected.						
10 1,1,2-Trichlorotrifluoroethane	151	Compound Not Detected.						
11 Carbon disulfide	76	Compound Not Detected.						
12 Iodomethane	142	Compound Not Detected.						
13 Acrolein	56	Compound Not Detected.						
14 Allyl chloride	41	Compound Not Detected.						
15 Methylene Chloride	49	Compound Not Detected.						
16 Acetone	58	1.950	1.944	(0.480)	2017	5.10895	5.11(Q)	
17 trans-1,2-Dichloroethene	61	Compound Not Detected.						
18 Methyl acetate	74	Compound Not Detected.						
19 n-Hexane	86	Compound Not Detected.						
20 Methyl-tert-butyl ether	73	Compound Not Detected.						
21 tert-Butyl Alcohol	59	Compound Not Detected.						(D)
22 Acetonitrile	41	Compound Not Detected.						
23 Diisopropyl ether	45	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	Compound Not Detected.						
	25 1,1-Dichloroethane	63	Compound Not Detected.						
	26 Acrylonitrile	53	Compound Not Detected.						
	27 Ethyl-tert-butyl ether	59	Compound Not Detected.						
	28 Vinyl acetate	43	Compound Not Detected.						
	29 cis-1,2-Dichloroethene	61	Compound Not Detected.						
	30 2,2-Dichloropropane	77	Compound Not Detected.						
	31 Cyclohexane	56	Compound Not Detected.						
	32 Bromochloromethane	130	Compound Not Detected.						
	33 Chloroform	83	Compound Not Detected.						
	34 Ethyl acetate	43	Compound Not Detected.						
	35 Carbon tetrachloride	117	Compound Not Detected.						
	36 Tetrahydrofuran	42	3.429	3.407	(0.843)	4629	3.40705	3.41(M)	LT
$	37 Dibromofluoromethane (S)	111	3.439	3.433	(0.846)	47953	30.8340	30.8	
	38 1,1,1-Trichloroethane	97	Compound Not Detected.						
	39 2-Butanone (MEK)	43	Compound Not Detected.						
	40 1,1-Dichloropropene	75	Compound Not Detected.						
	41 Benzene	78	Compound Not Detected.						
	42 Propionitrile	54	Compound Not Detected.						
	43 Methacrylonitrile	41	Compound Not Detected.						
	44 tert-Amylmethyl ether	73	Compound Not Detected.						
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	49229	30.7692	30.8	
	45 Isobutanol	43	Compound Not Detected.						
	47 1,2-Dichloroethane	62	Compound Not Detected.						(D)
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	179895	30.0000		
	49 Methylcyclohexane	55	Compound Not Detected.						
	50 Trichloroethene	132	Compound Not Detected.						
	51 Dibromomethane	174	Compound Not Detected.						
	52 1,2-Dichloropropane	63	Compound Not Detected.						
	53 Bromodichloromethane	83	Compound Not Detected.						
	54 Methyl methacrylate	69	Compound Not Detected.						
	55 1,4-Dioxane (p-Dioxane)	88	Compound Not Detected.						
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	Compound Not Detected.						
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	157146	28.1065	28.1	
	59 Toluene	91	4.851	4.844	(0.880)	1145	0.15974	0.160(a)	
	60 2-Nitropropane	43	Compound Not Detected.						(D)
	61 4-Methyl-2-pentanone (MIBK)	43	Compound Not Detected.						
	62 Tetrachloroethene	166	Compound Not Detected.						
	63 trans-1,3-Dichloropropene	75	Compound Not Detected.						
	64 Ethyl methacrylate	41	Compound Not Detected.						
	65 1,1,2-Trichloroethane	97	Compound Not Detected.						
	66 Dibromochloromethane	129	Compound Not Detected.						
	67 1,3-Dichloropropane	76	Compound Not Detected.						
	68 1,2-Dibromoethane (EDB)	107	Compound Not Detected.						
	69 2-Hexanone	43	Compound Not Detected.						
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	124294	30.0000		
	71 Ethylbenzene	106	Compound Not Detected.						
	72 Chlorobenzene	112	Compound Not Detected.						
	73 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.						
	74 m&p-Xylene	106	Compound Not Detected.						
	75 o-Xylene	106	Compound Not Detected.						
	76 Styrene	104	Compound Not Detected.						
	77 Bromoform	173	Compound Not Detected.						

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	Compound Not Detected.						
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	46964	28.8481	28.8	
	80 n-Propylbenzene	91	Compound Not Detected.						
	81 Bromobenzene	77	Compound Not Detected.						
	82 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.						
	83 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
	84 2-Chlorotoluene	126	Compound Not Detected.						
	85 1,2,3-Trichloropropane	110	Compound Not Detected.						
	86 trans-1,4-Dichloro-2-butene	53	Compound Not Detected.						
	87 Cyclohexanone	55	Compound Not Detected.						
	88 4-Chlorotoluene	126	Compound Not Detected.						
	89 tert-Butylbenzene	119	Compound Not Detected.						
	90 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
	91 sec-Butylbenzene	105	Compound Not Detected.						
	92 p-Isopropyltoluene	119	Compound Not Detected.						
	93 1,3-Dichlorobenzene	146	Compound Not Detected.						
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	52230	30.0000	(Q)	
	95 1,4-Dichlorobenzene	146	Compound Not Detected.						
	96 n-Butylbenzene	91	Compound Not Detected.						
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	25056	31.4632	31.5(Q)	
	97 1,2-Dichlorobenzene	146	Compound Not Detected.						
	99 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.						
	103 1,3,5-Trichlorobenzene	180	Compound Not Detected.						
	100 Hexachloro-1,3-butadiene	225	Compound Not Detected.						
	101 1,2,4-Trichlorobenzene	180	Compound Not Detected.						
	102 Naphthalene	128	Compound Not Detected.						
	104 1,2,3-Trichlorobenzene	180	Compound Not Detected.						
	105 2-Methylnaphthalene	142	Compound Not Detected.						

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
D - User disabled compound identification.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

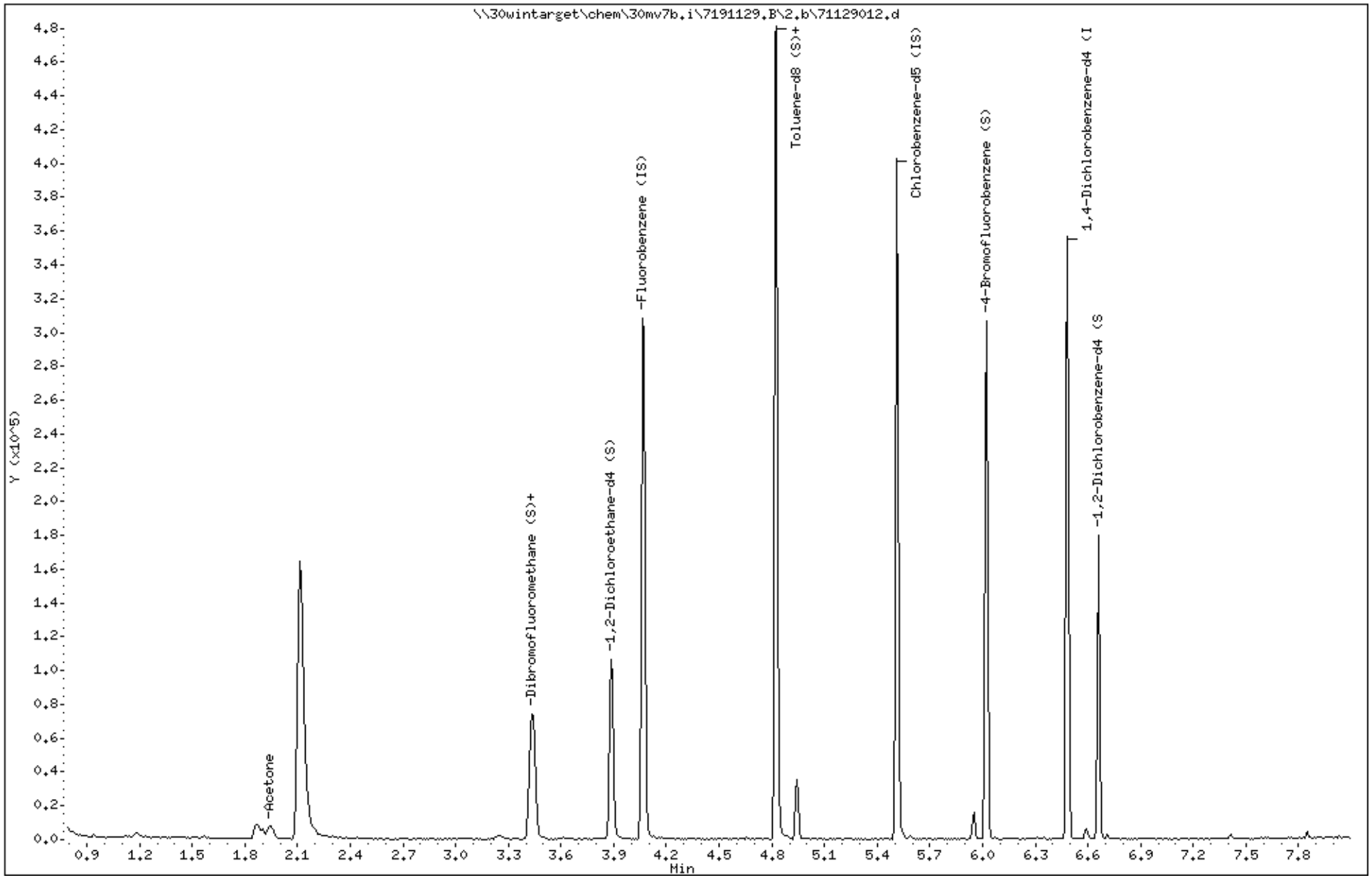
TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1811177
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 2.b
Client Smp ID: MB
Sample Point:
Date Received: 29-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
67-64-1	Acetone	5.11	
109-99-9	Tetrahydrofuran	3.41	
108-88-3	Toluene	0.160	J
1868-53-7	Dibromofluoromethane (S)	30.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.8	
2037-26-5	Toluene-d8 (S)	28.1	
460-00-4	4-Bromofluorobenzene (S)	28.8	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	31.5	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d
Date : 29-NOV-2019 10:22
Client ID: MB
Instrument: 30mv7b.i
Sample Info: 1811177
Purge Volume: 5.0
Operator: LEL
Column phase: RTX-VMS
Column diameter: 0.18



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Date : 29-NOV-2019 10:22

Client ID: MB

Instrument: 30mv7b.i

Sample Info: 1811177

Purge Volume: 5.0

Operator: LEL

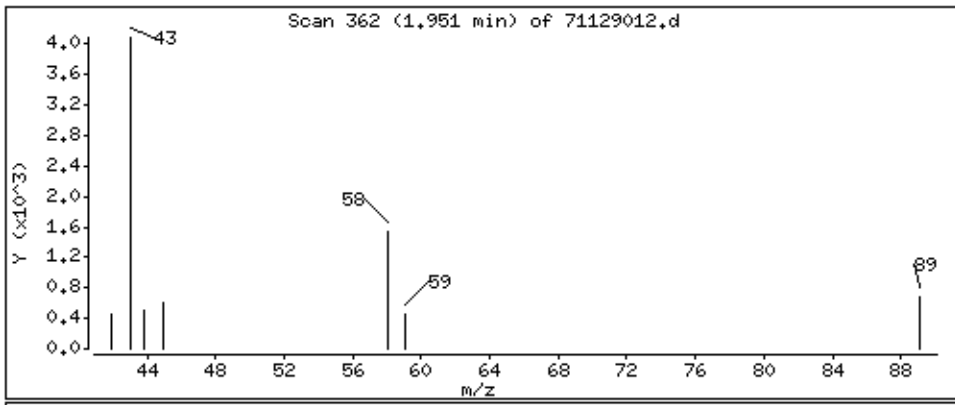
Column phase: RTX-VMS

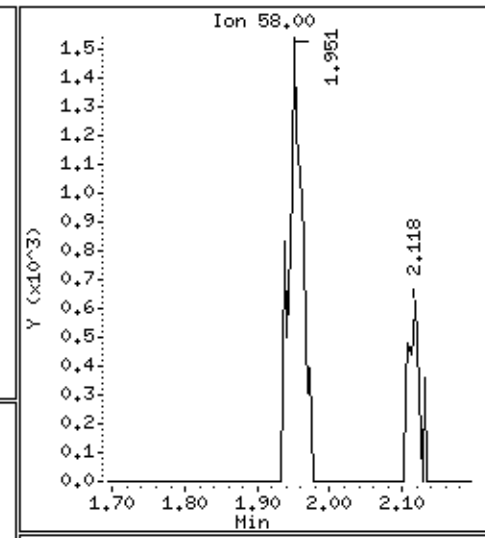
Column diameter: 0.18

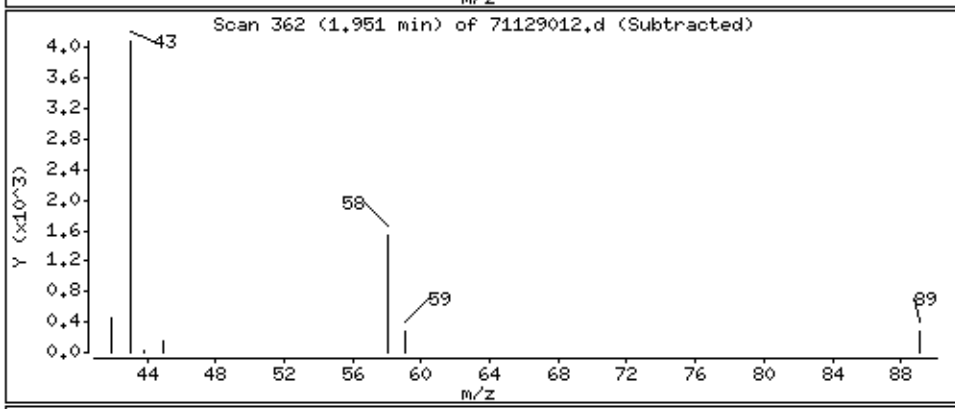
16 Acetone

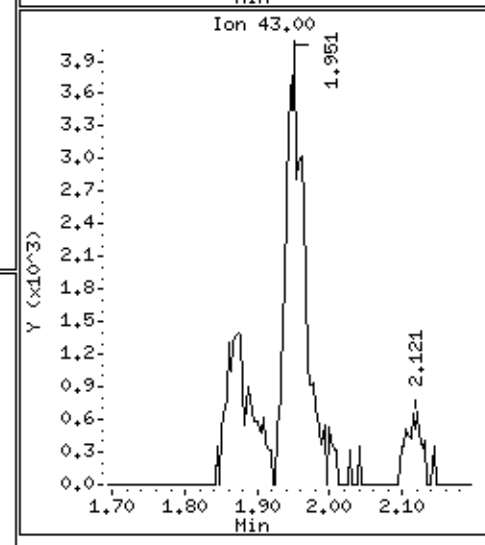
Concentration: 5.11 ug/L

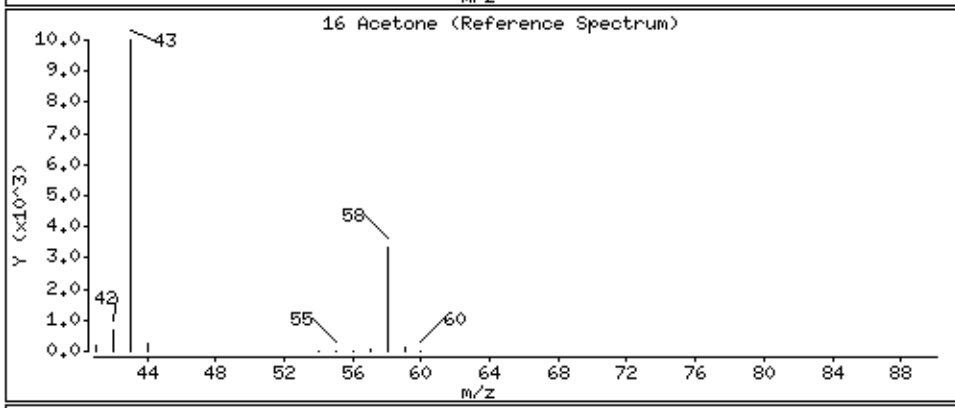
Review Code:

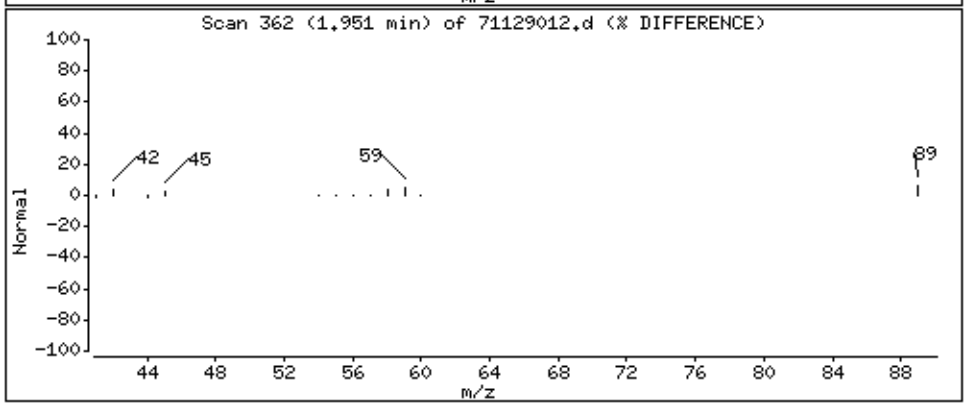












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d

Date : 29-NOV-2019 10:22

Client ID: MB

Instrument: 30mv7b.i

Sample Info: 1811177

Purge Volume: 5.0

Operator: LEL

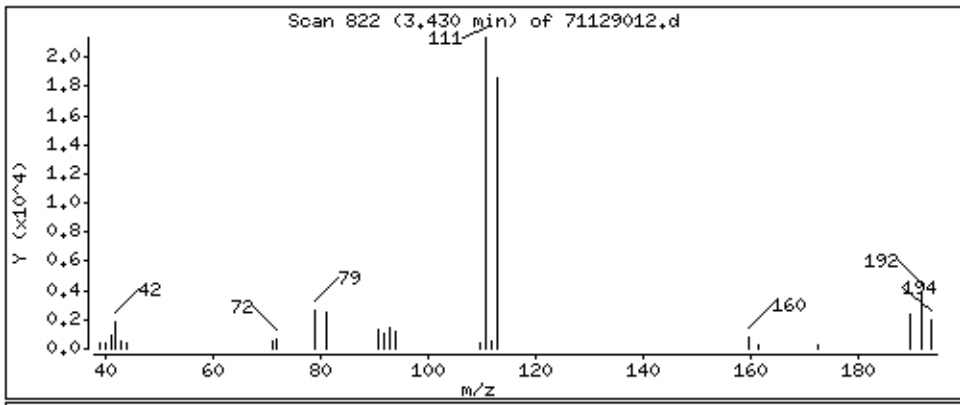
Column phase: RTX-VMS

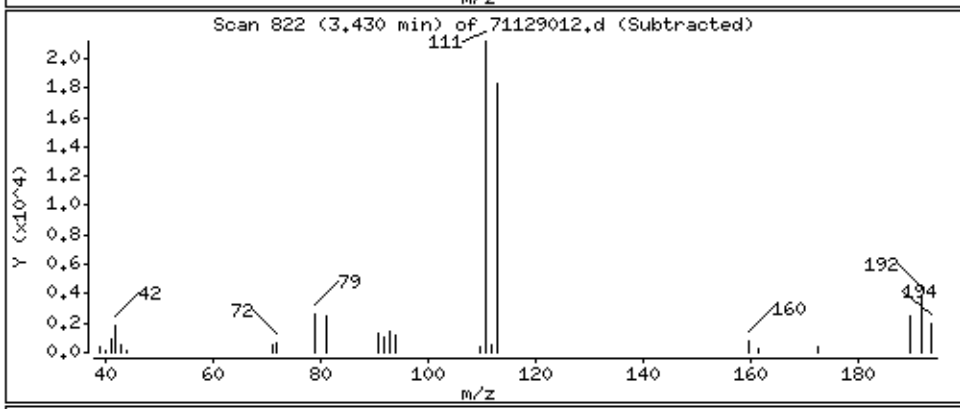
Column diameter: 0.18

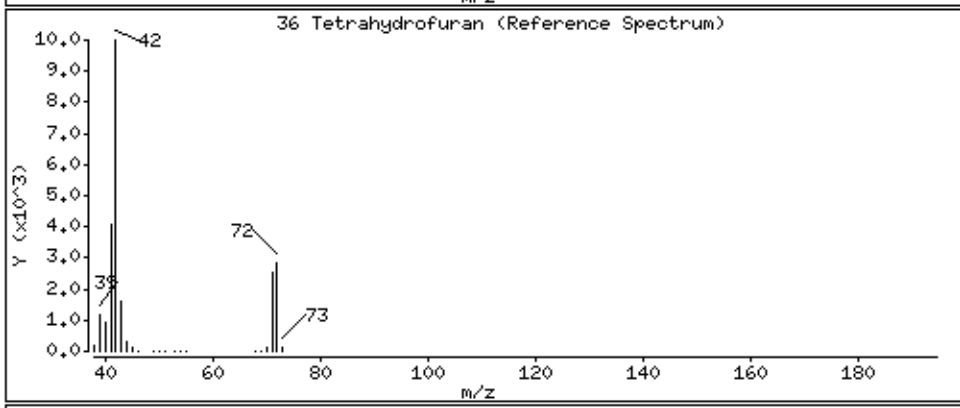
36 Tetrahydrofuran

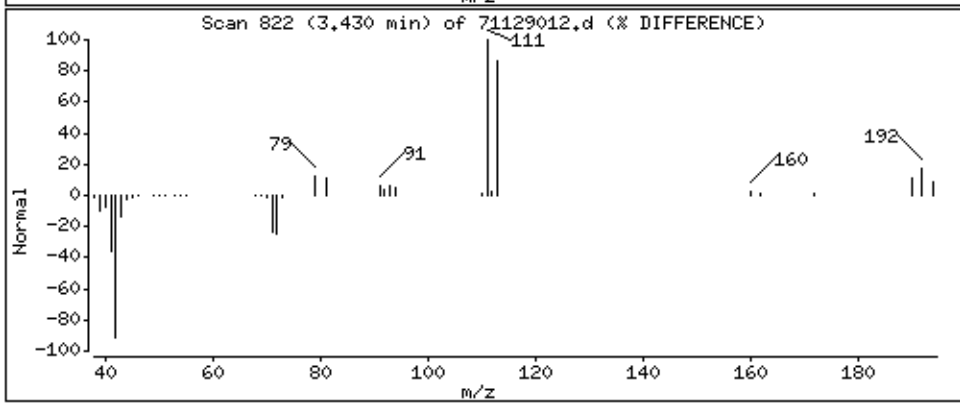
Concentration: 3.41 ug/L

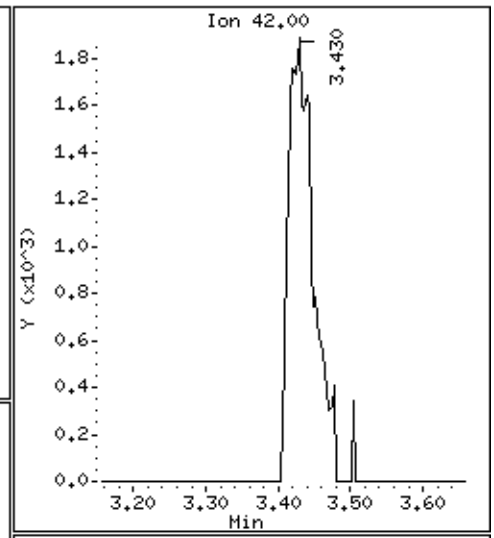
Review Code: LT

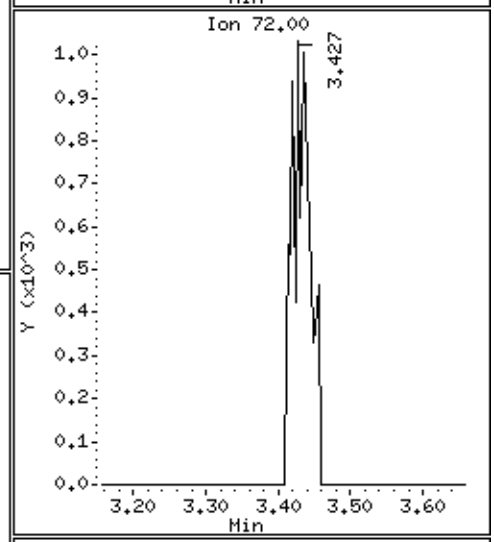


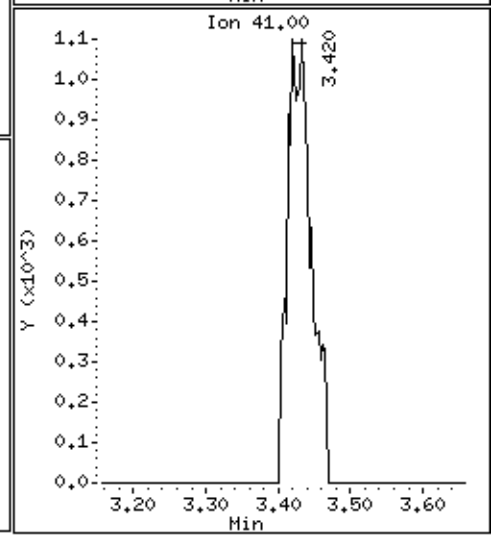












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129012.d

Date : 29-NOV-2019 10:22

Client ID: MB

Instrument: 30mv7b.i

Sample Info: 1811177

Purge Volume: 5.0

Operator: LEL

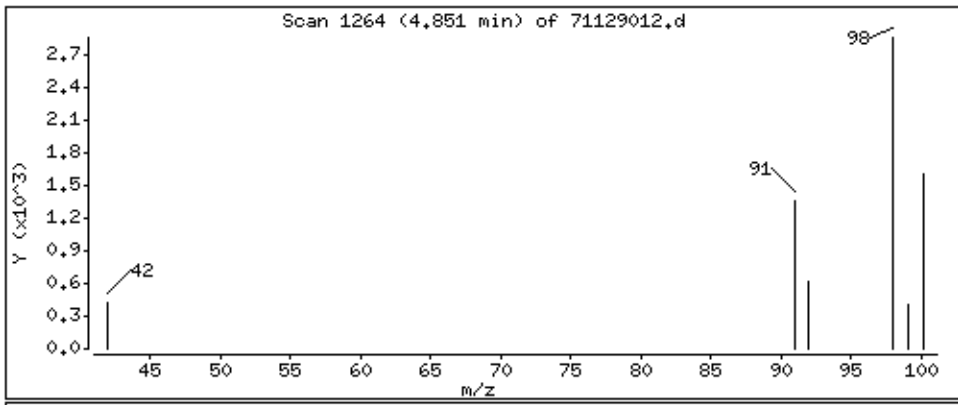
Column phase: RTX-VMS

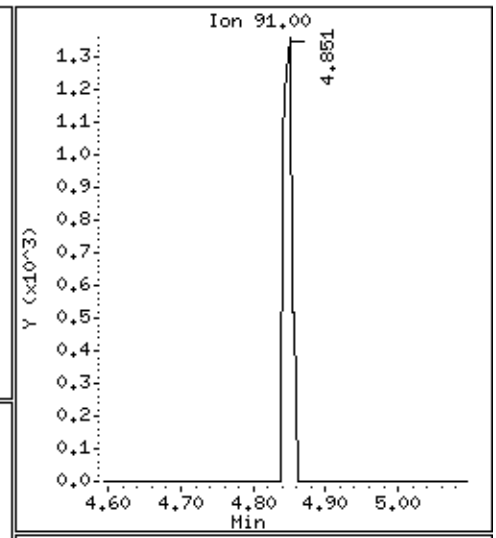
Column diameter: 0.18

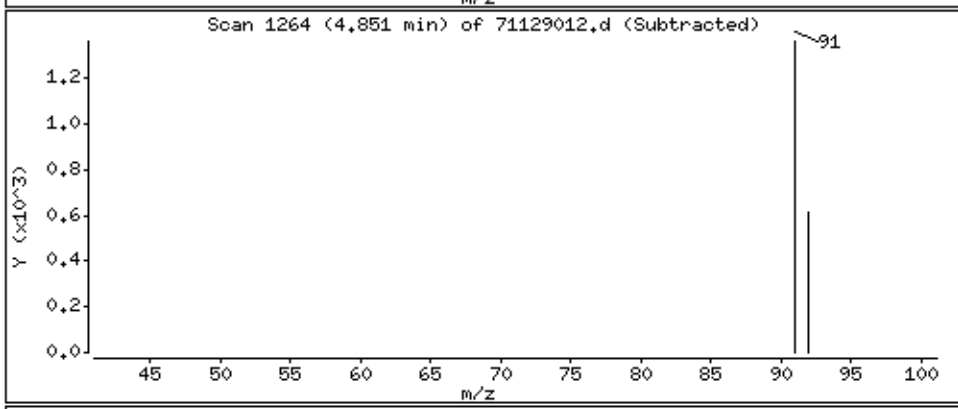
59 Toluene

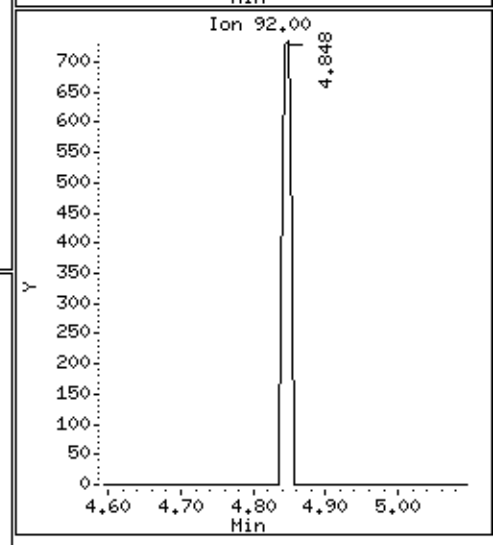
Concentration: 0.160 ug/L

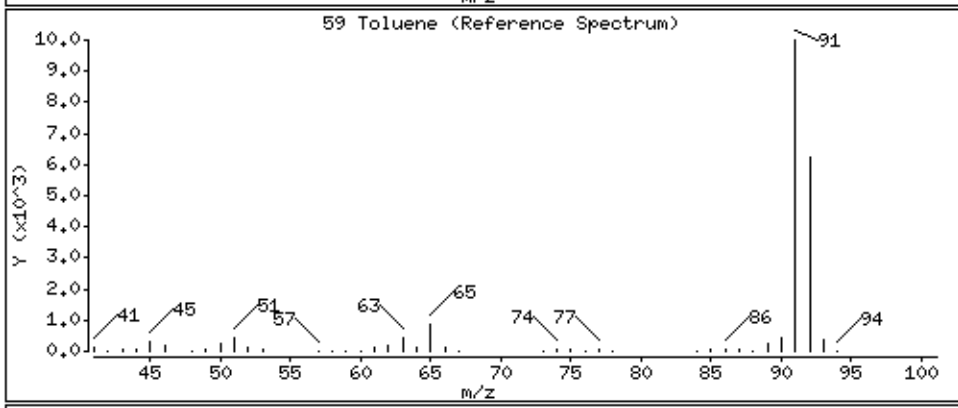
Review Code:

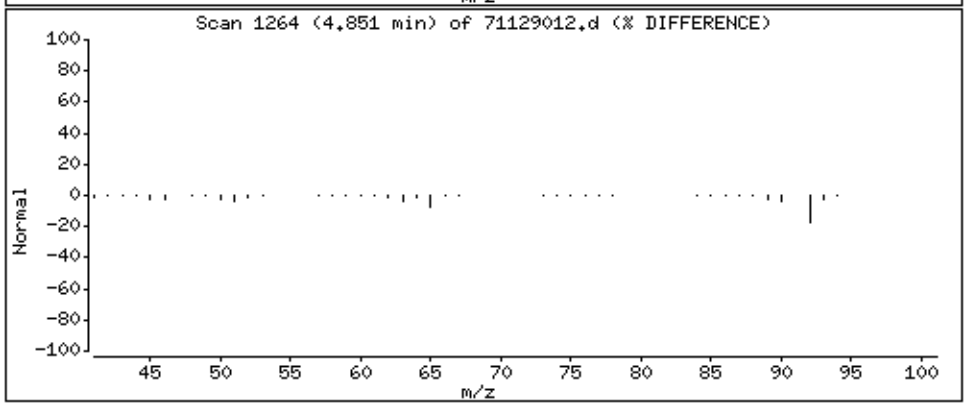












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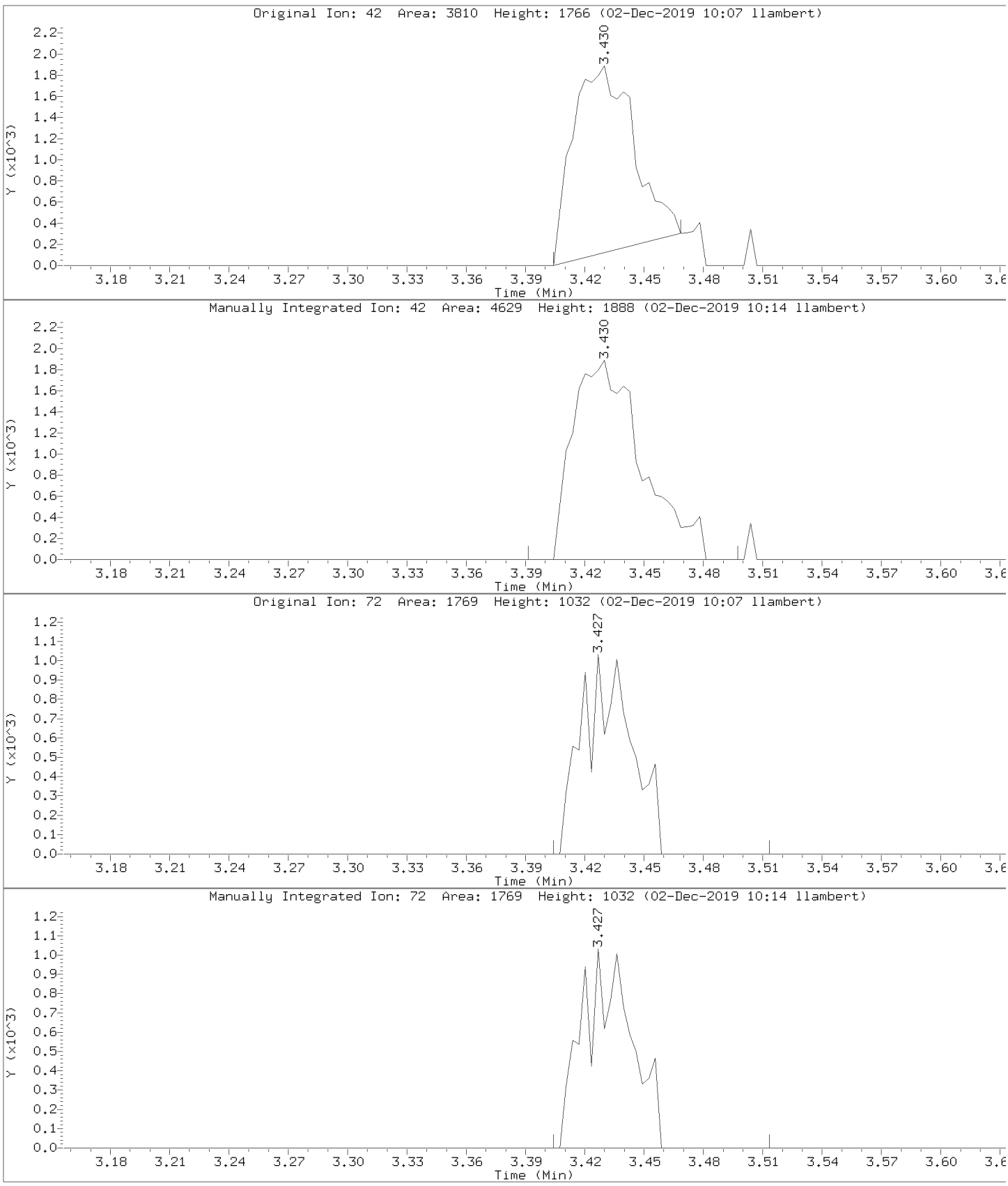
Injection Date: 29-NOV-2019 10:22
Instrument: 30mv7b.i
Lab Sample ID:

Compound: Tetrahydrofuran Review Code: LT
CAS Number: 109-99-9



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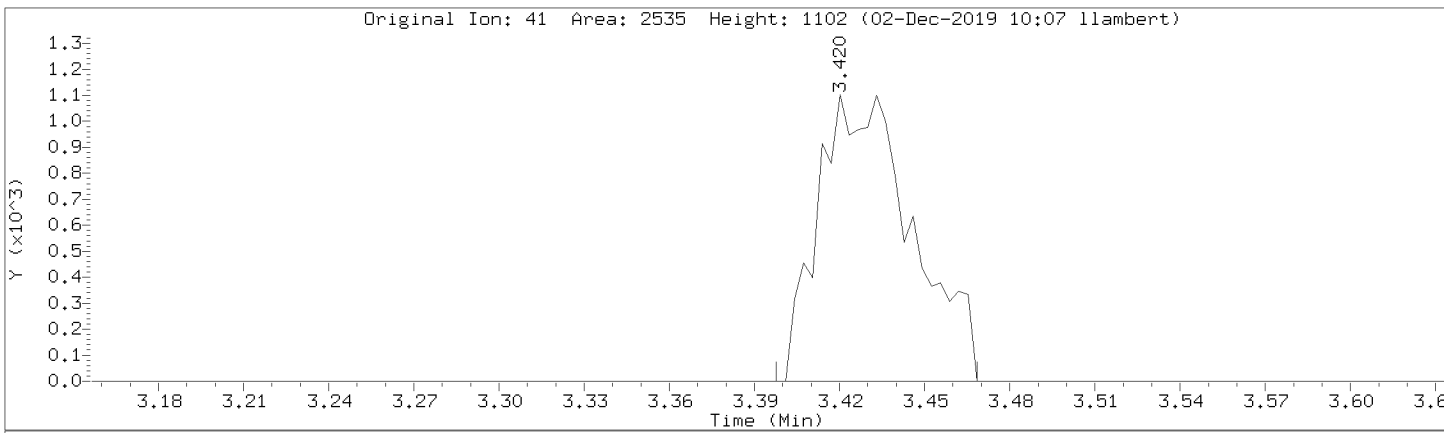
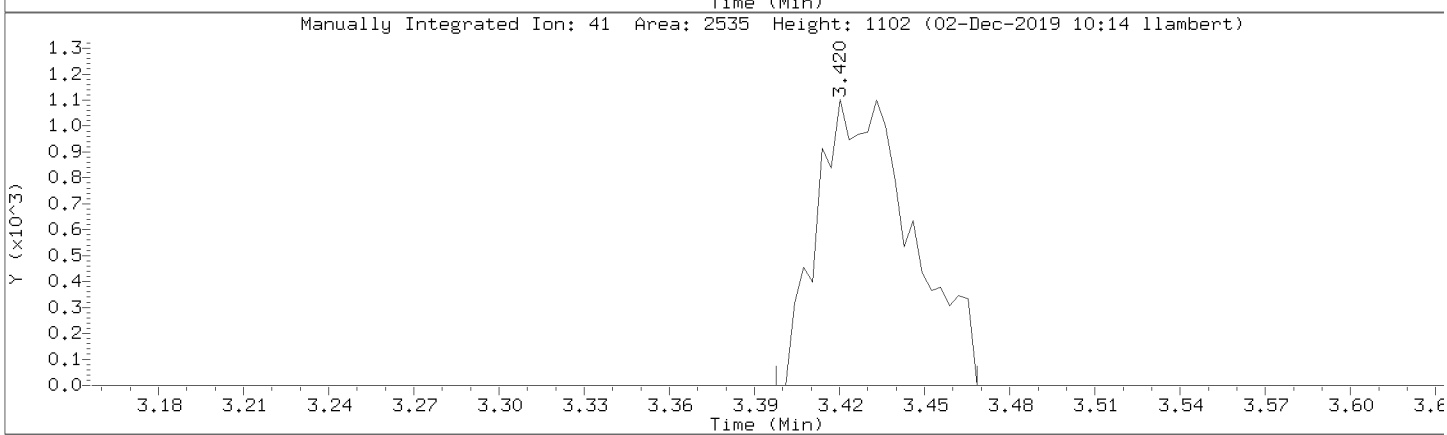
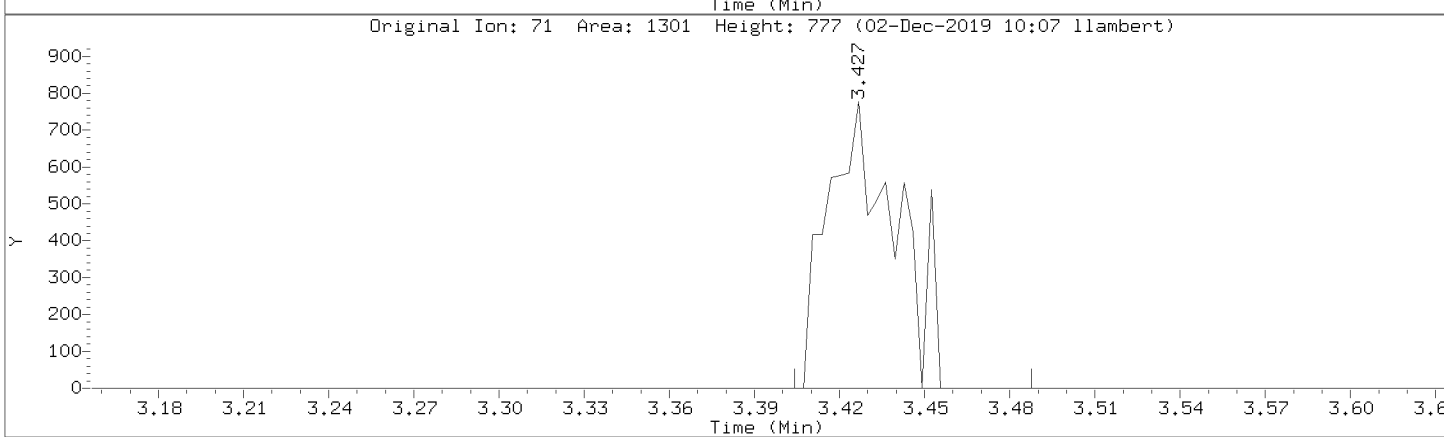
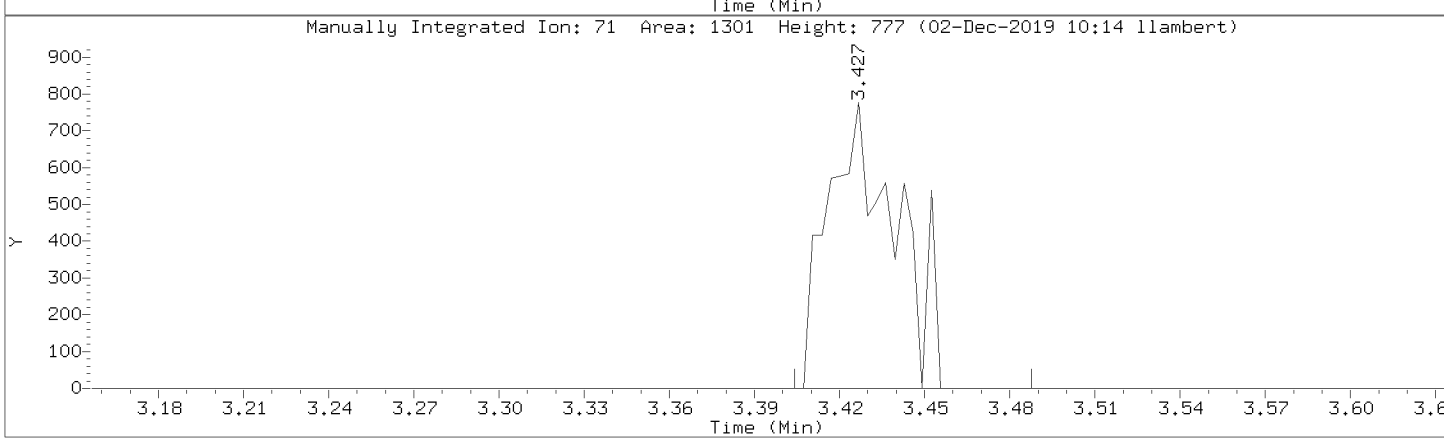
Injection Date: 29-NOV-2019 10:22
Instrument: 30mv7b.i
Lab Sample ID:









SAMPLE NO.

LCS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 09:33 Lab Sample ID: 1811178

Date Analyzed: 11/29/2019 09:33 Lab File ID: 7191129.B\2.B\71129008.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	24.0	
71-43-2	Benzene	17.6	
108-86-1	Bromobenzene	17.5	
74-97-5	Bromochloromethane	19.0	
75-27-4	Bromodichloromethane	18.8	
75-25-2	Bromoform	14.8	
74-83-9	Bromomethane	19.0	
78-93-3	2-Butanone (MEK)	22.1	
104-51-8	n-Butylbenzene	17.8	
135-98-8	sec-Butylbenzene	18.5	
98-06-6	tert-Butylbenzene	18.9	
75-15-0	Carbon disulfide	15.1	
56-23-5	Carbon tetrachloride	18.8	
108-90-7	Chlorobenzene	19.3	
75-00-3	Chloroethane	19.1	
110-75-8	2-Chloroethylvinyl ether	18.2	
67-66-3	Chloroform	18.1	
74-87-3	Chloromethane	19.7	
95-49-8	2-Chlorotoluene	18.3	
106-43-4	4-Chlorotoluene	18.8	
96-12-8	1,2-Dibromo-3-chloropropane	16.5	
124-48-1	Dibromochloromethane	17.1	
106-93-4	1,2-Dibromoethane (EDB)	17.3	
74-95-3	Dibromomethane	17.4	
95-50-1	1,2-Dichlorobenzene	18.3	
541-73-1	1,3-Dichlorobenzene	18.7	
106-46-7	1,4-Dichlorobenzene	18.1	
75-71-8	Dichlorodifluoromethane	20.7	
75-34-3	1,1-Dichloroethane	19.4	
107-06-2	1,2-Dichloroethane	19.0	
75-35-4	1,1-Dichloroethene	17.8	
156-59-2	cis-1,2-Dichloroethene	19.2	
156-60-5	trans-1,2-Dichloroethene	19.6	
78-87-5	1,2-Dichloropropane	20.2	
142-28-9	1,3-Dichloropropane	16.6	
594-20-7	2,2-Dichloropropane	19.3	
563-58-6	1,1-Dichloropropene	18.7	

SAMPLE NO.

LCS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 09:33 Lab Sample ID: 1811178

Date Analyzed: 11/29/2019 09:33 Lab File ID: 7191129.B\2.B\71129008.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	18.8	
10061-02-6	trans-1,3-Dichloropropene	18.2	
100-41-4	Ethylbenzene	18.9	
87-68-3	Hexachloro-1,3-butadiene	14.2	
591-78-6	2-Hexanone	21.8	
98-82-8	Isopropylbenzene (Cumene)	20.7	
99-87-6	p-Isopropyltoluene	18.5	
75-09-2	Methylene Chloride	22.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	23.2	
1634-04-4	Methyl-tert-butyl ether	17.5	
91-20-3	Naphthalene	17.9	
103-65-1	n-Propylbenzene	18.7	
100-42-5	Styrene	19.5	
630-20-6	1,1,1,2-Tetrachloroethane	19.0	
79-34-5	1,1,2,2-Tetrachloroethane	18.6	
127-18-4	Tetrachloroethene	18.5	
108-88-3	Toluene	18.6	
87-61-6	1,2,3-Trichlorobenzene	16.5	
120-82-1	1,2,4-Trichlorobenzene	16.9	
71-55-6	1,1,1-Trichloroethane	20.3	
79-00-5	1,1,2-Trichloroethane	18.0	
79-01-6	Trichloroethene	19.4	
75-69-4	Trichlorofluoromethane	18.4	
95-63-6	1,2,4-Trimethylbenzene	18.7	
108-67-8	1,3,5-Trimethylbenzene	18.3	
108-05-4	Vinyl acetate	15.4	
75-01-4	Vinyl chloride	20.2	
1330-20-7	Xylene (Total)	55.5	
179601-23-1	m&p-Xylene	37.3	
95-47-6	o-Xylene	18.2	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Lab Smp Id: 1811178 Client Smp ID: MBLCS
Inj Date : 29-NOV-2019 09:33
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 1811178, 107036 :5,
Misc Info : 47517,
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 8 QC Sample: LCS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.841	0.841	(0.207)	40763	20.7486	20.7	
2	Chloromethane	50	0.941	0.941	(0.231)	48936	19.7404	19.7	
3	Vinyl chloride	62	0.979	0.979	(0.241)	47875	20.2022	20.2	
4	Bromomethane	94	1.140	1.140	(0.280)	14828	19.0279	19.0	
5	Chloroethane	64	1.195	1.198	(0.294)	13550	19.1236	19.1	
6	Trichlorofluoromethane	101	1.269	1.269	(0.312)	60847	18.3826	18.4	
7	Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	31584	18.2924	18.3	
8	Ethanol	46	1.532	1.542	(0.236)	6918	287.529	288	
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	54690	17.8234	17.8	
10	1,1,2-Trichlorotrifluoroethane	151	1.568	1.571	(0.386)	29195	17.6100	17.6	
11	Carbon disulfide	76	1.568	1.568	(0.386)	78064	15.1356	15.1	
12	Iodomethane	142	1.635	1.635	(0.402)	14577	15.4520	15.4	
13	Acrolein	56	1.757	1.754	(0.432)	12022	22.5927	22.6	
14	Allyl chloride	41	1.831	1.835	(0.450)	278599	106.509	106	
15	Methylene Chloride	49	1.902	1.902	(0.468)	49433	22.6069	22.6	
16	Acetone	58	1.953	1.944	(0.480)	10096	24.0438	24.0(R)	
17	trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	51266	19.5629	19.6	
18	Methyl acetate	74	2.027	2.024	(0.499)	18775	22.4924	22.5(Q)	
19	n-Hexane	86	2.056	2.063	(0.506)	4897	15.7584	15.8	
20	Methyl-tert-butyl ether	73	2.088	2.089	(0.514)	93305	17.5296	17.5(Q)	
21	tert-Butyl Alcohol	59	2.172	2.172	(0.534)	90146	113.604	114(Q)	
22	Acetonitrile	41	2.281	2.278	(0.561)	48750	111.601	112	
23	Diisopropyl ether	45	2.371	2.375	(0.583)	121280	21.1416	21.1	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	2.452	2.452	(0.603)	41314	20.7558	20.8(R)	
	25 1,1-Dichloroethane	63	2.474	2.471	(0.609)	62807	19.4302	19.4	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	29713	21.8628	21.9	
	27 Ethyl-tert-butyl ether	59	2.687	2.687	(0.661)	107995	19.7302	19.7	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	76736	15.3842	15.4(R)	
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	47380	19.1740	19.2	
	30 2,2-Dichloropropane	77	3.063	3.066	(0.753)	47755	19.3486	19.3	
	31 Cyclohexane	56	3.146	3.146	(0.774)	60087	20.4354	20.4	
	32 Bromochloromethane	130	3.162	3.159	(0.778)	23371	19.0158	19.0	
	33 Chloroform	83	3.246	3.246	(0.798)	56463	18.0776	18.1	
	34 Ethyl acetate	43	3.407	3.407	(0.838)	35771	21.2146	21.2	
	35 Carbon tetrachloride	117	3.365	3.365	(0.828)	47111	18.7644	18.8	
	36 Tetrahydrofuran	42	3.410	3.407	(0.839)	37974	26.2023	26.2	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	51549	31.0740	31.1	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	54429	20.2608	20.3	
	39 2-Butanone (MEK)	43	3.590	3.584	(0.883)	48630	22.1361	22.1	
	40 1,1-Dichloropropene	75	3.574	3.571	(0.879)	45913	18.7119	18.7	
	41 Benzene	78	3.780	3.780	(0.930)	126443	17.5597	17.6	
	42 Propionitrile	54	3.828	3.822	(0.941)	12263	23.3669	23.4(Q)	
	43 Methacrylonitrile	41	3.834	3.831	(0.943)	36274	21.3482	21.3(M)	LT
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	81834	17.8151	17.8	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	51395	30.1147	30.1	
	45 Isobutanol	43	3.995	3.992	(0.983)	26147	117.518	118(QM)	GT
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	43159	19.0072	19.0	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	191892	30.0000		
	49 Methylcyclohexane	55	4.146	4.150	(1.020)	36066	20.8799	20.9	
	50 Trichloroethene	132	4.162	4.162	(1.024)	40171	19.3942	19.4	
	51 Dibromomethane	174	4.384	4.384	(1.078)	24929	17.4416	17.4	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.090)	34218	20.1875	20.2	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	36458	18.7715	18.8	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	27722	18.5698	18.6	
	55 1,4-Dioxane (p-Dioxane)	88	4.571	4.568	(1.124)	11440	355.415	355(R)	
	56 2-Chloroethylvinyl ether	63	4.725	4.726	(1.162)	26013	18.1765	18.2	
	57 cis-1,3-Dichloropropene	75	4.744	4.744	(1.167)	45165	18.7543	18.8	
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	170976	28.6358	28.6	
	59 Toluene	91	4.844	4.844	(0.879)	142471	18.6130	18.6	
	60 2-Nitropropane	43	4.957	4.957	(1.219)	103854	112.178	112	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	71080	23.1561	23.2	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	38980	18.5068	18.5	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	42445	18.1937	18.2	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	31358	19.6837	19.7	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	30676	18.0438	18.0	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	32128	17.1082	17.1	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	47409	16.5913	16.6	
	68 1,2-Dibromoethane (EDB)	107	5.291	5.294	(0.960)	33737	17.2845	17.3	
	69 2-Hexanone	43	5.391	5.391	(0.978)	59865	21.7719	21.8	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	132733	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	45379	18.8688	18.9	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	88019	19.2558	19.2	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	32241	19.0300	19.0	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	108799	37.3310	37.3	
	75 o-Xylene	106	5.770	5.770	(1.047)	51478	18.2133	18.2	
	76 Styrene	104	5.792	5.793	(1.051)	83382	19.4738	19.5	
	77 Bromoform	173	5.809	5.809	(0.896)	20981	14.8140	14.8	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Report Date: 02-Dec-2019 10:31

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	118255	20.6574	20.6	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	51741	29.2521	29.2	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	119046	18.7035	18.7	
	81 Bromobenzene	77	6.066	6.066	(0.936)	48940	17.4793	17.5	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	44705	18.5908	18.6	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	81009	18.3145	18.3	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	27475	18.3079	18.3(Q)	
	85 1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	15808	18.4584	18.4	
	86 trans-1,4-Dichloro-2-butene	53	6.172	6.172	(0.952)	11913	15.3886	15.4	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	20977	90.0977	90.1	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	29942	18.8499	18.8	
	89 tert-Butylbenzene	119	6.278	6.278	(0.969)	67754	18.9046	18.9	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	81954	18.6673	18.7	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	88767	18.5177	18.5	
	92 p-Isopropyltoluene	119	6.407	6.407	(0.989)	75172	18.5223	18.5	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	51424	18.6802	18.7	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	56748	30.0000		
	95 1,4-Dichlorobenzene	146	6.487	6.487	(1.001)	53418	18.0943	18.1	
	96 n-Butylbenzene	91	6.583	6.584	(1.016)	56066	17.8304	17.8	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	26068	30.1278	30.1	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	49113	18.2831	18.3	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	14481	16.4506	16.4	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	24674	17.0511	17.0	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	9357	14.2487	14.2	
	101 1,2,4-Trichlorobenzene	180	7.272	7.272	(1.122)	22527	16.8580	16.8	
	102 Naphthalene	128	7.410	7.410	(1.143)	105419	17.8562	17.8	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	22049	16.5468	16.5	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	44372	18.0086	18.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1811178
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517,

Client SDG: 2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 29-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	20.7	
74-87-3	Chloromethane	19.7	
75-01-4	Vinyl chloride	20.2	
74-83-9	Bromomethane	19.0	
75-00-3	Chloroethane	19.1	
75-69-4	Trichlorofluoromethane	18.4	
60-29-7	Diethyl ether (Ethyl ether)	18.3	
64-17-5	Ethanol	288	
75-35-4	1,1-Dichloroethene	17.8	
76-13-1	1,1,2-Trichlorotrifluoroetha	17.6	
75-15-0	Carbon disulfide	15.1	
74-88-4	Iodomethane	15.4	
107-02-8	Acrolein	22.6	
107-05-1	Allyl chloride	106	
75-09-2	Methylene Chloride	22.6	
67-64-1	Acetone	24.0	
156-60-5	trans-1,2-Dichloroethene	19.6	
79-20-9	Methyl acetate	22.5	
110-54-3	n-Hexane	15.8	
1634-04-4	Methyl-tert-butyl ether	17.5	
75-65-0	tert-Butyl Alcohol	114	
75-05-8	Acetonitrile	112	
108-20-3	Diisopropyl ether	21.1	
126-99-8	Chloroprene	20.8	
75-34-3	1,1-Dichloroethane	19.4	
107-13-1	Acrylonitrile	21.9	
637-92-3	Ethyl-tert-butyl ether	19.7	
108-05-4	Vinyl acetate	15.4	
156-59-2	cis-1,2-Dichloroethene	19.2	
594-20-7	2,2-Dichloropropane	19.3	
110-82-7	Cyclohexane	20.4	
74-97-5	Bromochloromethane	19.0	
67-66-3	Chloroform	18.1	
141-78-6	Ethyl acetate	21.2	
56-23-5	Carbon tetrachloride	18.8	
109-99-9	Tetrahydrofuran	26.2	
71-55-6	1,1,1-Trichloroethane	20.3	
78-93-3	2-Butanone (MEK)	22.1	
563-58-6	1,1-Dichloropropene	18.7	
71-43-2	Benzene	17.6	
107-12-0	Propionitrile	23.4	
126-98-7	Methacrylonitrile	21.3	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Report Date: 02-Dec-2019 10:31

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1811178
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517,

Client SDG: 2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 29-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	17.8	
78-83-1	Isobutanol	118	
107-06-2	1,2-Dichloroethane	19.0	
108-87-2	Methylcyclohexane	20.9	
79-01-6	Trichloroethene	19.4	
74-95-3	Dibromomethane	17.4	
78-87-5	1,2-Dichloropropane	20.2	
75-27-4	Bromodichloromethane	18.8	
80-62-6	Methyl methacrylate	18.6	
123-91-1	1,4-Dioxane (p-Dioxane)	355	
110-75-8	2-Chloroethylvinyl ether	18.2	
10061-01-5	cis-1,3-Dichloropropene	18.8	
108-88-3	Toluene	18.6	
79-46-9	2-Nitropropane	112	
108-10-1	4-Methyl-2-pentanone (MIBK)	23.2	
127-18-4	Tetrachloroethene	18.5	
10061-02-6	trans-1,3-Dichloropropene	18.2	
97-63-2	Ethyl methacrylate	19.7	
79-00-5	1,1,2-Trichloroethane	18.0	
124-48-1	Dibromochloromethane	17.1	
142-28-9	1,3-Dichloropropane	16.6	
106-93-4	1,2-Dibromoethane (EDB)	17.3	
591-78-6	2-Hexanone	21.8	
100-41-4	Ethylbenzene	18.9	
108-90-7	Chlorobenzene	19.2	
630-20-6	1,1,1,2-Tetrachloroethane	19.0	
7816-60-0	m&p-Xylene	37.3	
95-47-6	o-Xylene	18.2	
100-42-5	Styrene	19.5	
75-25-2	Bromoform	14.8	
98-82-8	Isopropylbenzene (Cumene)	20.6	
103-65-1	n-Propylbenzene	18.7	
108-86-1	Bromobenzene	17.5	
79-34-5	1,1,2,2-Tetrachloroethane	18.6	
108-67-8	1,3,5-Trimethylbenzene	18.3	
95-49-8	2-Chlorotoluene	18.3	
96-18-4	1,2,3-Trichloropropane	18.4	
110-57-6	trans-1,4-Dichloro-2-butene	15.4	
108-94-1	Cyclohexanone	90.1	
106-43-4	4-Chlorotoluene	18.8	
98-06-6	tert-Butylbenzene	18.9	
95-63-6	1,2,4-Trimethylbenzene	18.7	

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Report Date: 02-Dec-2019 10:31

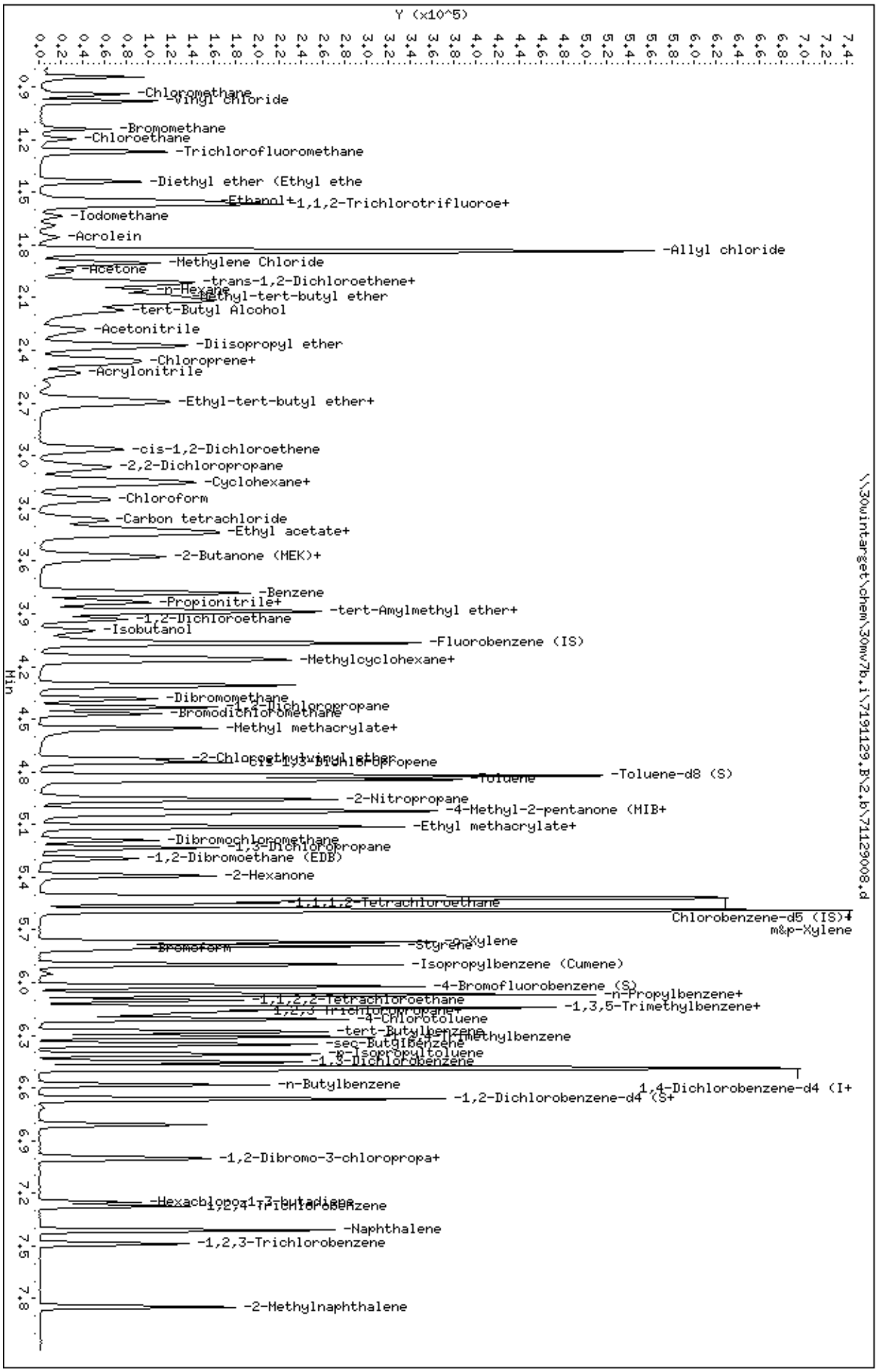
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name:
Lab Smp Id: 1811178
Sample Location:
Sample Date:
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517,

Client SDG: 2.b
Client Smp ID: MBLCS
Sample Point:
Date Received: 29-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
135-98-8	sec-Butylbenzene	18.5	
99-87-6	p-Isopropyltoluene	18.5	
541-73-1	1,3-Dichlorobenzene	18.7	
106-46-7	1,4-Dichlorobenzene	18.1	
104-51-8	n-Butylbenzene	17.8	
95-50-1	1,2-Dichlorobenzene	18.3	
96-12-8	1,2-Dibromo-3-chloropropane	16.4	
108-70-3	1,3,5-Trichlorobenzene	17.0	
87-68-3	Hexachloro-1,3-butadiene	14.2	
120-82-1	1,2,4-Trichlorobenzene	16.8	
91-20-3	Naphthalene	17.8	
87-61-6	1,2,3-Trichlorobenzene	16.5	
91-57-6	2-Methylnaphthalene	18.0	
1868-53-7	Dibromofluoromethane (S)	31.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	30.1	
2037-26-5	Toluene-d8 (S)	28.6	
460-00-4	4-Bromofluorobenzene (S)	29.2	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	30.1	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Date : 29-NOV-2019 09:33
Client ID: HBLCS
Sample Info: 1811178, 107036 :5,
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d
Y (x10^5)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-1,1,2-Trichlorotrifluoroe+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
-Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-2-Chloroethylvinyl ether
cis-1,3-Dichloropropene
-Toluene
-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-1,1,1,2-Tetrachloroethane
Chlorobenzene-d5 (IS)+
m&p-Xylene
-Bromoform
-Styrene
-o-Xylene
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
1,2,3-Trichloropropane+
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-n-Butylbenzene
1,4-Dichlorobenzene-d4 (I+
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

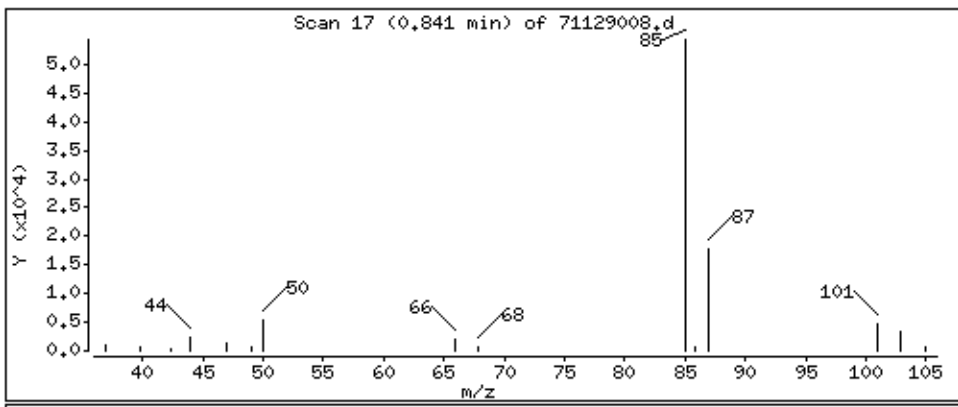
Column phase: RTX-VMS

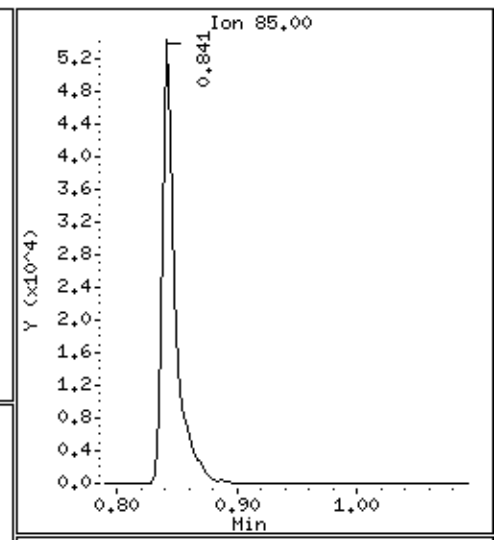
Column diameter: 0.18

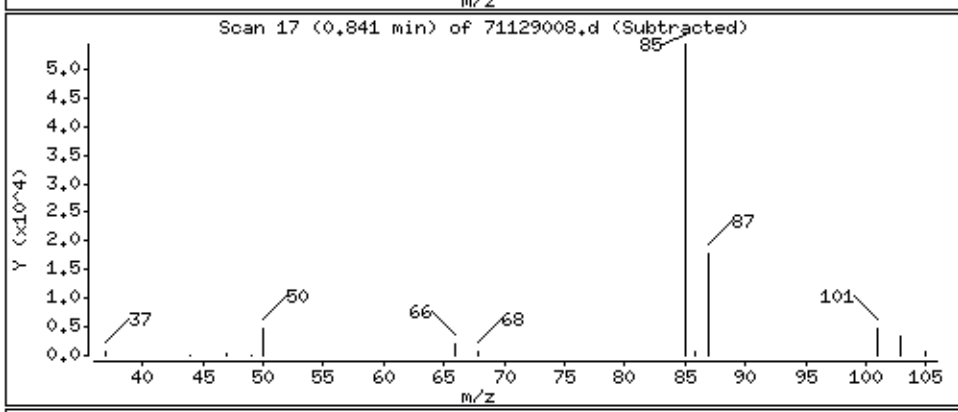
1 Dichlorodifluoromethane

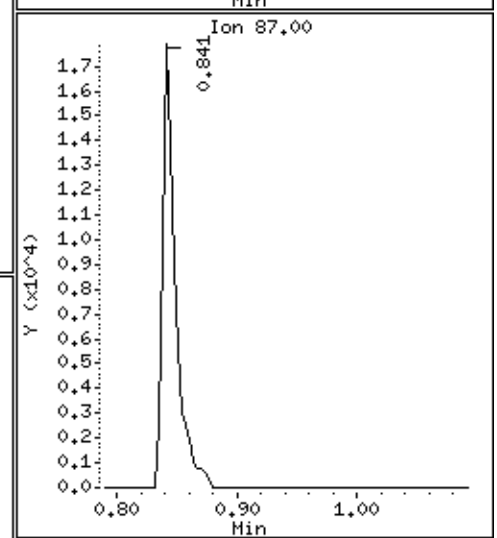
Concentration: 20.7 ug/L

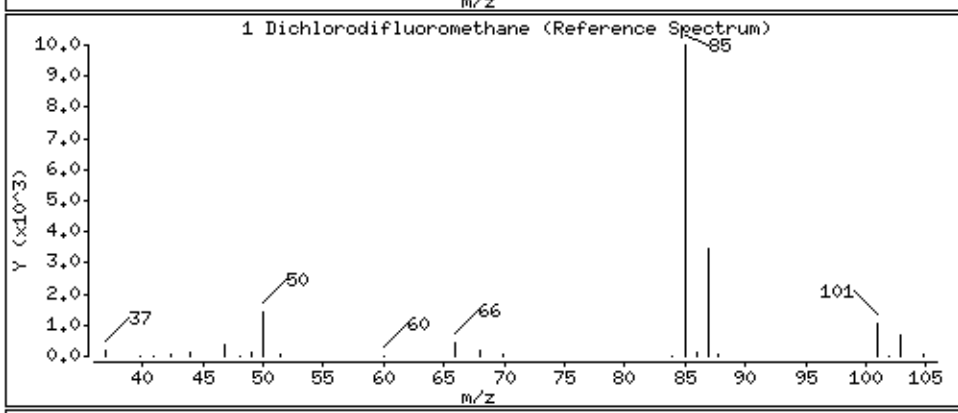
Review Code:

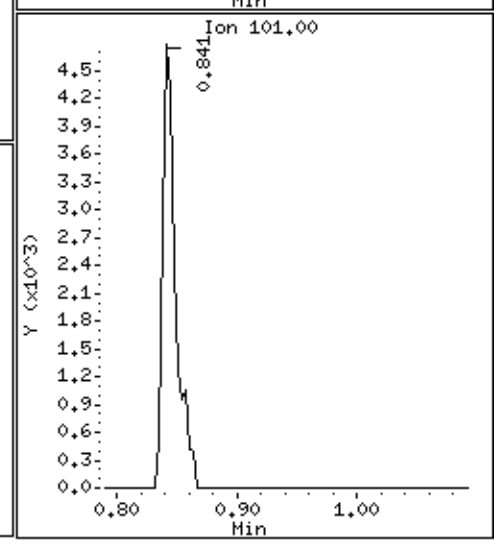


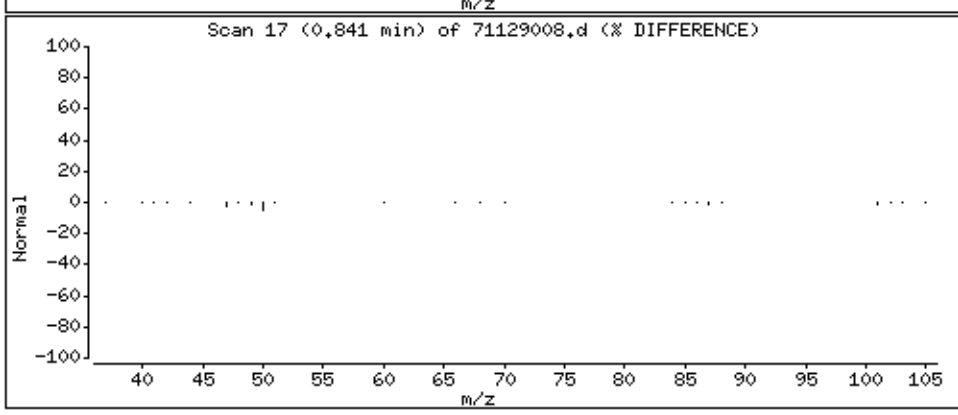












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

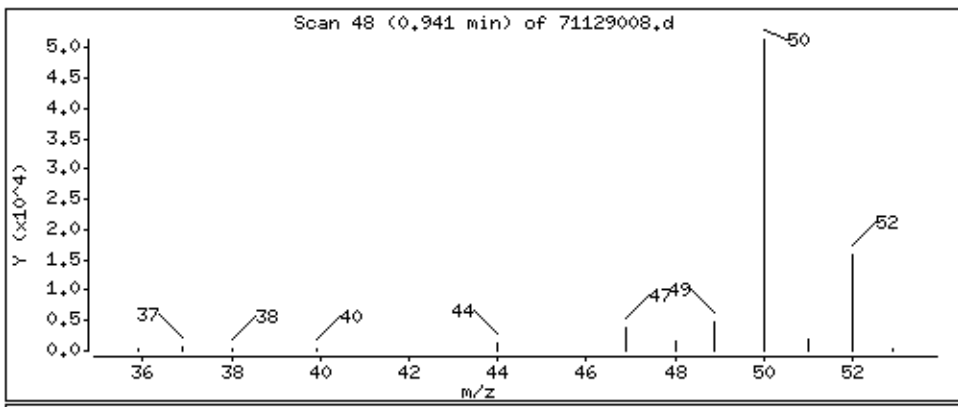
Column phase: RTX-VMS

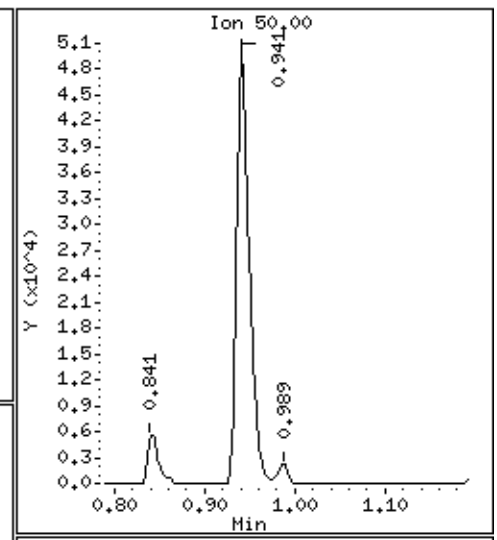
Column diameter: 0.18

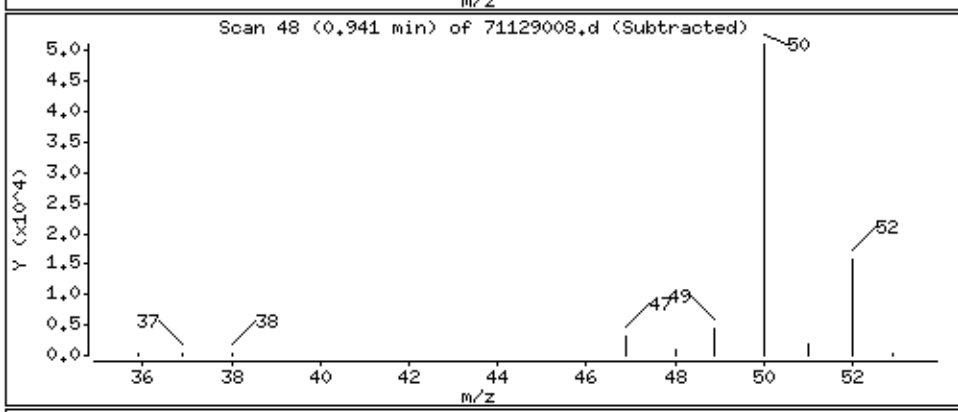
2 Chloromethane

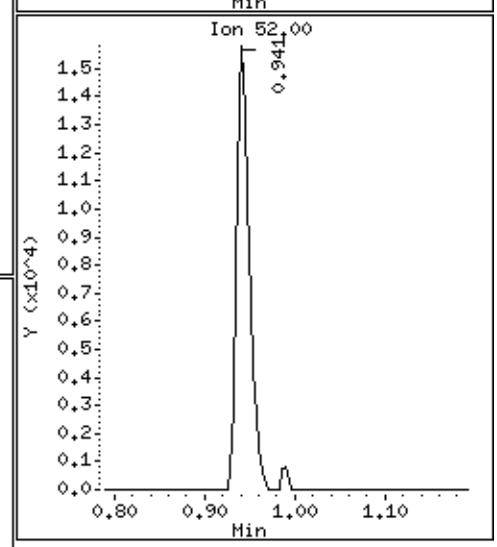
Concentration: 19.7 ug/L

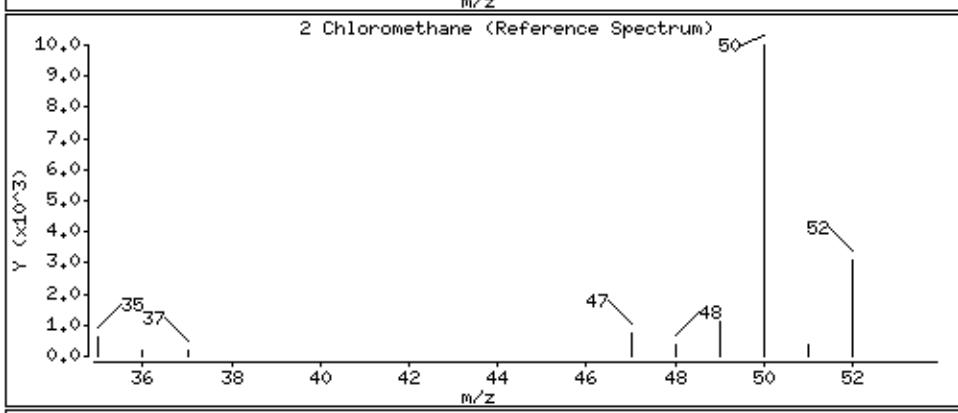
Review Code:

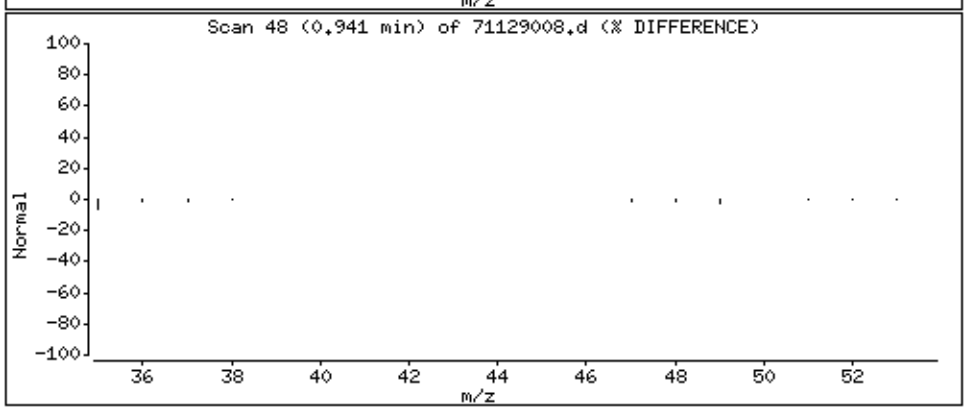












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

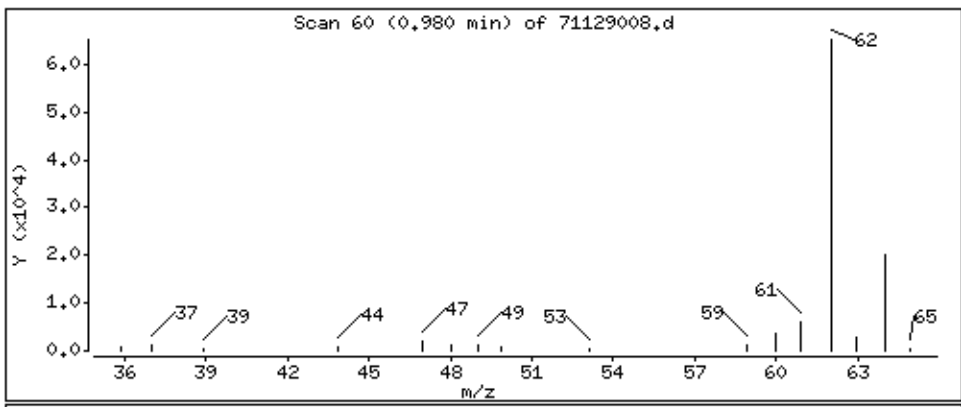
Column phase: RTX-VMS

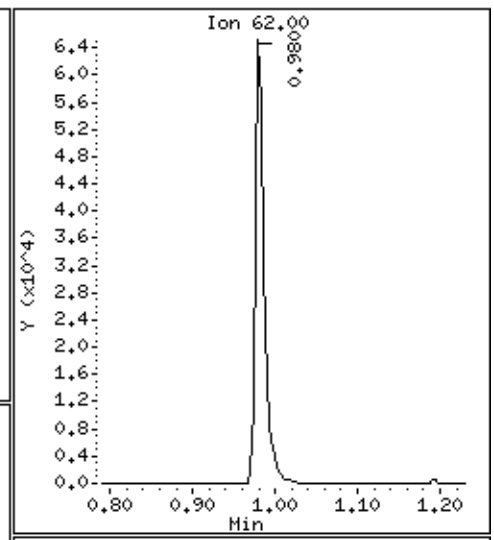
Column diameter: 0.18

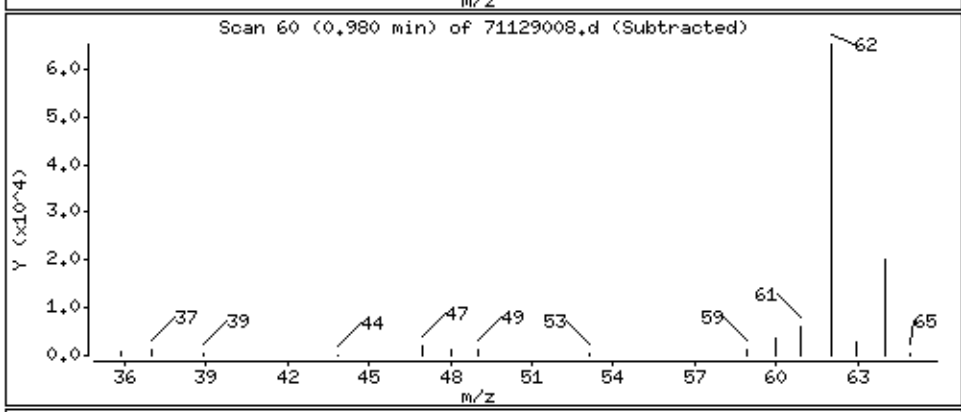
3 Vinyl chloride

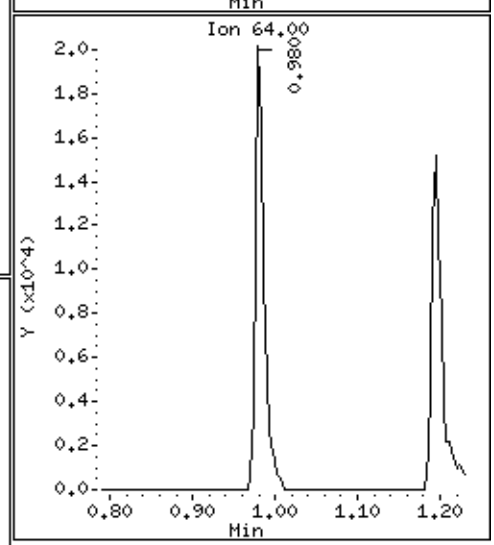
Concentration: 20.2 ug/L

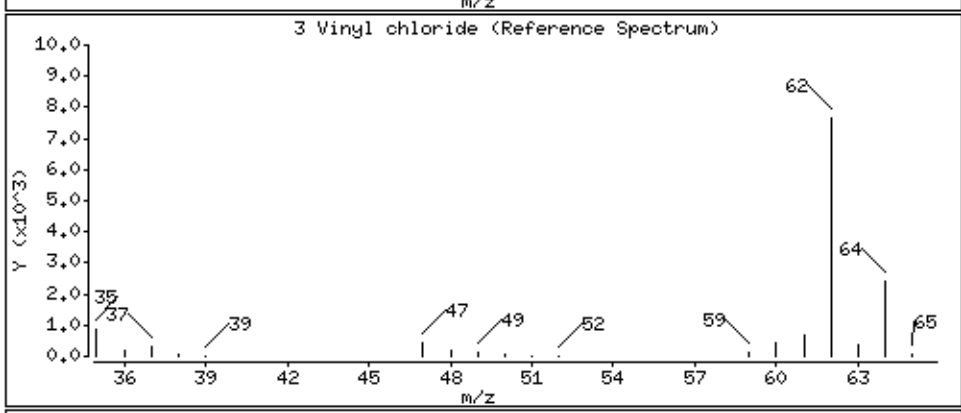
Review Code:

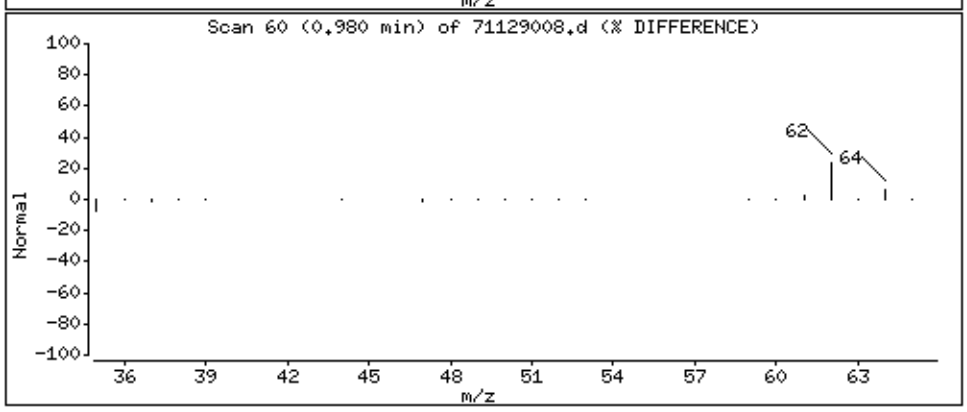












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

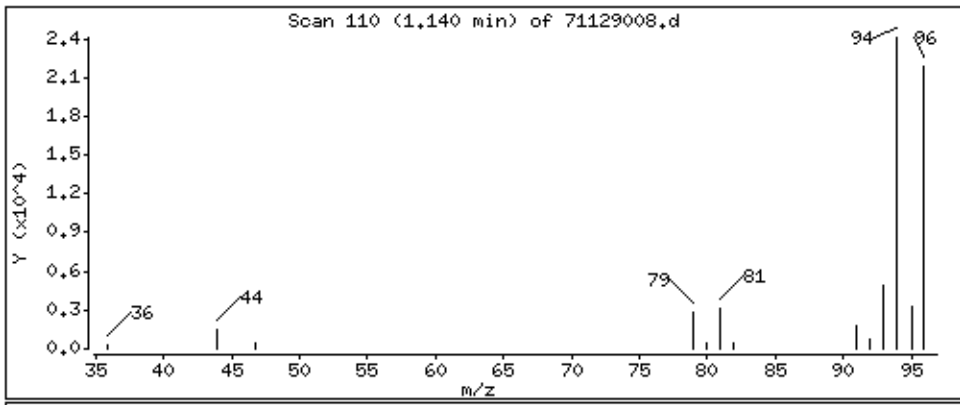
Column phase: RTX-VMS

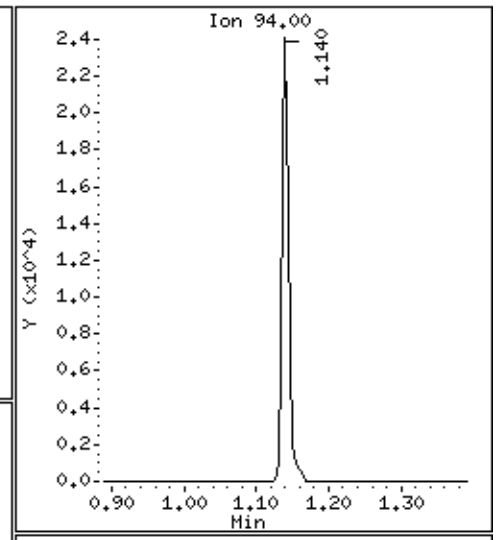
Column diameter: 0.18

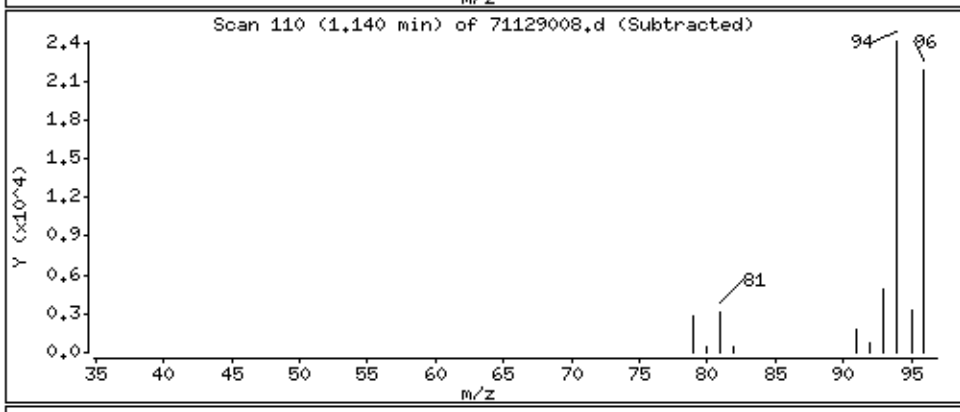
4 Bromomethane

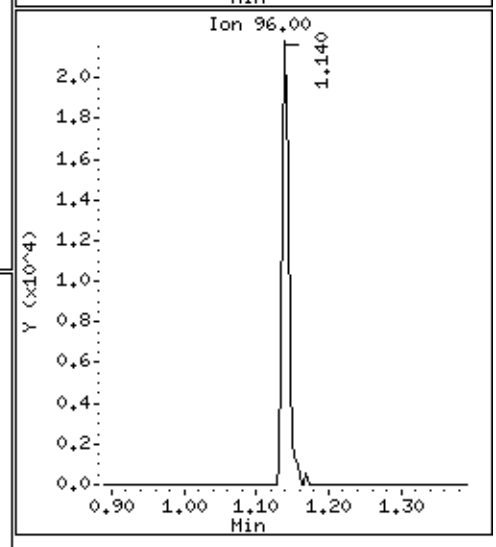
Concentration: 19.0 ug/L

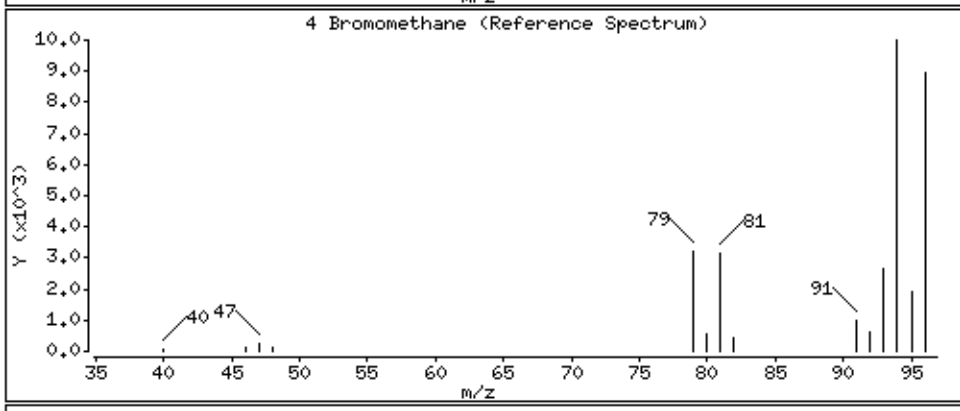
Review Code:

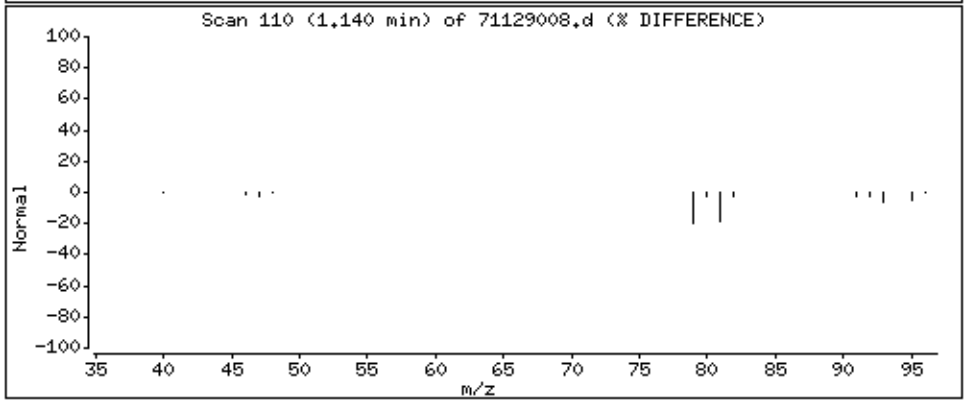












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

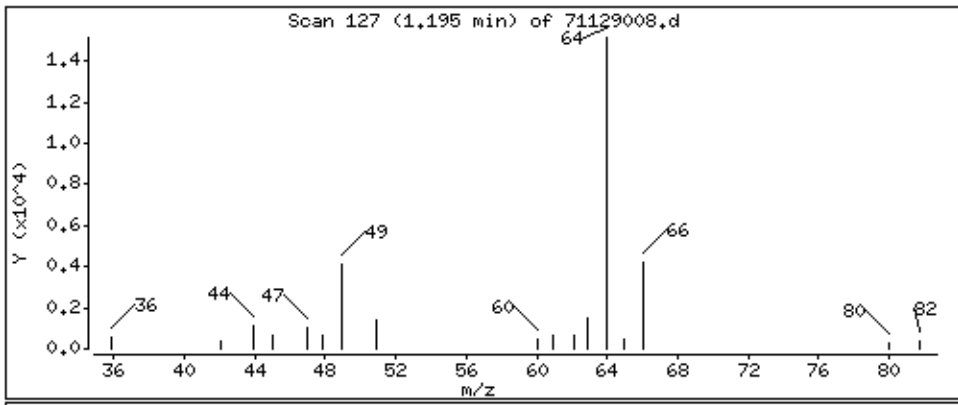
Column phase: RTX-VMS

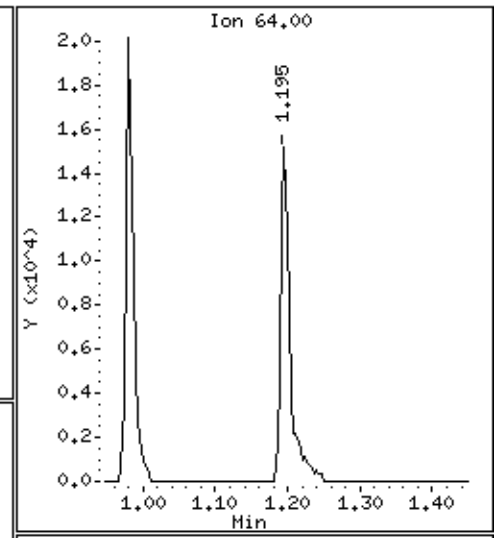
Column diameter: 0.18

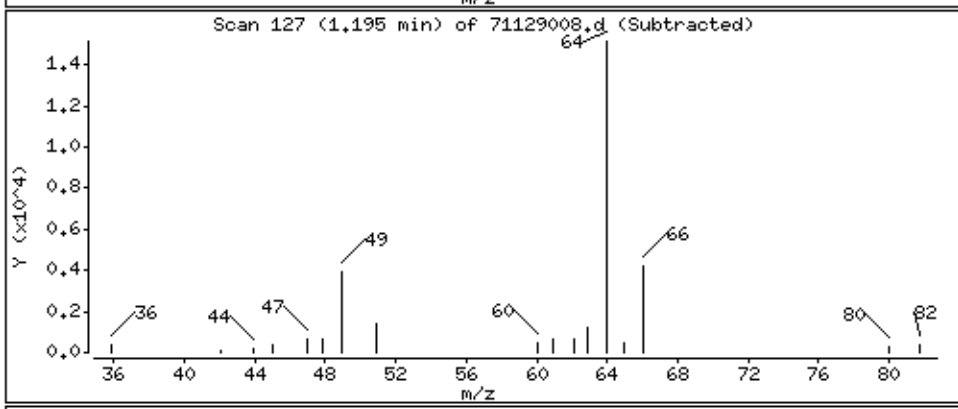
5 Chloroethane

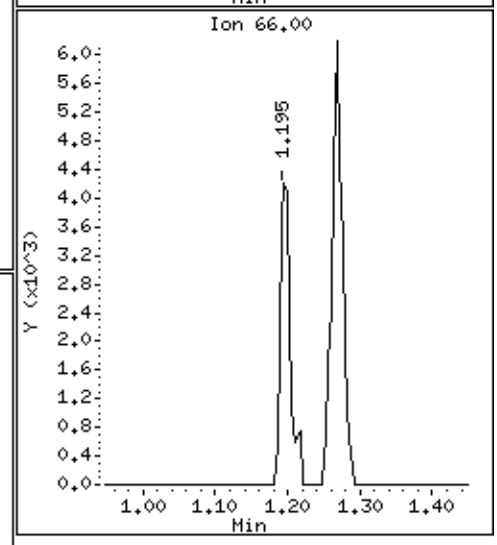
Concentration: 19.1 ug/L

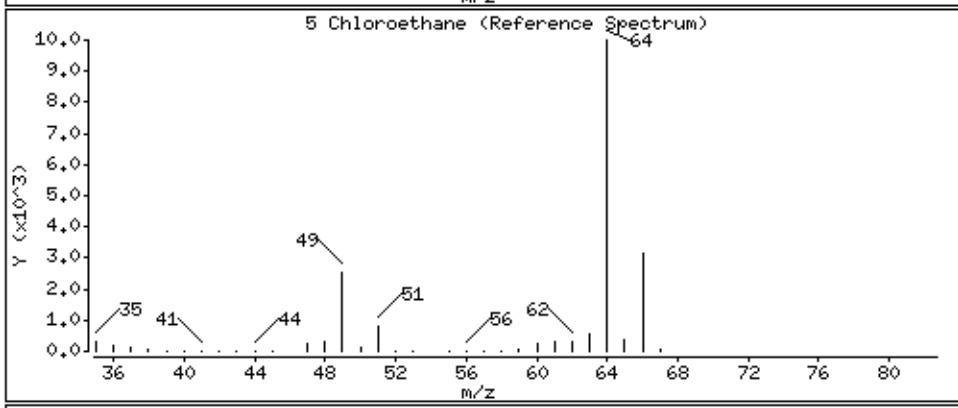
Review Code:

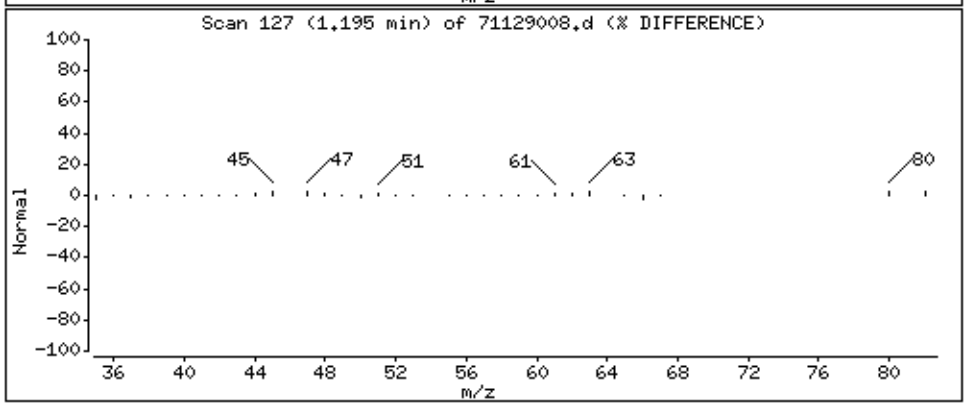












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

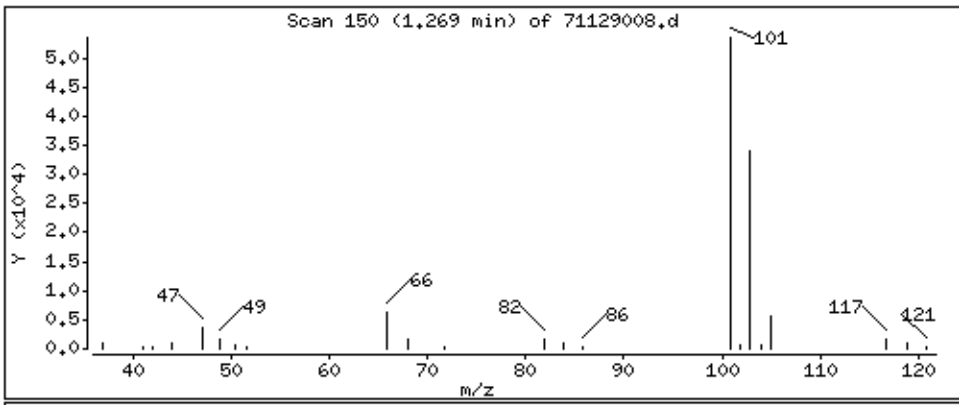
Column phase: RTX-VMS

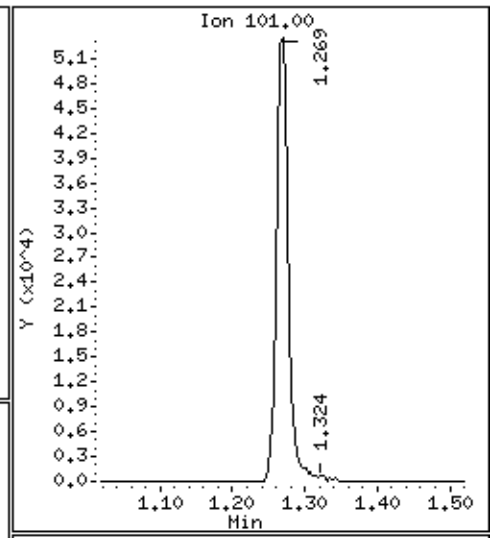
Column diameter: 0.18

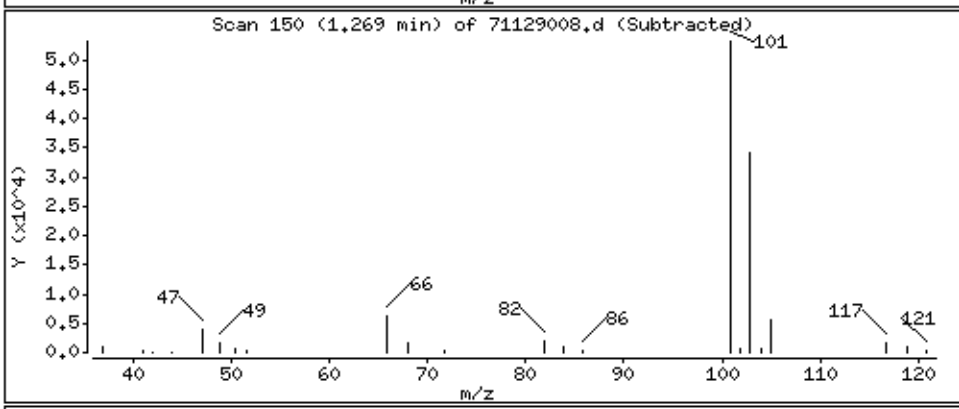
6 Trichlorofluoromethane

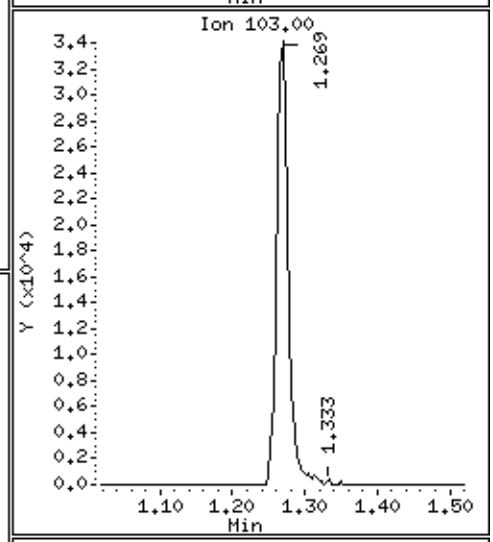
Concentration: 18.4 ug/L

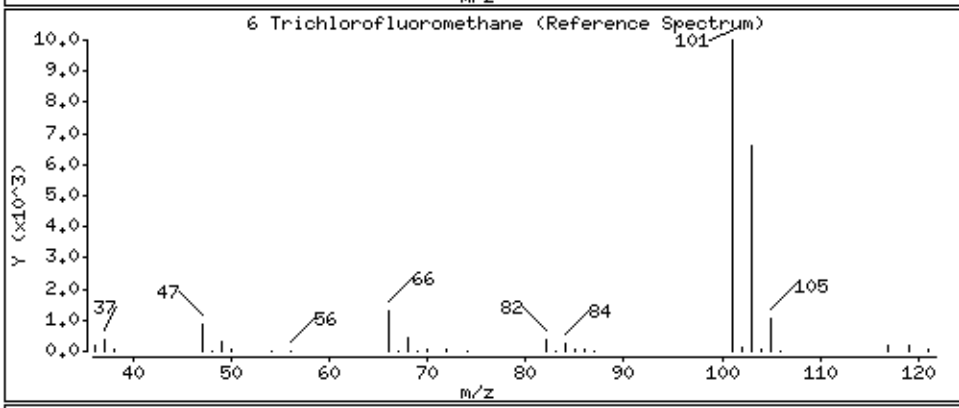
Review Code:

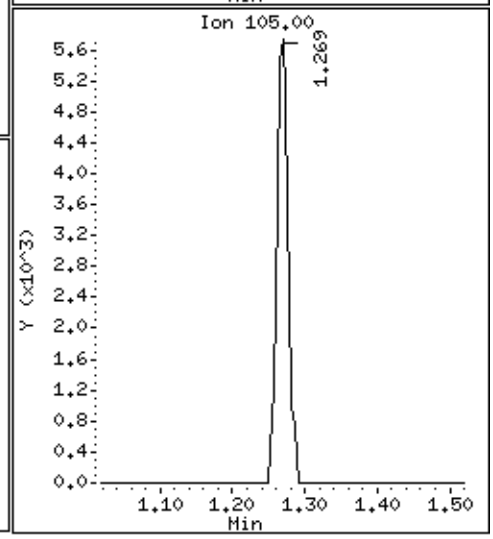


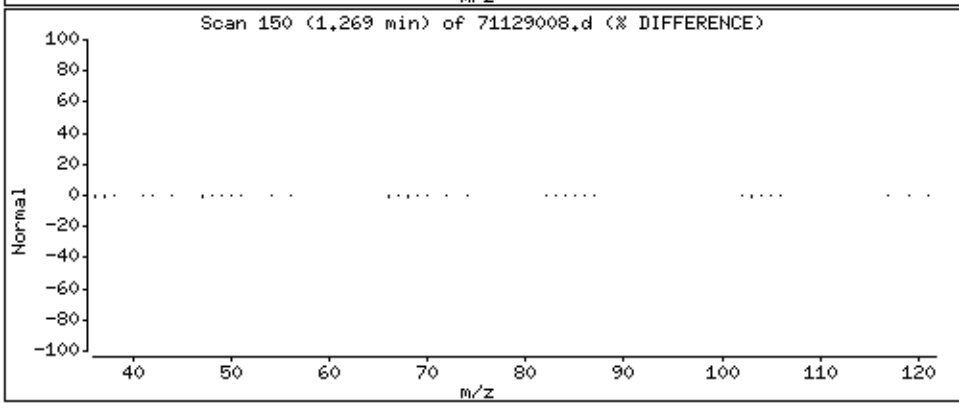












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

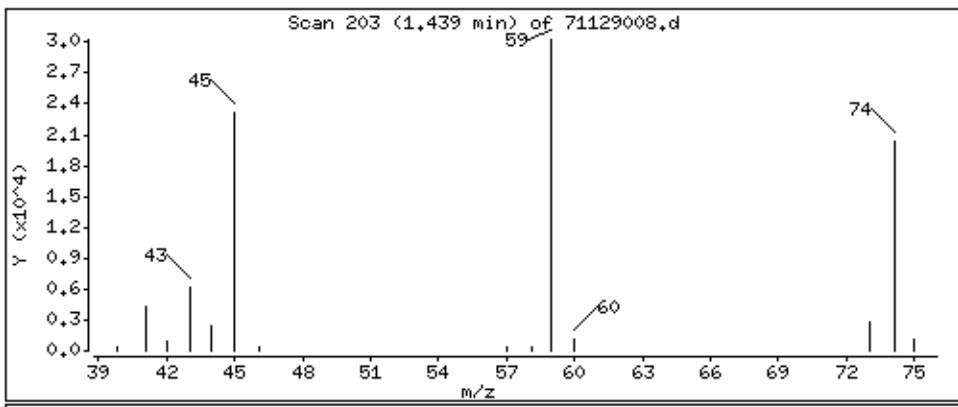
Column phase: RTX-VMS

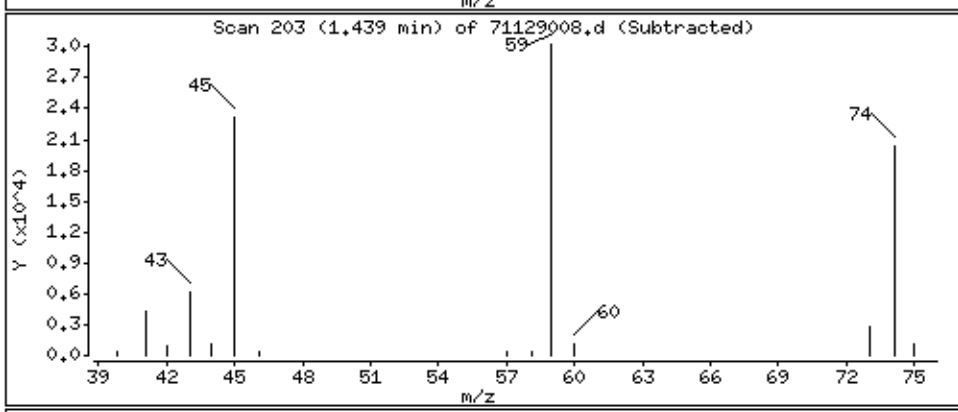
Column diameter: 0.18

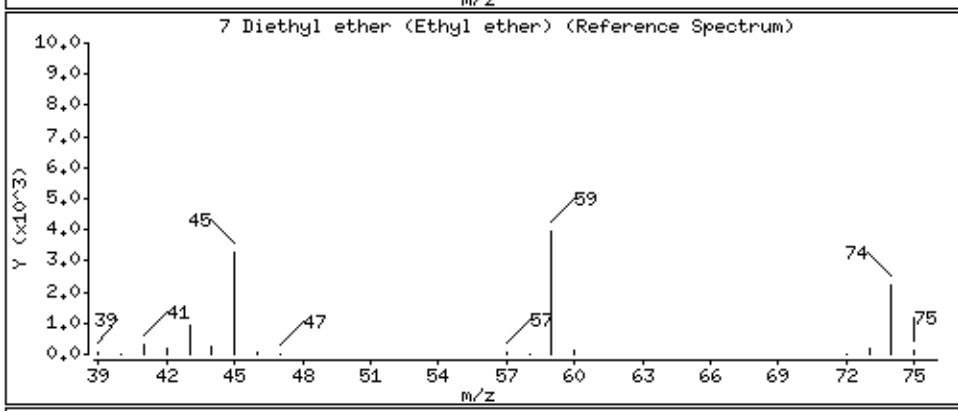
7 Diethyl ether (Ethyl ether)

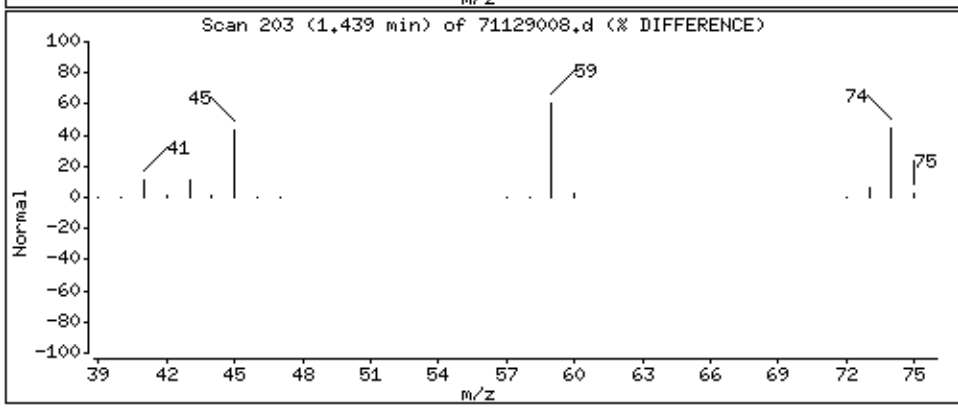
Concentration: 18.3 ug/L

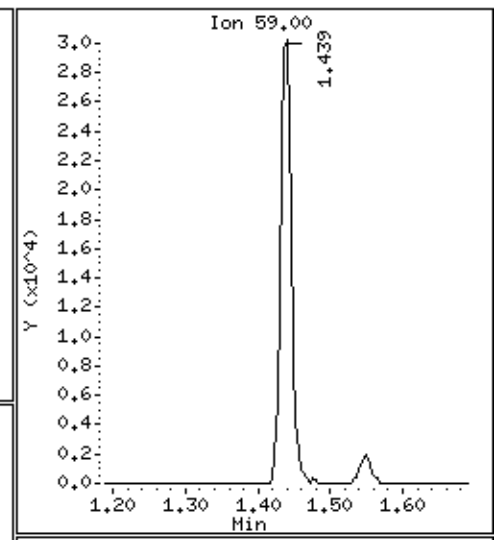
Review Code:

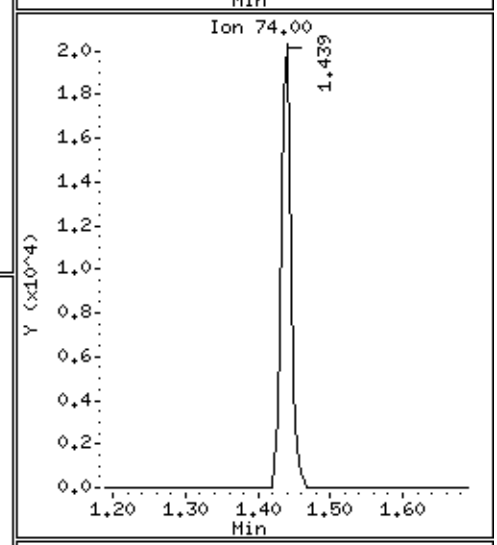


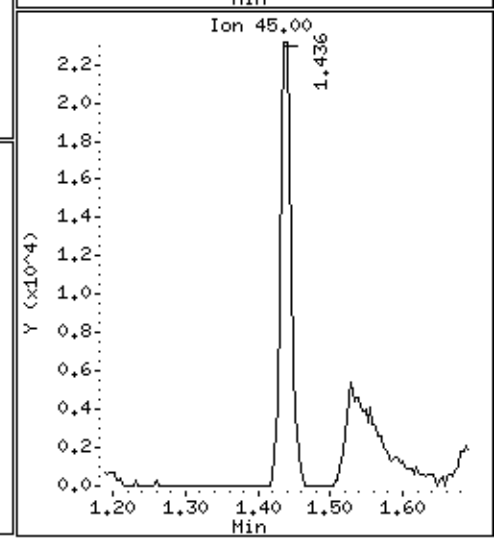












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

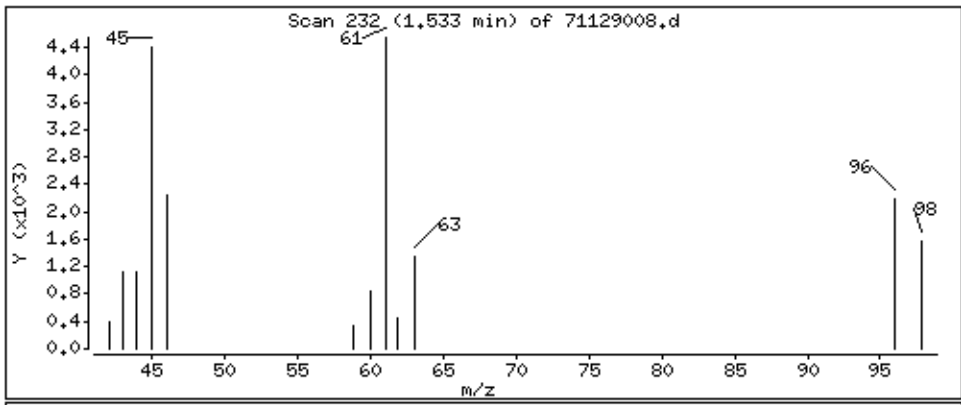
Column phase: RTX-VMS

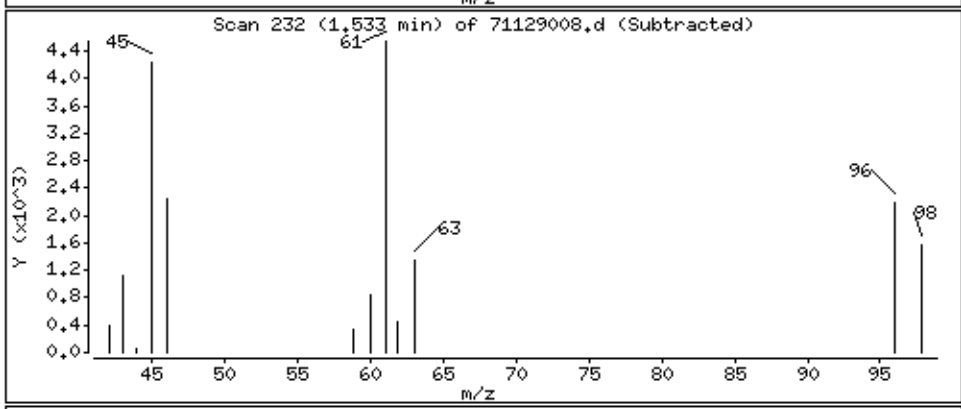
Column diameter: 0.18

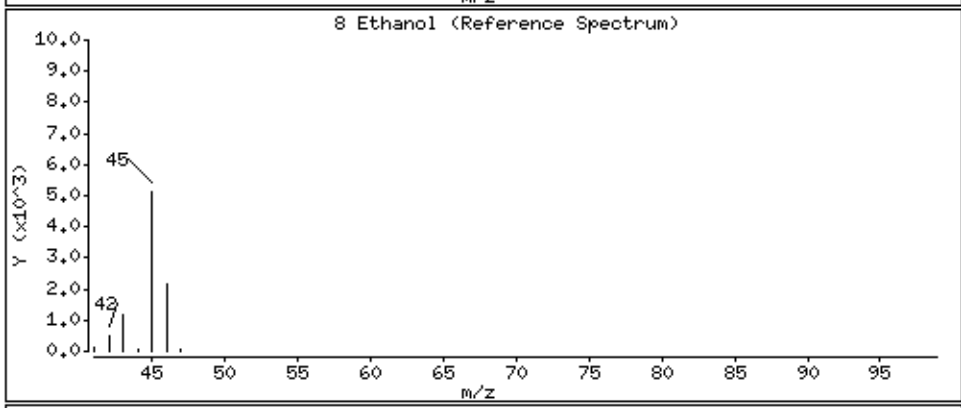
8 Ethanol

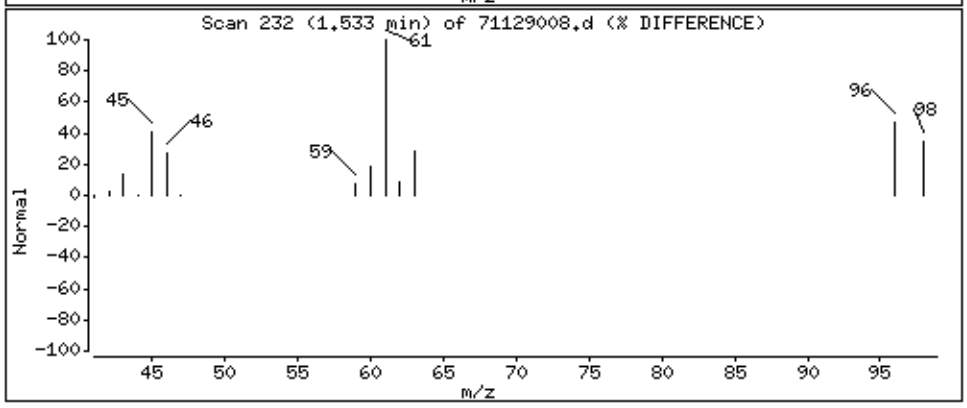
Concentration: 288 ug/L

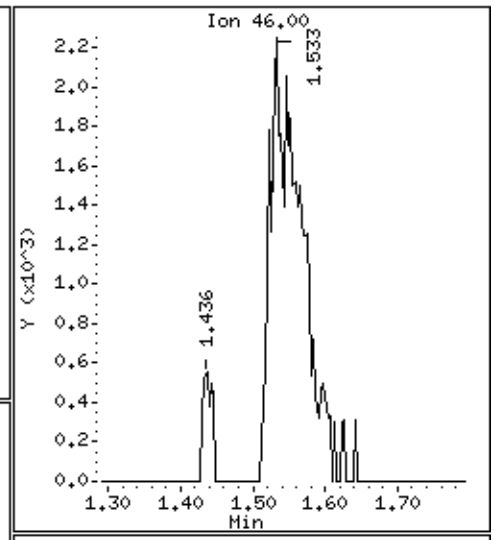
Review Code:

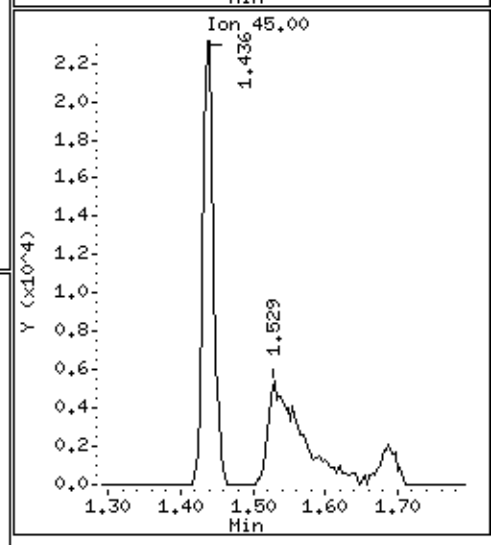












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

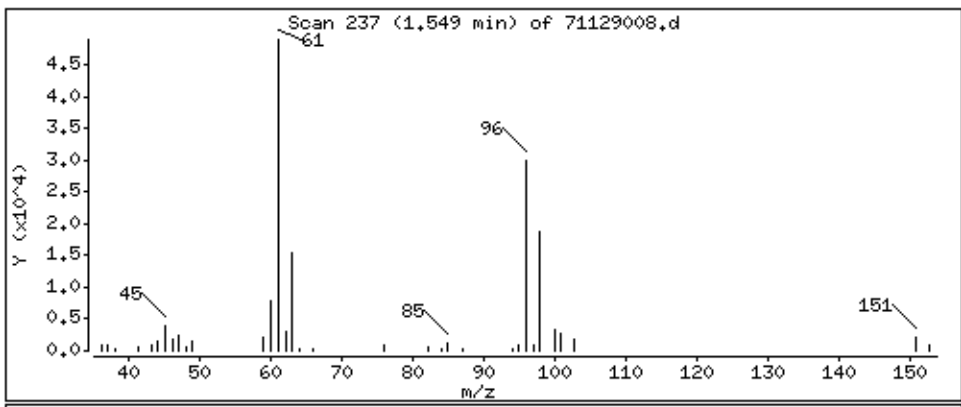
Column phase: RTX-VMS

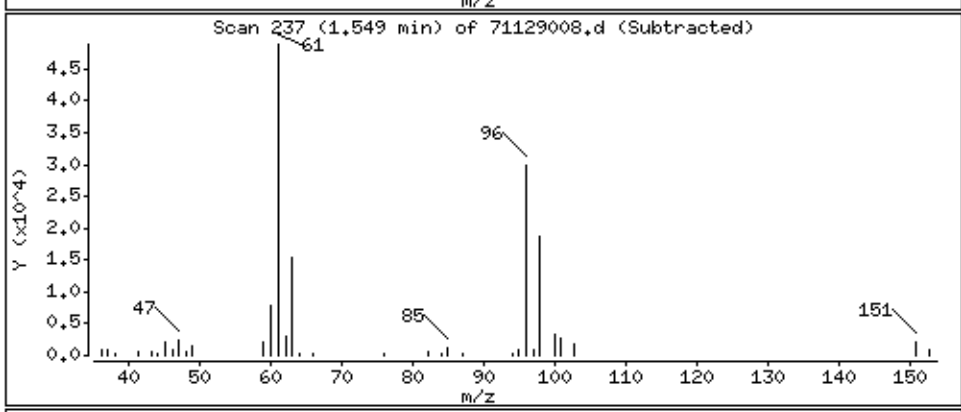
Column diameter: 0.18

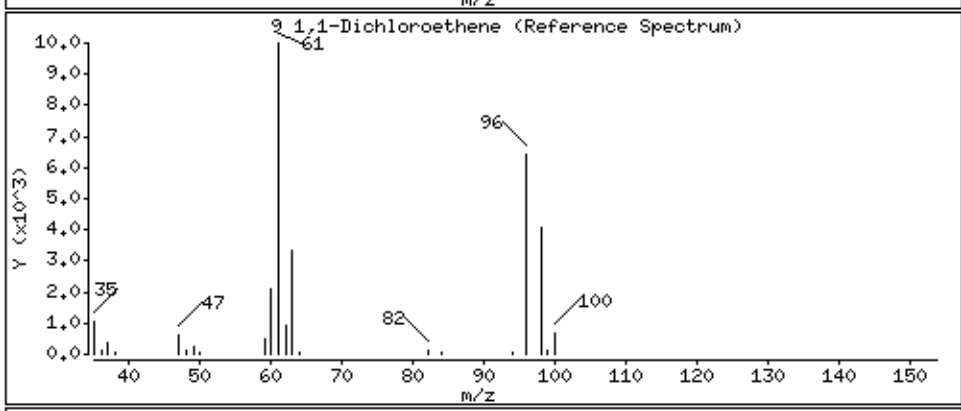
9 1,1-Dichloroethene

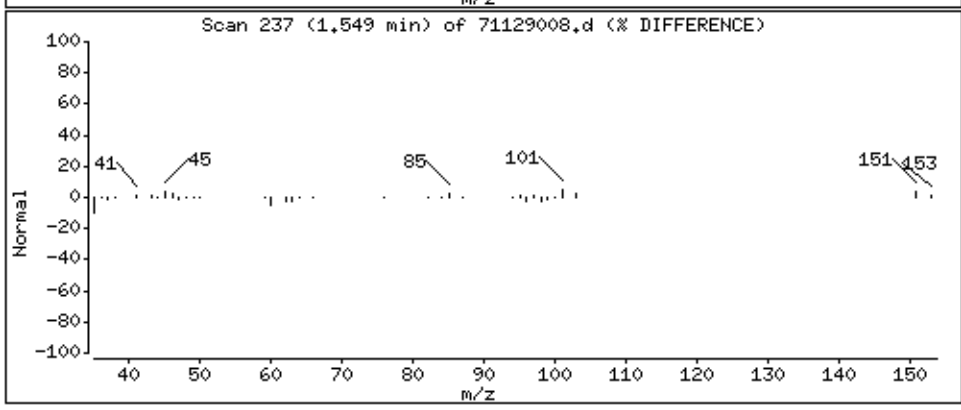
Concentration: 17.8 ug/L

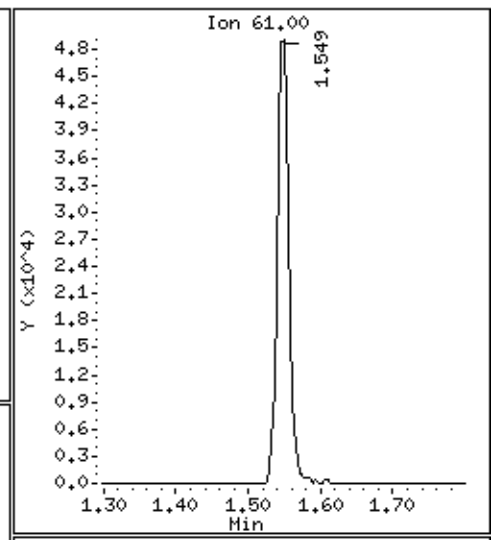
Review Code:

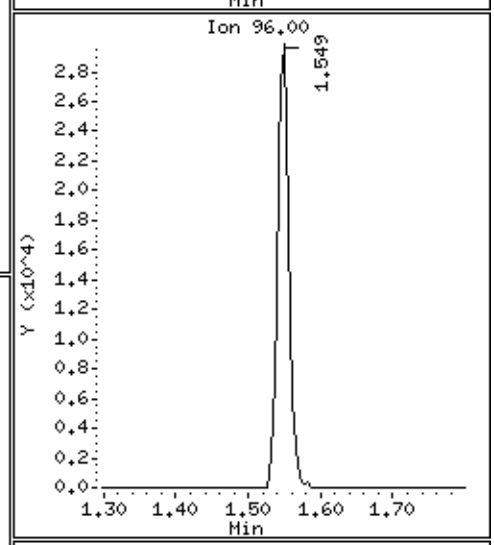


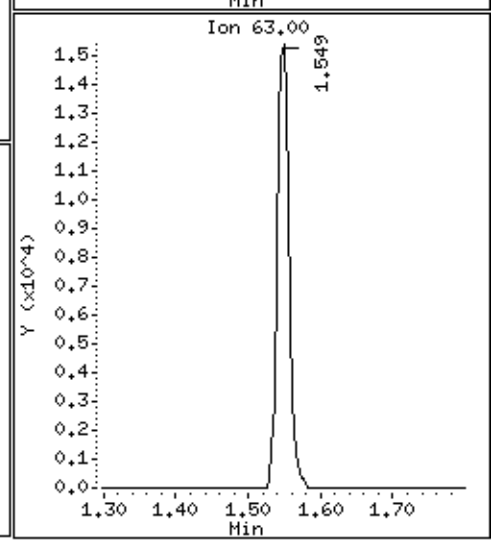












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

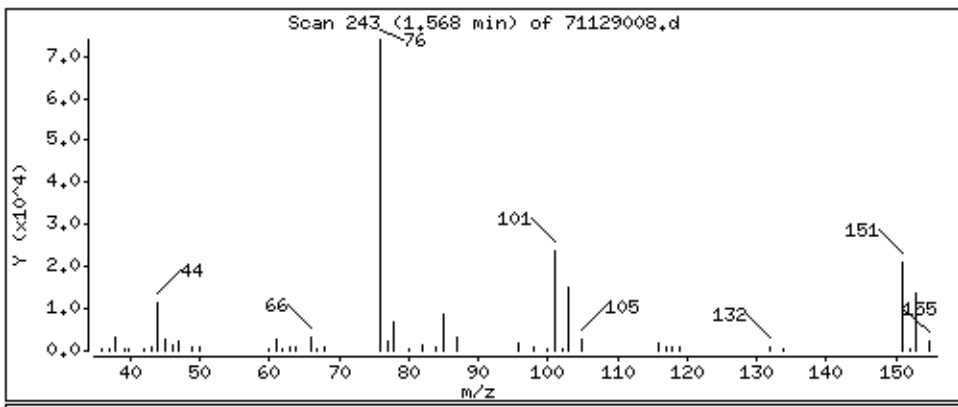
Column phase: RTX-VMS

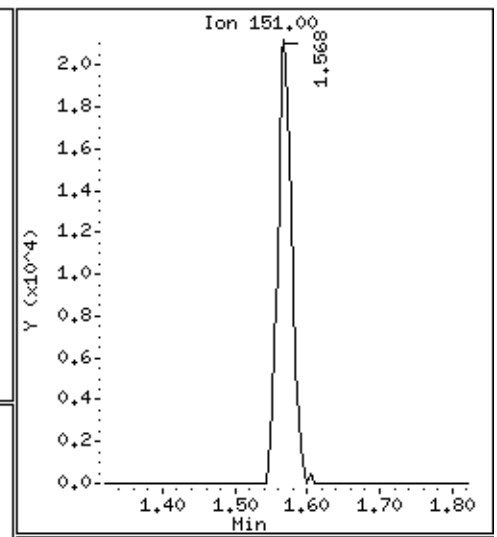
Column diameter: 0.18

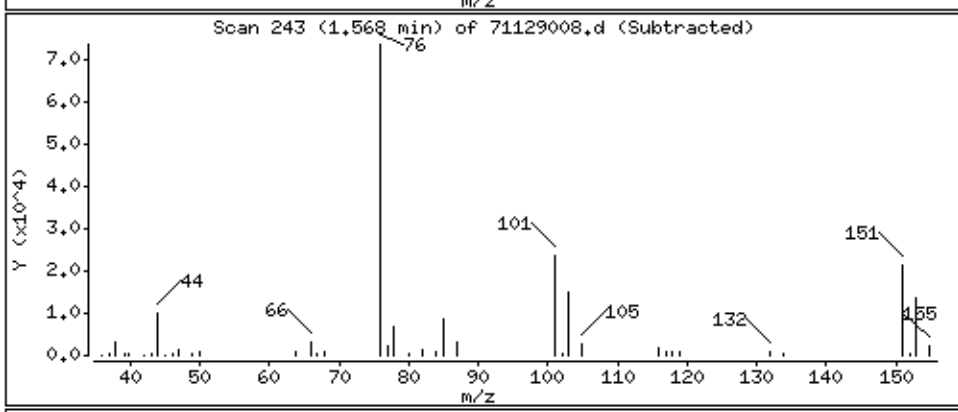
10 1,1,2-Trichlorotrifluoroethane

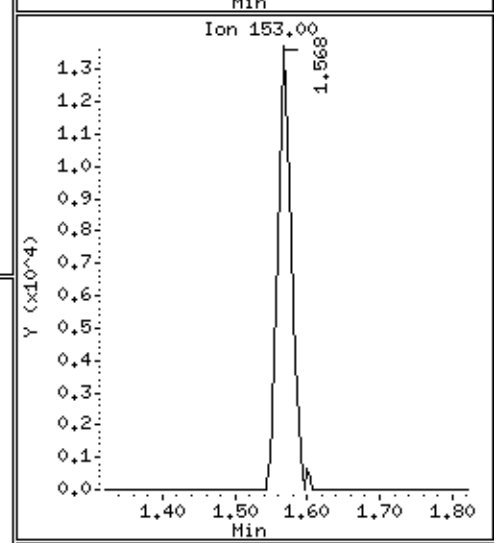
Concentration: 17.6 ug/L

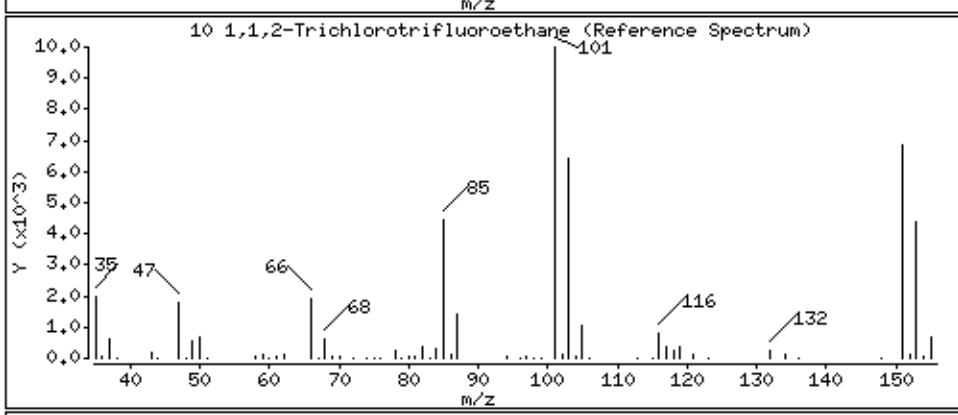
Review Code:

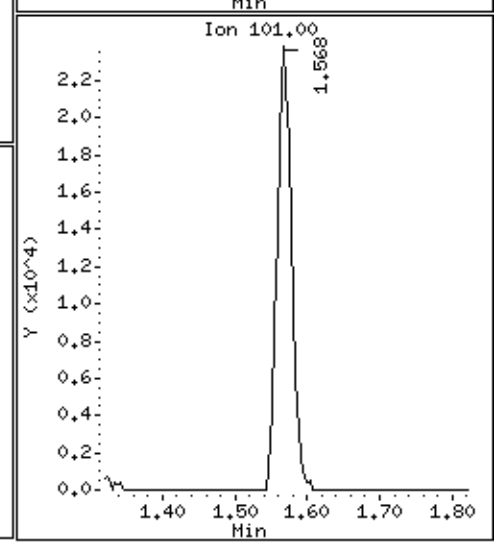


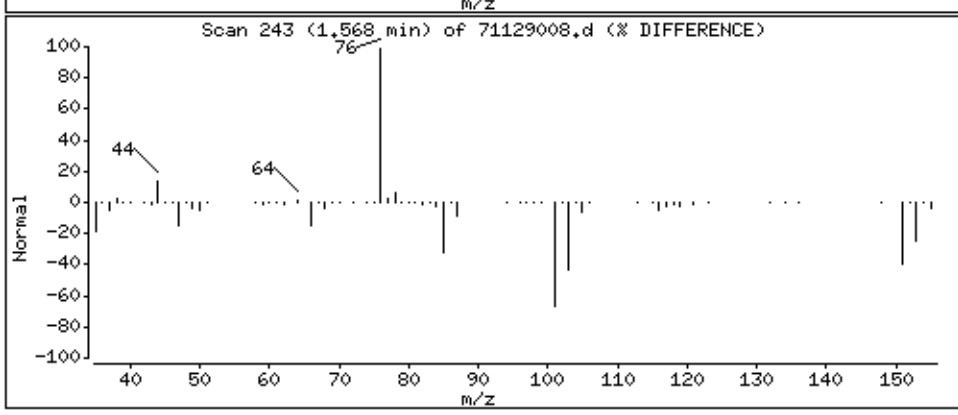












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

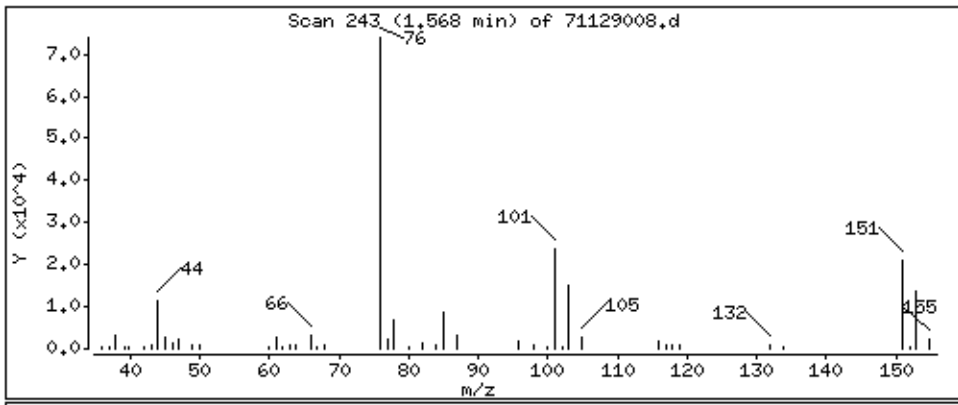
Column phase: RTX-VMS

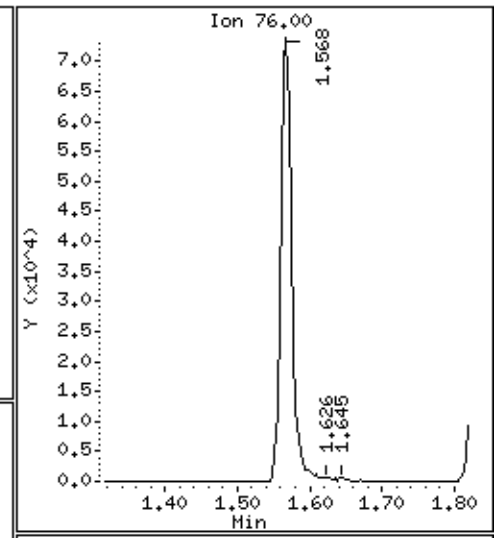
Column diameter: 0.18

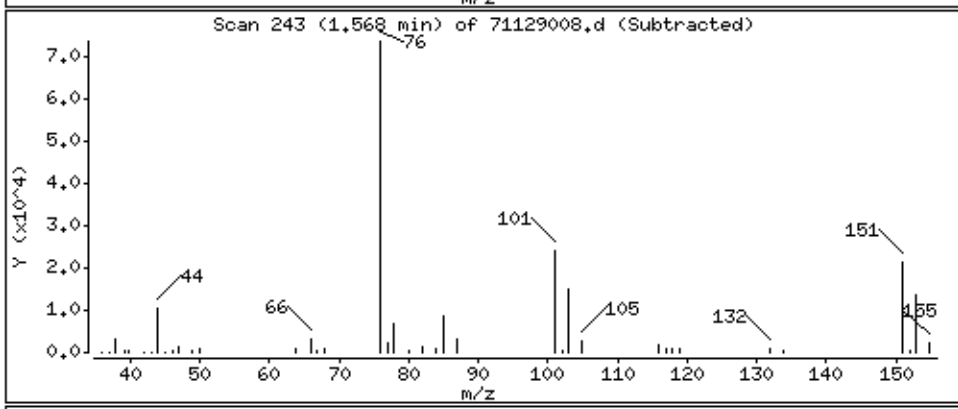
11 Carbon disulfide

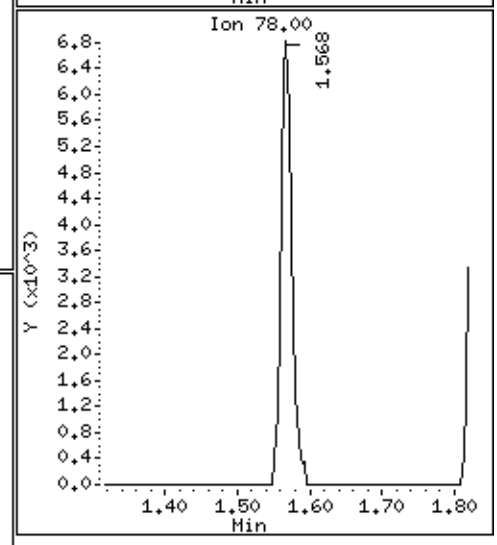
Concentration: 15.1 ug/L

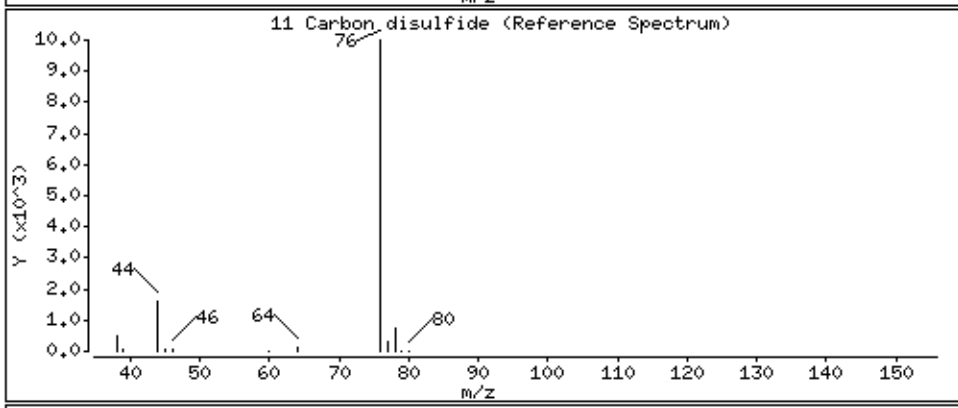
Review Code:

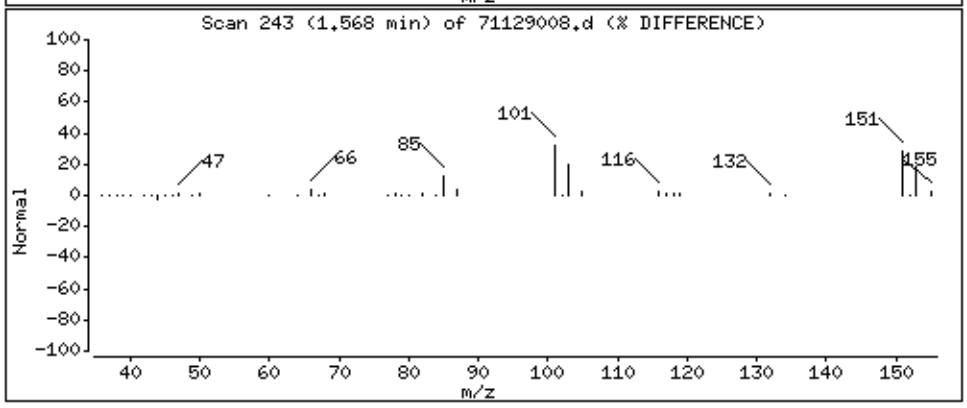












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

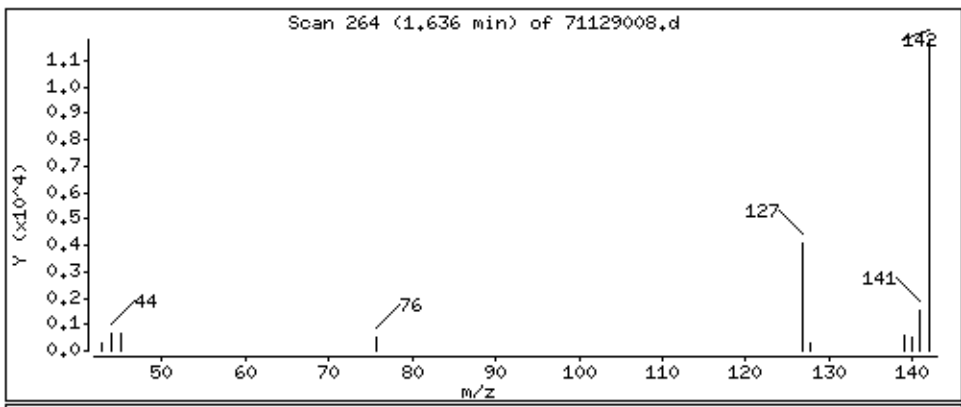
Column phase: RTX-VMS

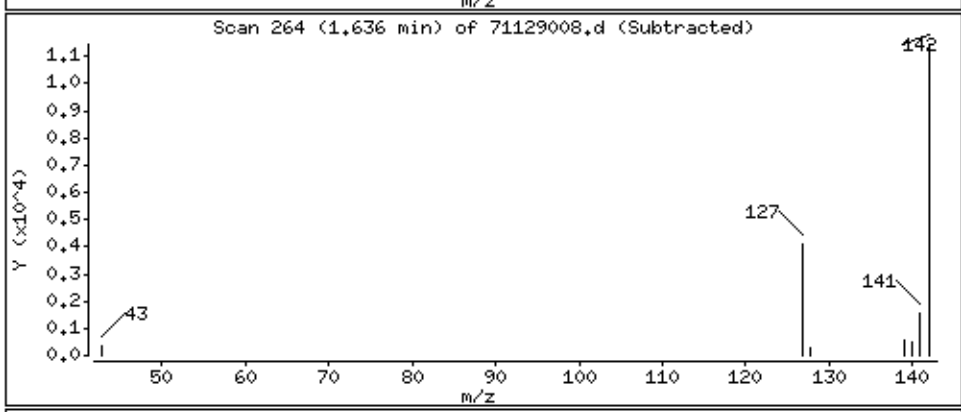
Column diameter: 0.18

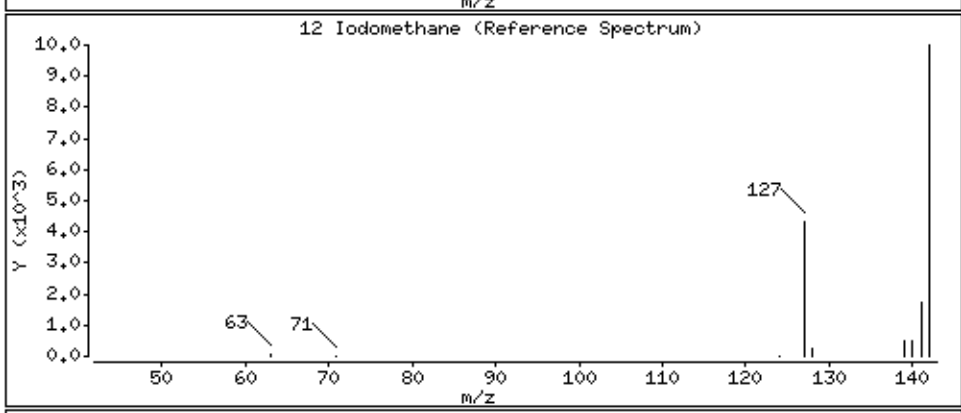
12 Iodomethane

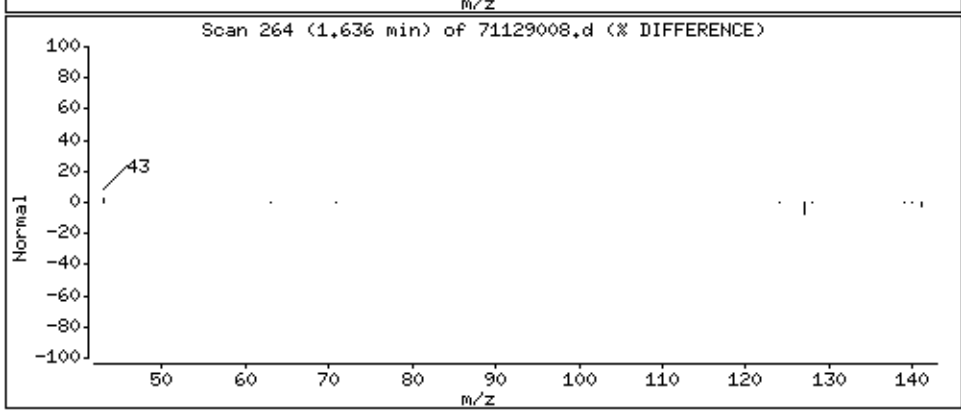
Concentration: 15.4 ug/L

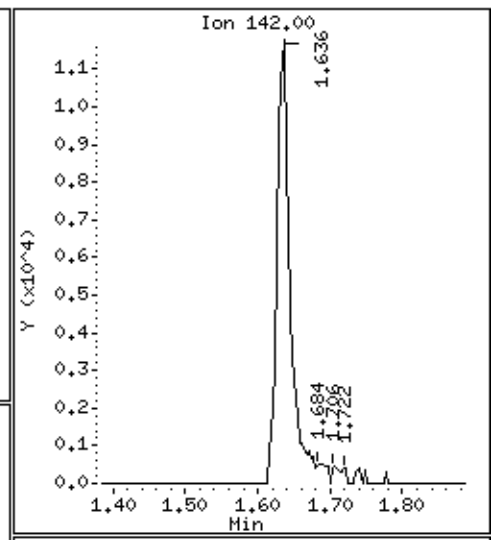
Review Code:

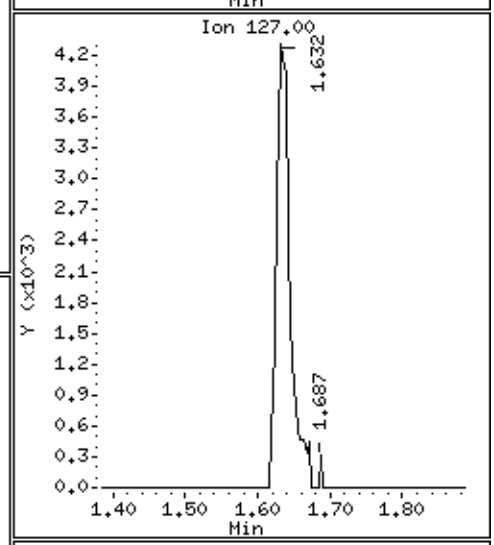


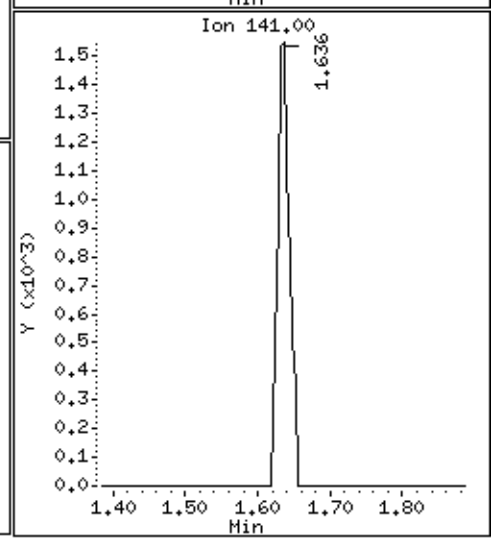












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

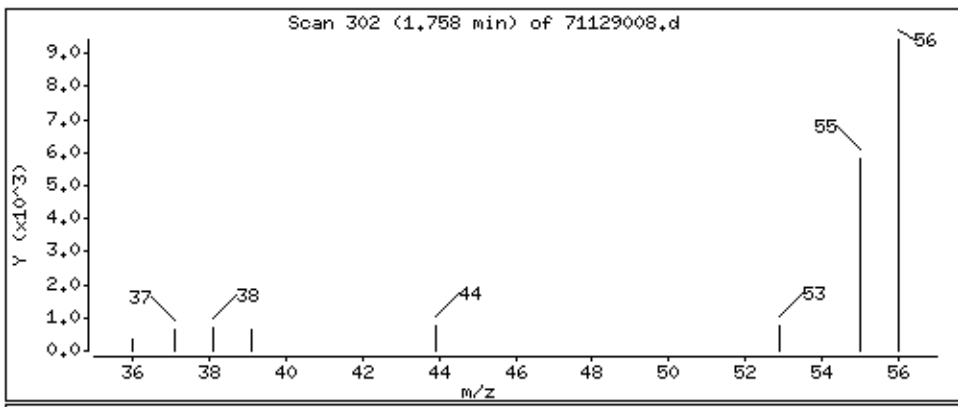
Column phase: RTX-VMS

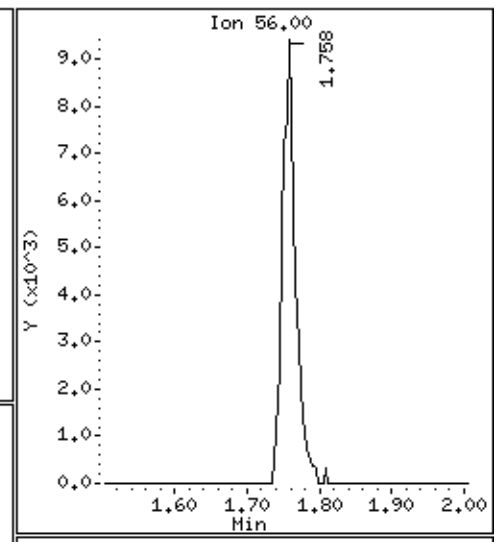
Column diameter: 0.18

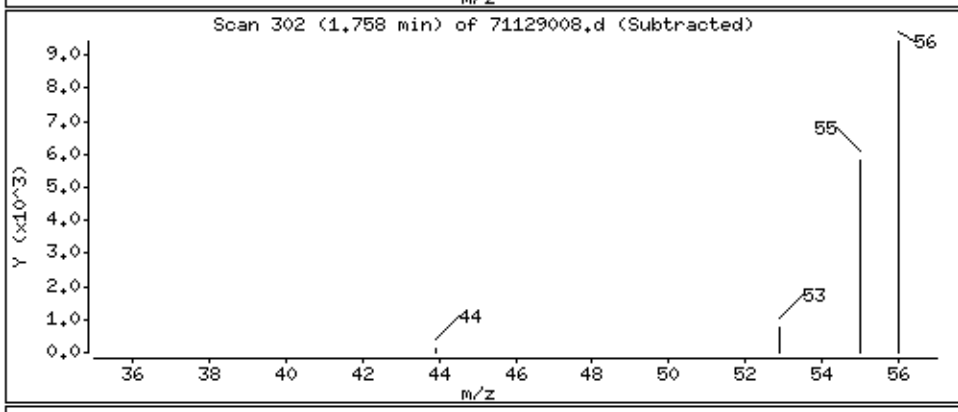
13 Acrolein

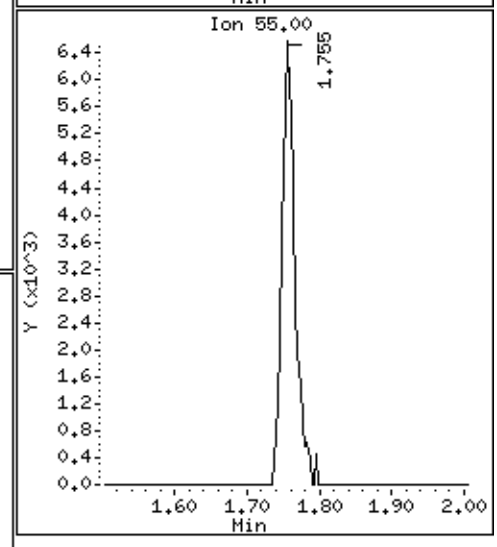
Concentration: 22.6 ug/L

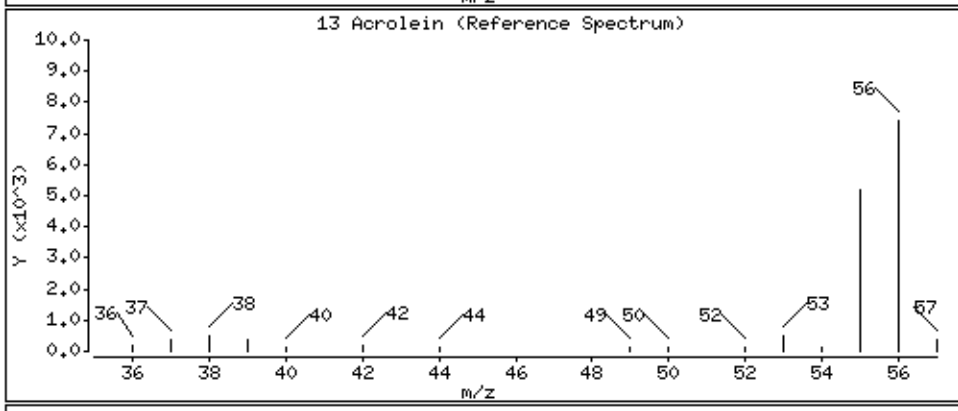
Review Code:

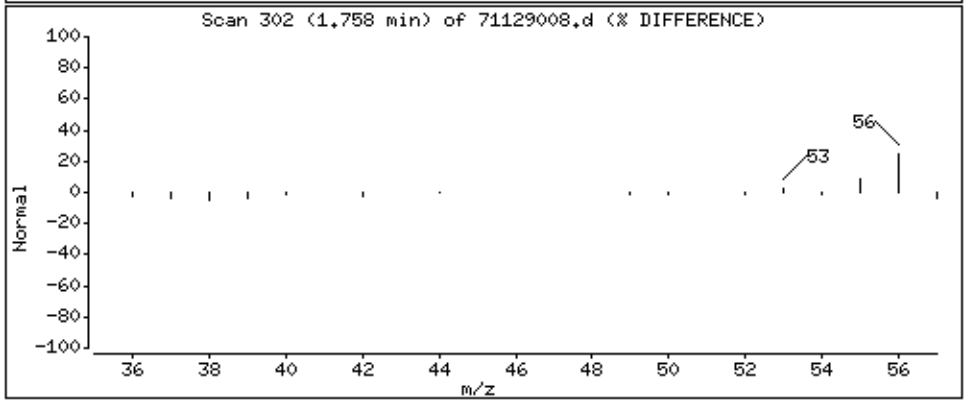












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

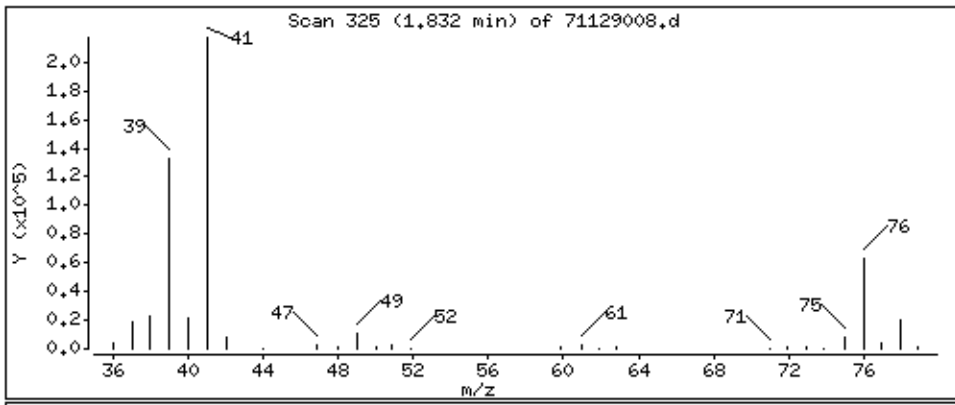
Column phase: RTX-VMS

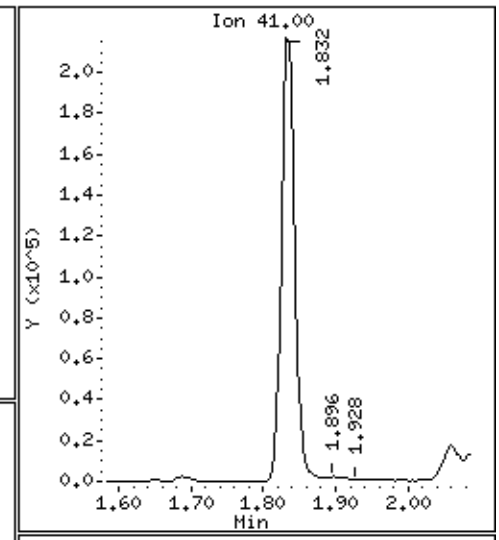
Column diameter: 0.18

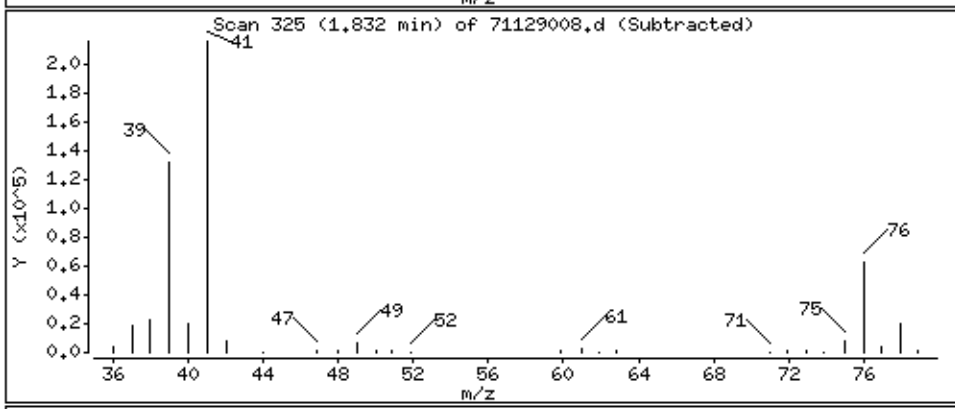
14 Allyl chloride

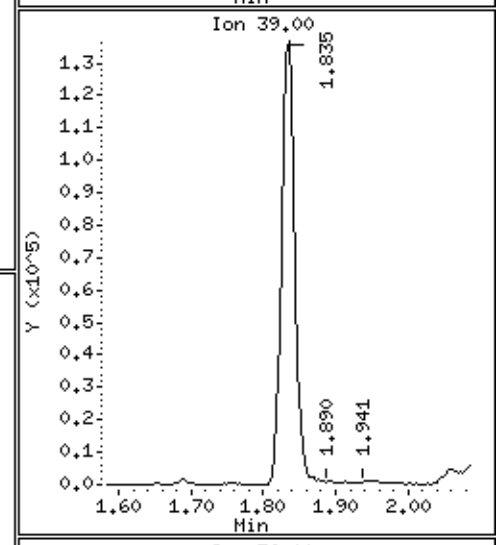
Concentration: 106 ug/L

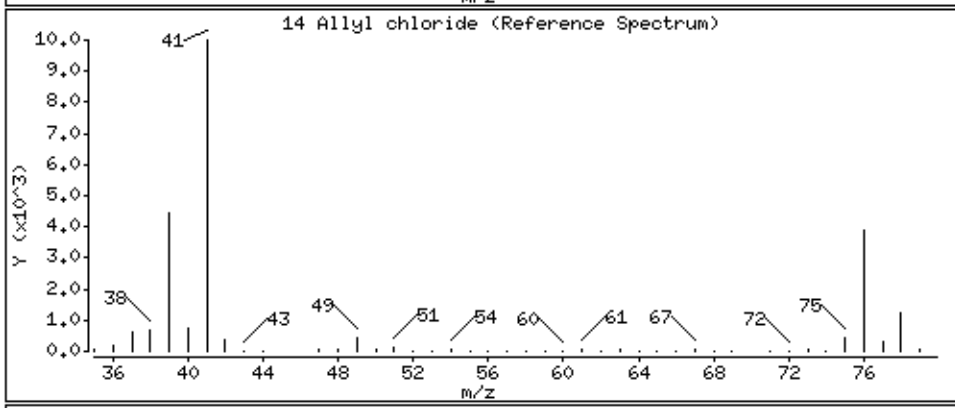
Review Code:

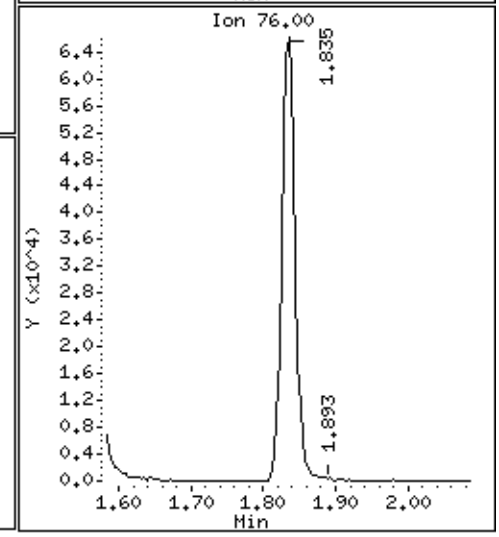


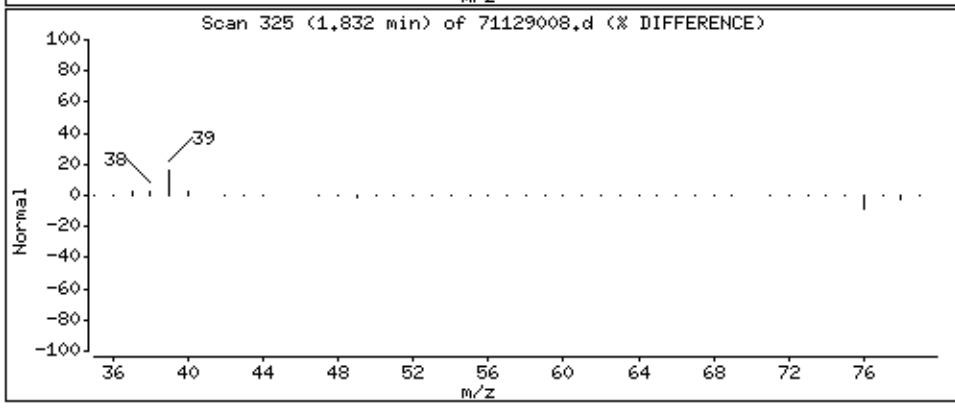












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

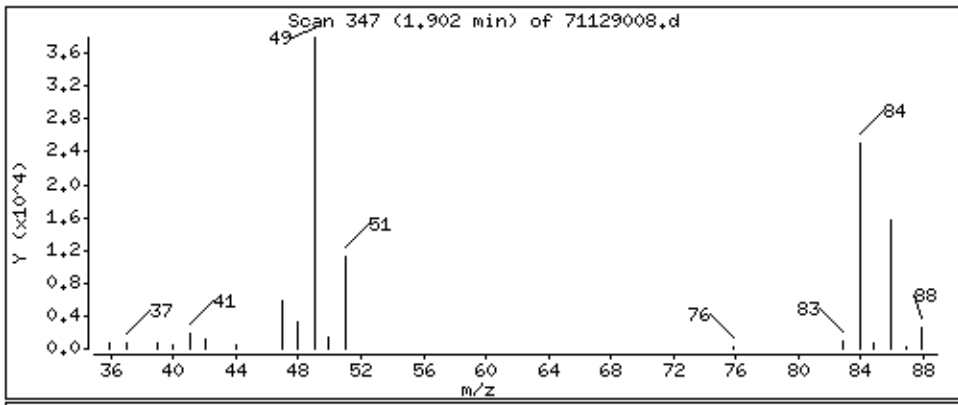
Column phase: RTX-VMS

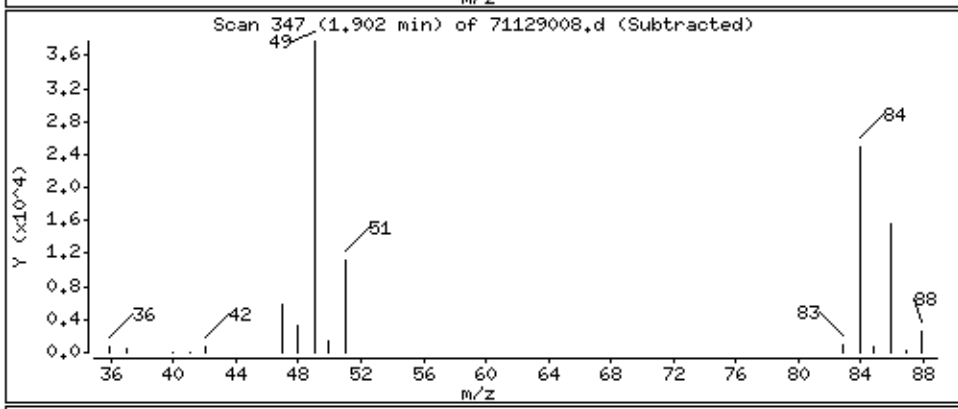
Column diameter: 0.18

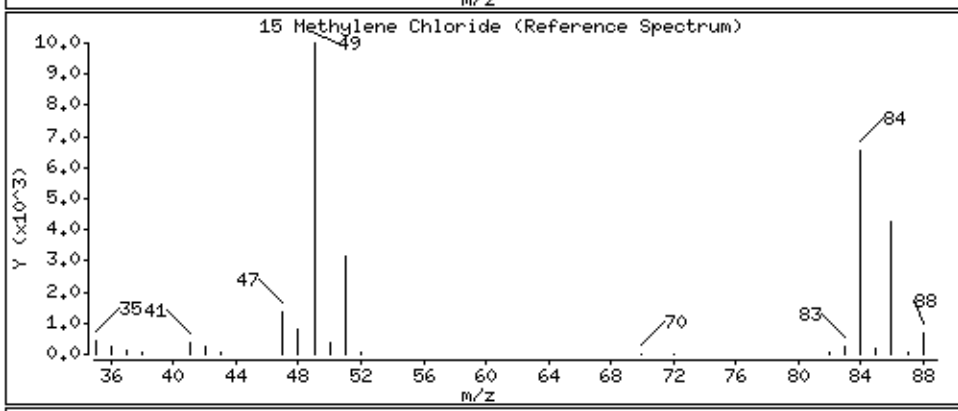
15 Methylene Chloride

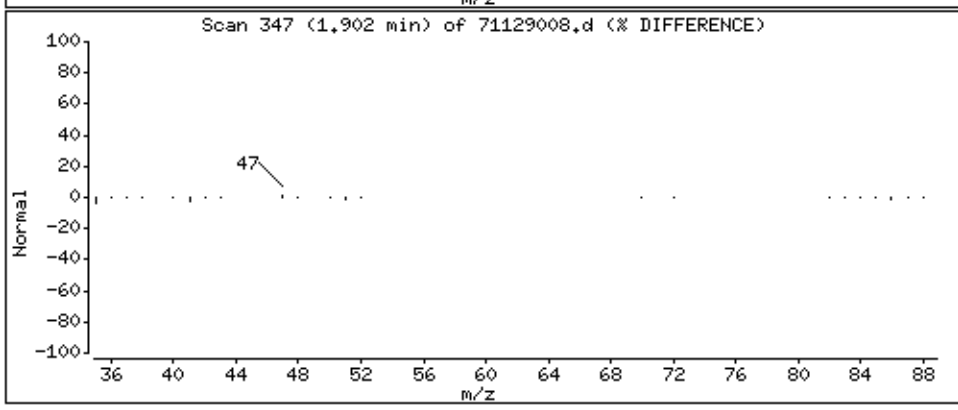
Concentration: 22.6 ug/L

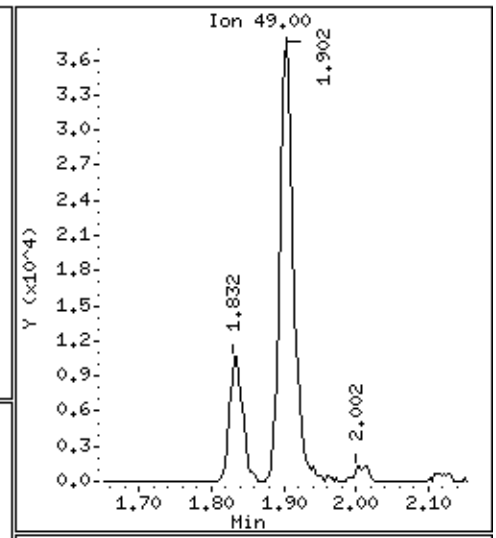
Review Code:

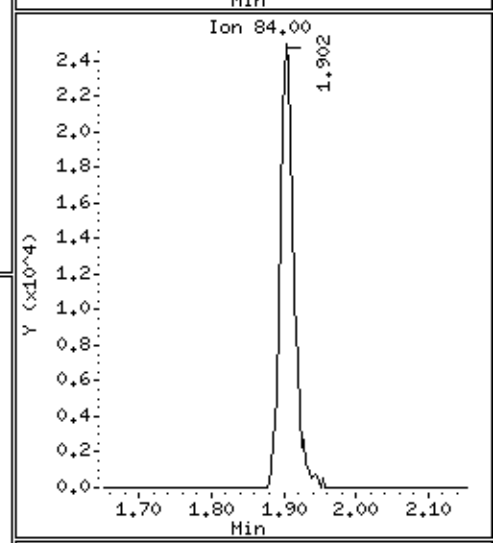


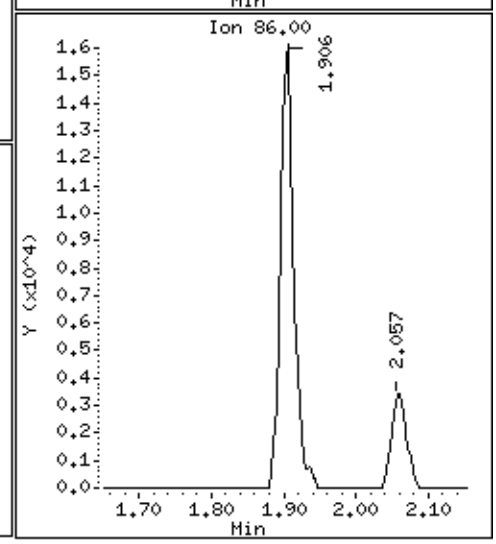












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

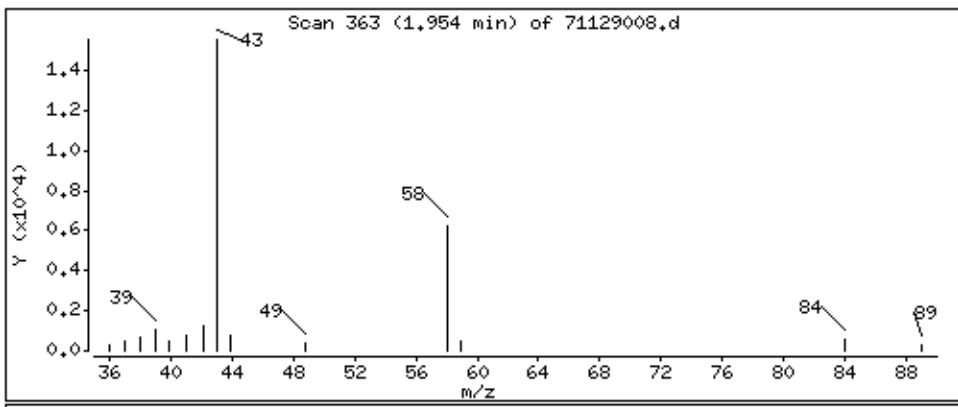
Column phase: RTX-VMS

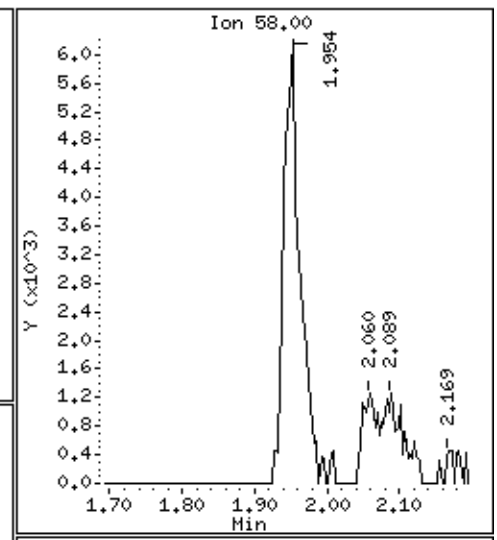
Column diameter: 0.18

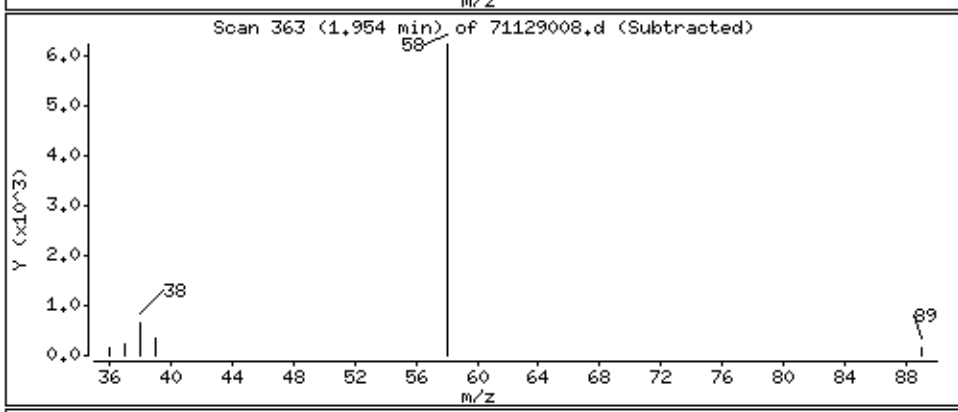
16 Acetone

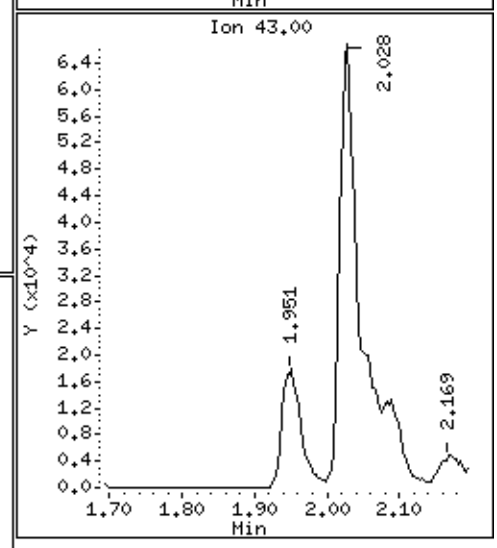
Concentration: 24.0 ug/L

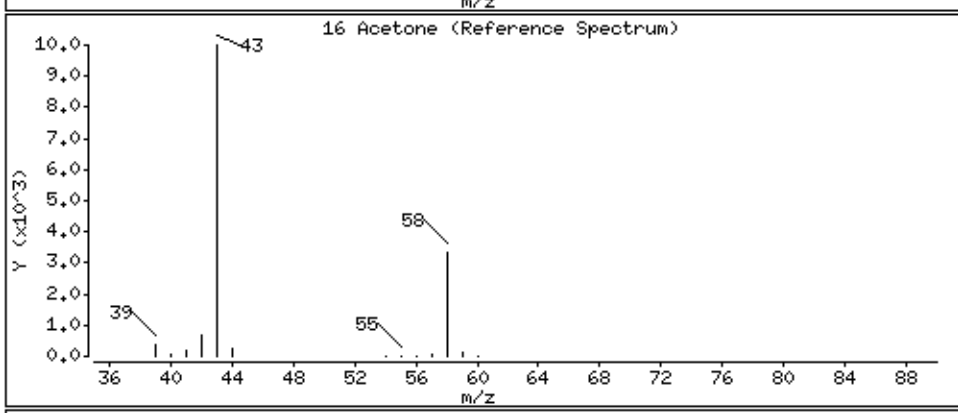
Review Code:

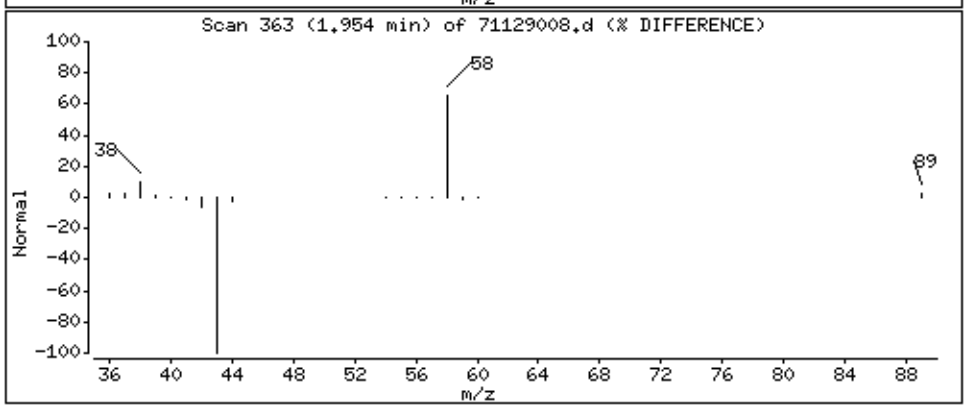












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

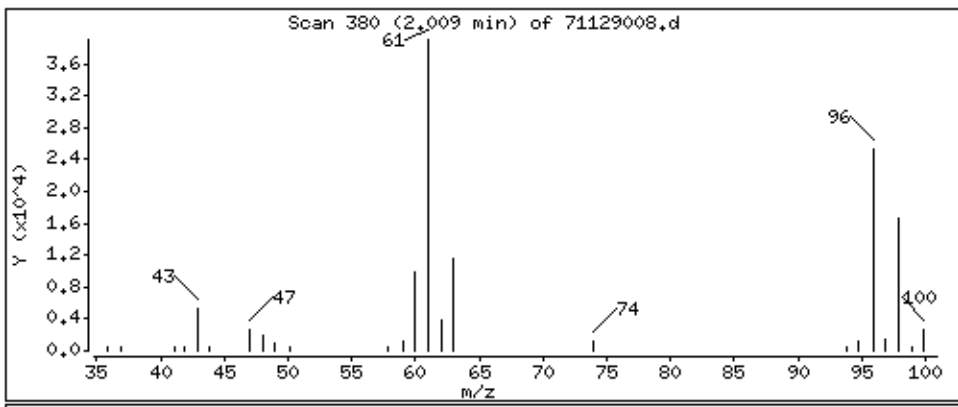
Column phase: RTX-VMS

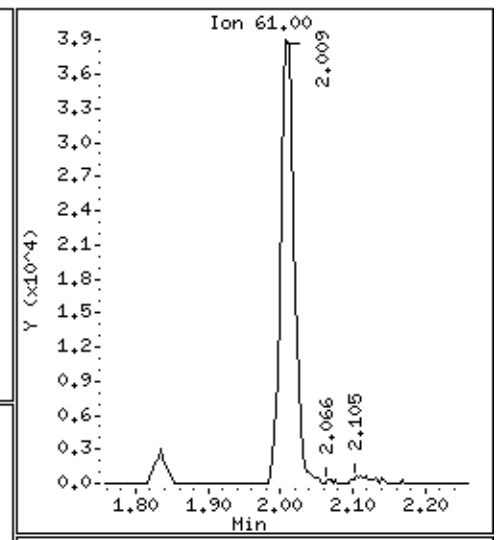
Column diameter: 0.18

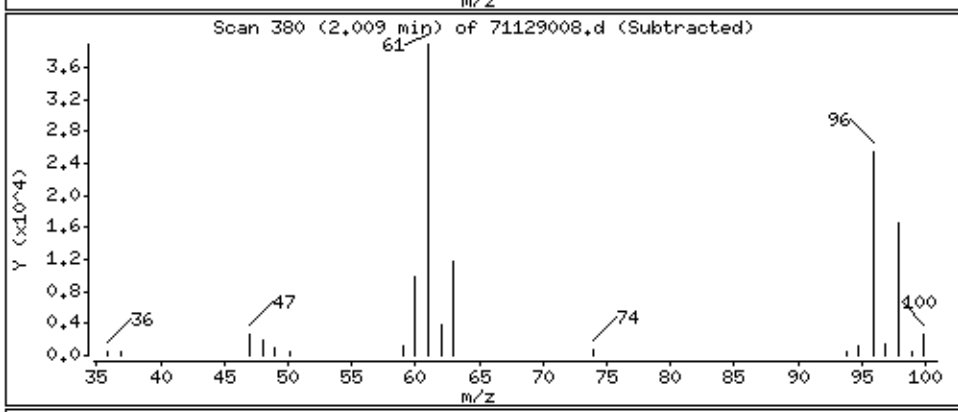
17 trans-1,2-Dichloroethene

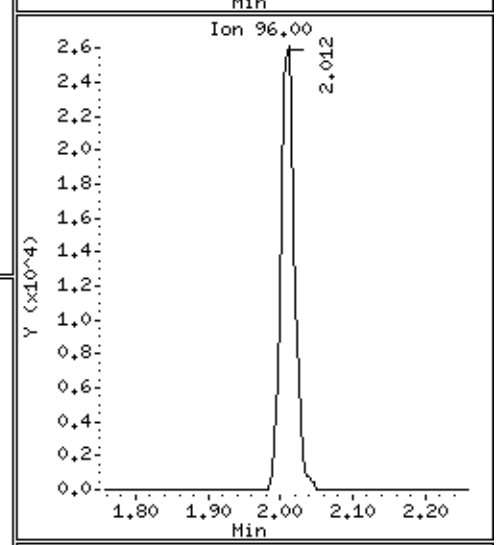
Concentration: 19.6 ug/L

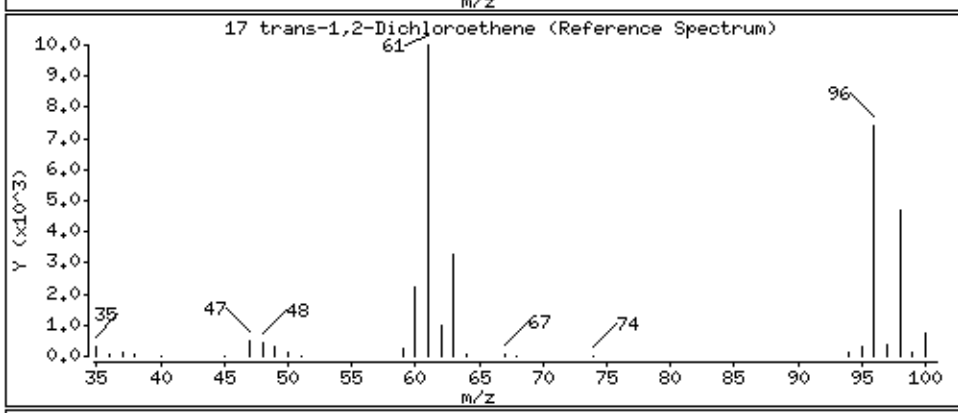
Review Code:

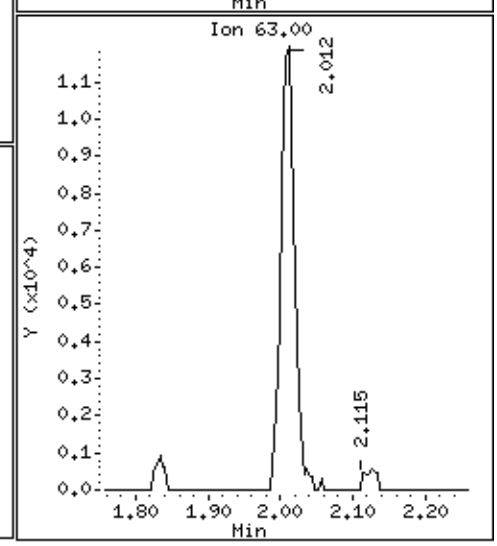


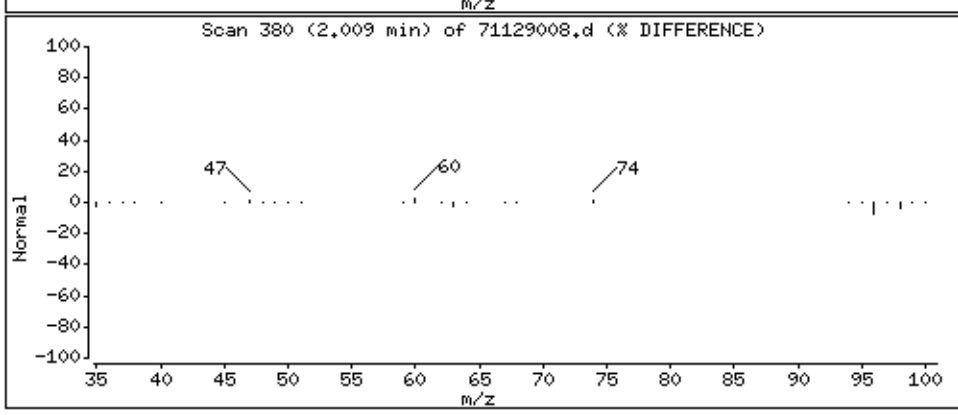












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

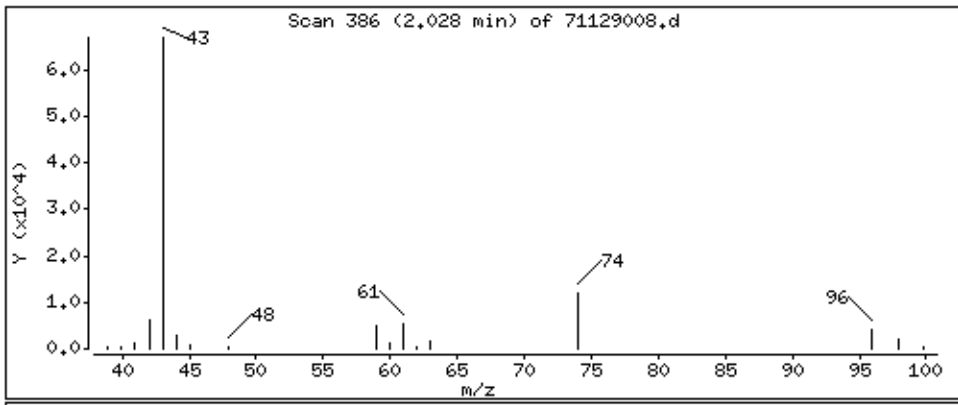
Column phase: RTX-VMS

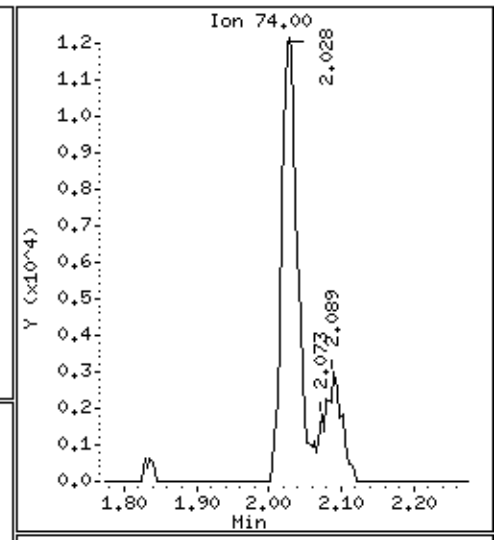
Column diameter: 0.18

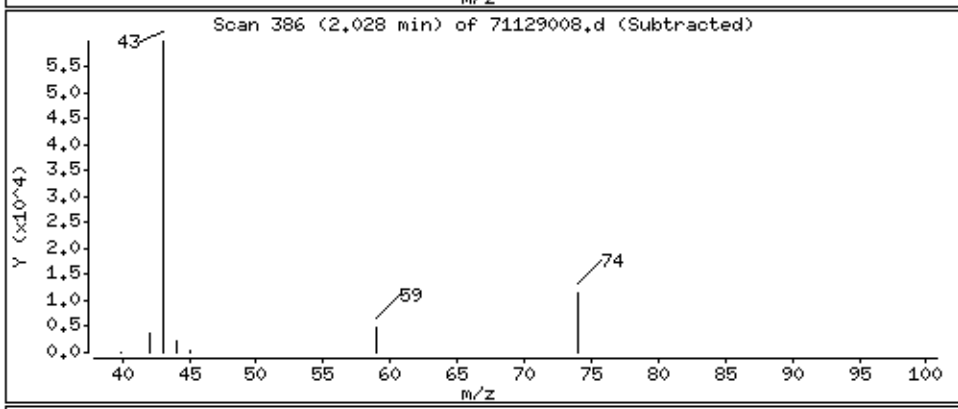
18 Methyl acetate

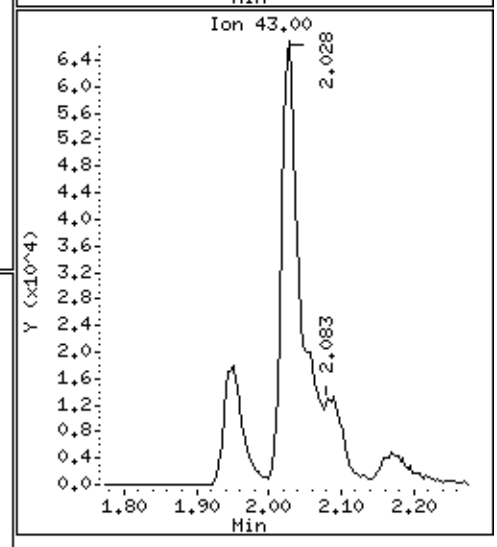
Concentration: 22.5 ug/L

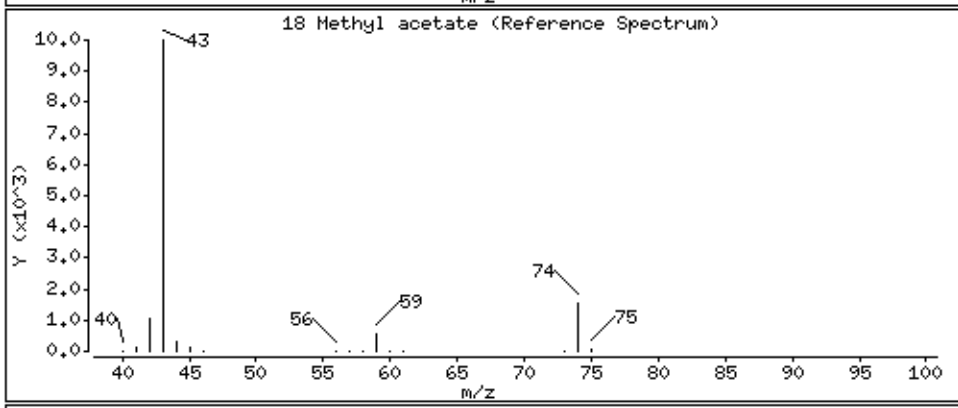
Review Code:

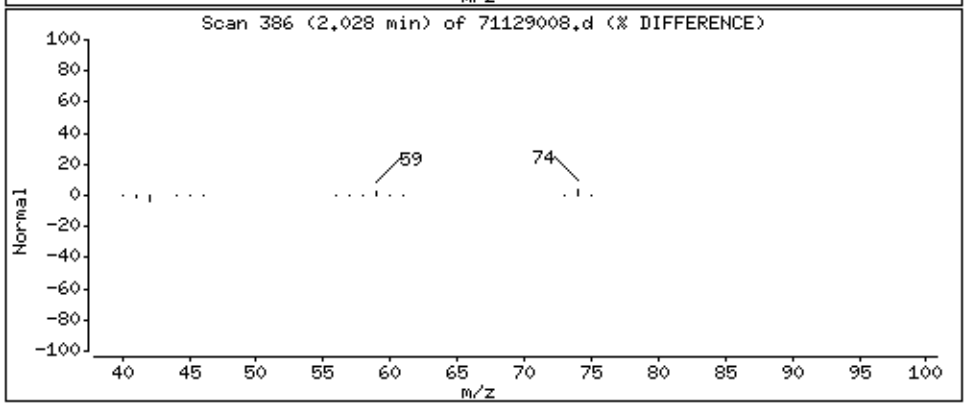












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

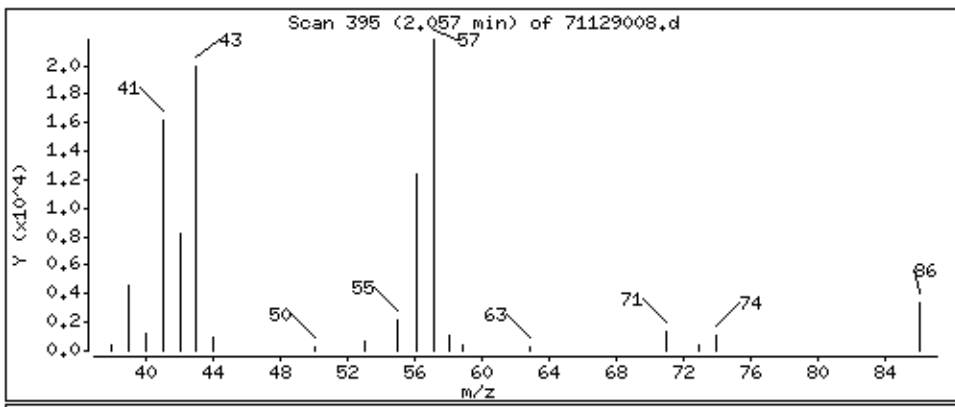
Column phase: RTX-VMS

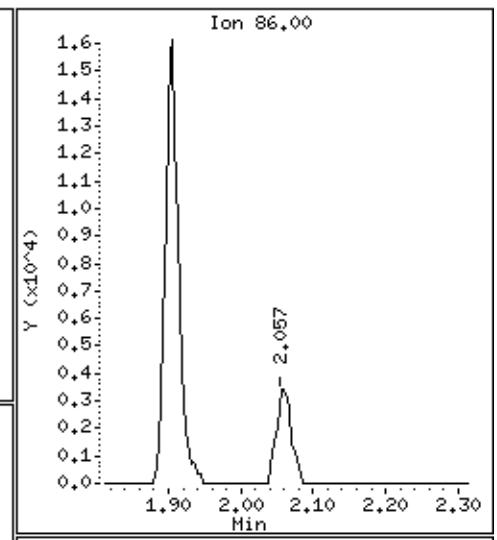
Column diameter: 0.18

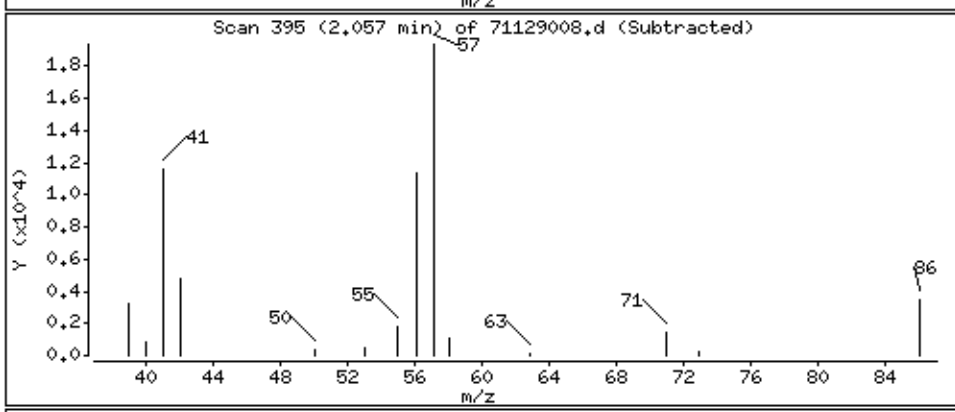
19 n-Hexane

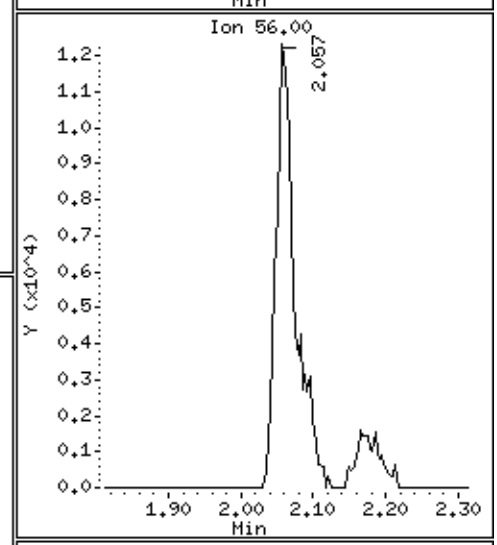
Concentration: 15.8 ug/L

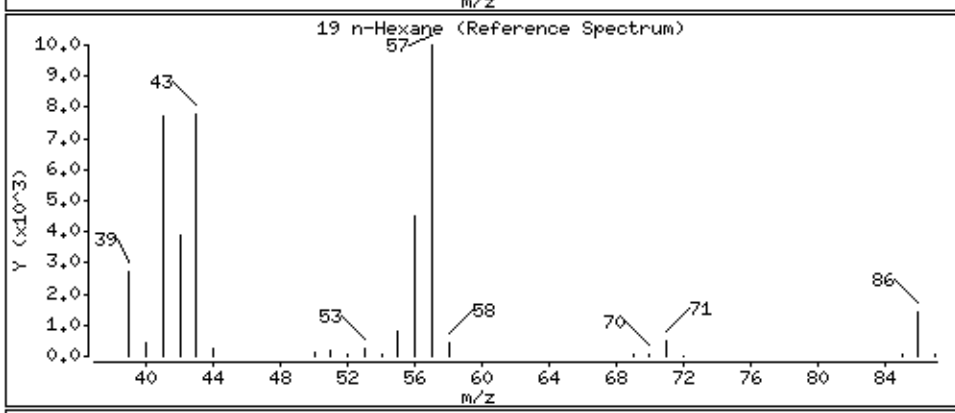
Review Code:

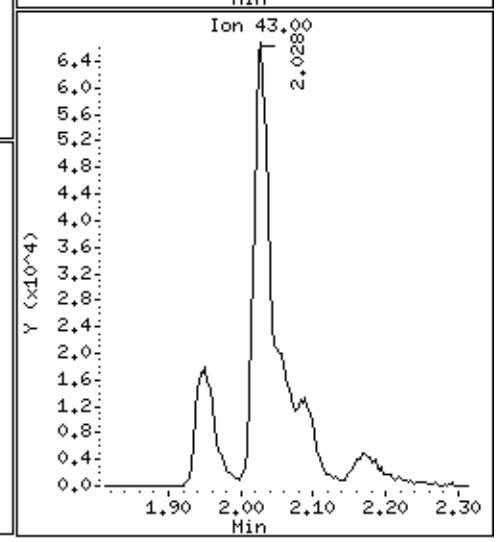


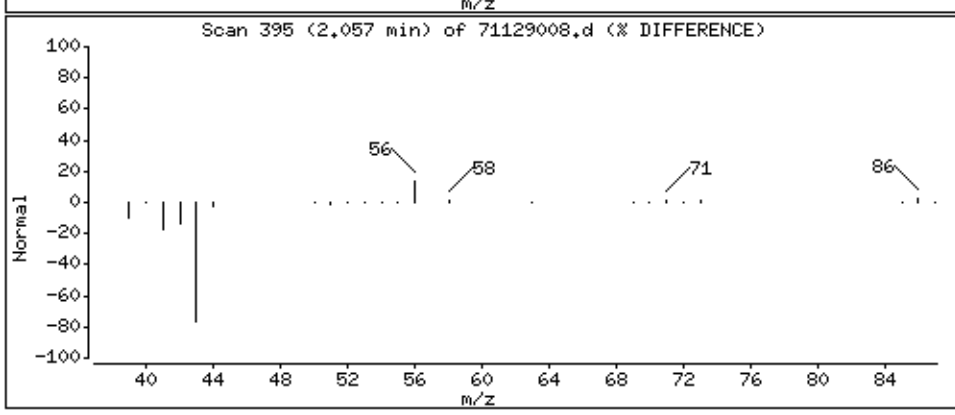












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

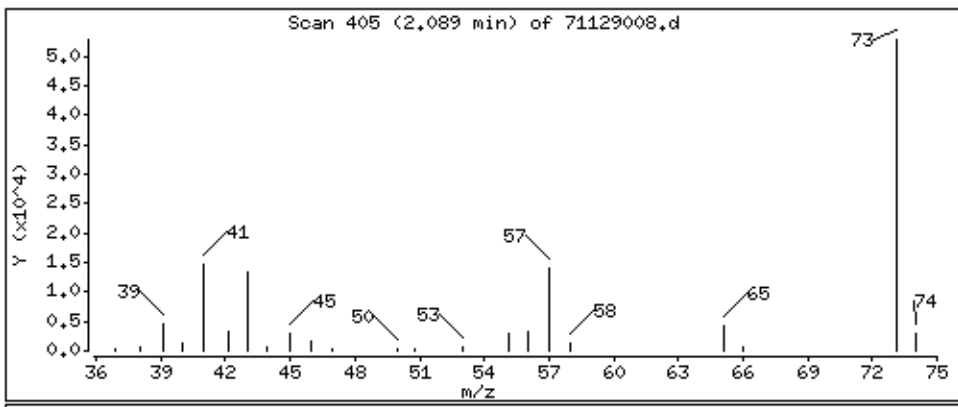
Column phase: RTX-VMS

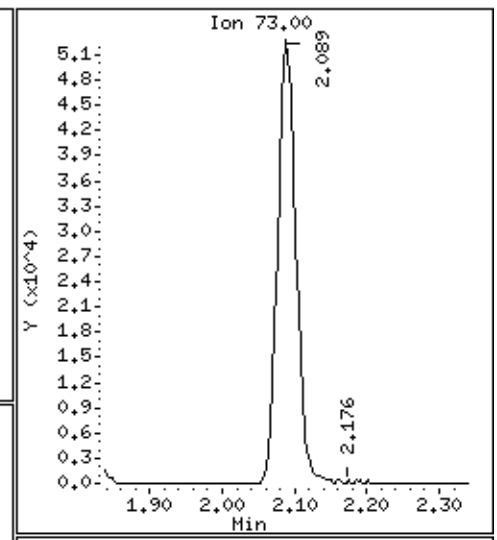
Column diameter: 0.18

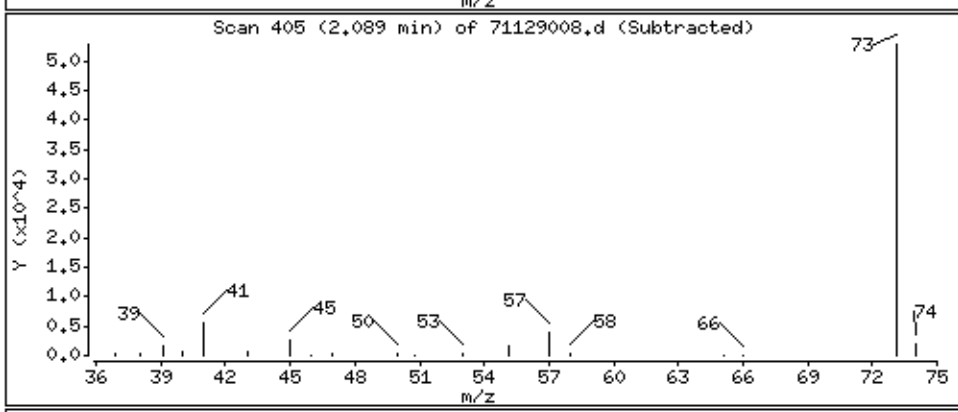
20 Methyl-tert-butyl ether

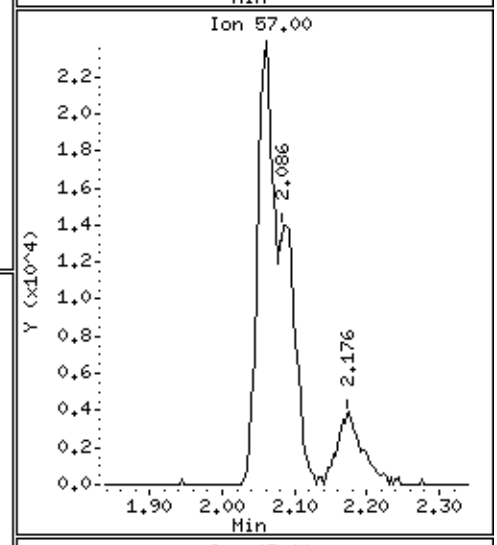
Concentration: 17.5 ug/L

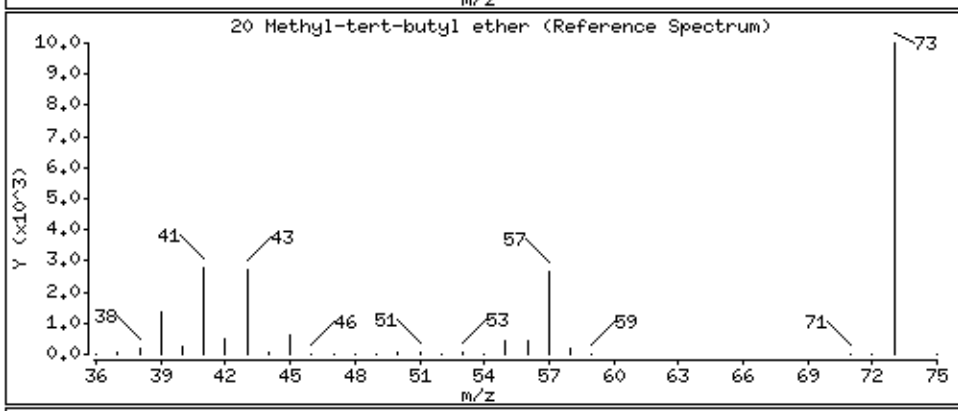
Review Code:

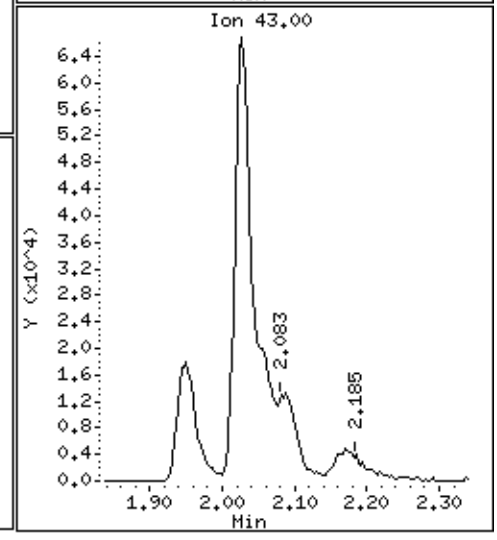


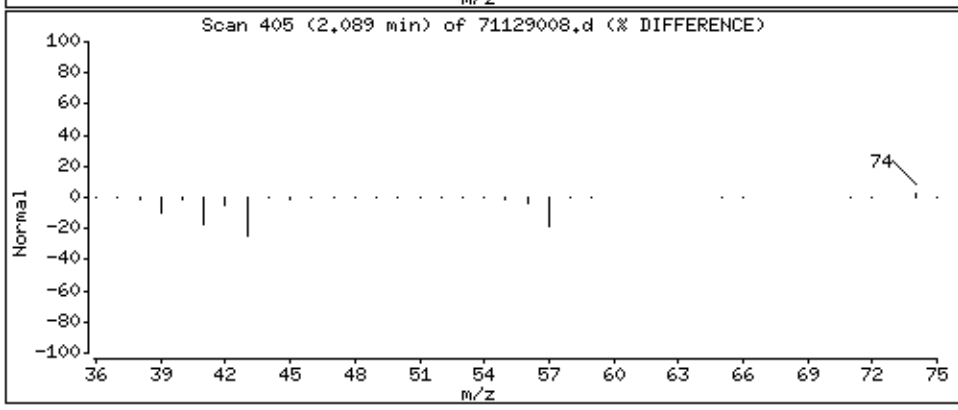












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

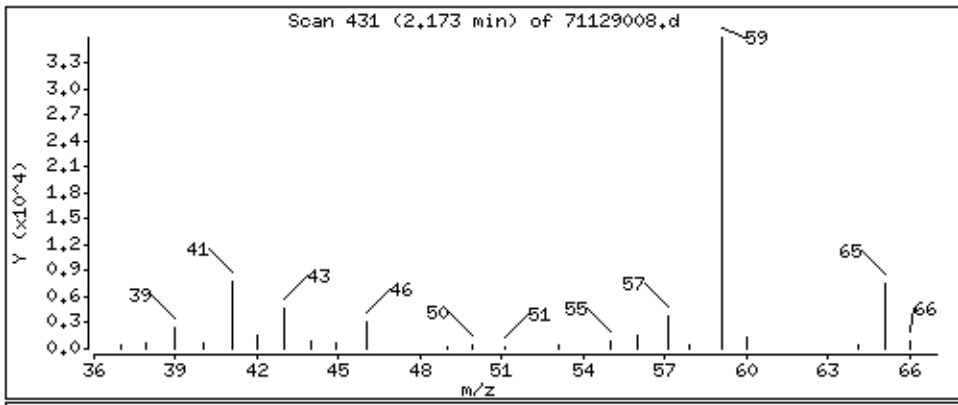
Column phase: RTX-VMS

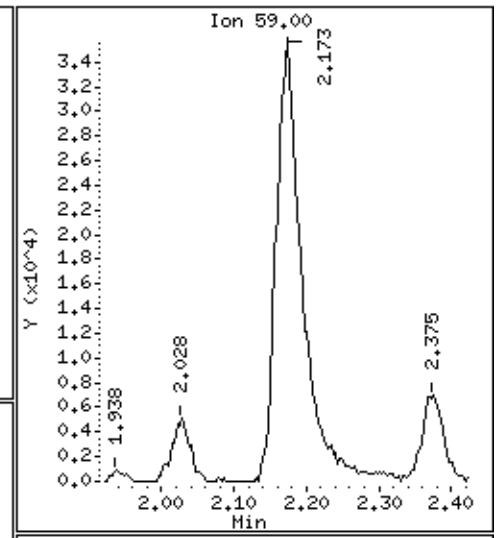
Column diameter: 0.18

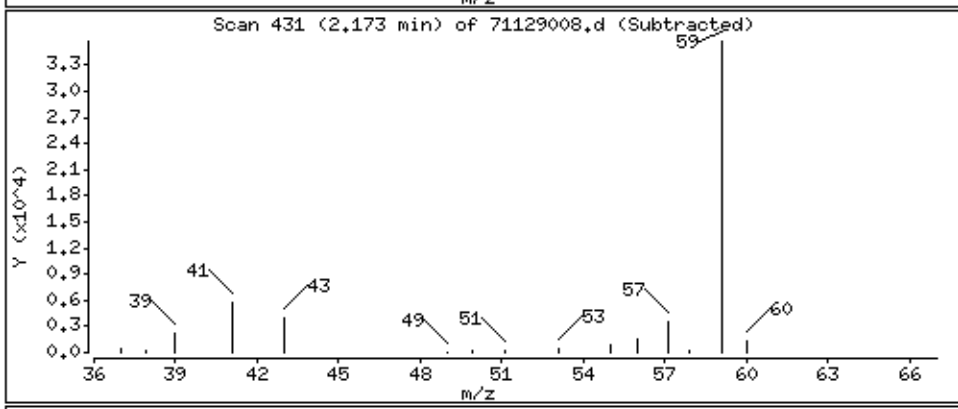
21 tert-Butyl Alcohol

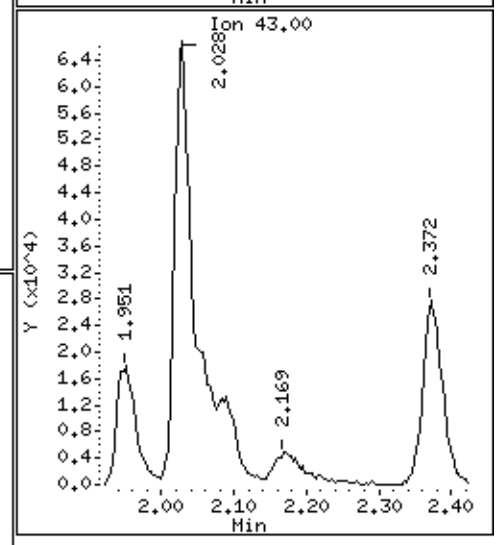
Concentration: 114 ug/L

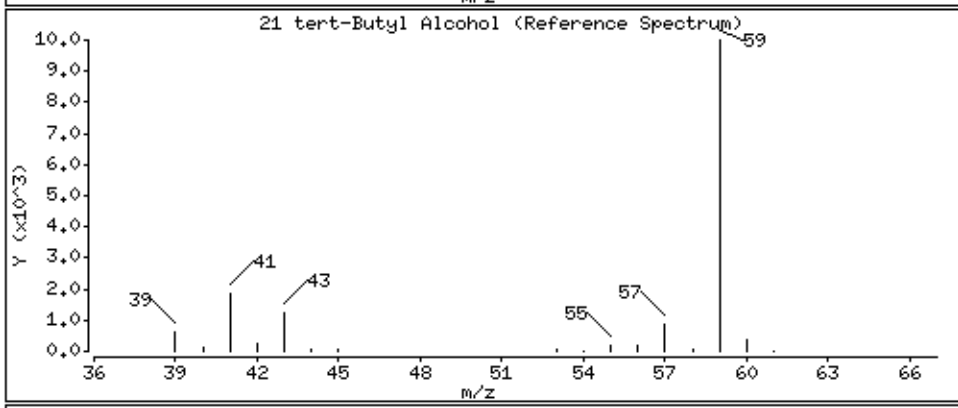
Review Code:

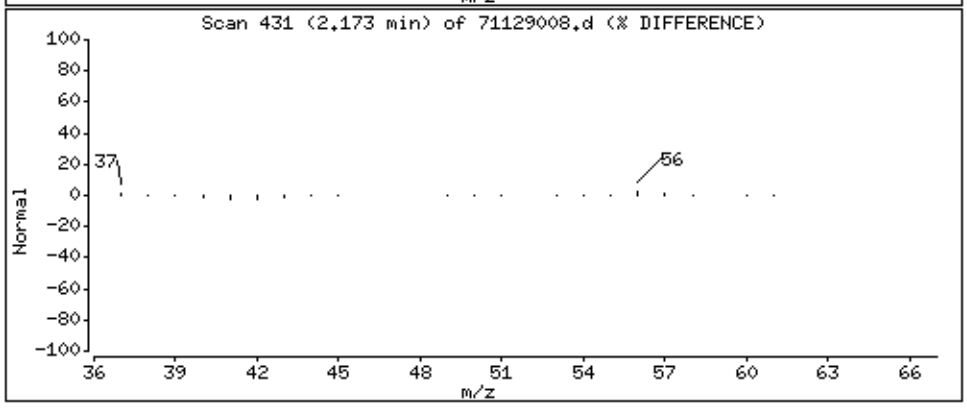












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

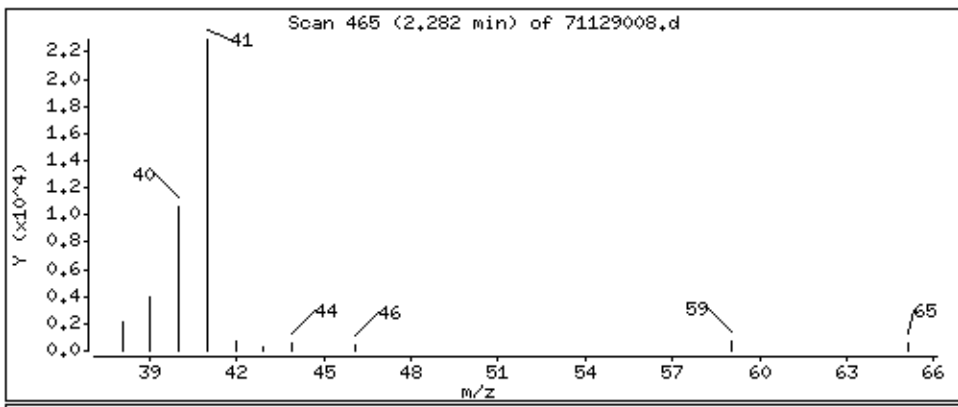
Column phase: RTX-VMS

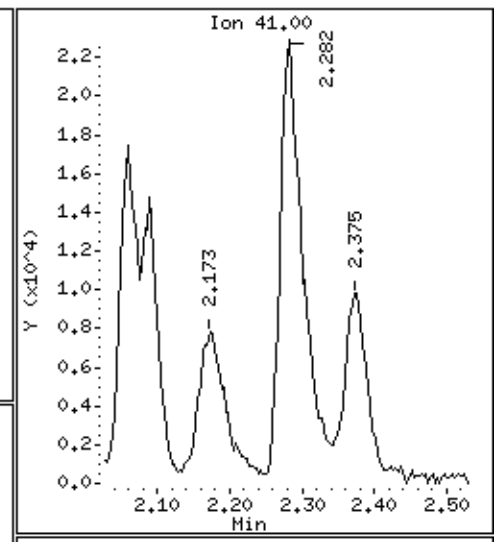
Column diameter: 0.18

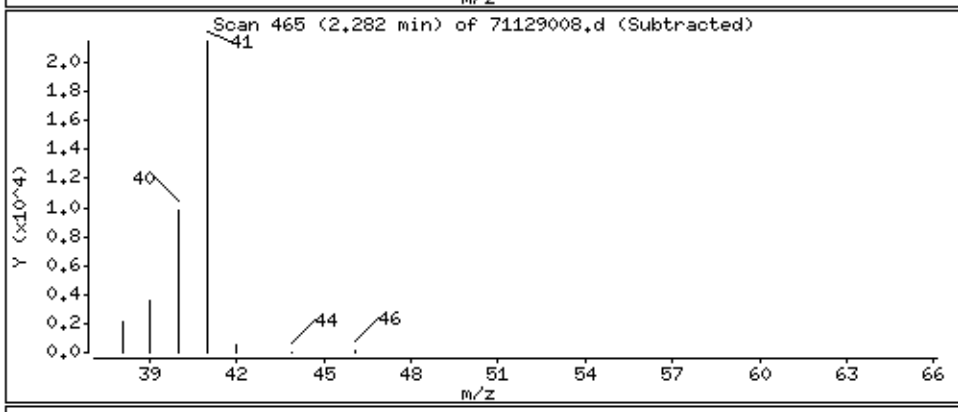
22 Acetonitrile

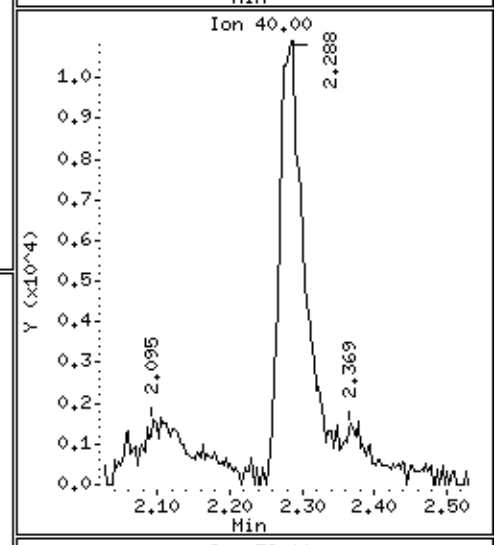
Concentration: 112 ug/L

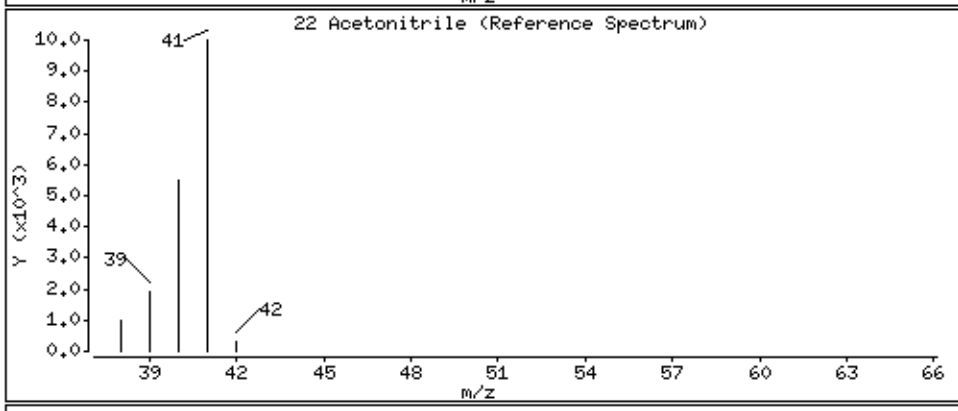
Review Code:

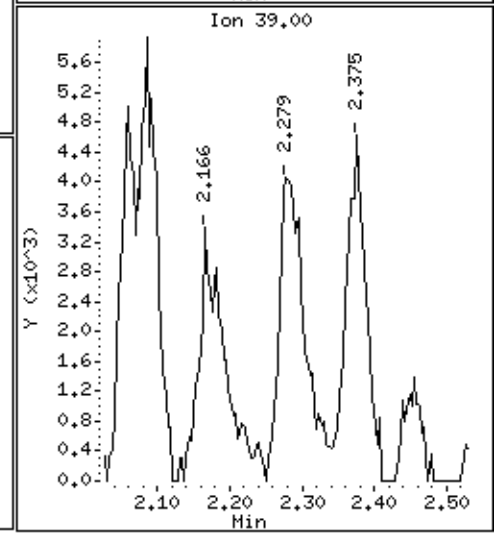


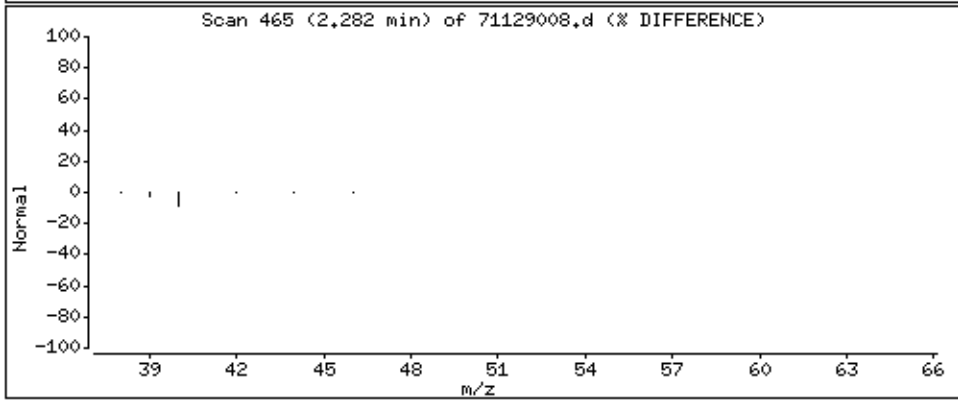












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

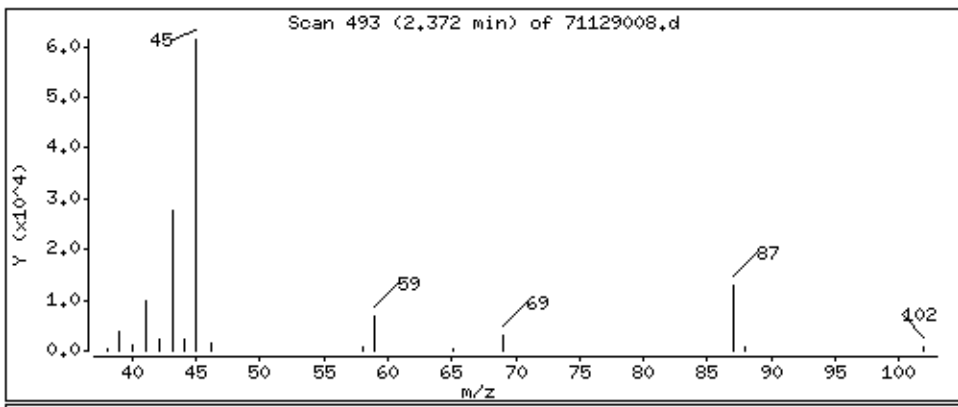
Column phase: RTX-VMS

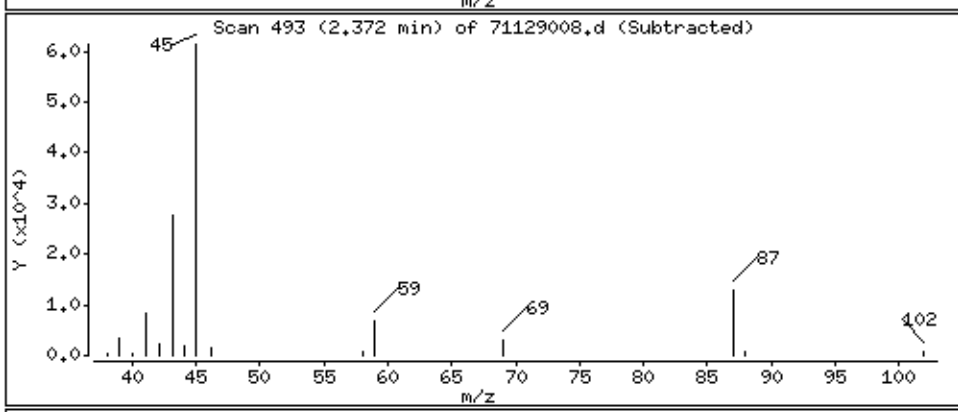
Column diameter: 0.18

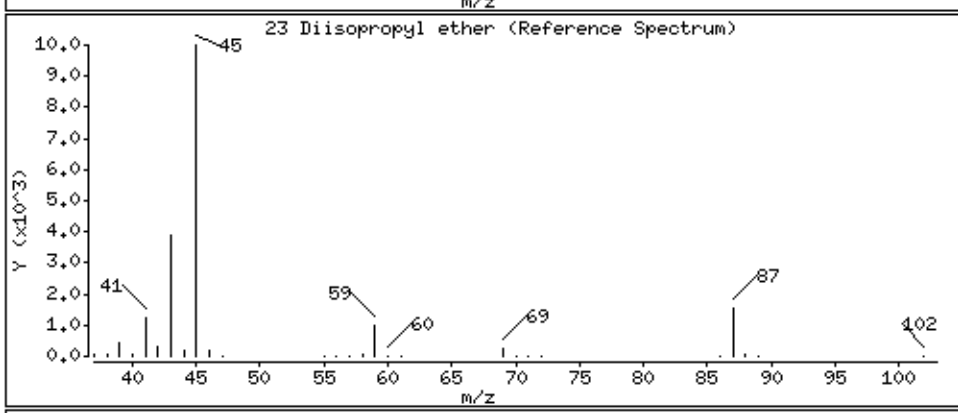
23 Diisopropyl ether

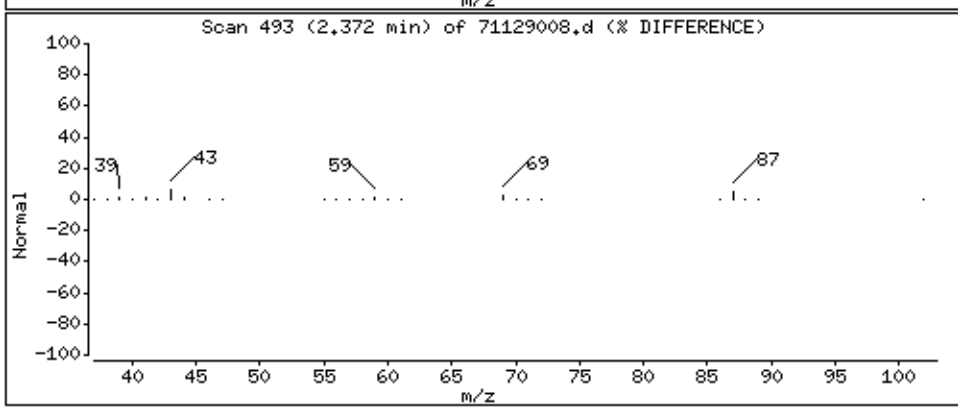
Concentration: 21.1 ug/L

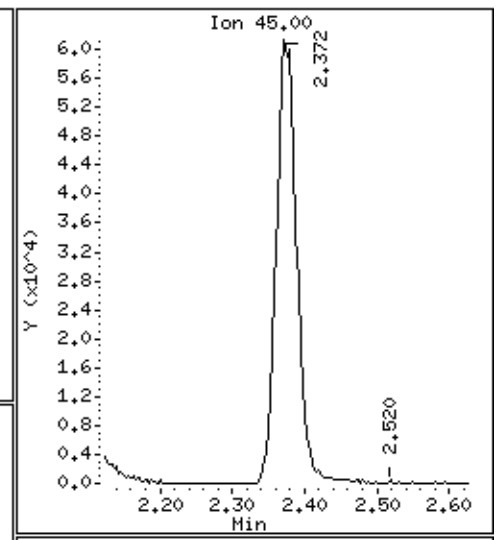
Review Code:

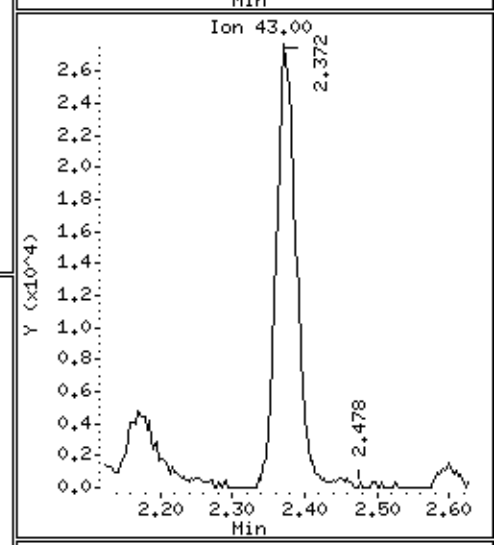


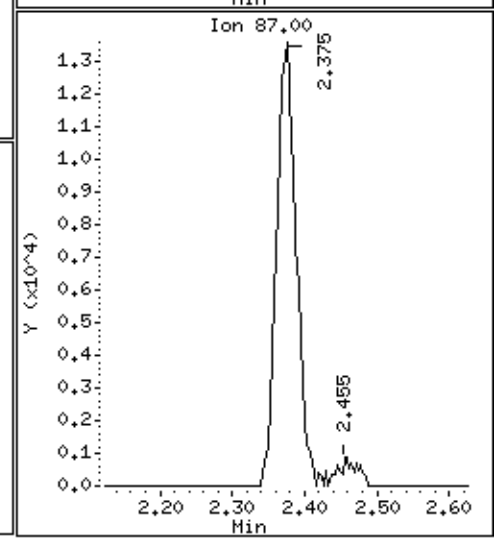












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

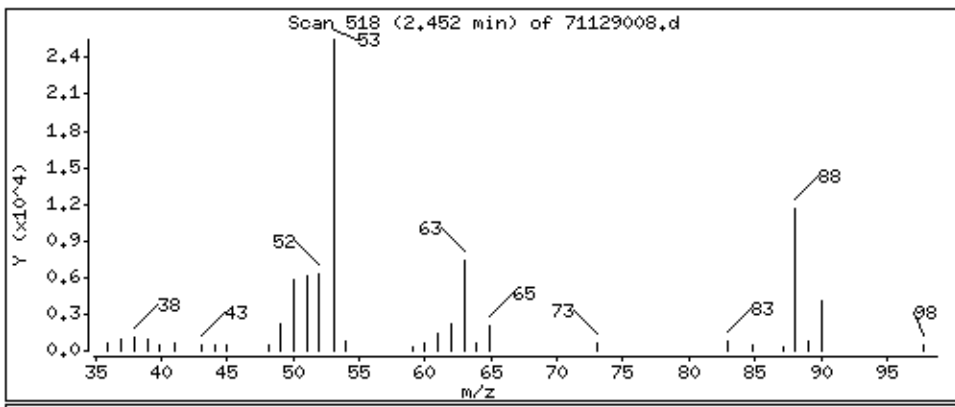
Column phase: RTX-VMS

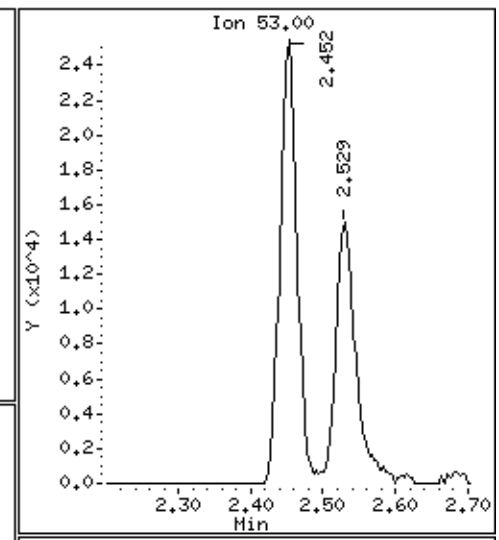
Column diameter: 0.18

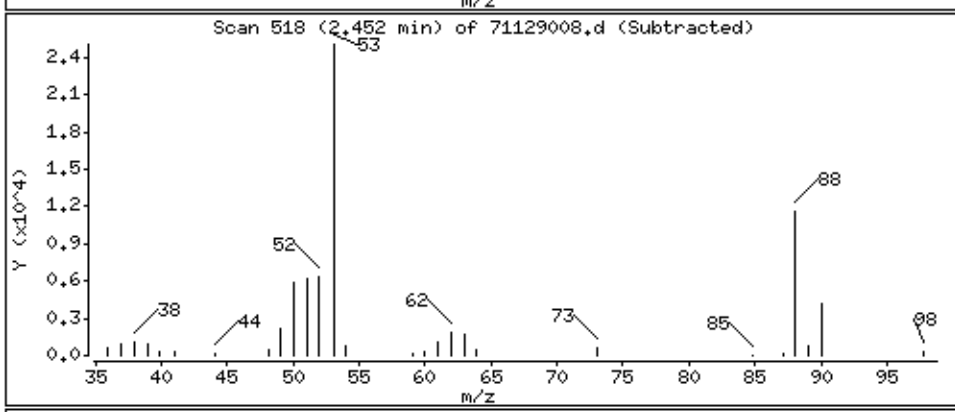
24 Chloroprene

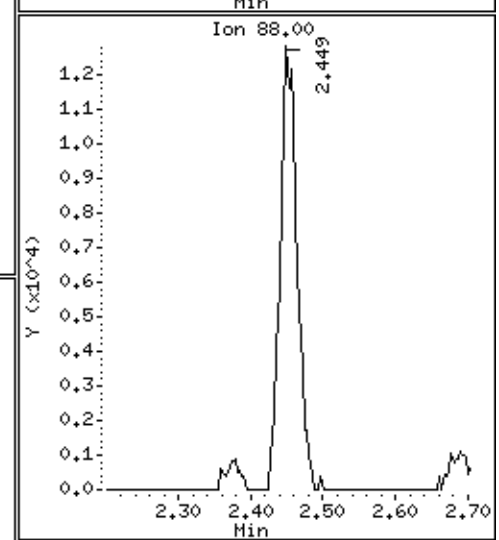
Concentration: 20.8 ug/L

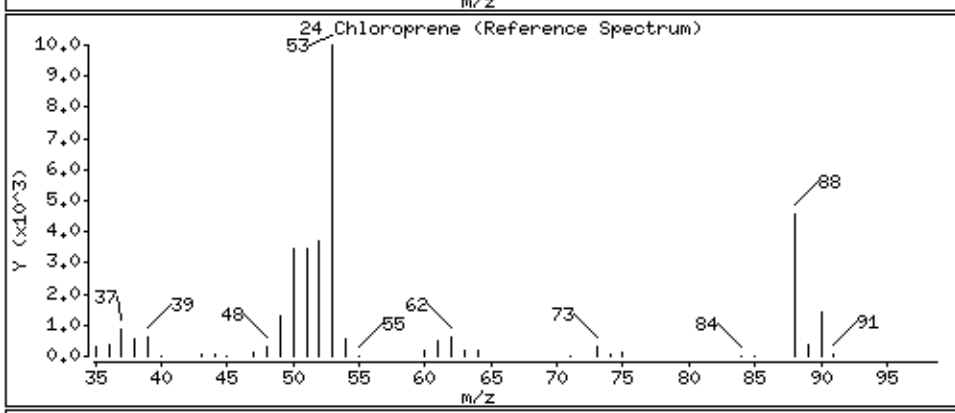
Review Code:

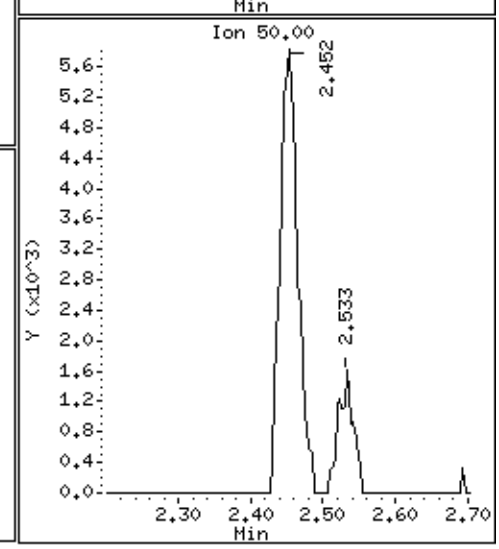


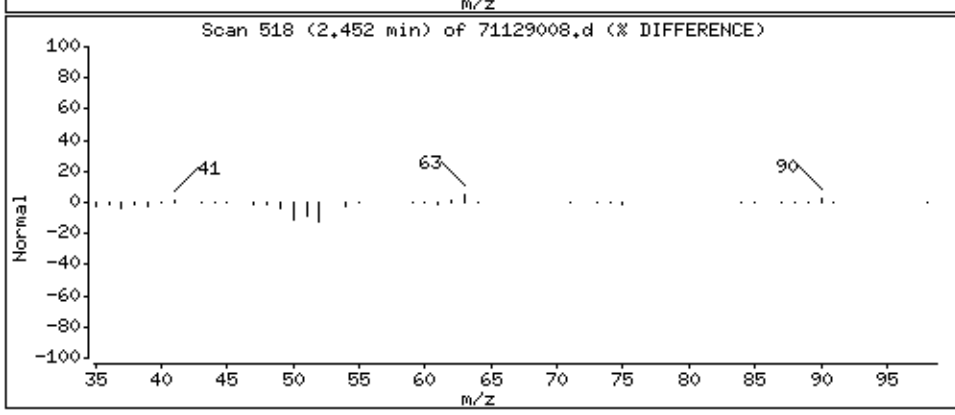












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

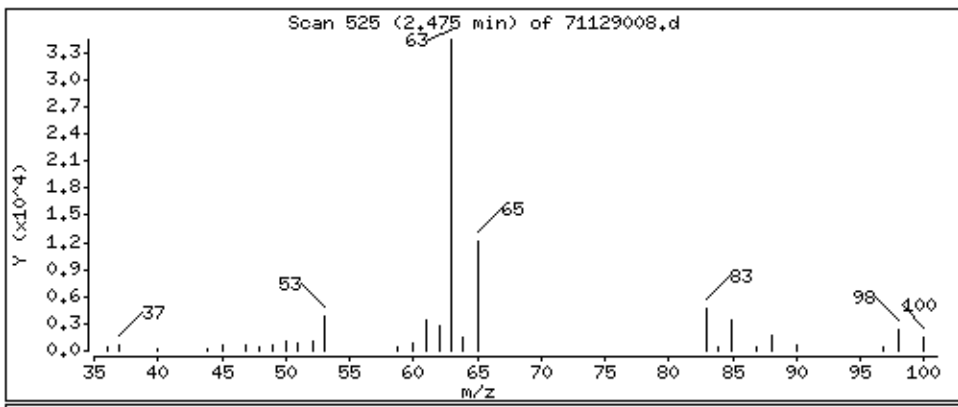
Column phase: RTX-VMS

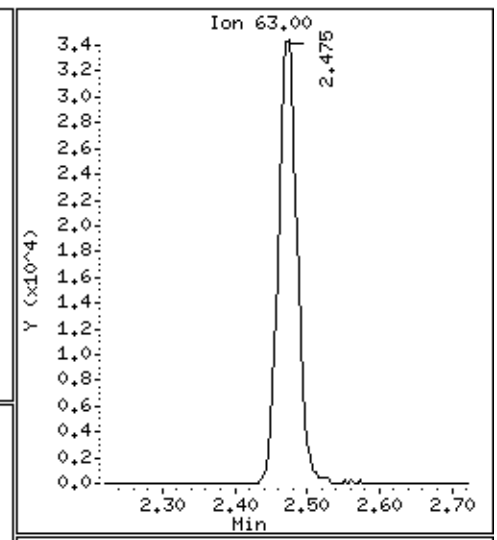
Column diameter: 0.18

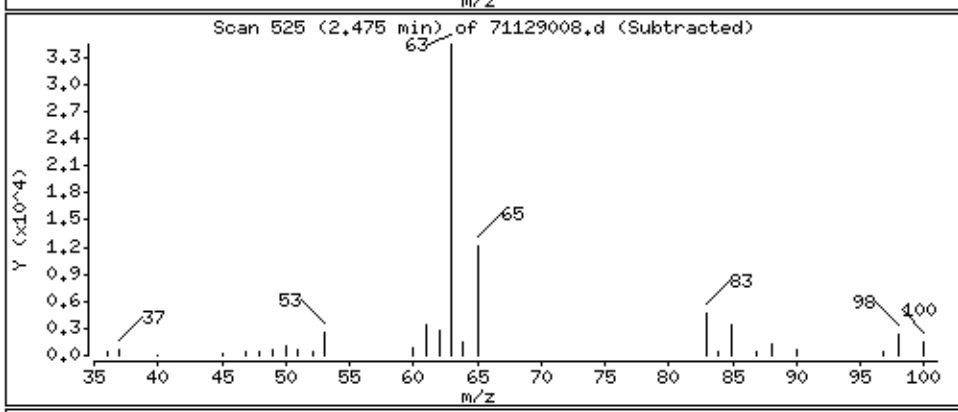
25 1,1-Dichloroethane

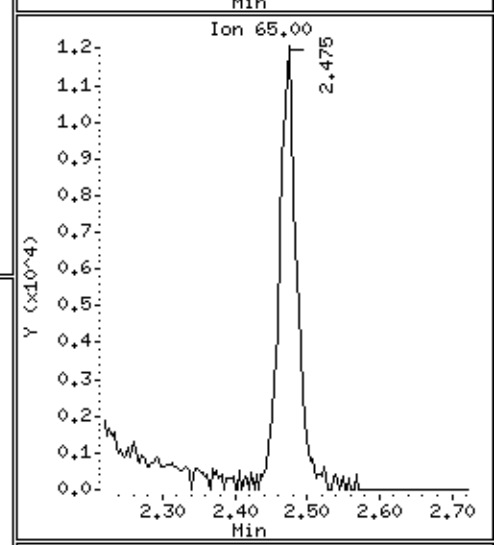
Concentration: 19.4 ug/L

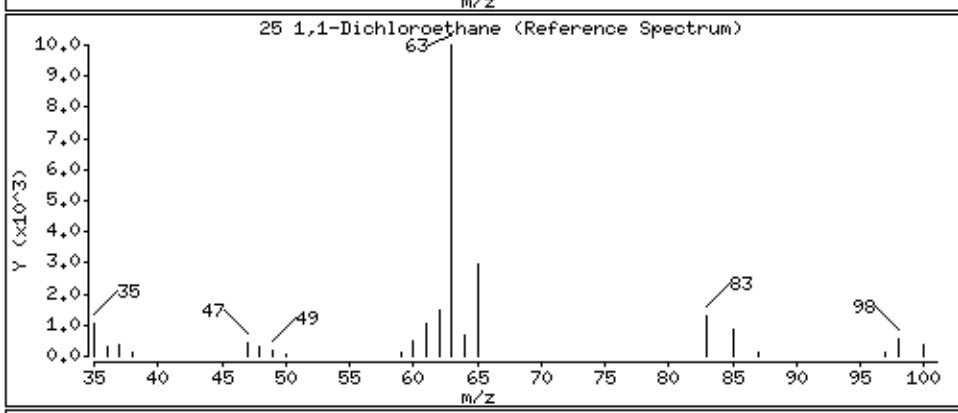
Review Code:

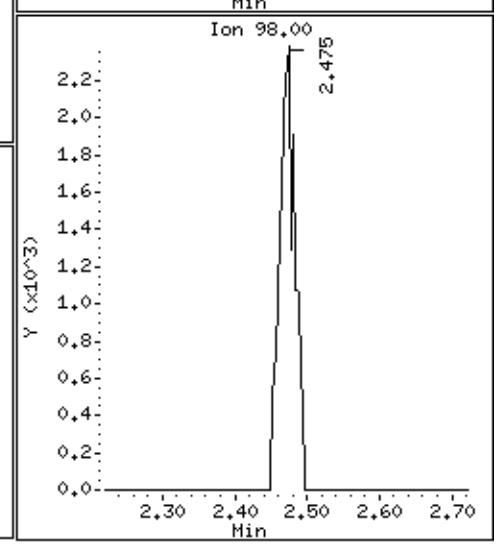


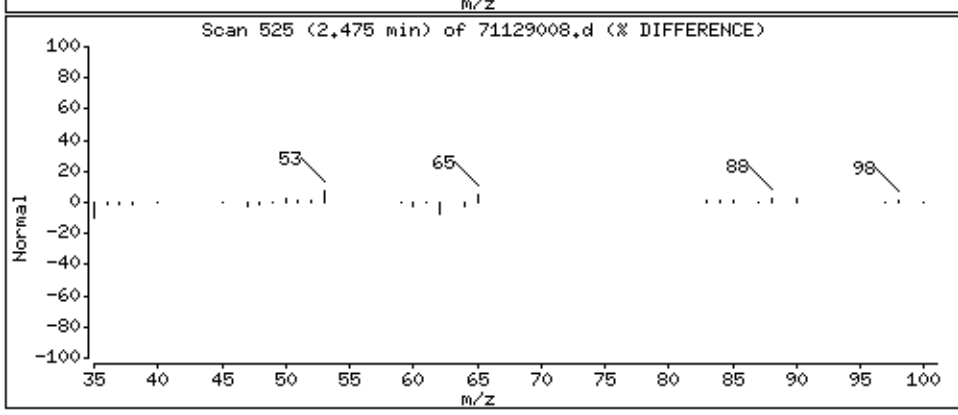












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

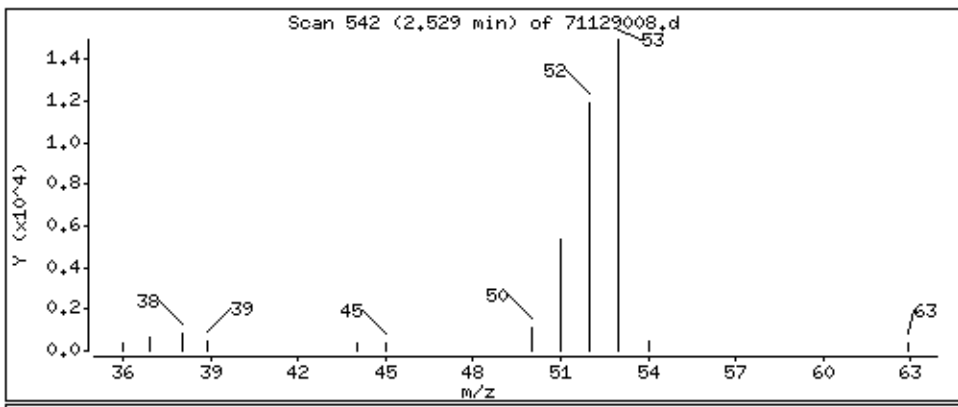
Column phase: RTX-VMS

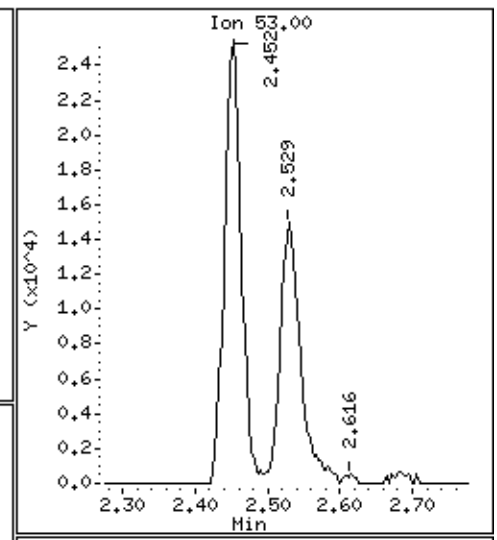
Column diameter: 0.18

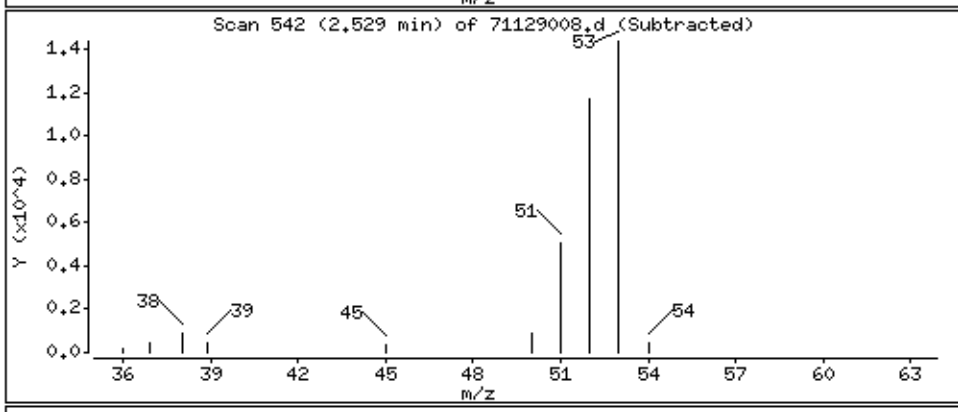
26 Acrylonitrile

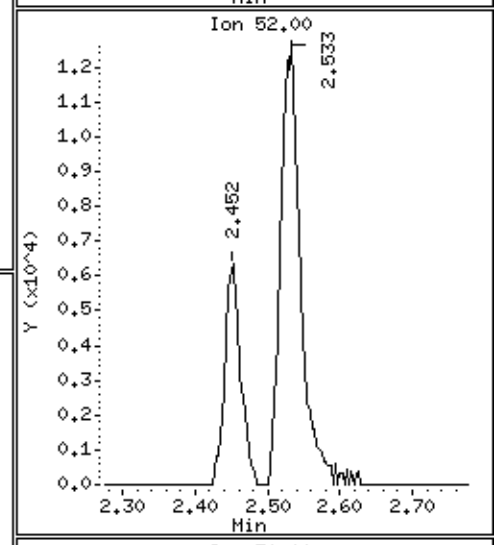
Concentration: 21.9 ug/L

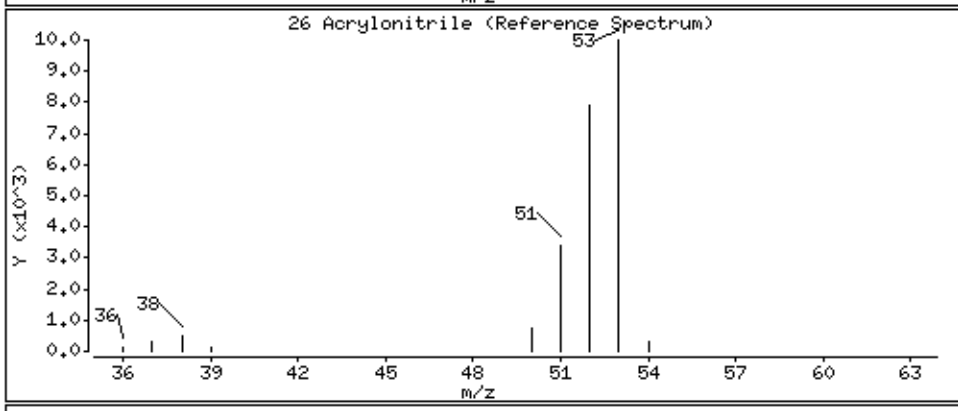
Review Code:

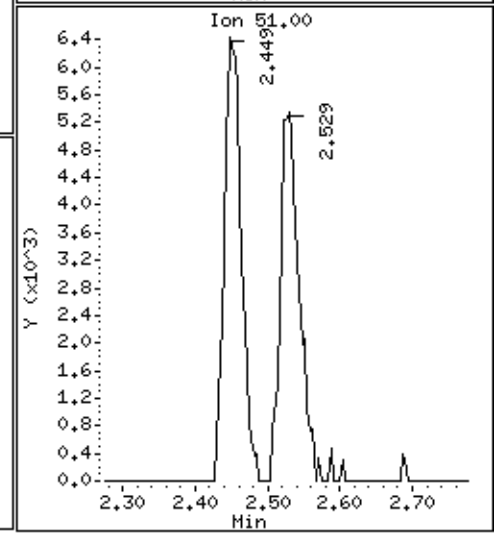


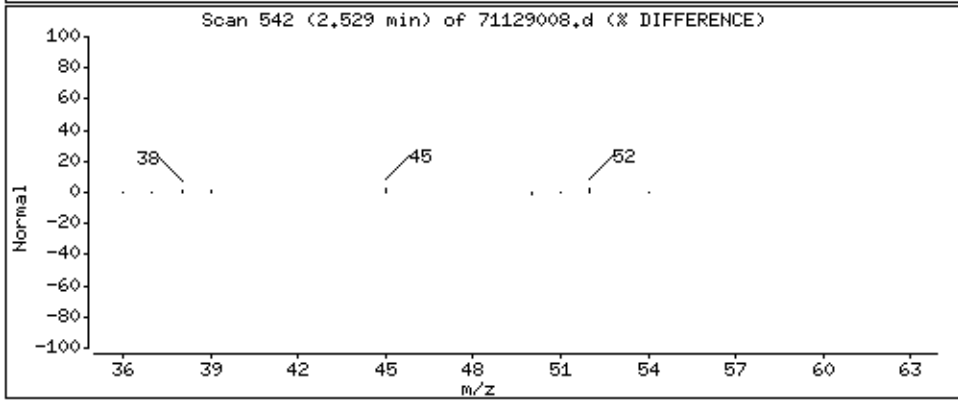












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

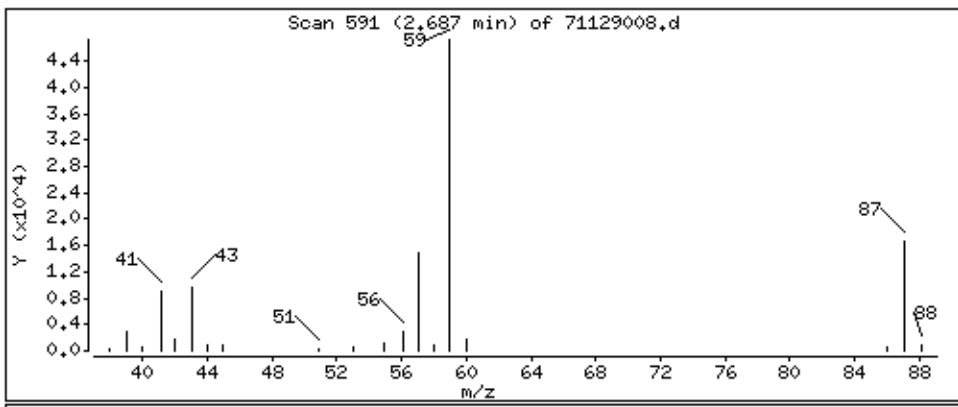
Column phase: RTX-VMS

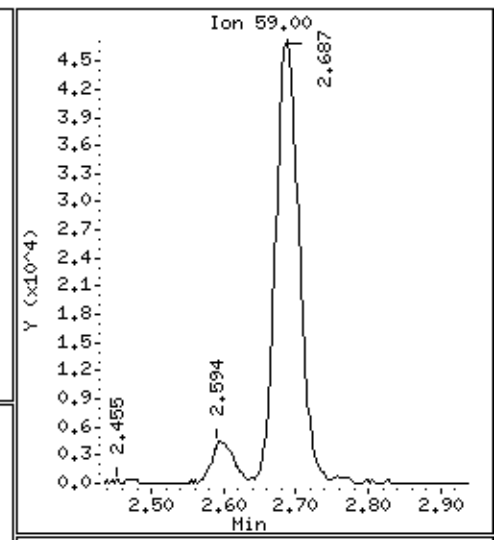
Column diameter: 0.18

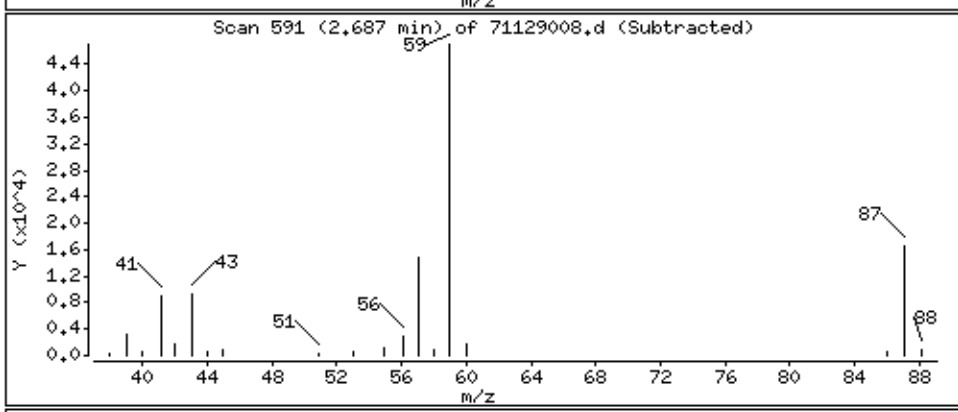
27 Ethyl-tert-butyl ether

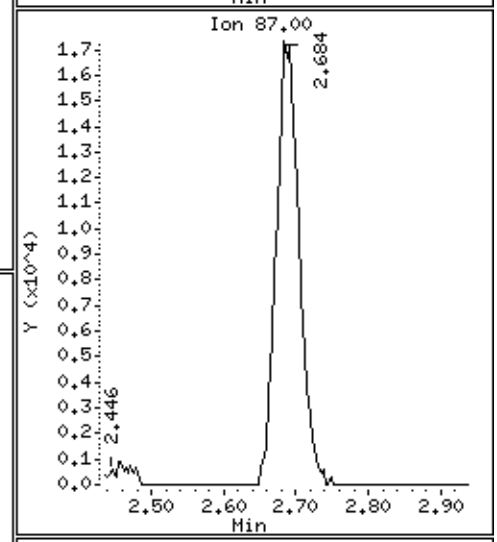
Concentration: 19.7 ug/L

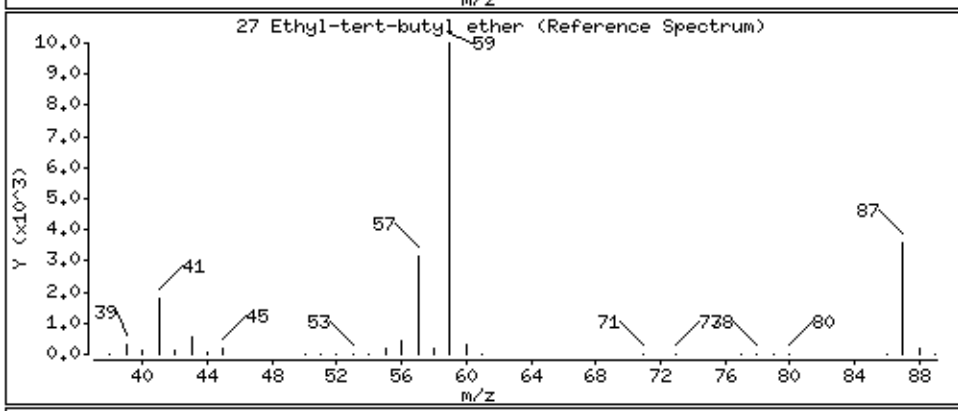
Review Code:

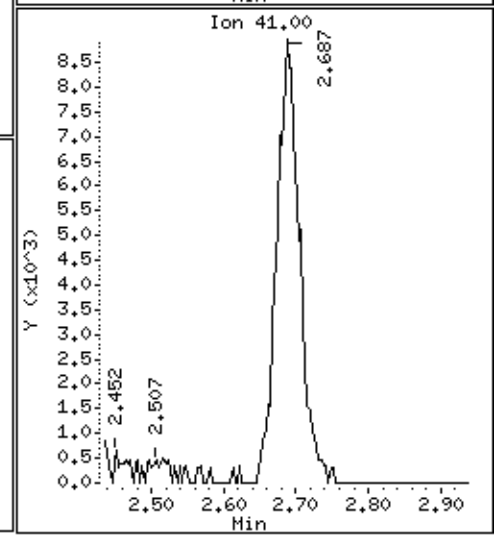


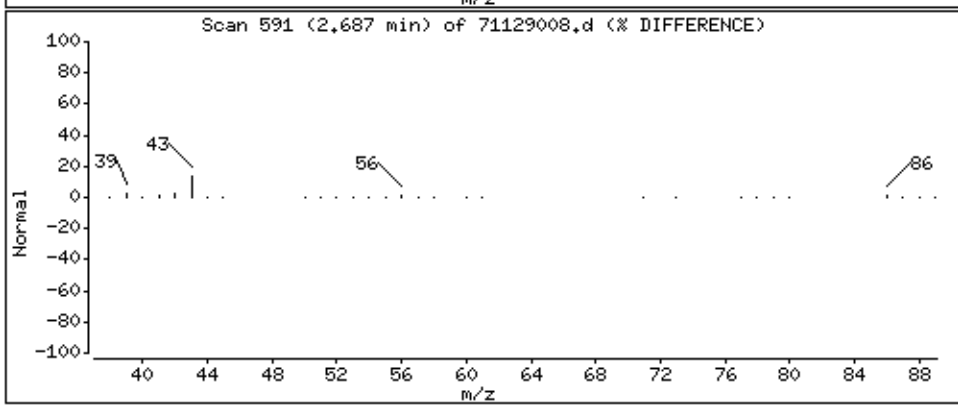












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

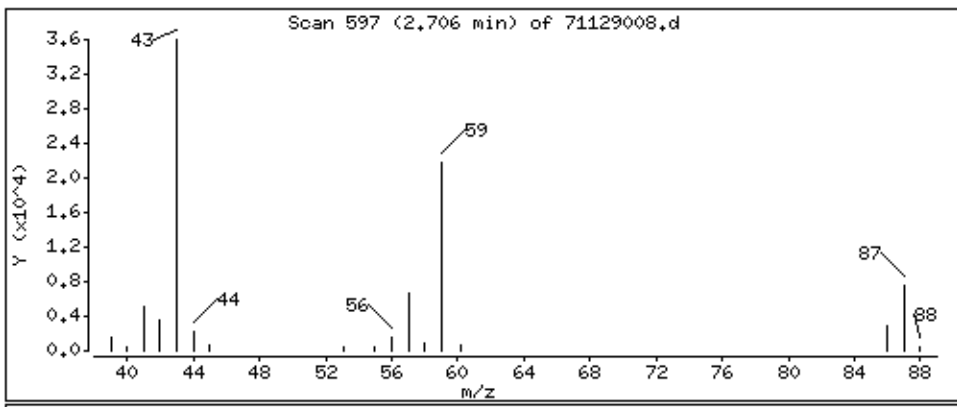
Column phase: RTX-VMS

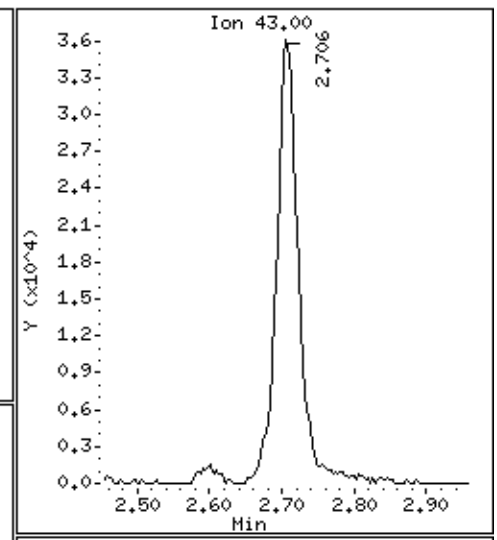
Column diameter: 0.18

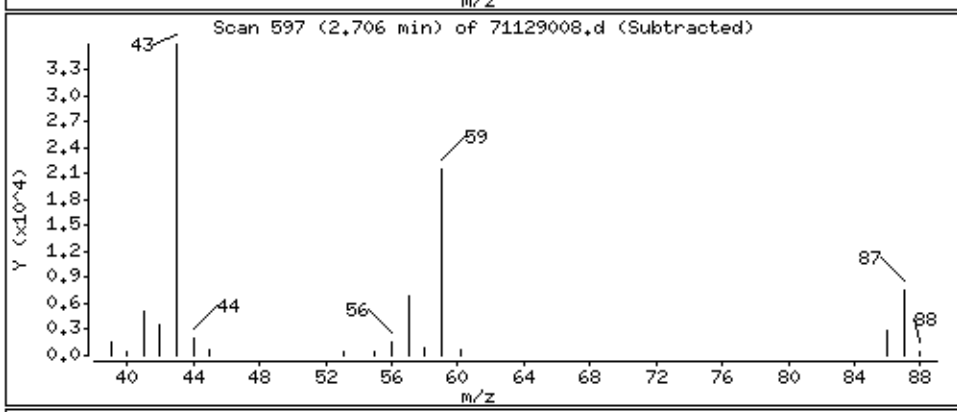
28 Vinyl acetate

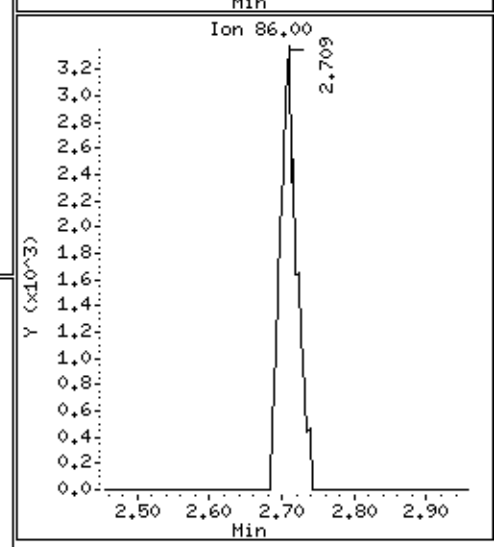
Concentration: 15.4 ug/L

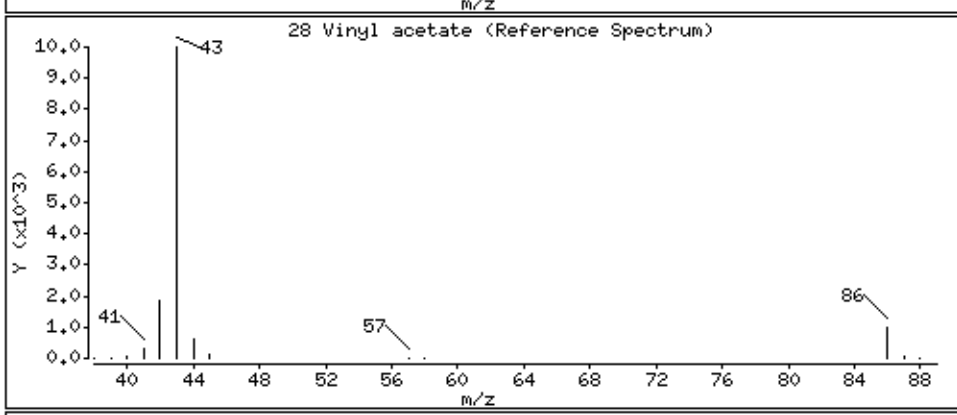
Review Code:

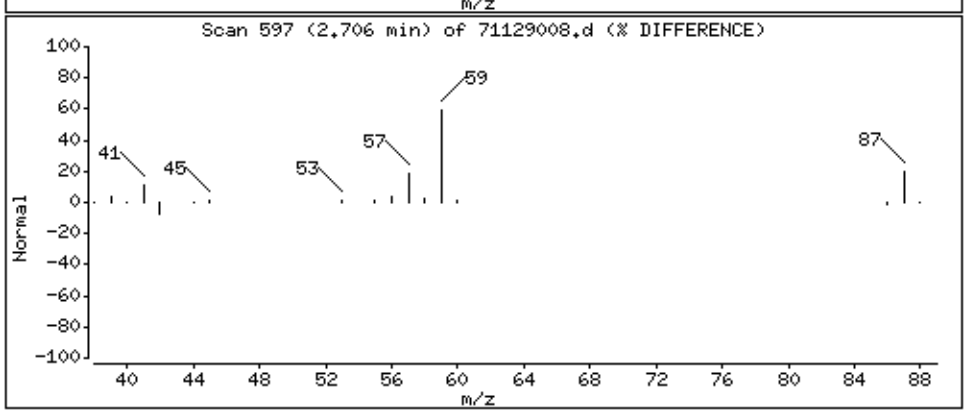












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

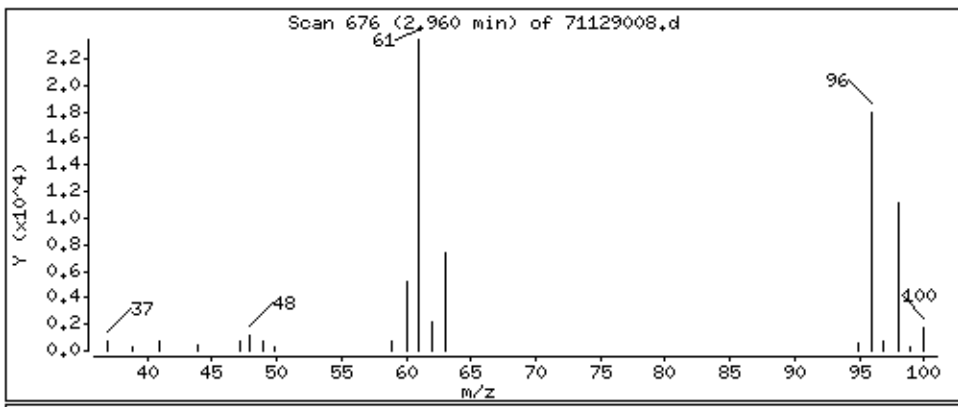
Column phase: RTX-VMS

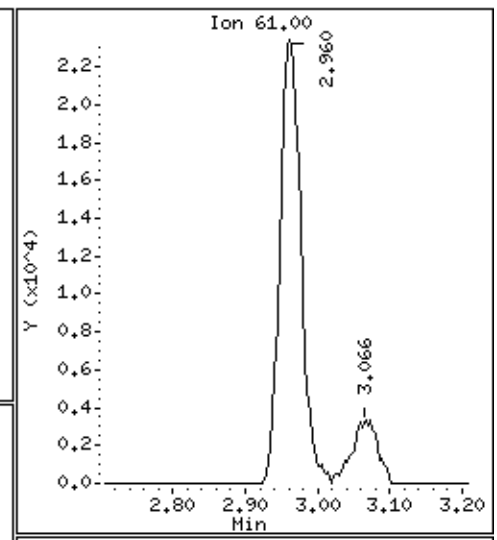
Column diameter: 0.18

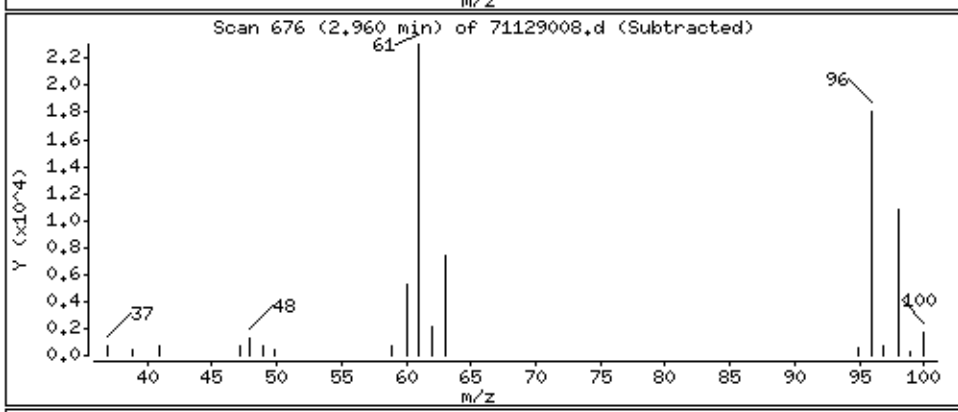
29 cis-1,2-Dichloroethene

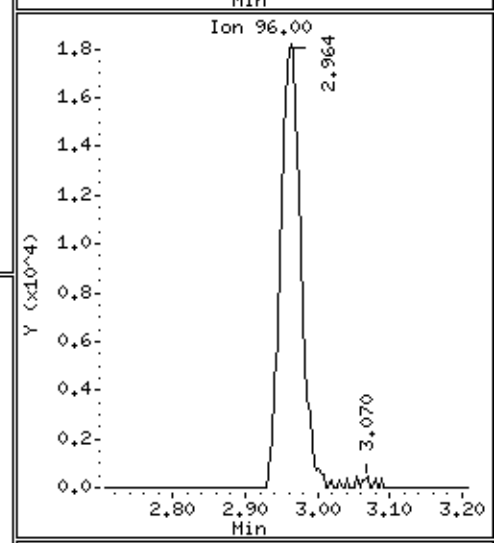
Concentration: 19.2 ug/L

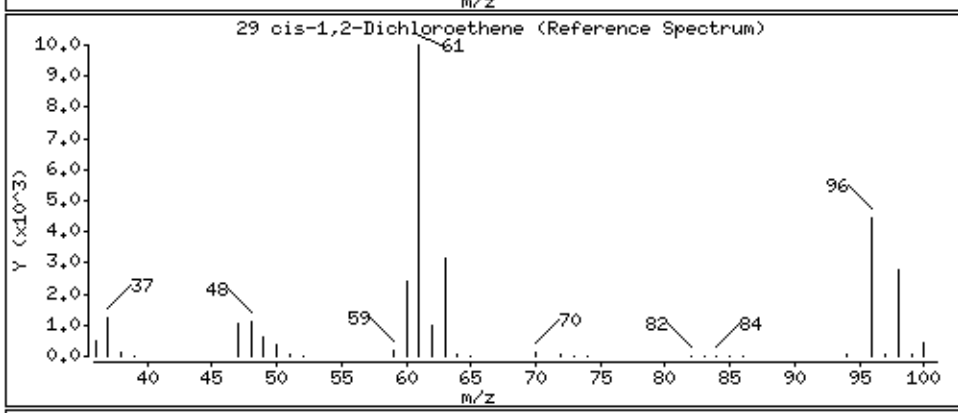
Review Code:

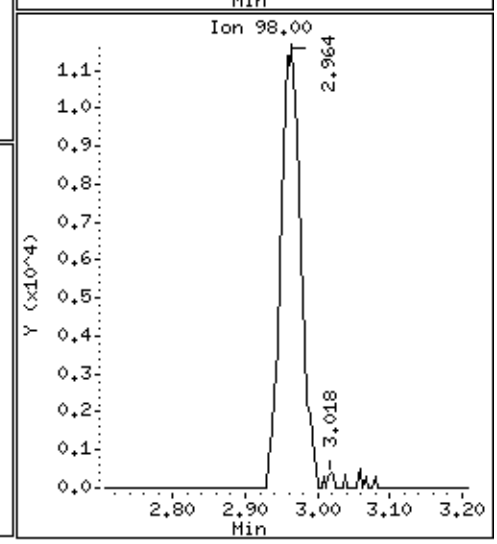


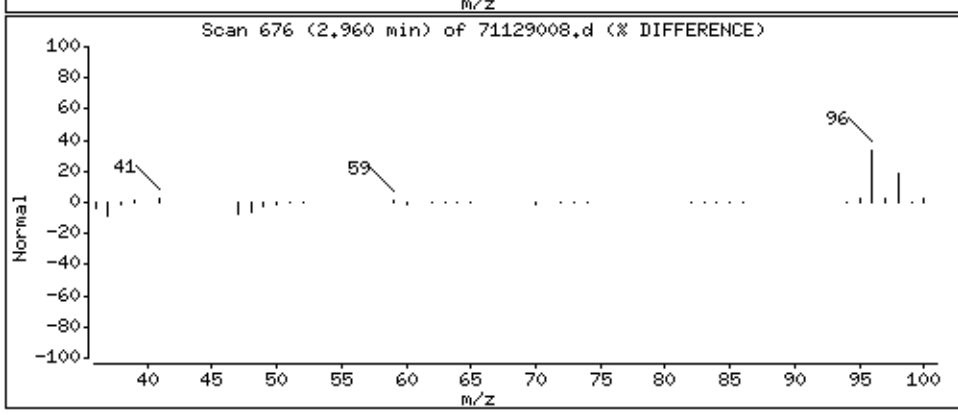












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

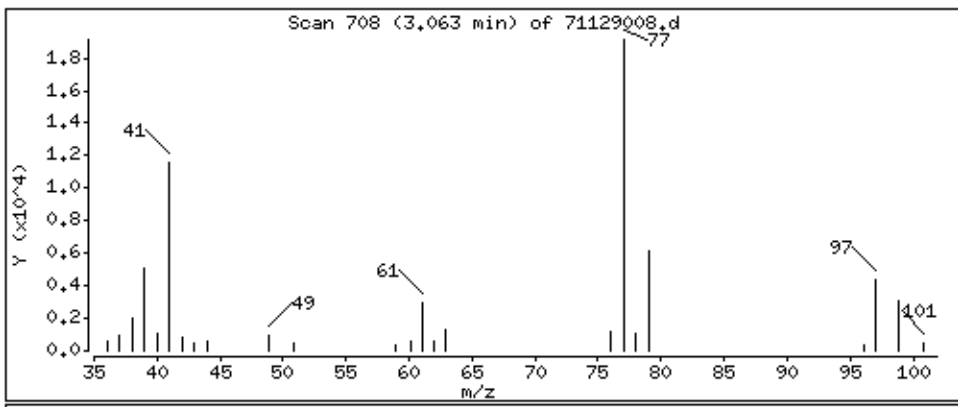
Column phase: RTX-VMS

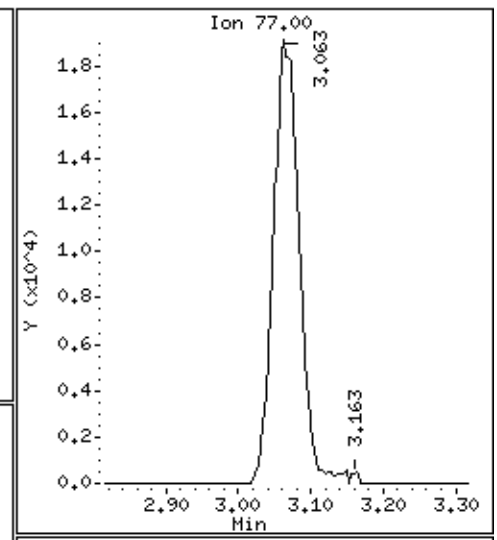
Column diameter: 0.18

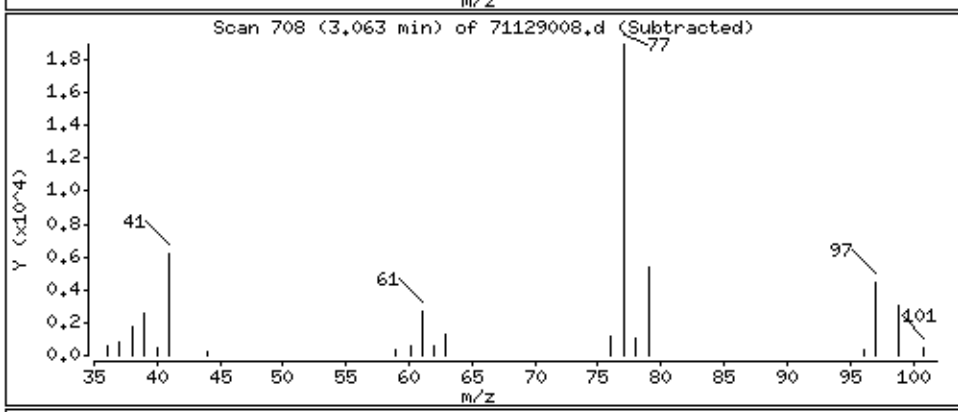
30 2,2-Dichloropropane

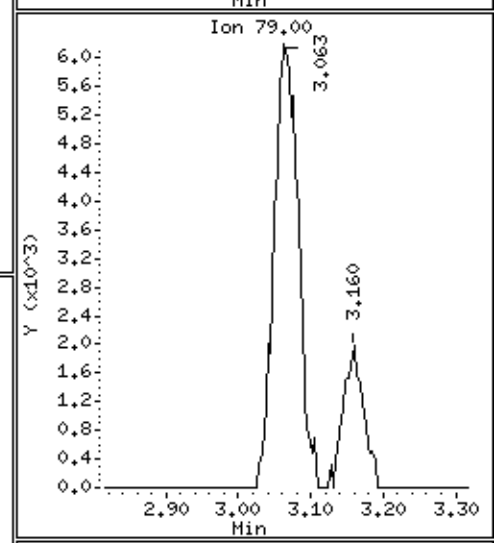
Concentration: 19.3 ug/L

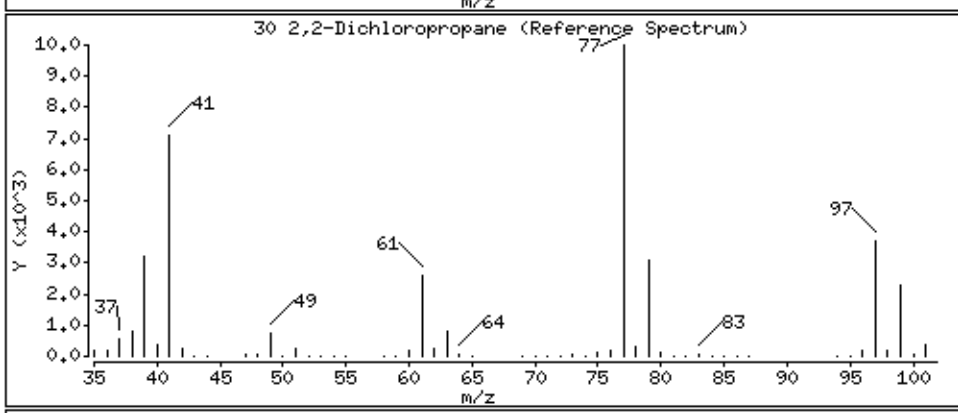
Review Code:

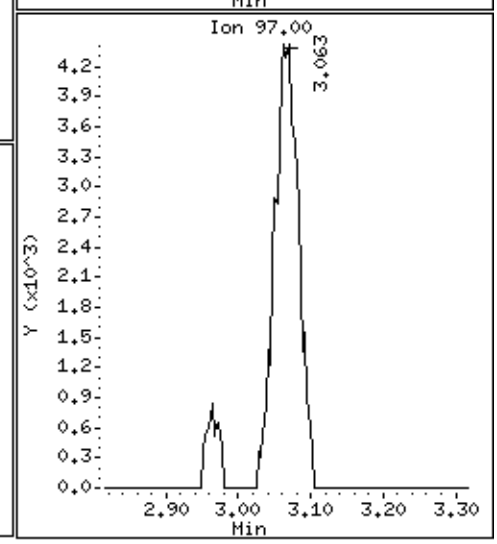


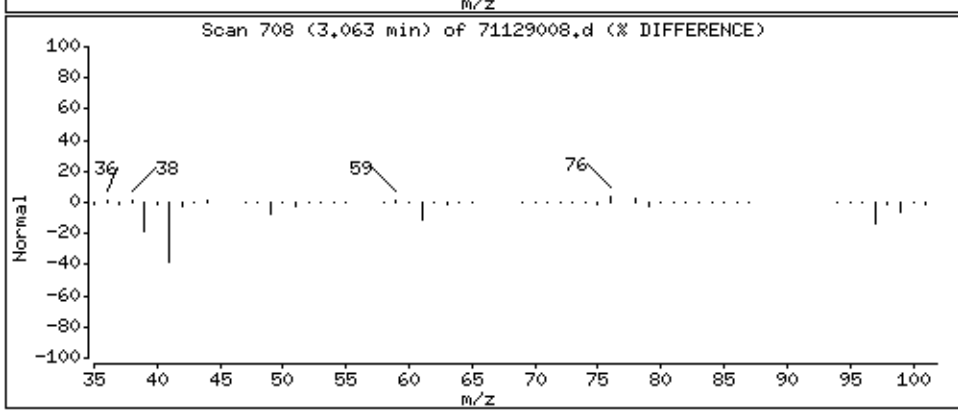












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

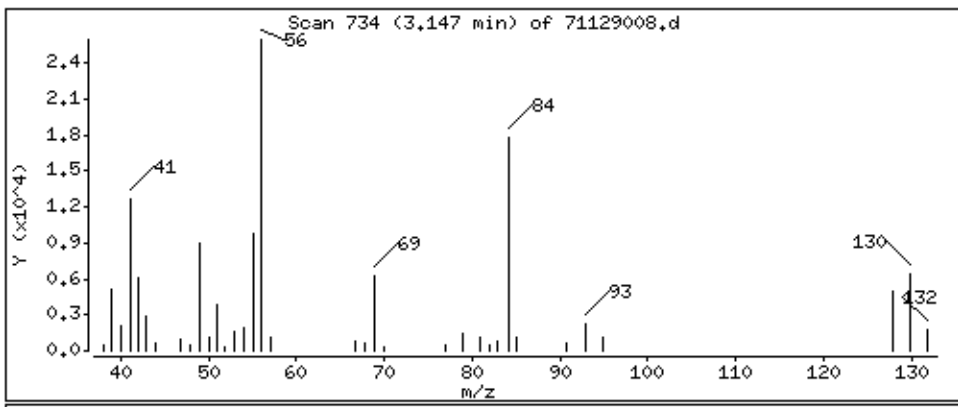
Column phase: RTX-VMS

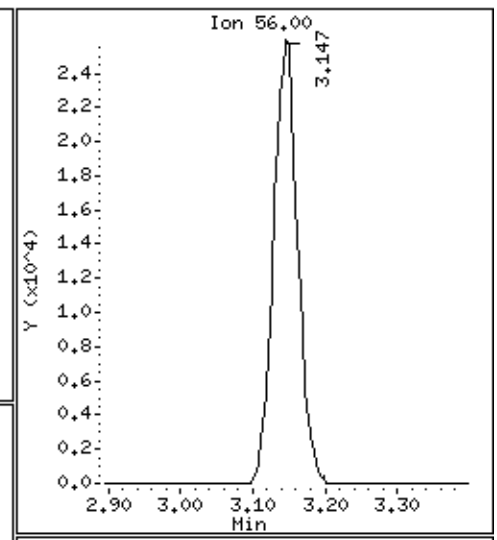
Column diameter: 0.18

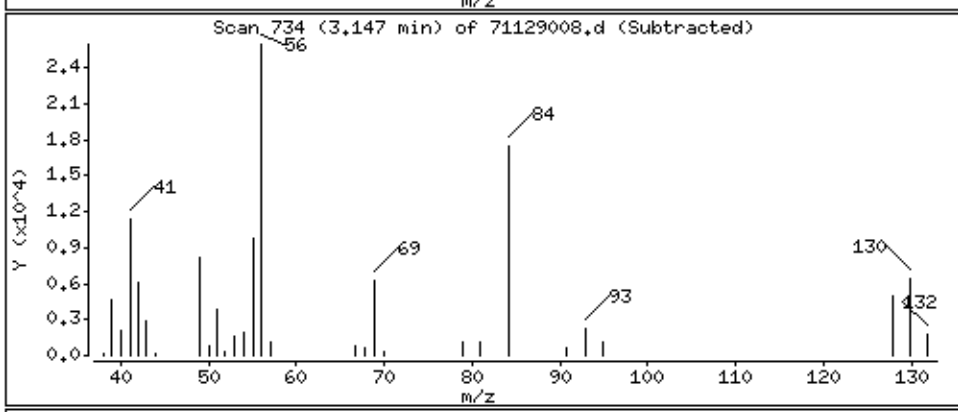
31 Cyclohexane

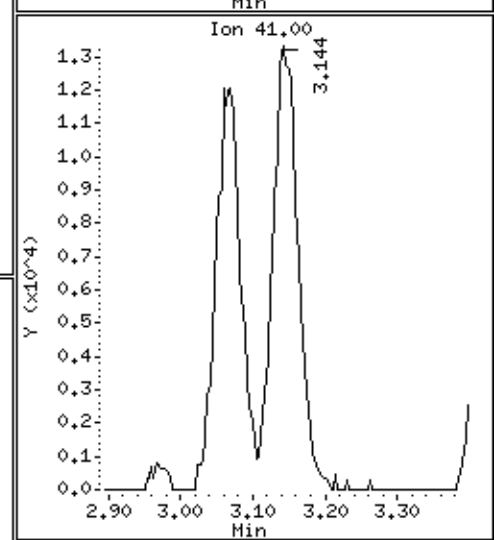
Concentration: 20.4 ug/L

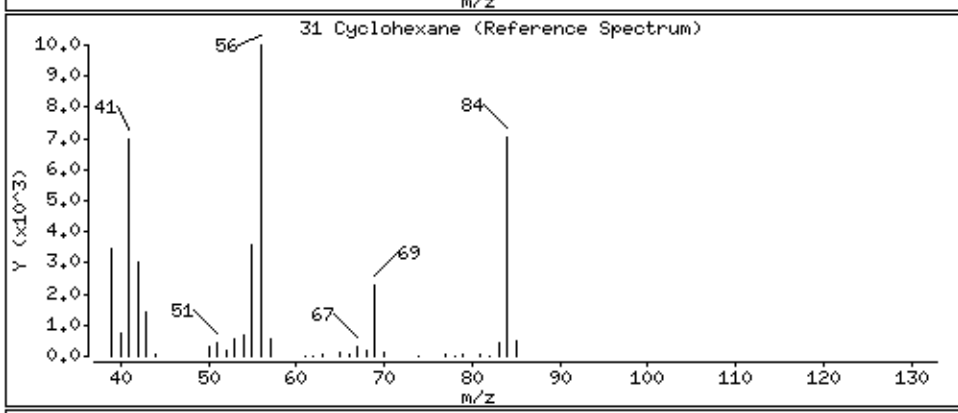
Review Code:

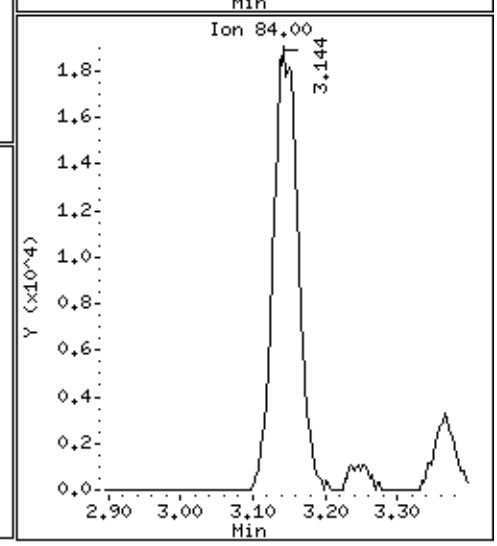


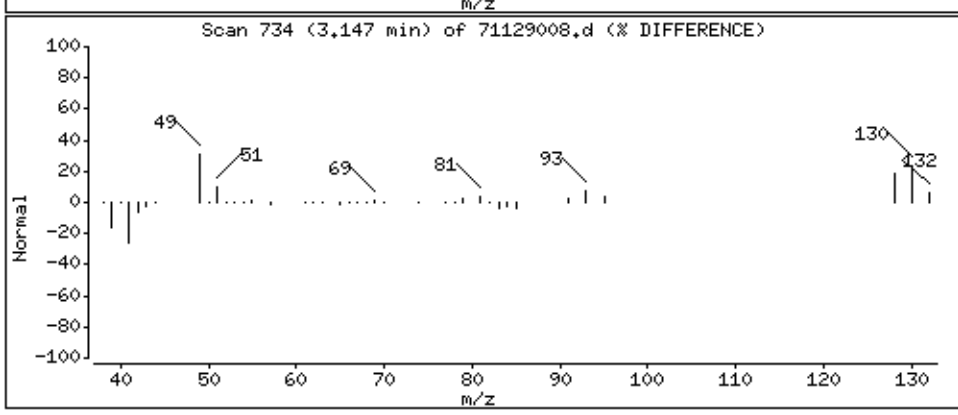












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

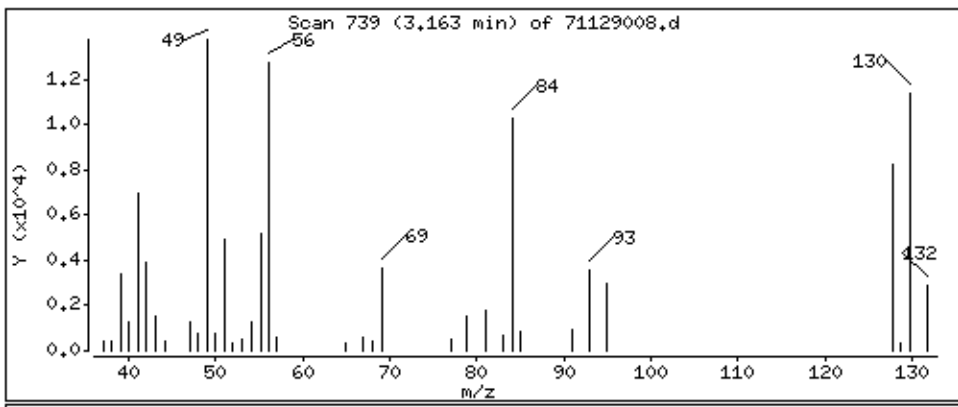
Column phase: RTX-VMS

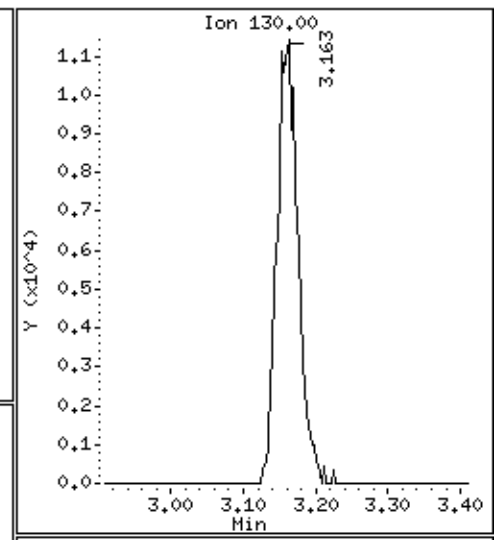
Column diameter: 0.18

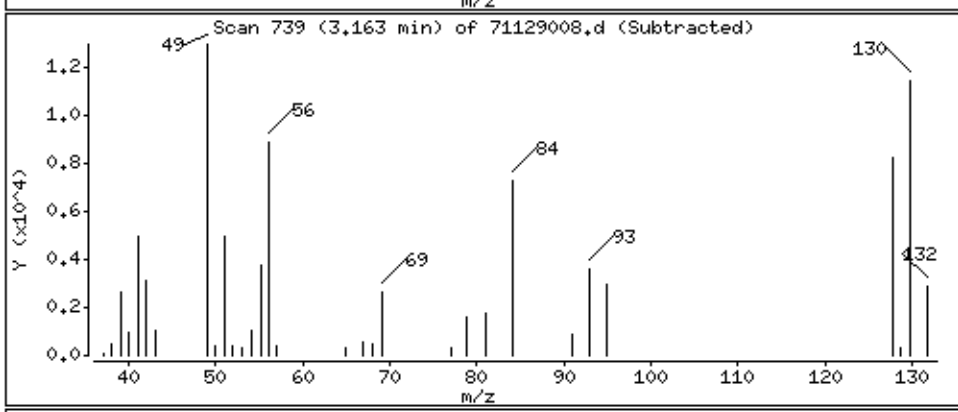
32 Bromochloromethane

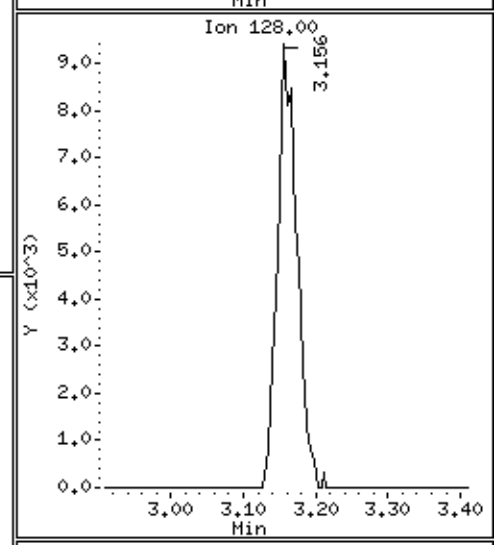
Concentration: 19.0 ug/L

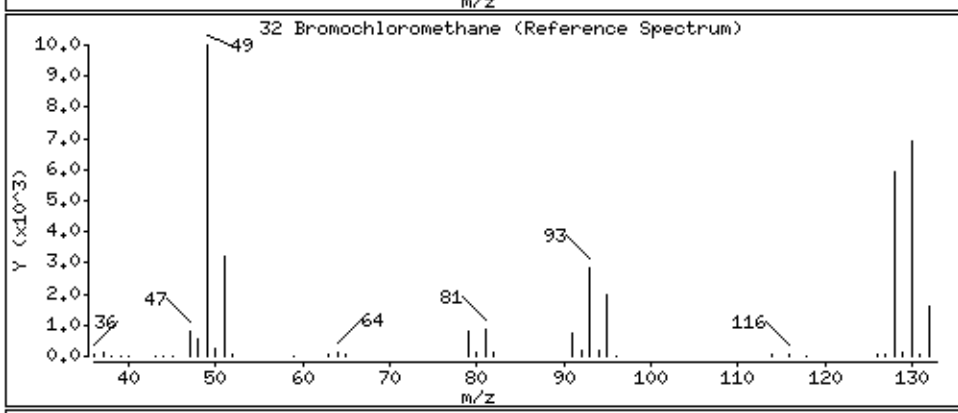
Review Code:

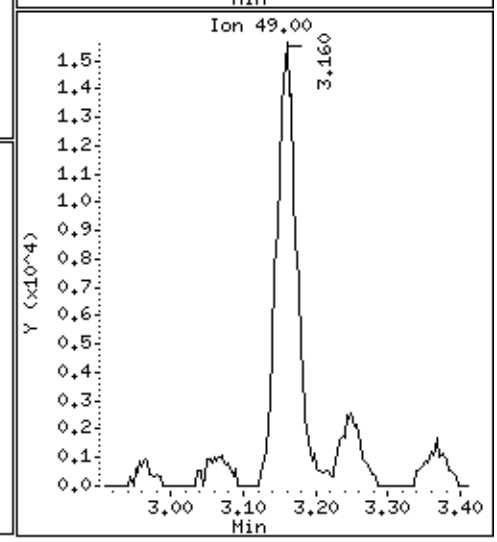


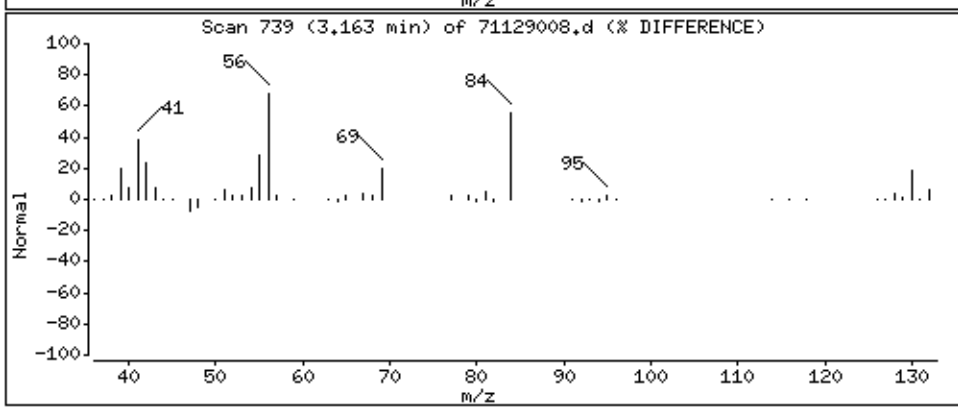












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

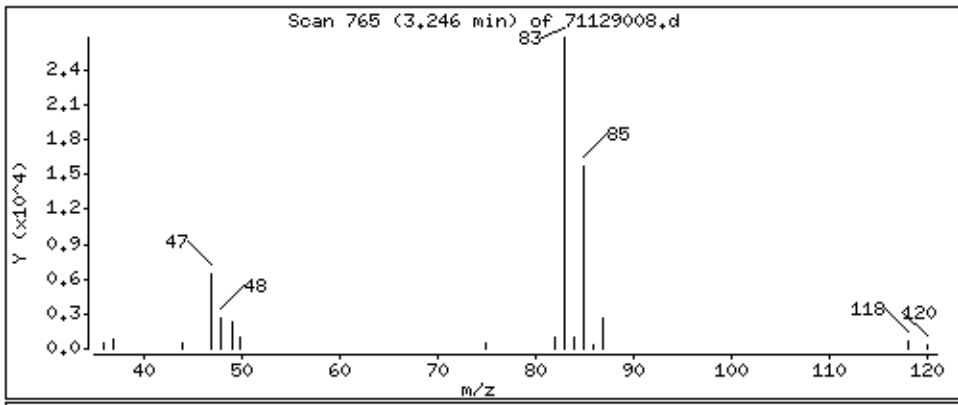
Column phase: RTX-VMS

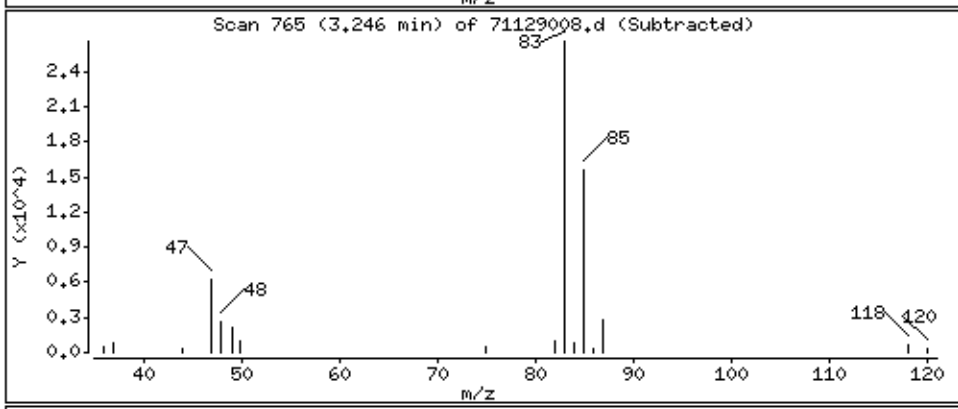
Column diameter: 0.18

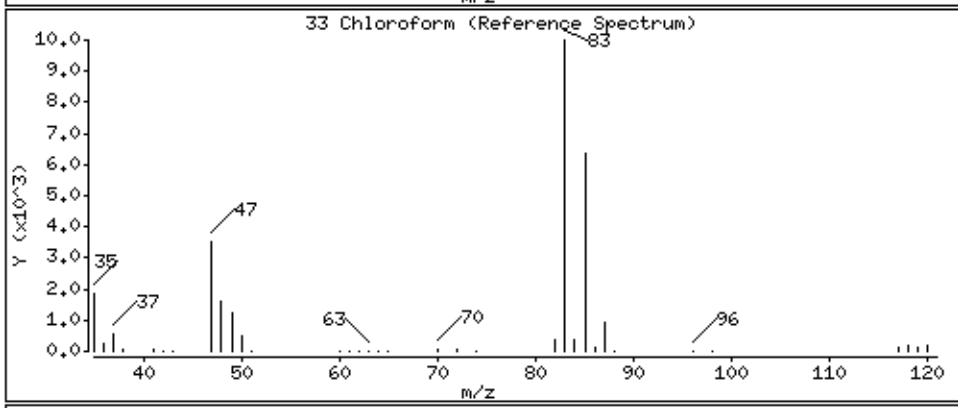
33 Chloroform

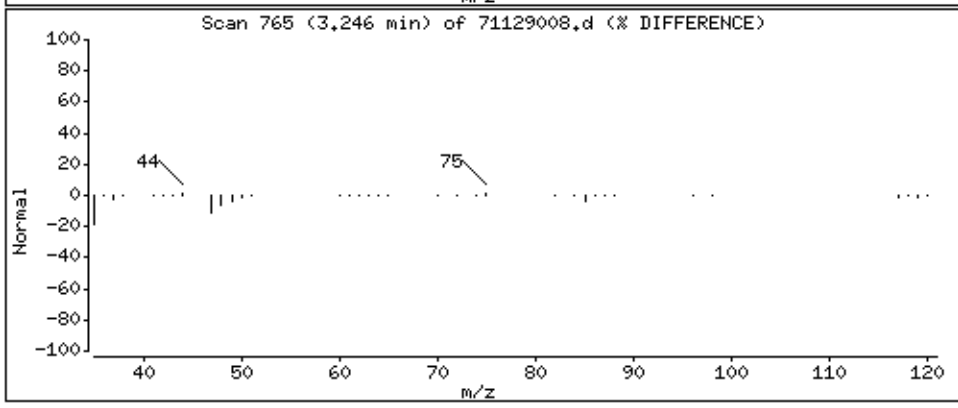
Concentration: 18.1 ug/L

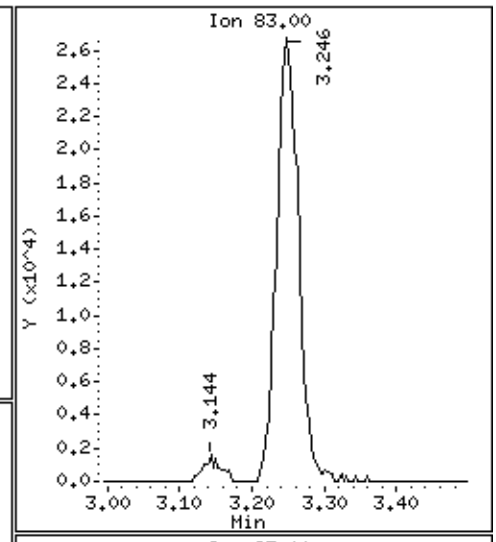
Review Code:

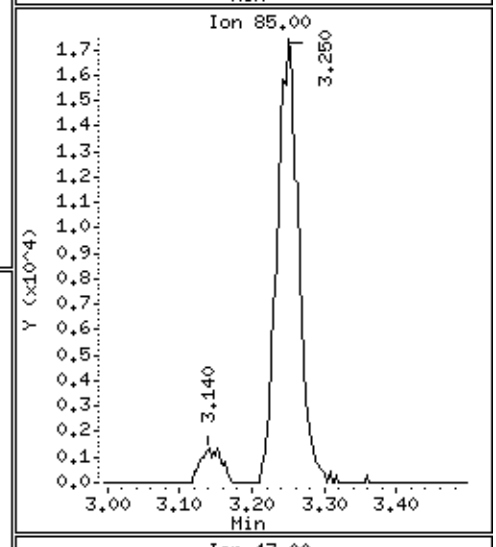


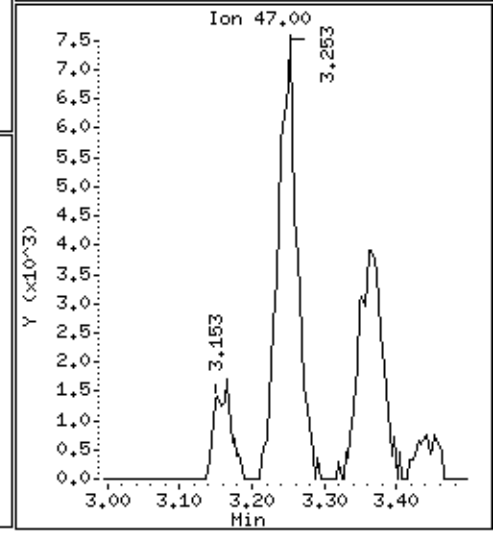












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

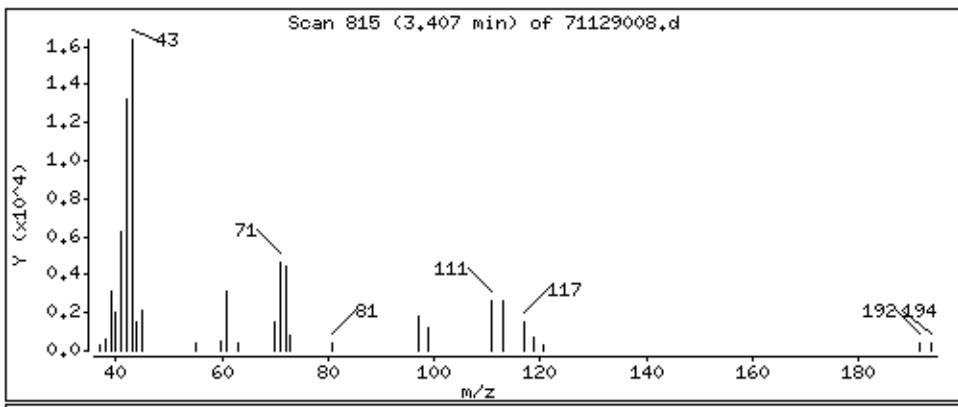
Column phase: RTX-VMS

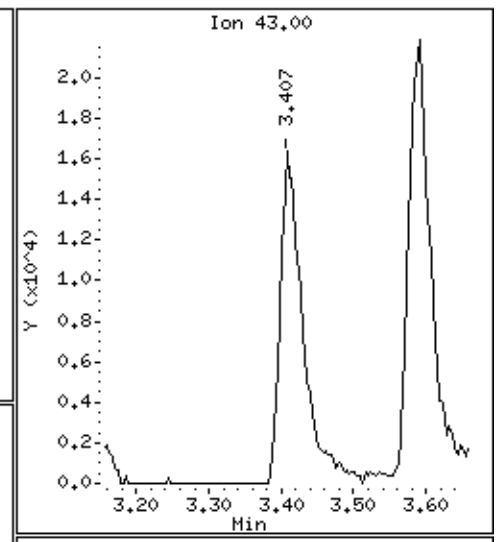
Column diameter: 0.18

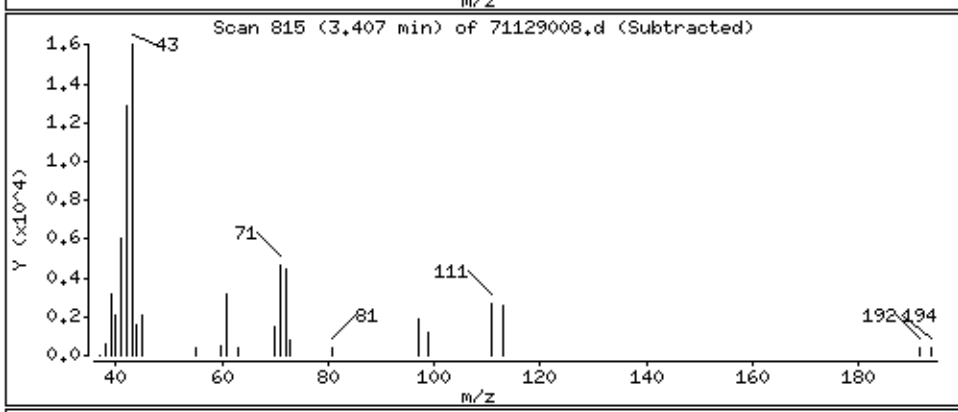
34 Ethyl acetate

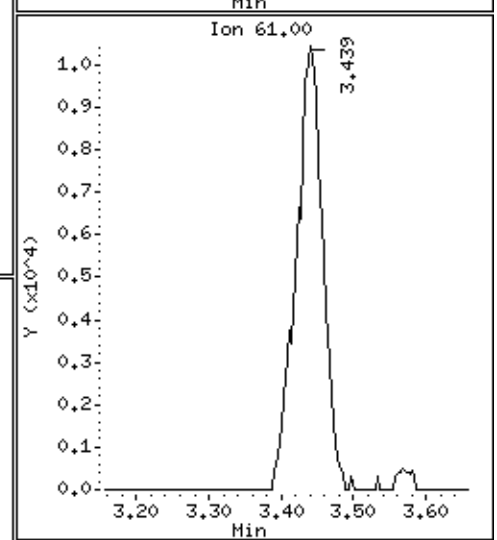
Concentration: 21.2 ug/L

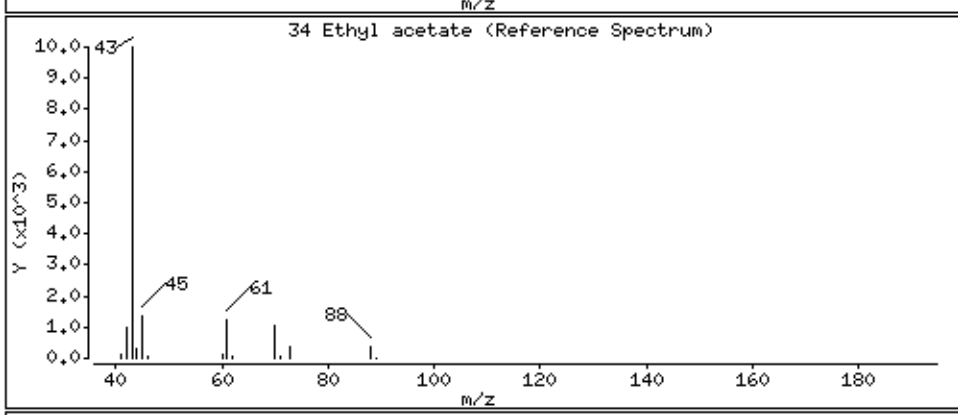
Review Code:

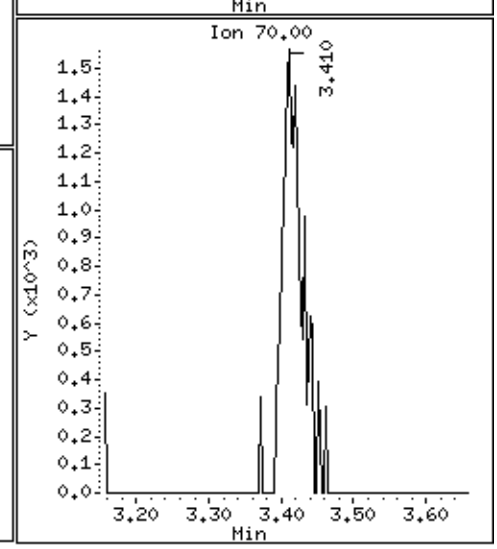


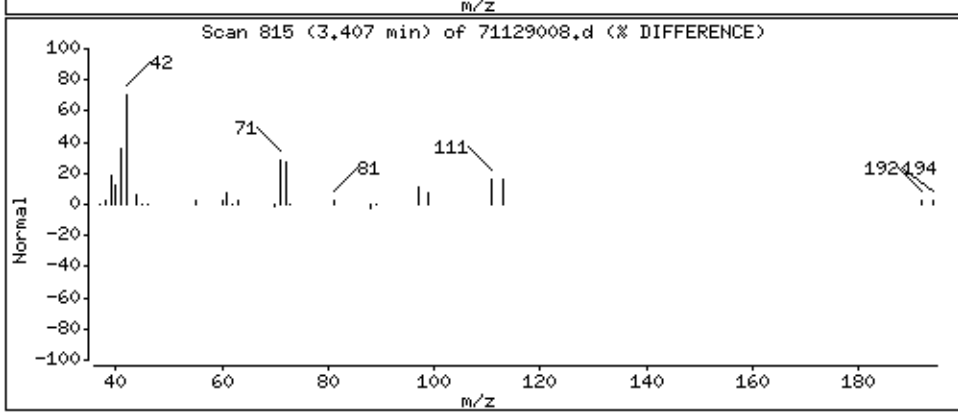












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

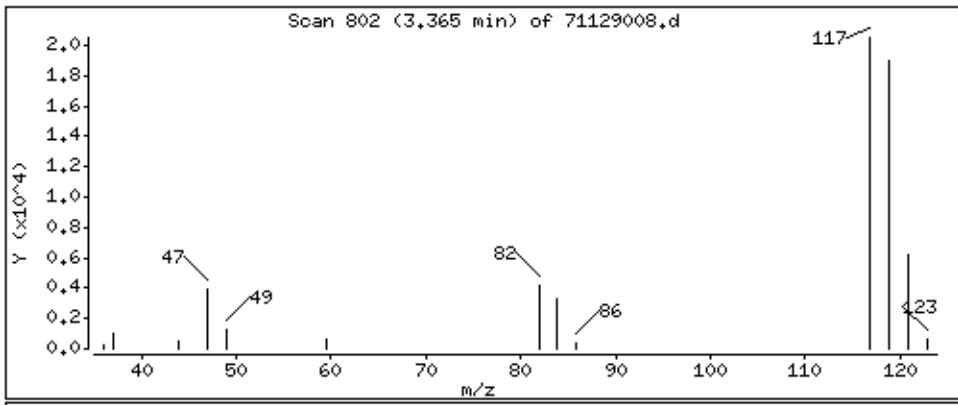
Column phase: RTX-VMS

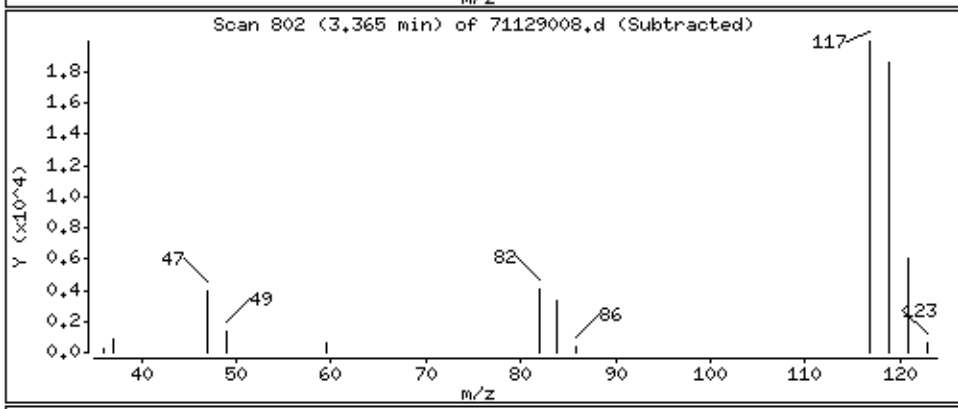
Column diameter: 0.18

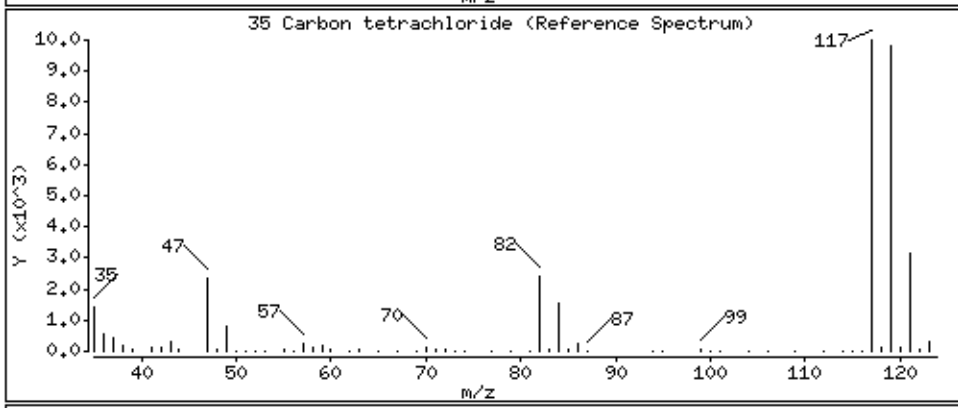
35 Carbon tetrachloride

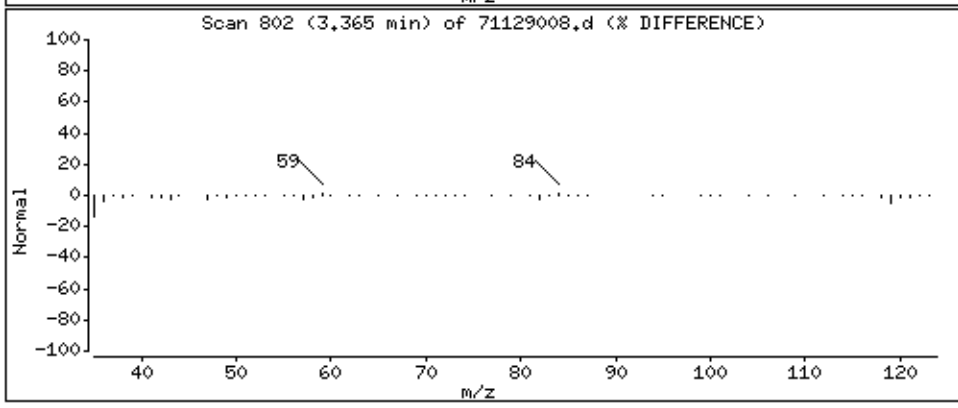
Concentration: 18.8 ug/L

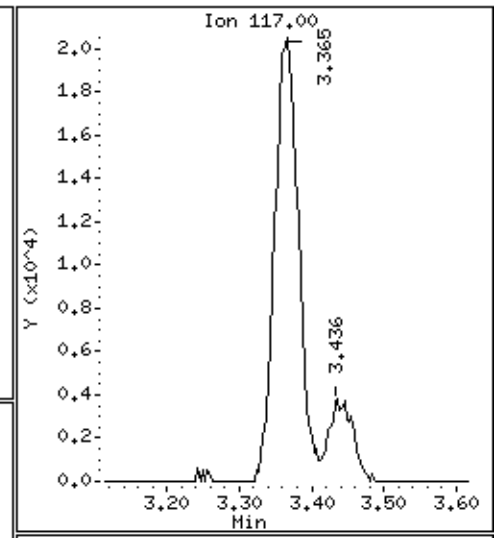
Review Code:

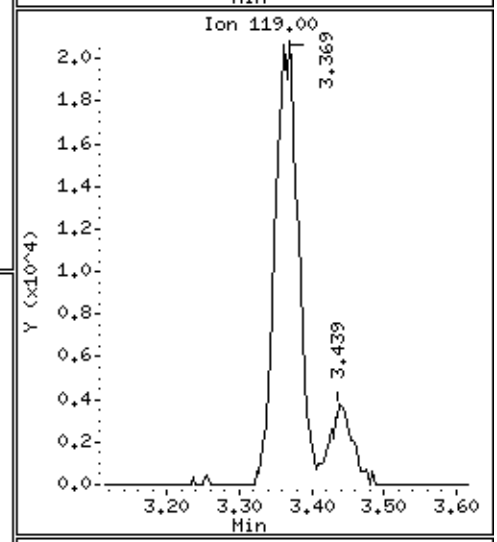


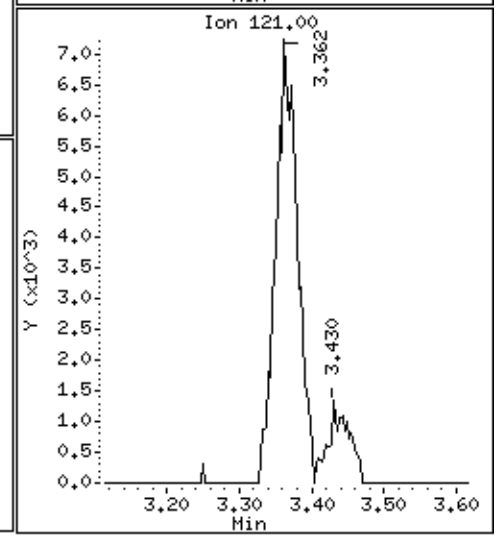












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

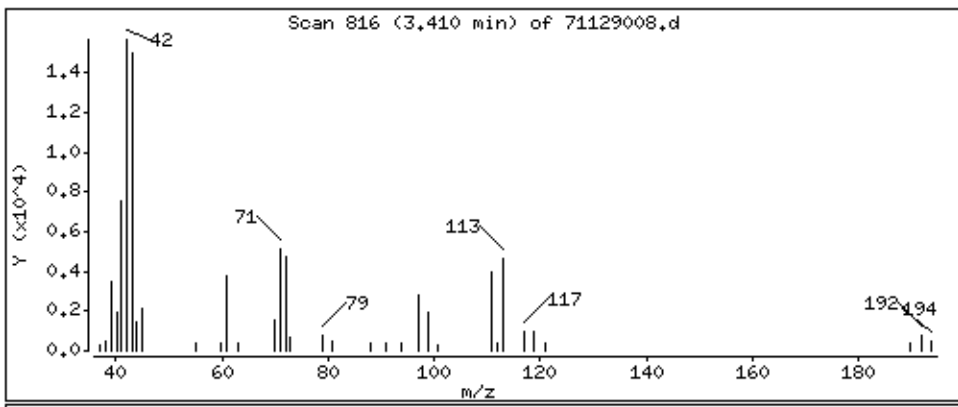
Column phase: RTX-VMS

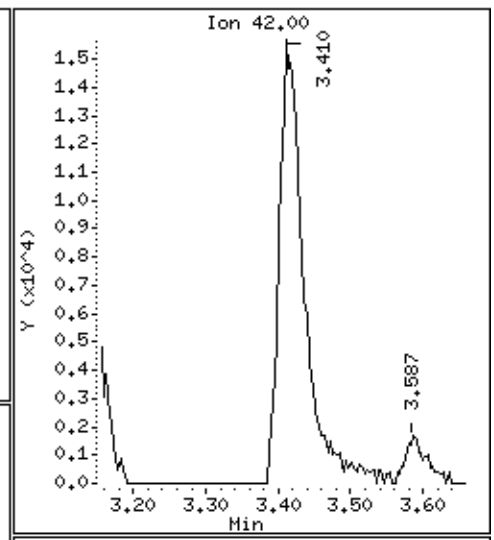
Column diameter: 0.18

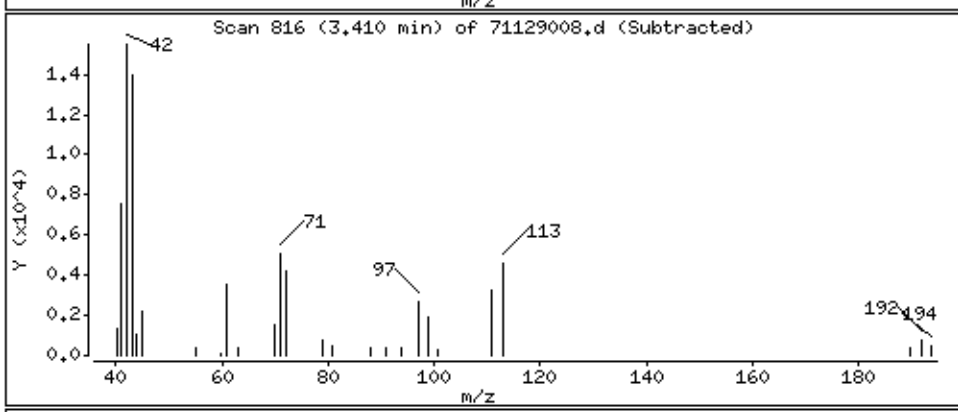
36 Tetrahydrofuran

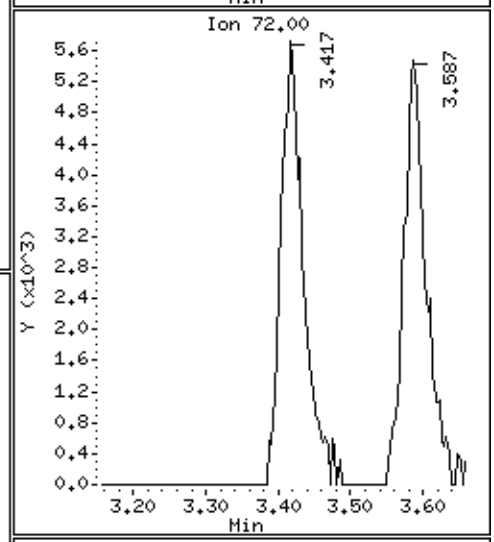
Concentration: 26.2 ug/L

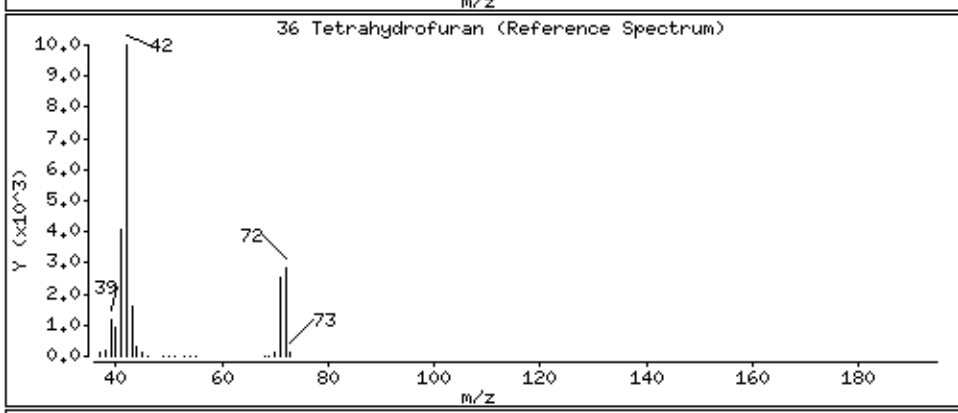
Review Code:

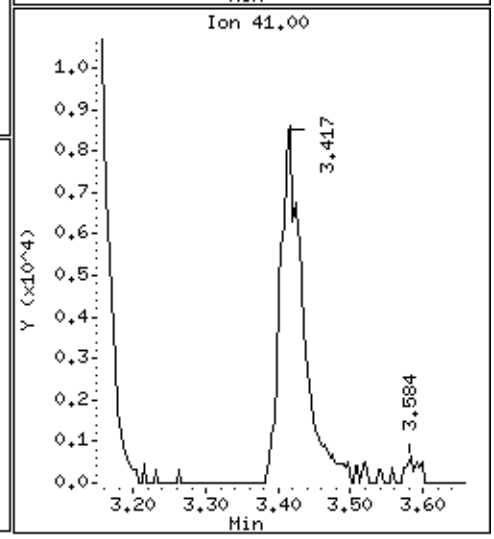


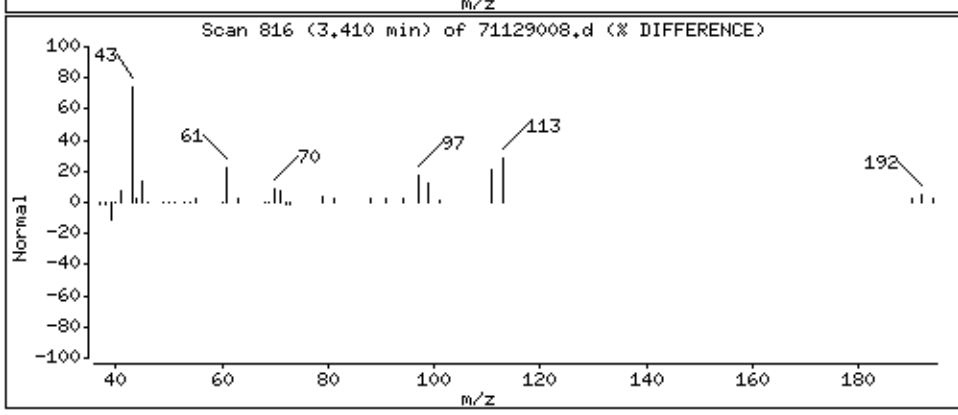












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

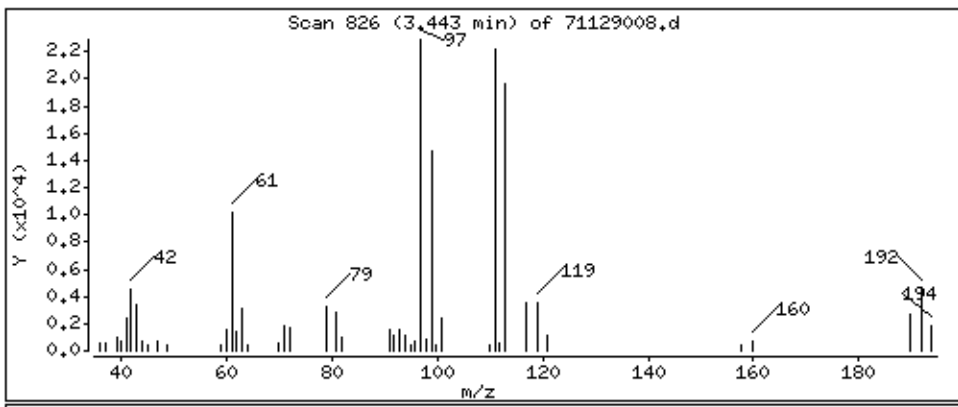
Column phase: RTX-VMS

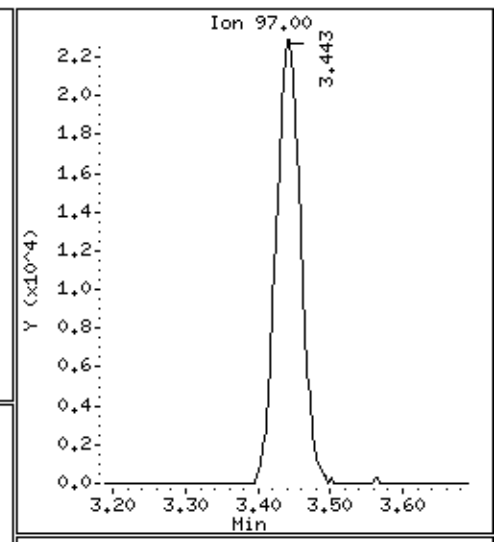
Column diameter: 0.18

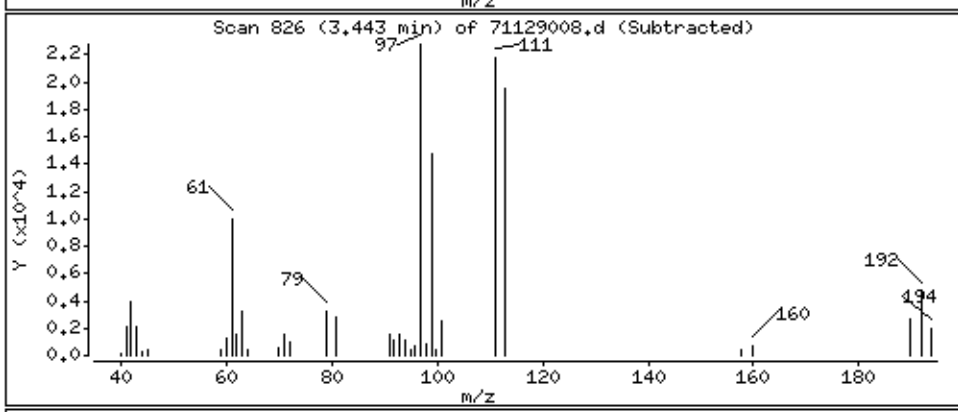
38 1,1,1-Trichloroethane

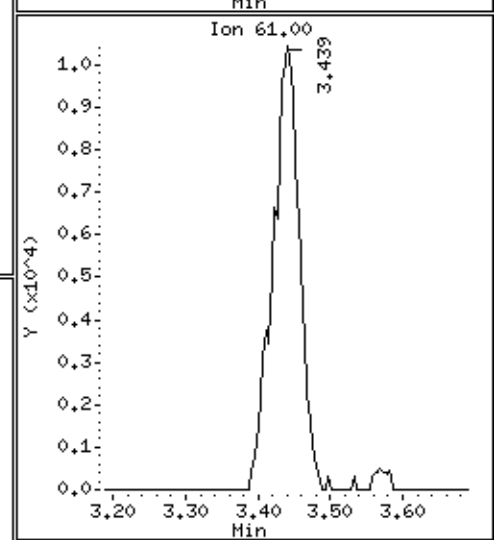
Concentration: 20.3 ug/L

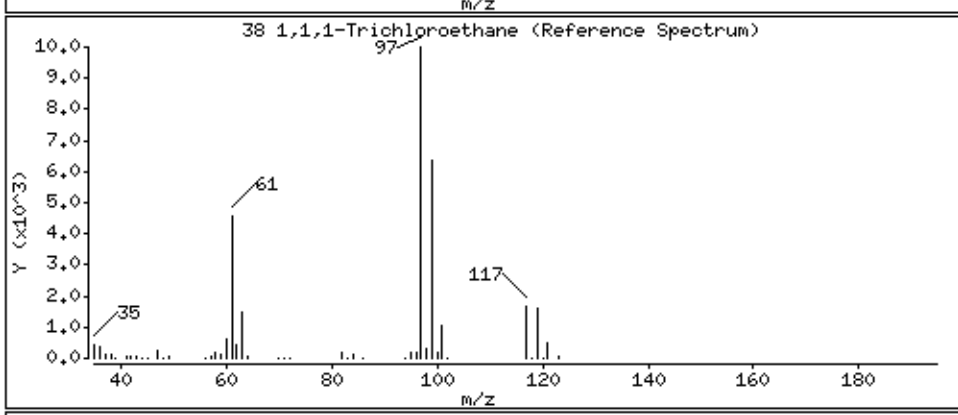
Review Code:

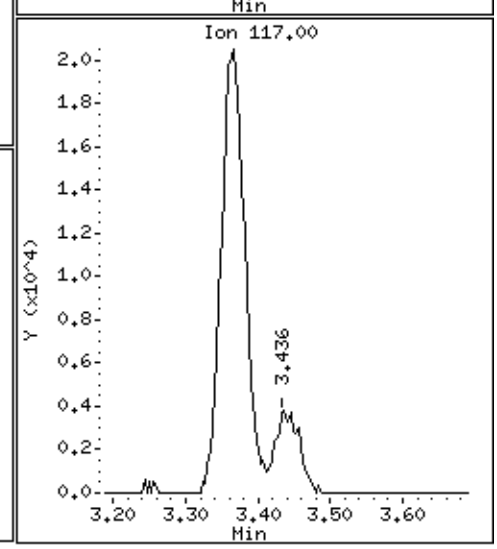


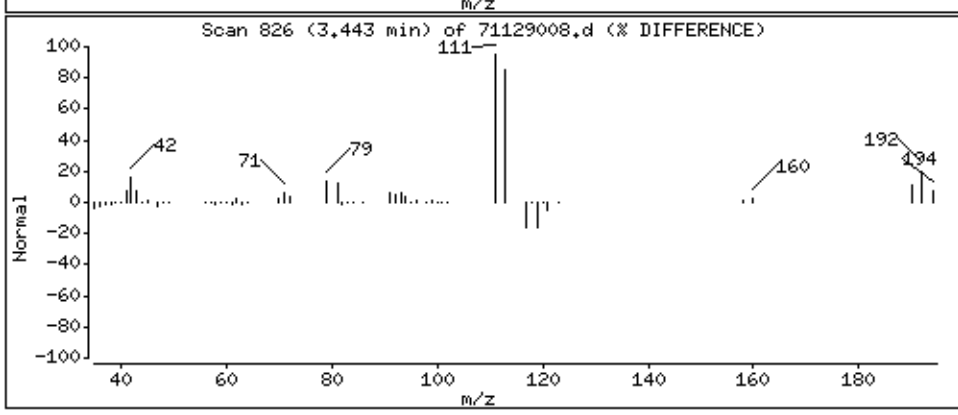












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

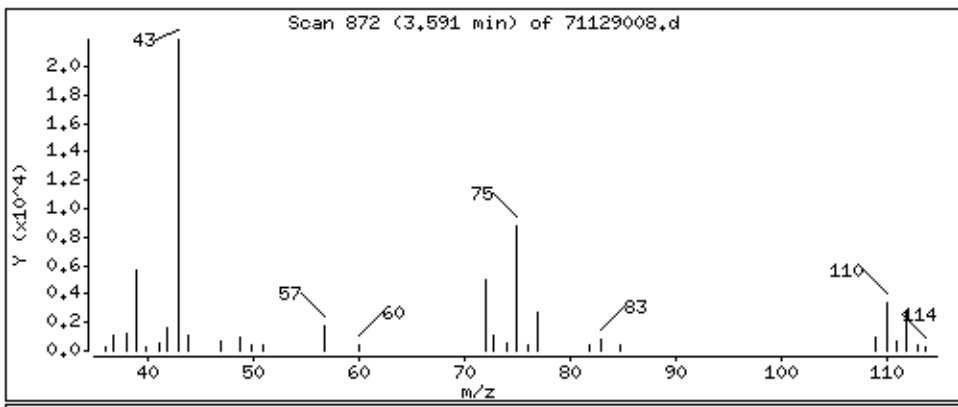
Column phase: RTX-VMS

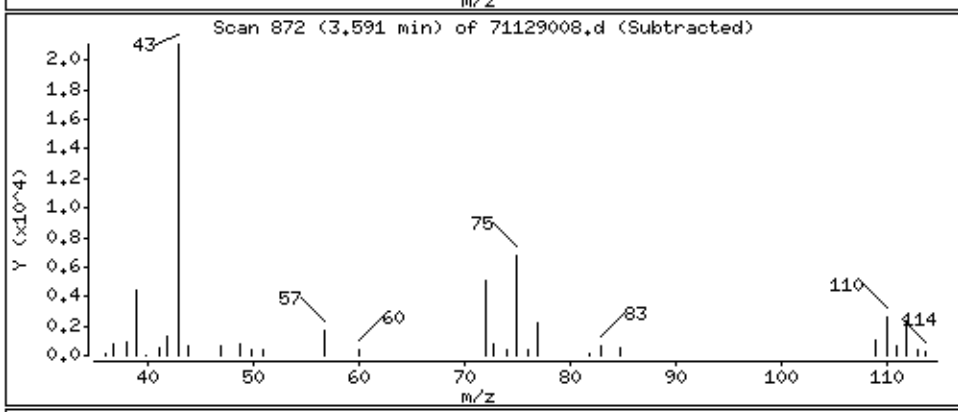
Column diameter: 0.18

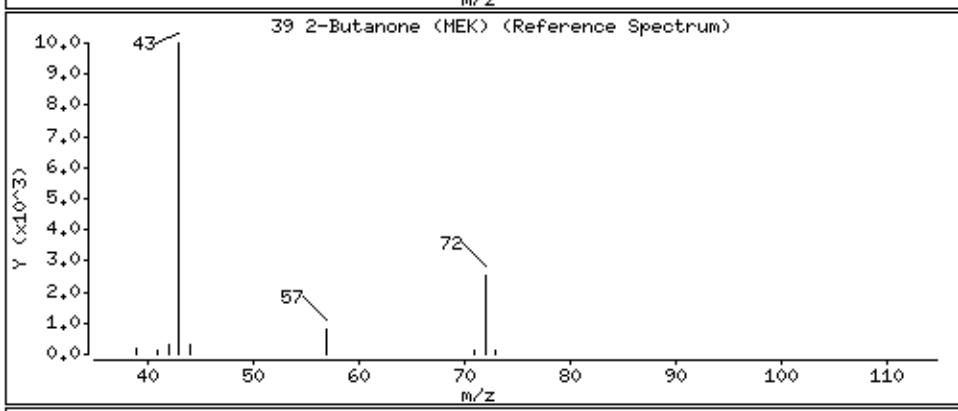
39 2-Butanone (MEK)

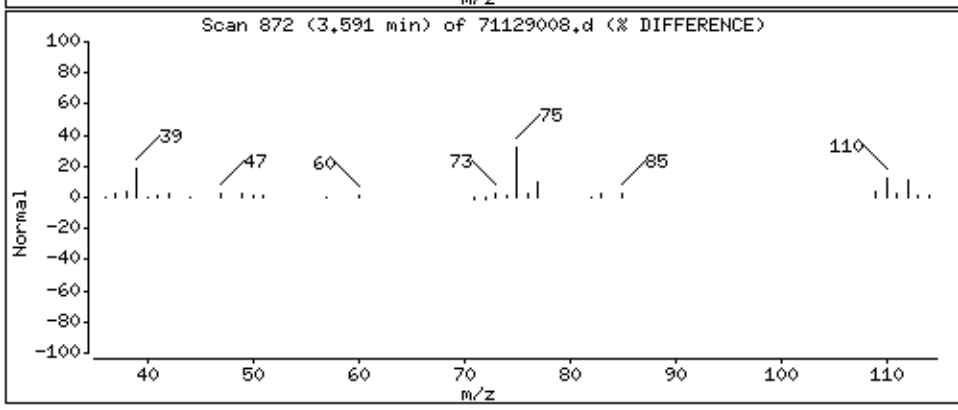
Concentration: 22.1 ug/L

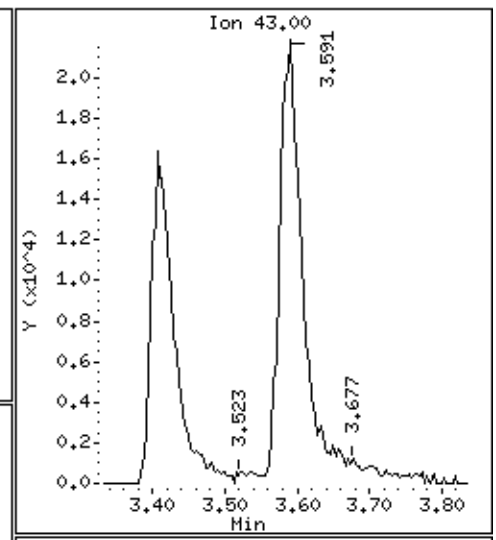
Review Code:

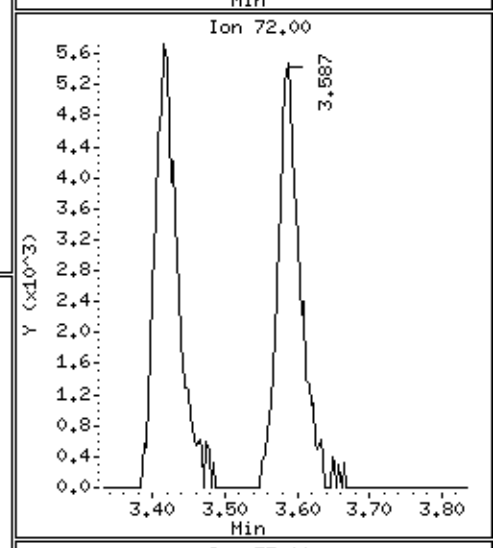


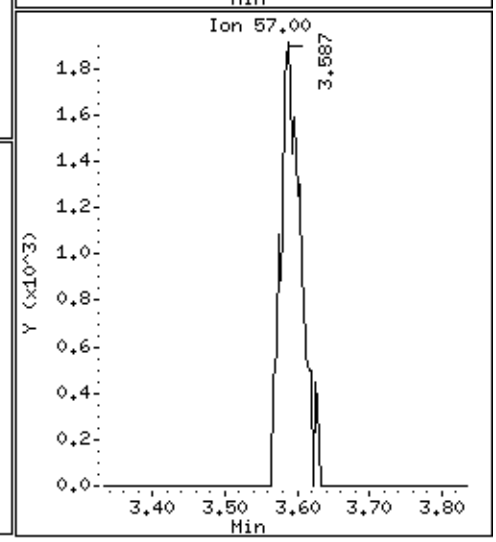












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

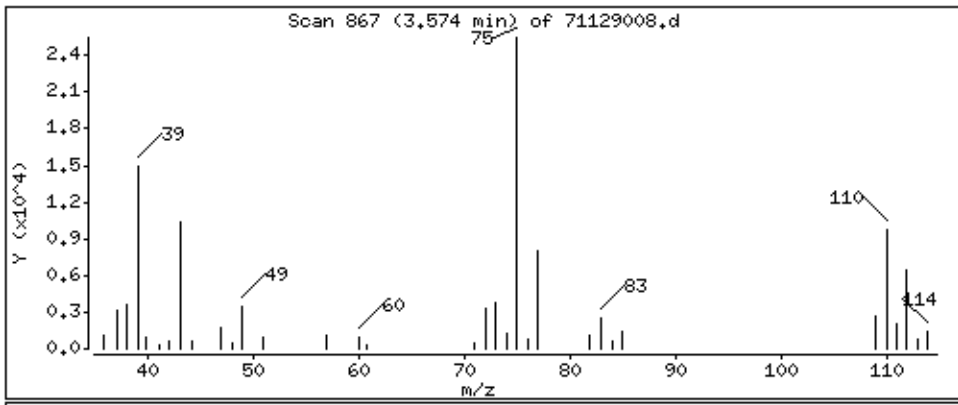
Column phase: RTX-VMS

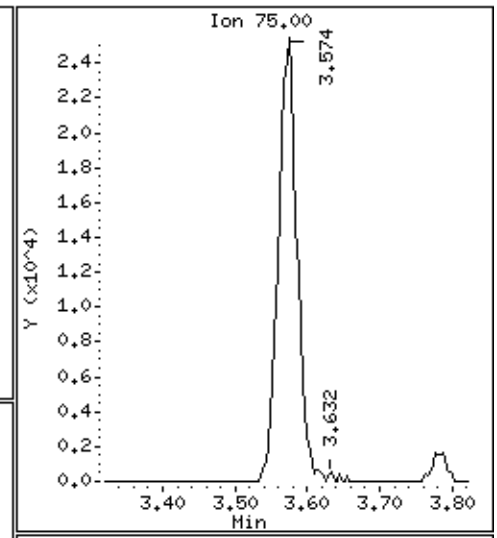
Column diameter: 0.18

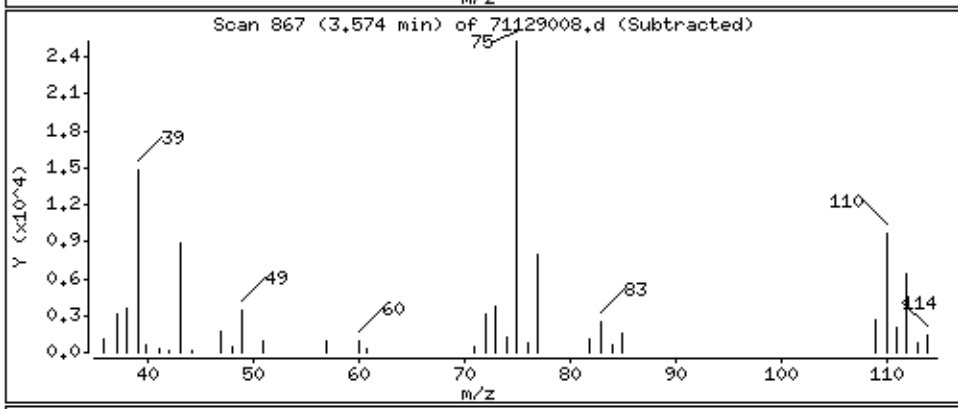
40 1,1-Dichloropropene

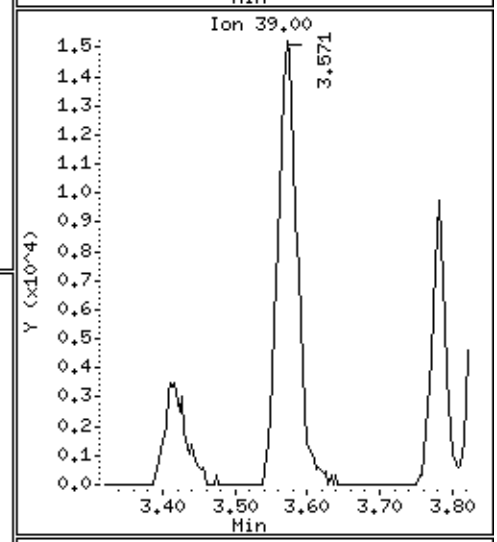
Concentration: 18.7 ug/L

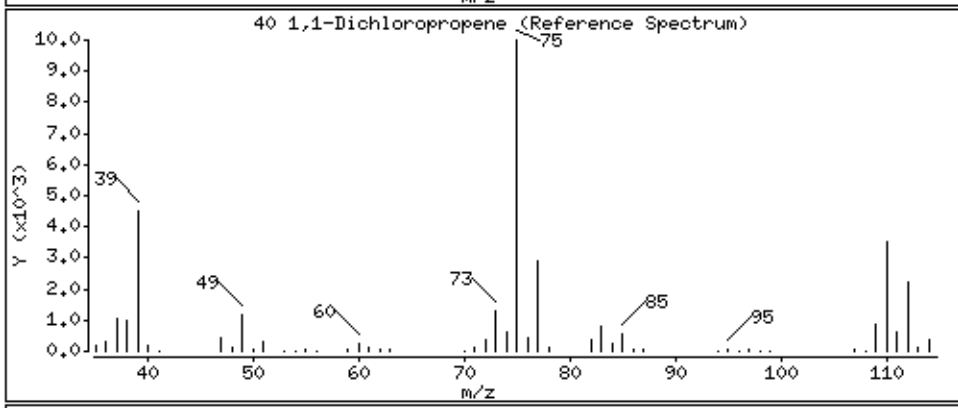
Review Code:

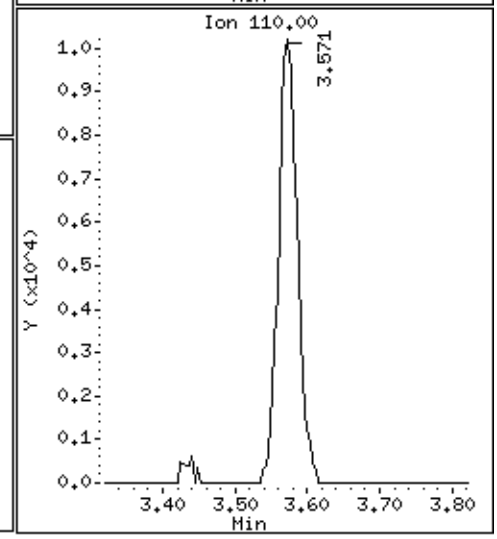


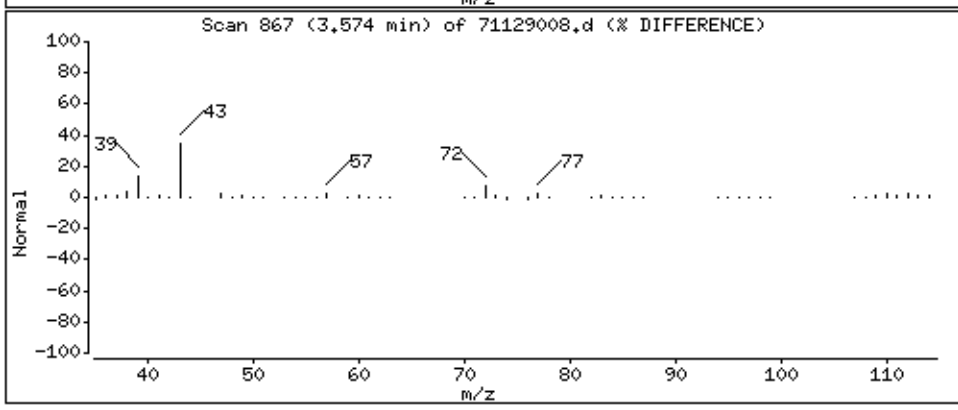












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

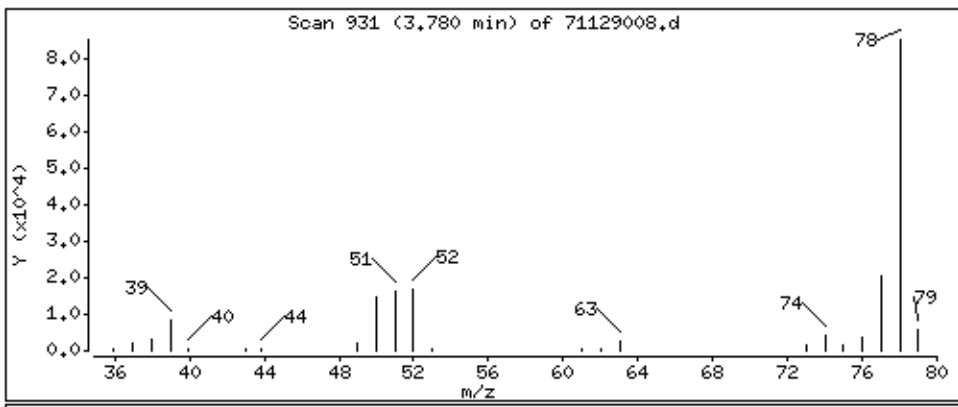
Column phase: RTX-VMS

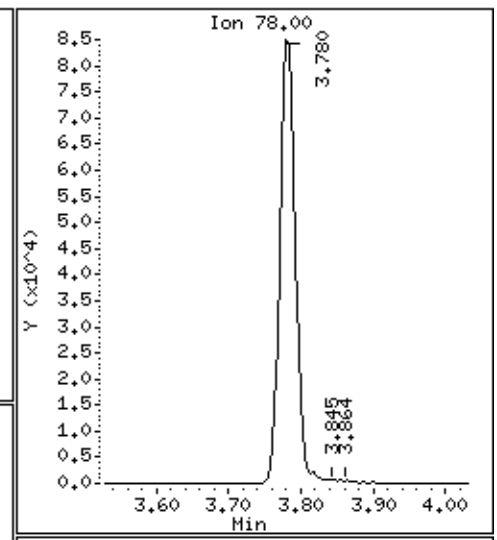
Column diameter: 0.18

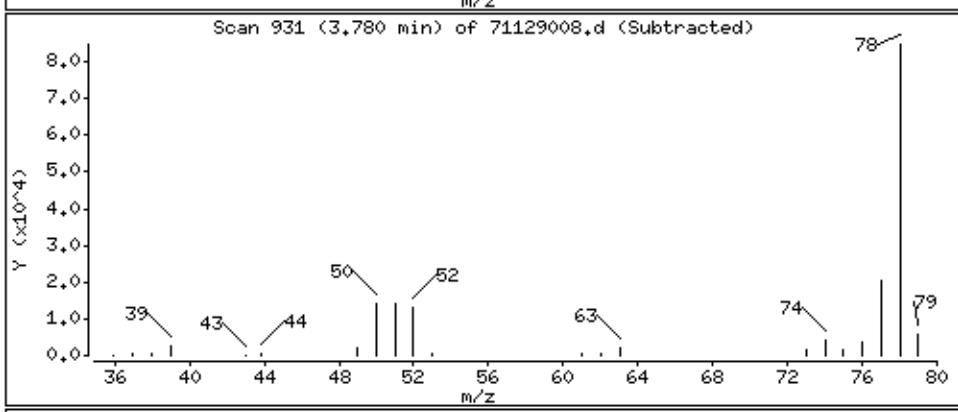
41 Benzene

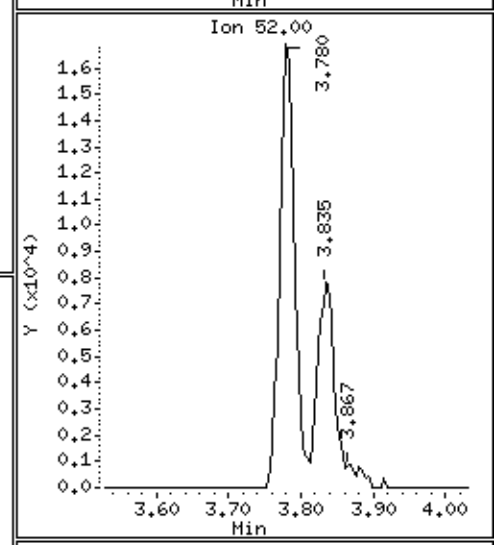
Concentration: 17.6 ug/L

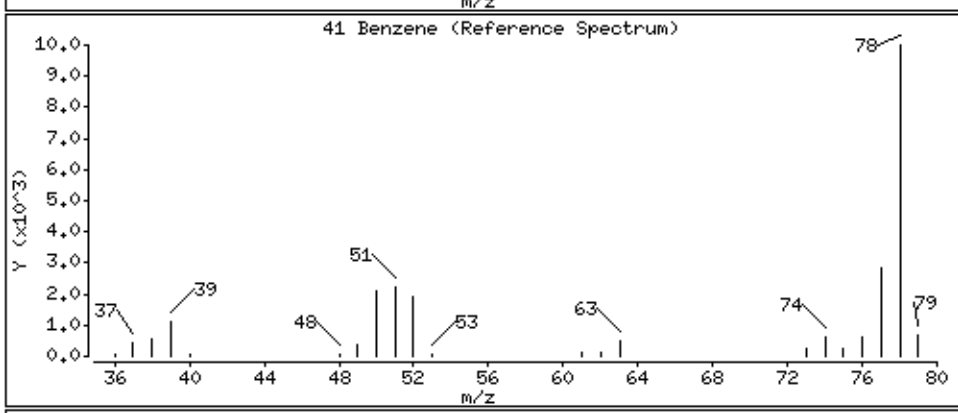
Review Code:

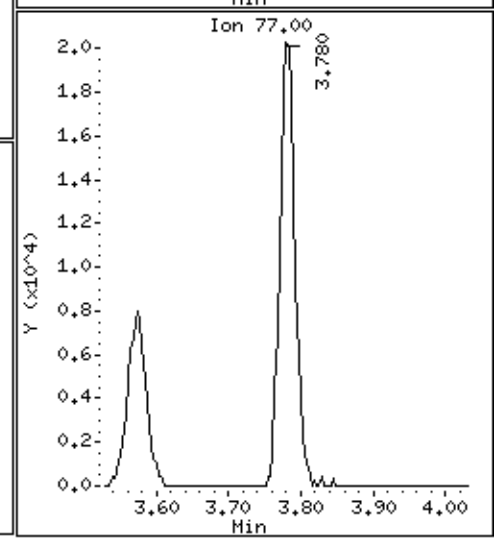


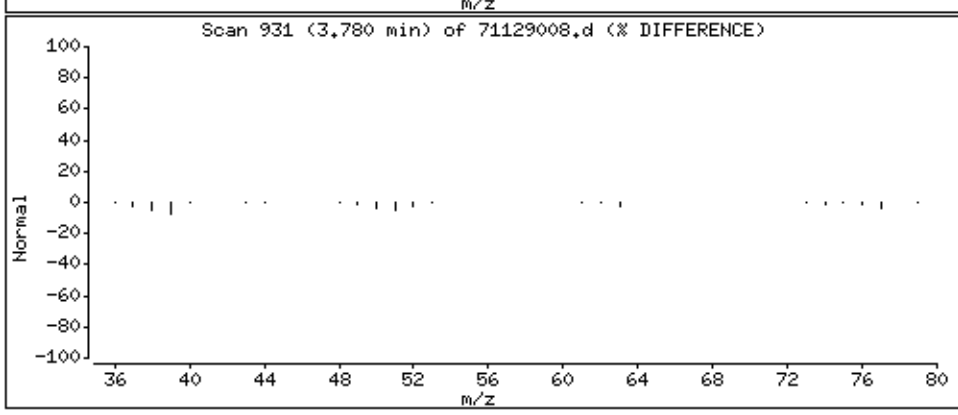












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

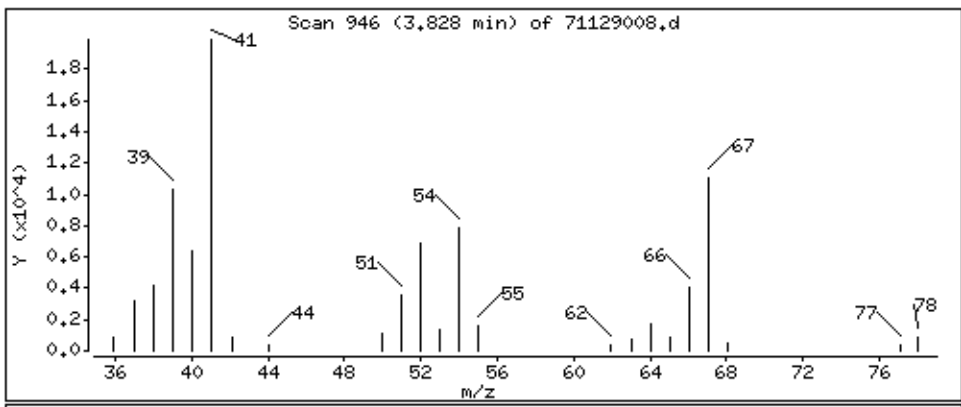
Column phase: RTX-VMS

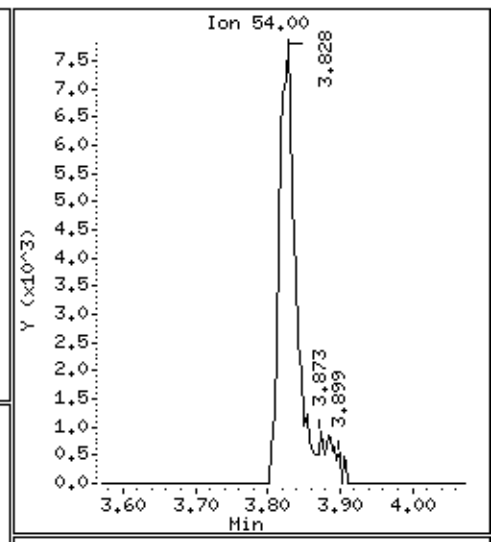
Column diameter: 0.18

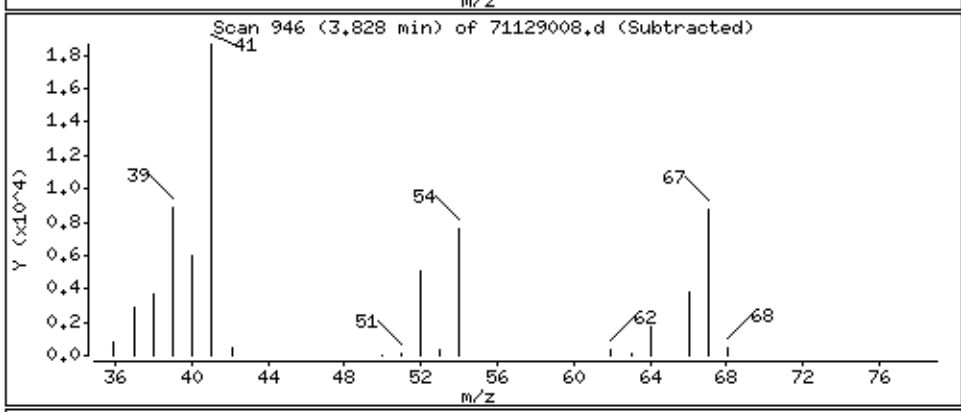
42 Propionitrile

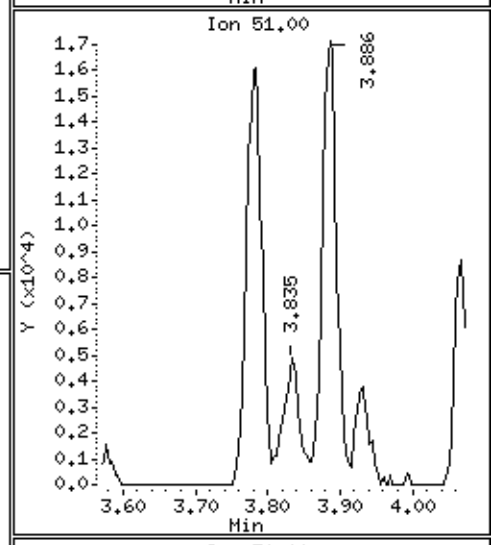
Concentration: 23.4 ug/L

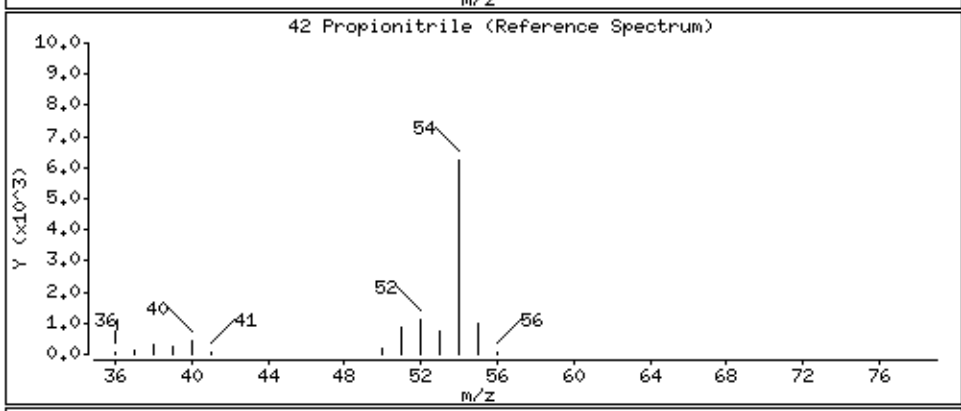
Review Code:

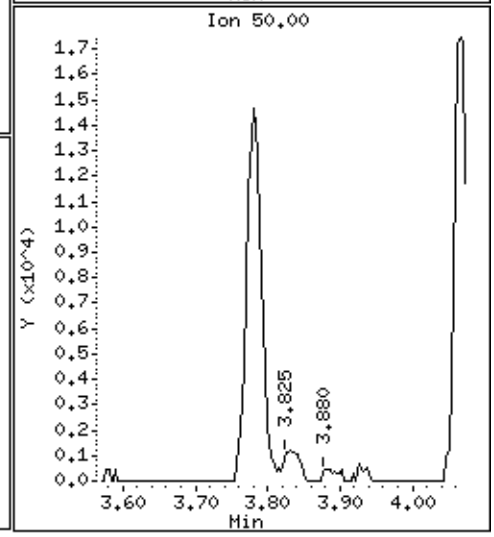


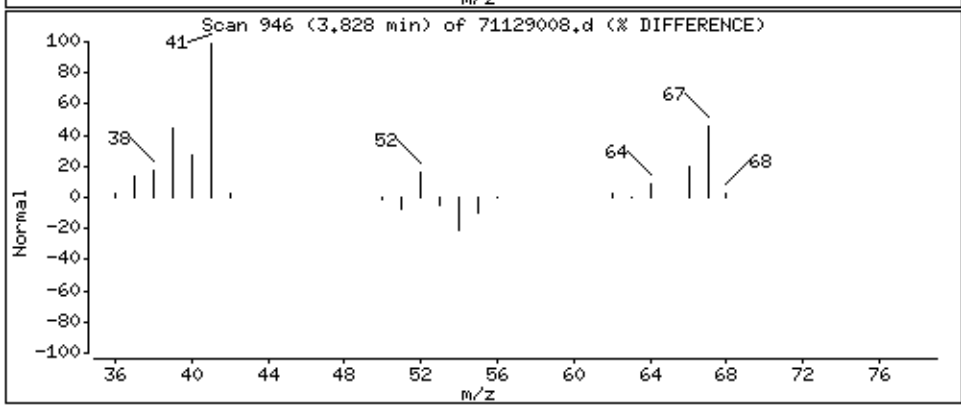












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

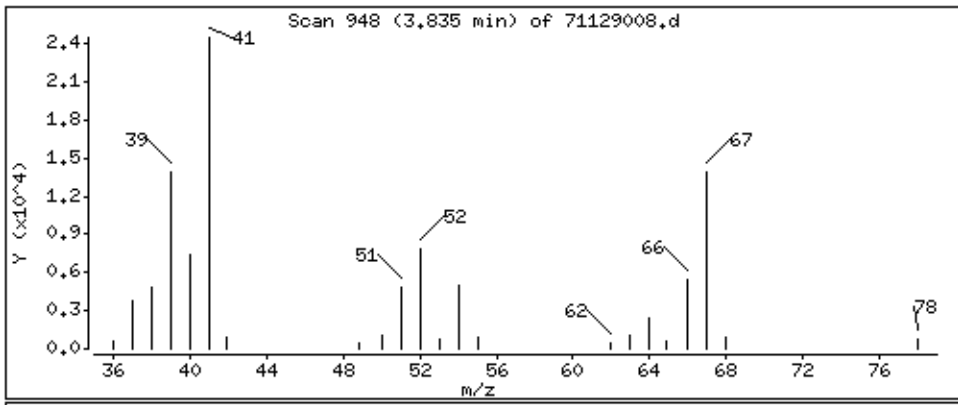
Column phase: RTX-VMS

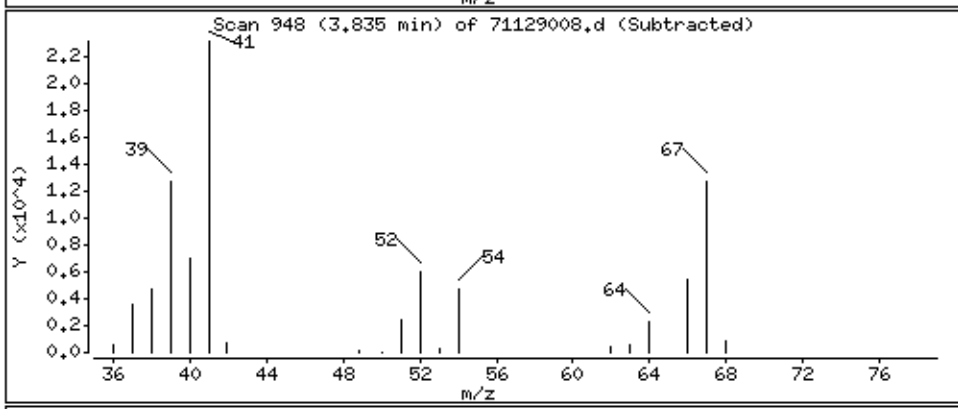
Column diameter: 0.18

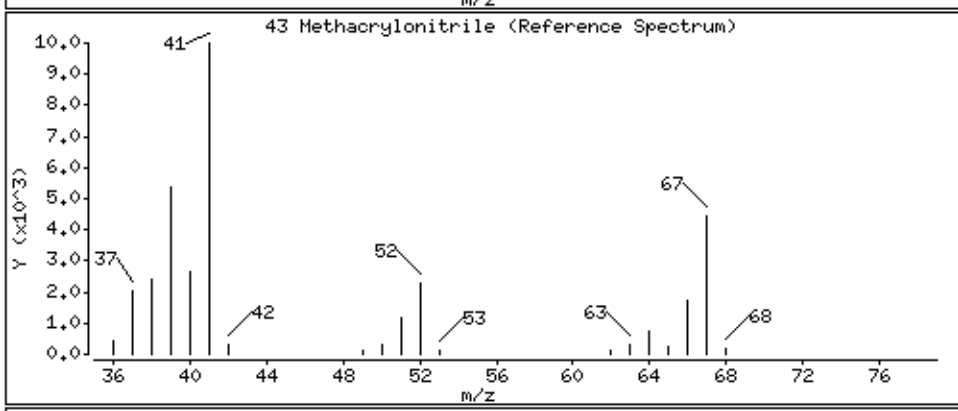
43 Methacrylonitrile

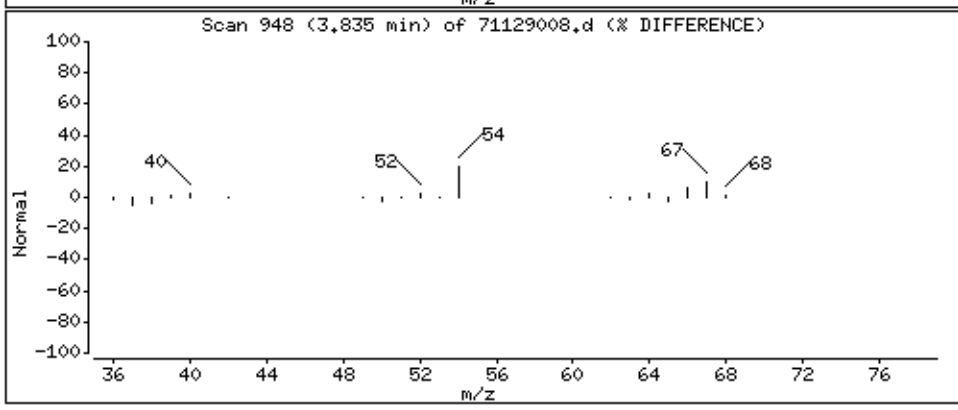
Concentration: 21.3 ug/L

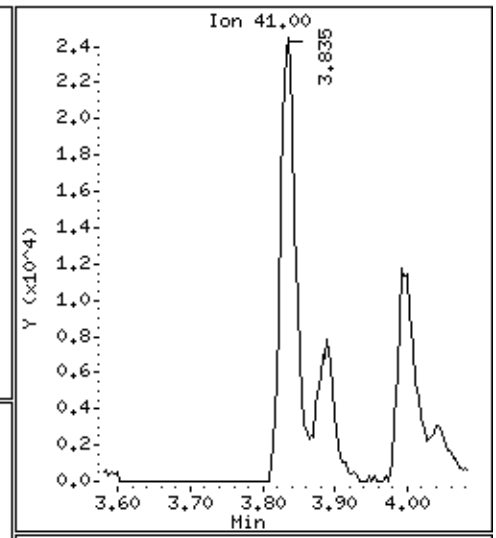
Review Code: LT

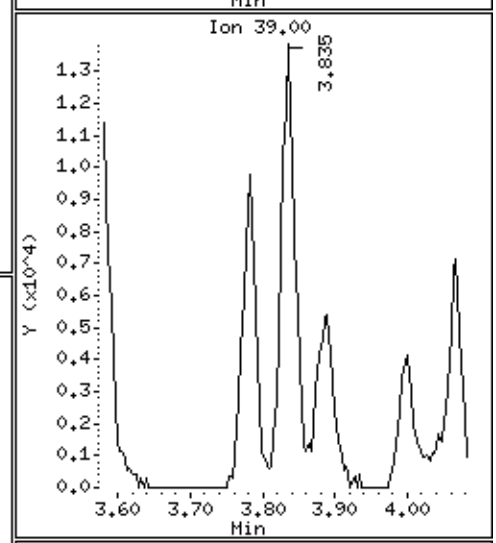


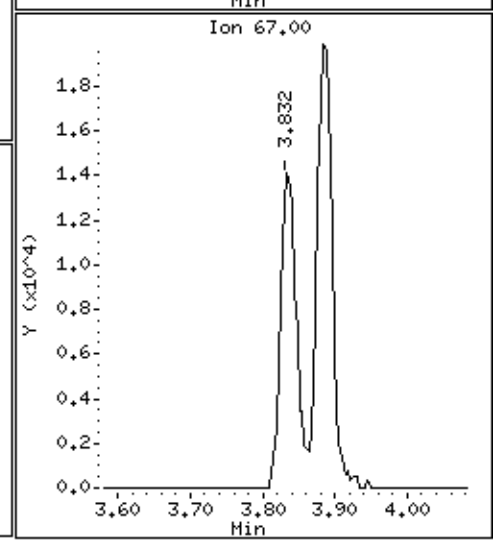












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

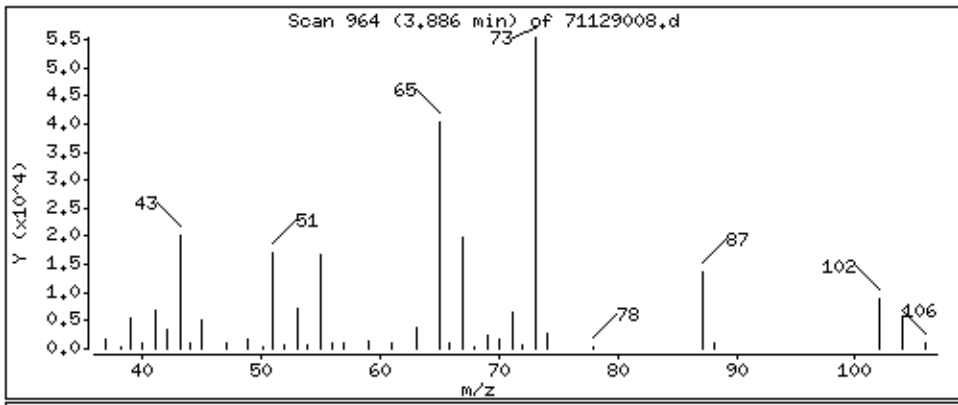
Column phase: RTX-VMS

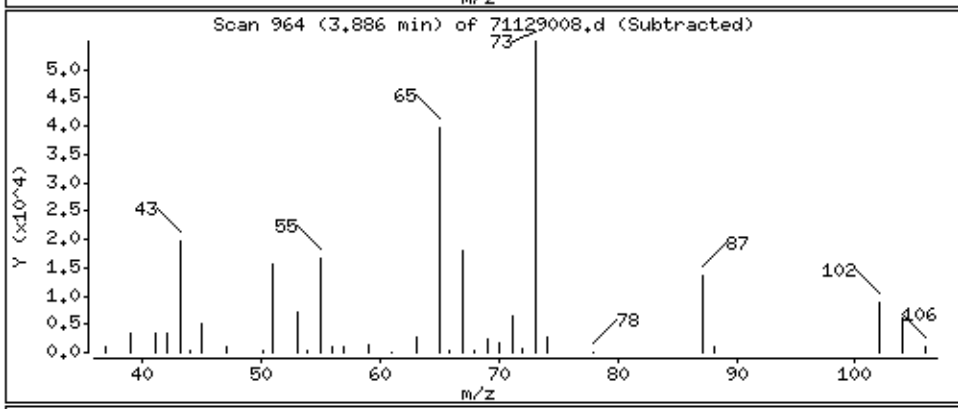
Column diameter: 0.18

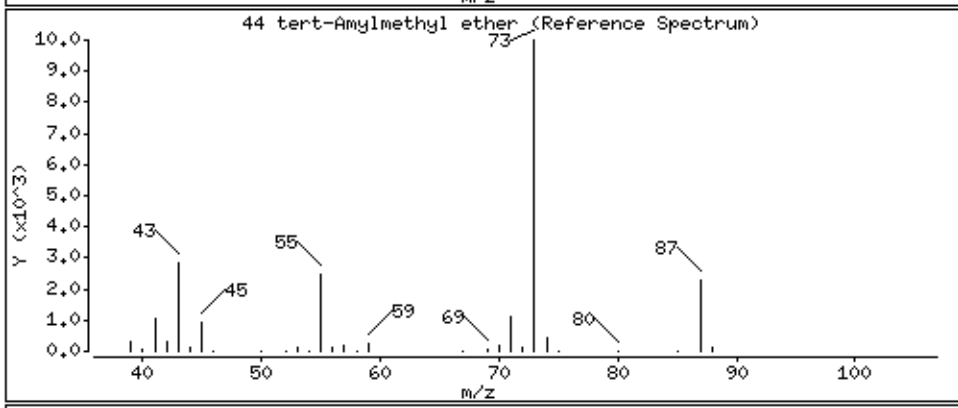
44 tert-Amylmethyl ether

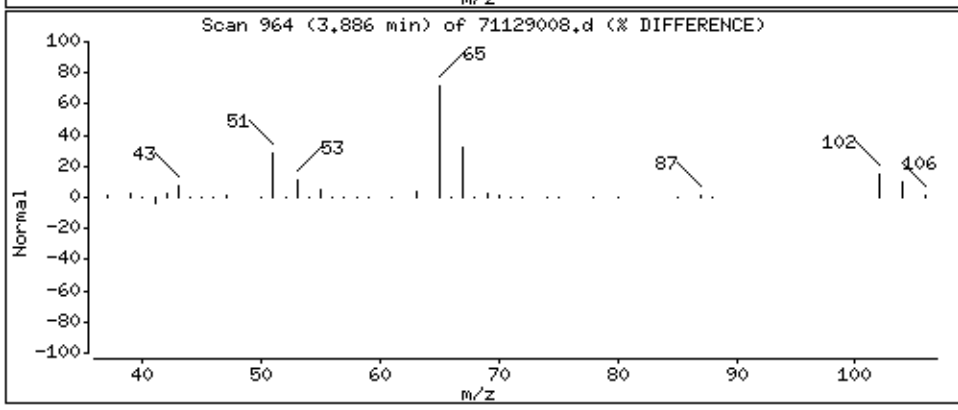
Concentration: 17.8 ug/L

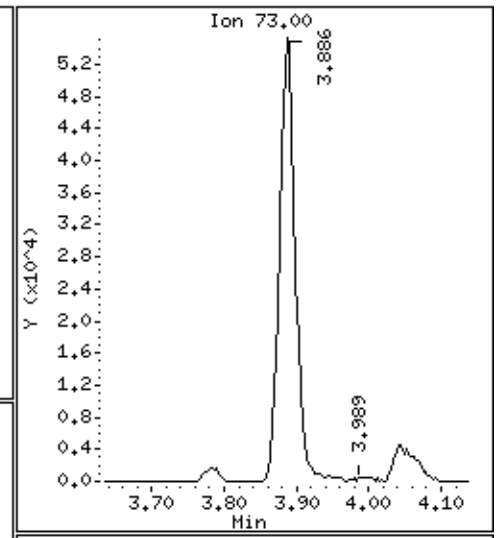
Review Code:

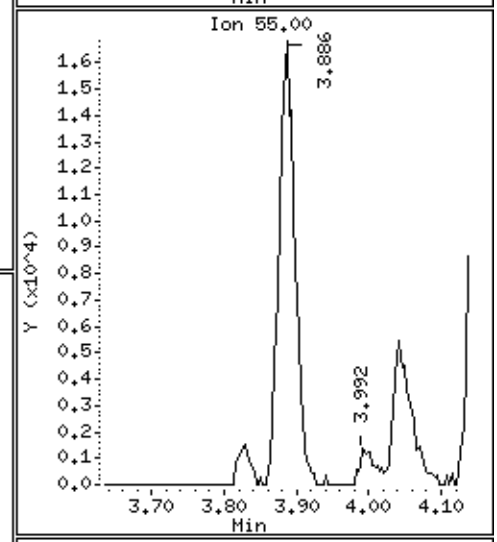


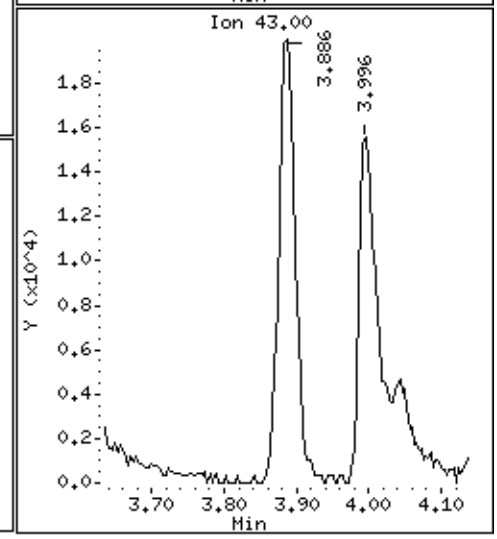












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

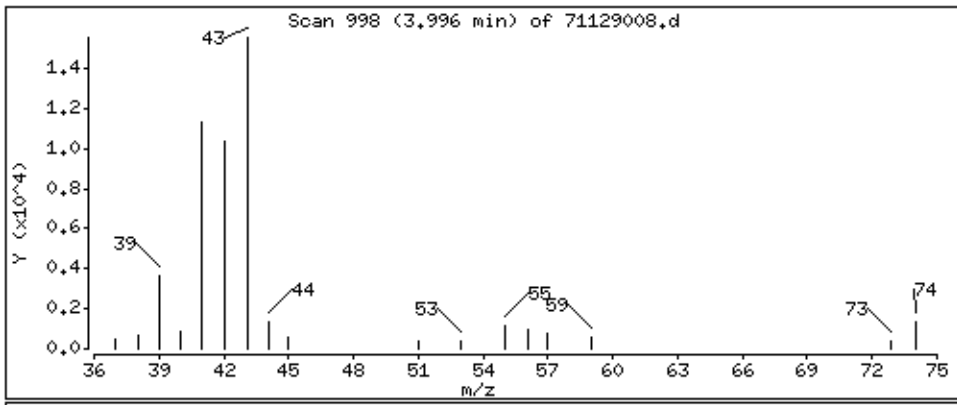
Column phase: RTX-VMS

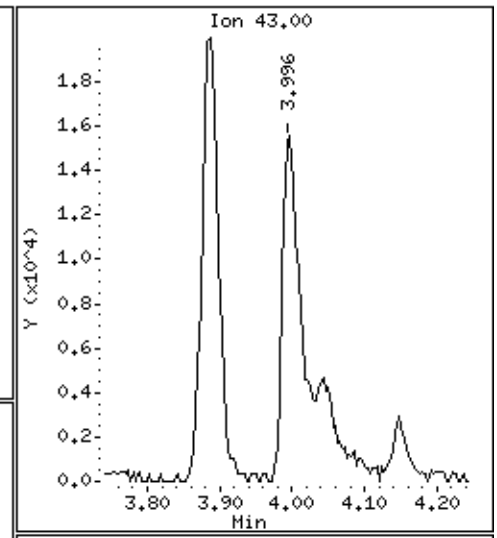
Column diameter: 0.18

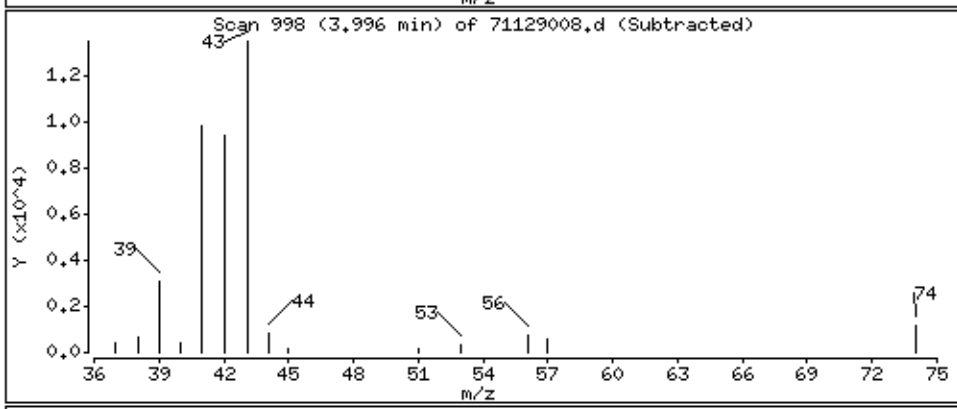
45 Isobutanol

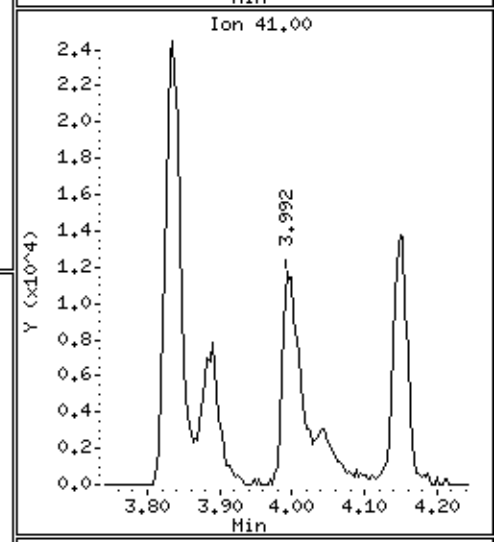
Concentration: 118 ug/L

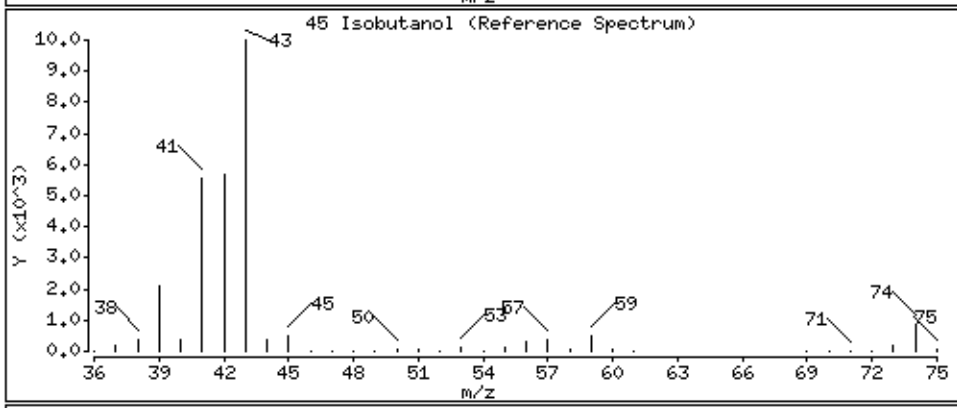
Review Code: GT

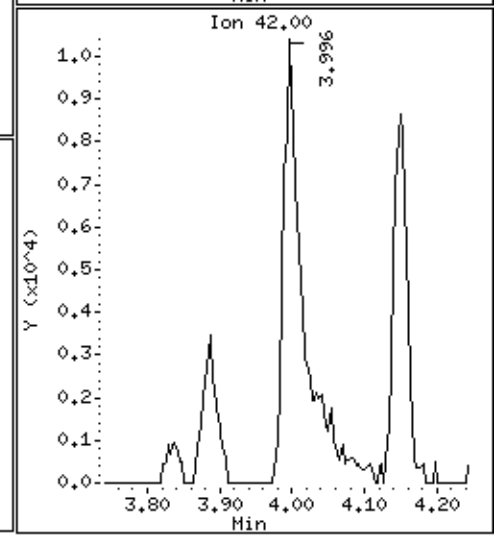


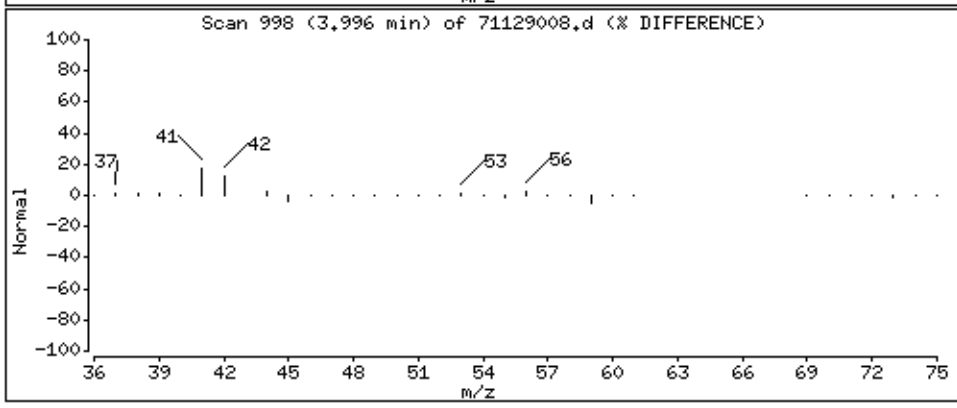












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

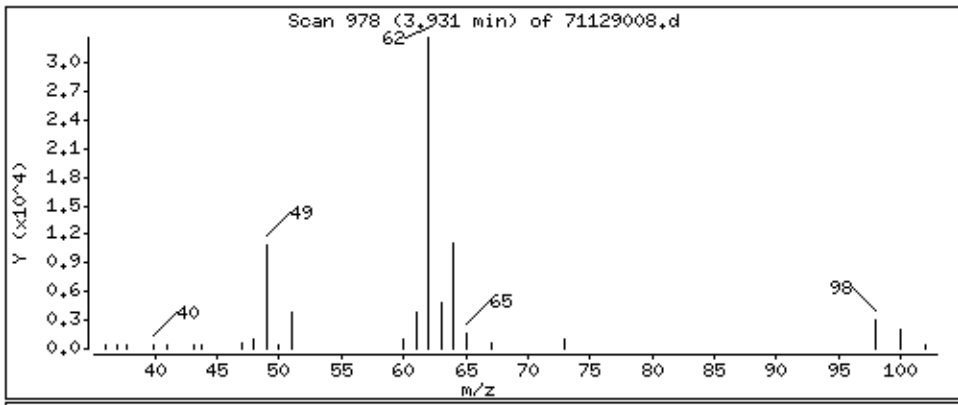
Column phase: RTX-VMS

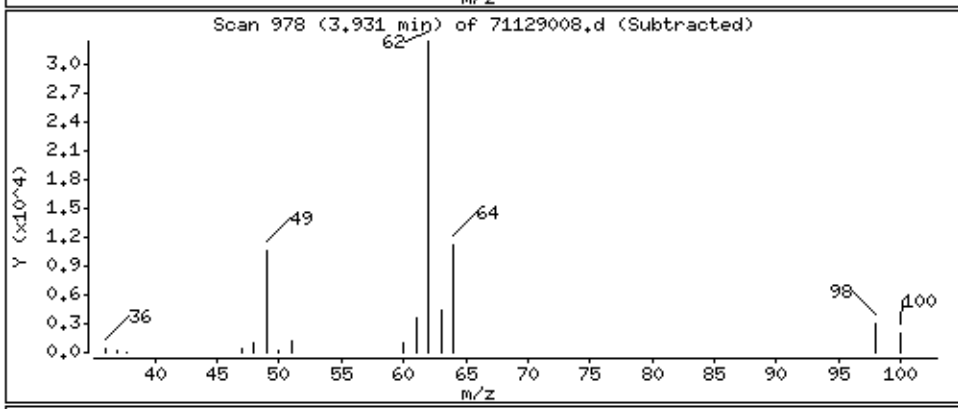
Column diameter: 0.18

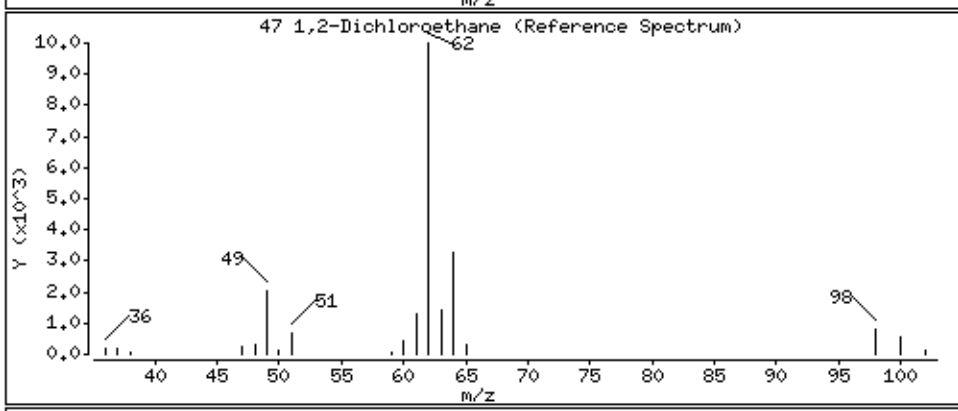
47 1,2-Dichloroethane

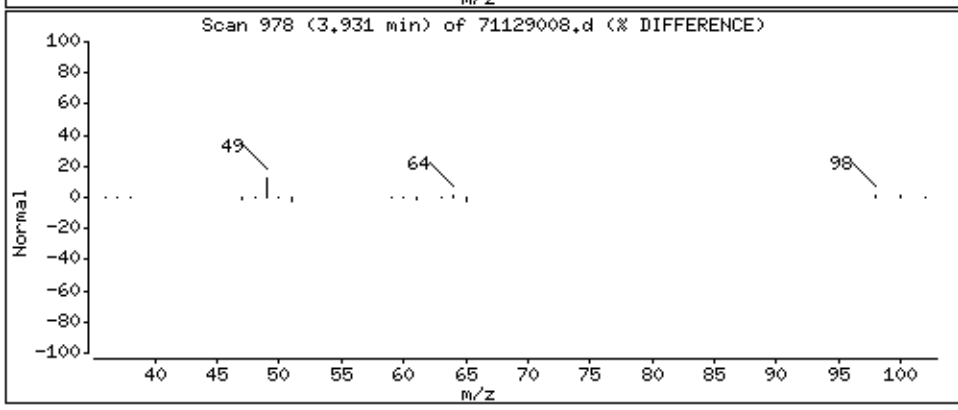
Concentration: 19.0 ug/L

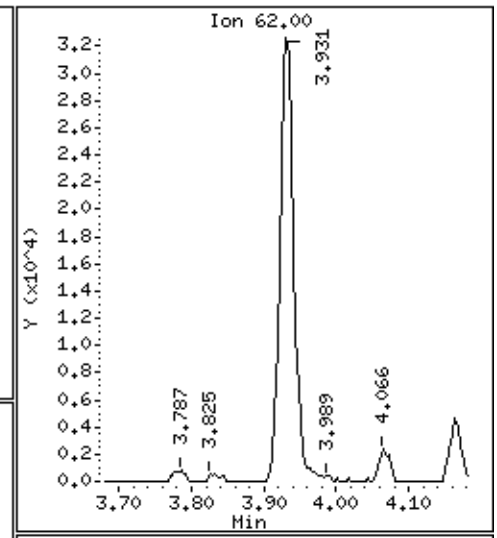
Review Code:

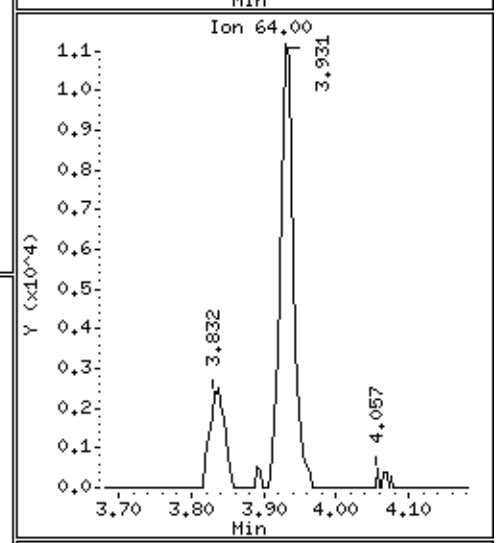


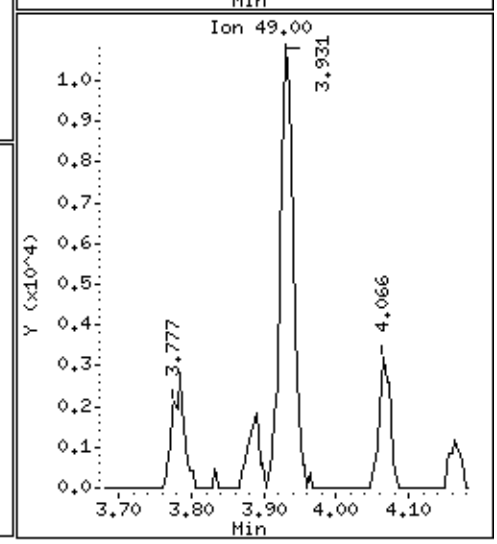












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

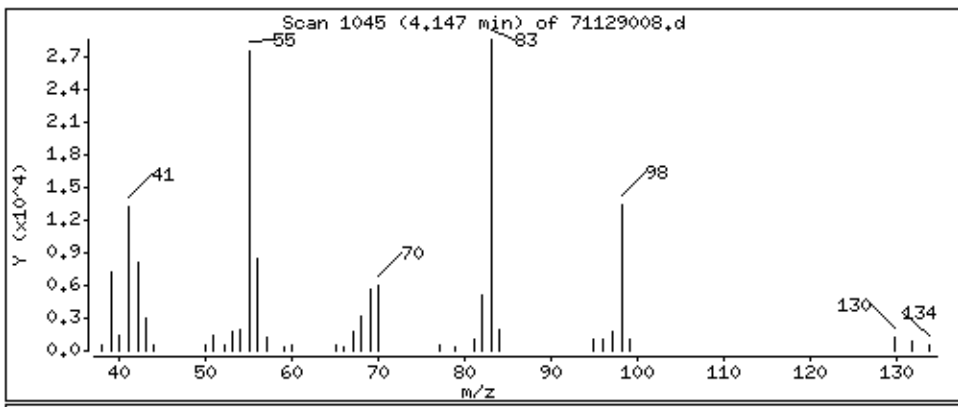
Column phase: RTX-VMS

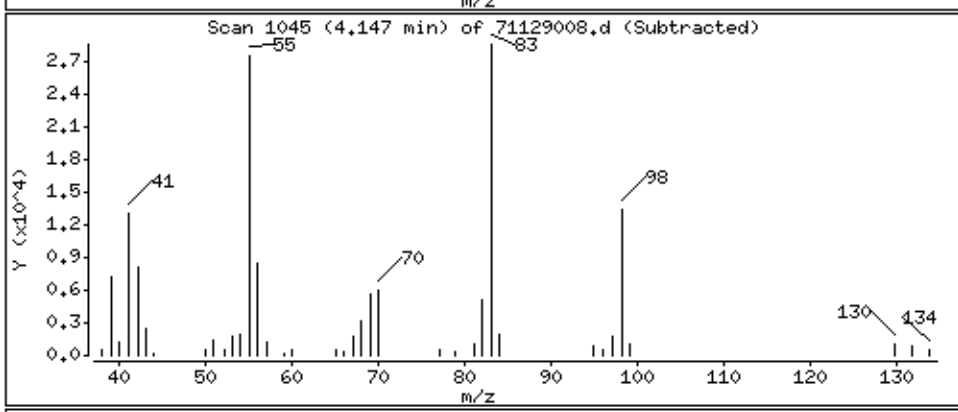
Column diameter: 0.18

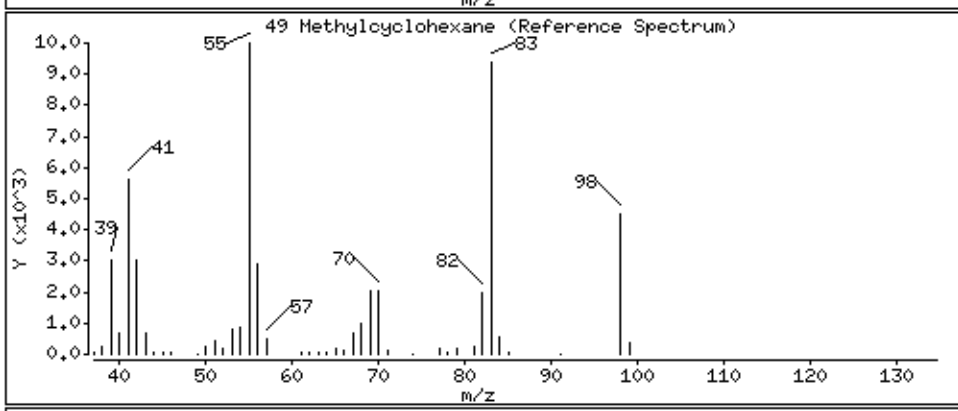
49 Methylcyclohexane

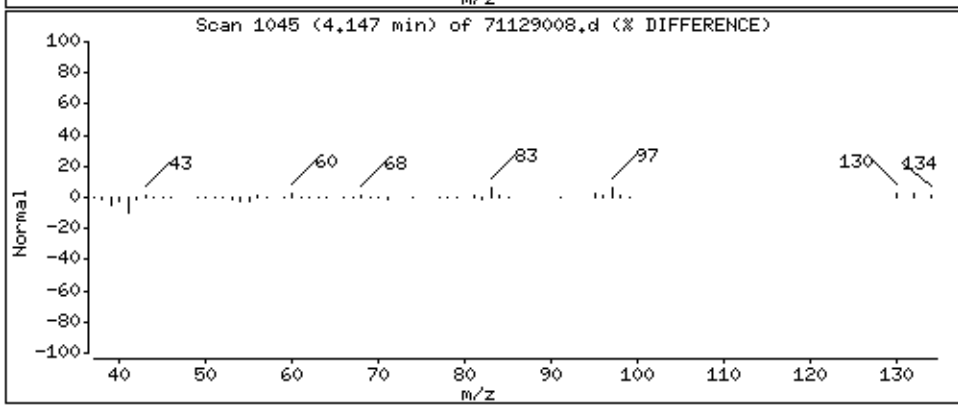
Concentration: 20.9 ug/L

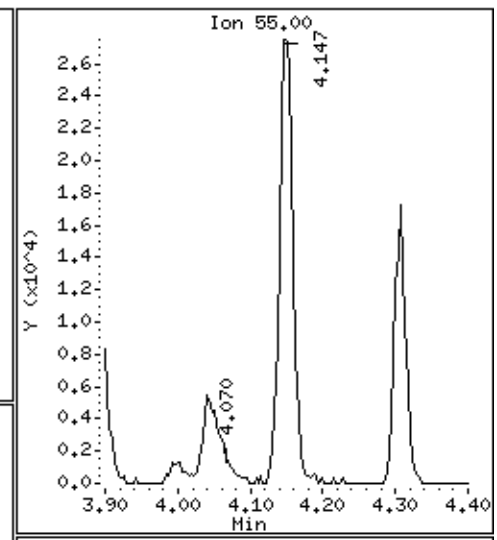
Review Code:

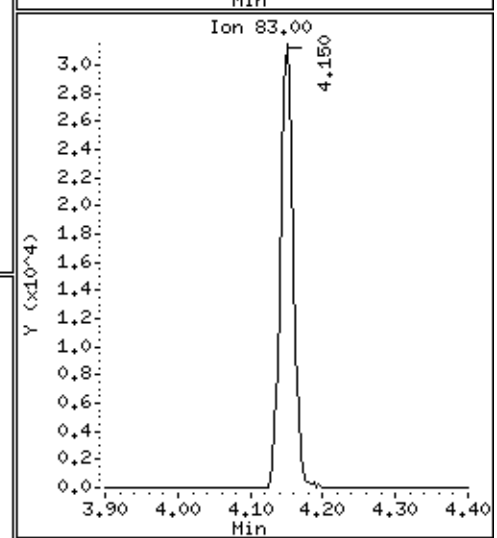


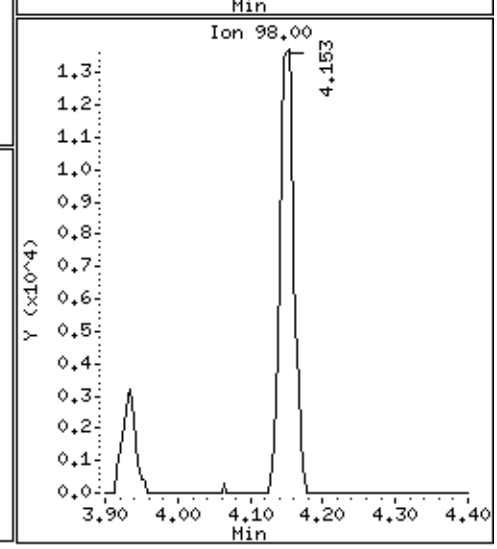












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

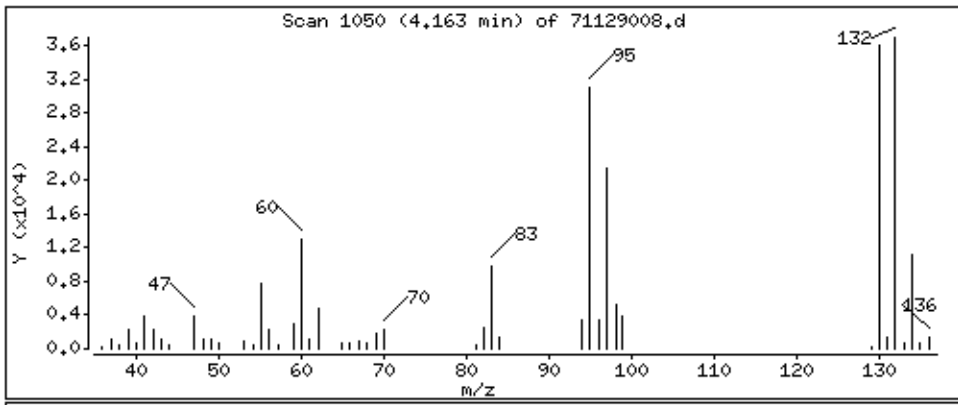
Column phase: RTX-VMS

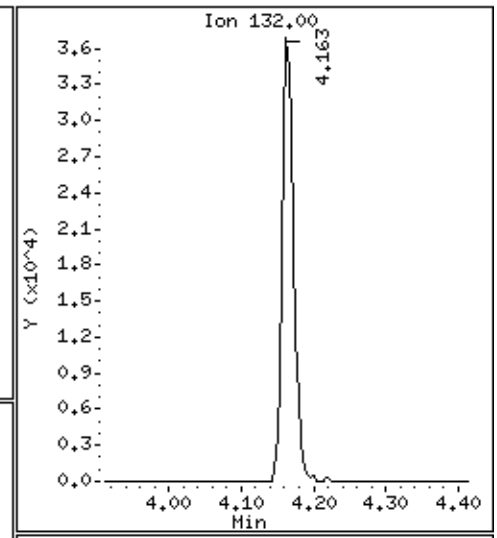
Column diameter: 0.18

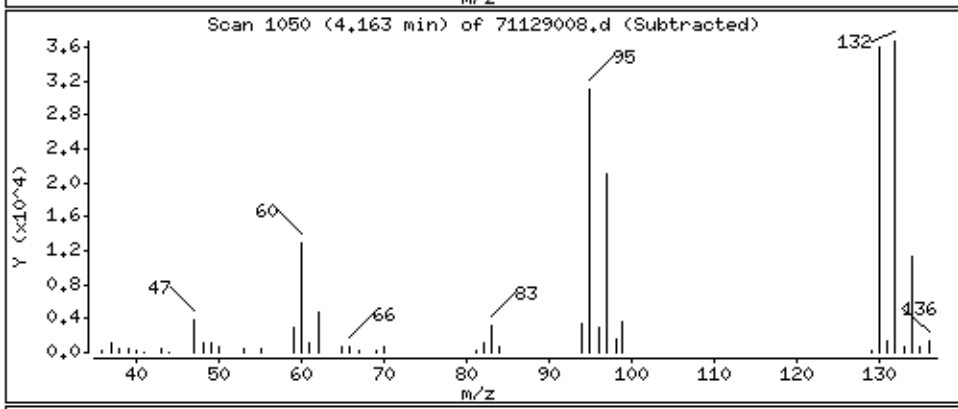
50 Trichloroethene

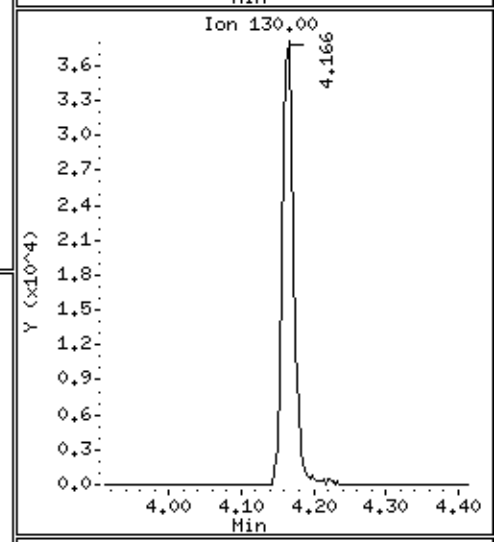
Concentration: 19.4 ug/L

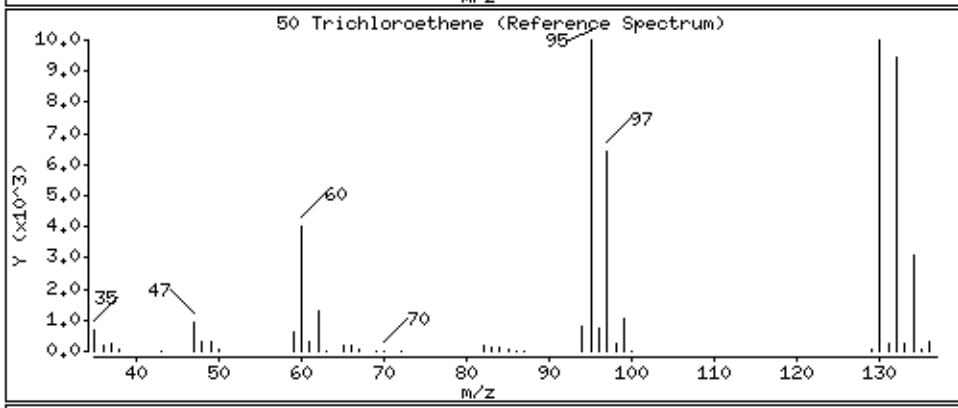
Review Code:

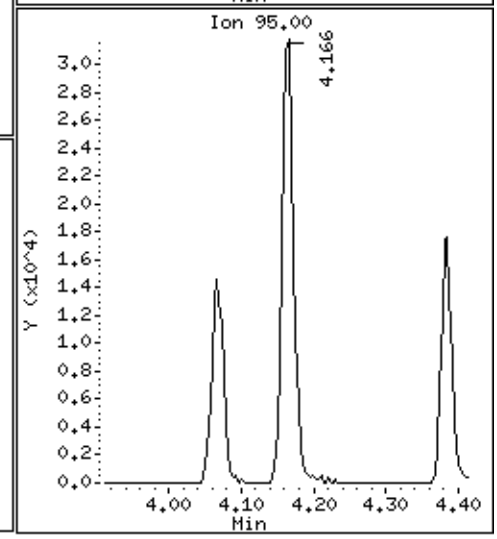


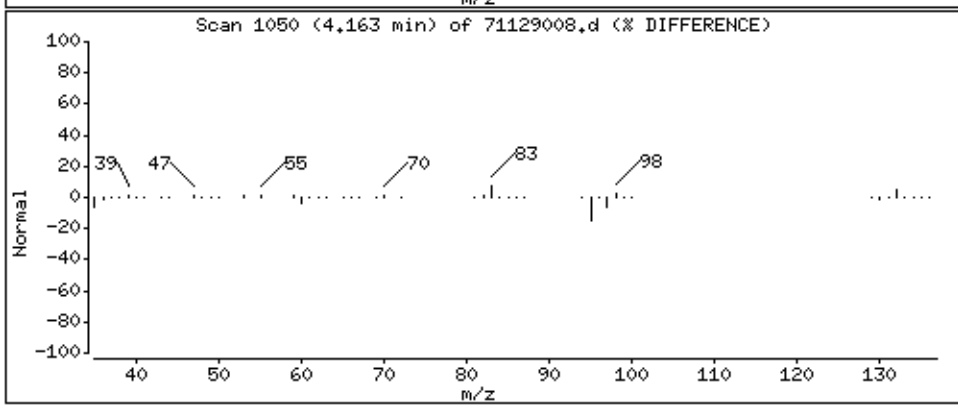












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

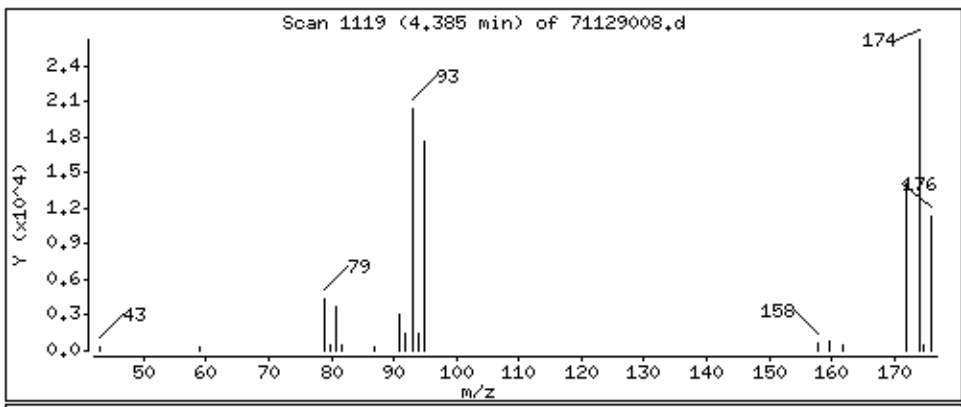
Column phase: RTX-VMS

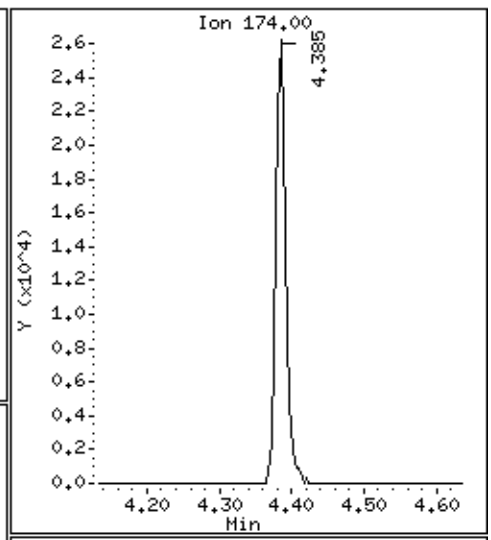
Column diameter: 0.18

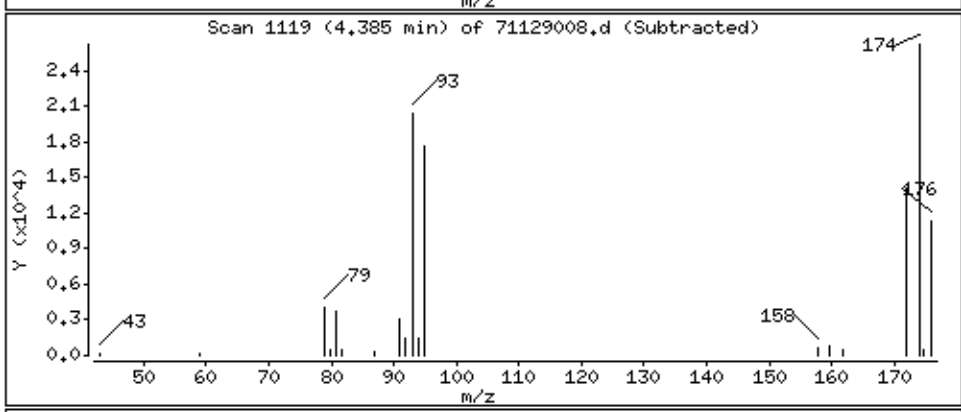
51 Dibromomethane

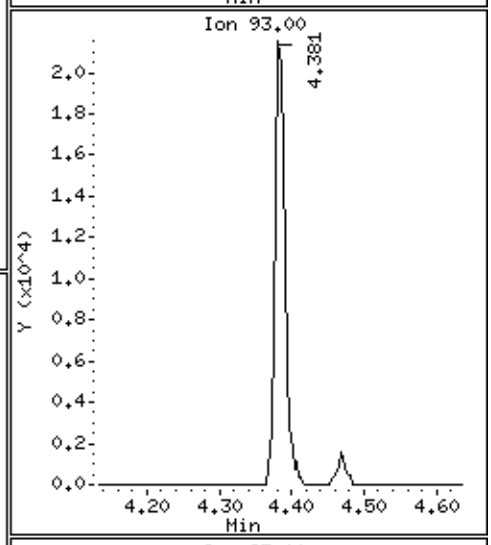
Concentration: 17.4 ug/L

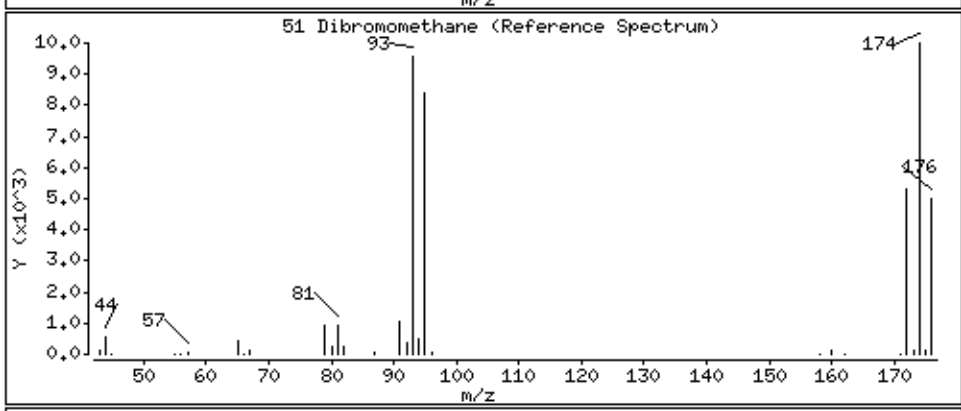
Review Code:

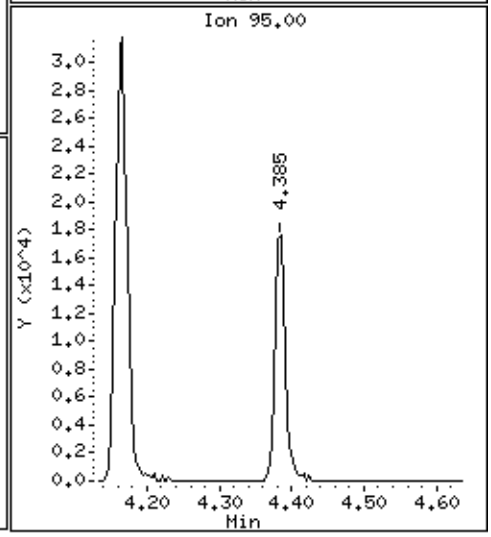


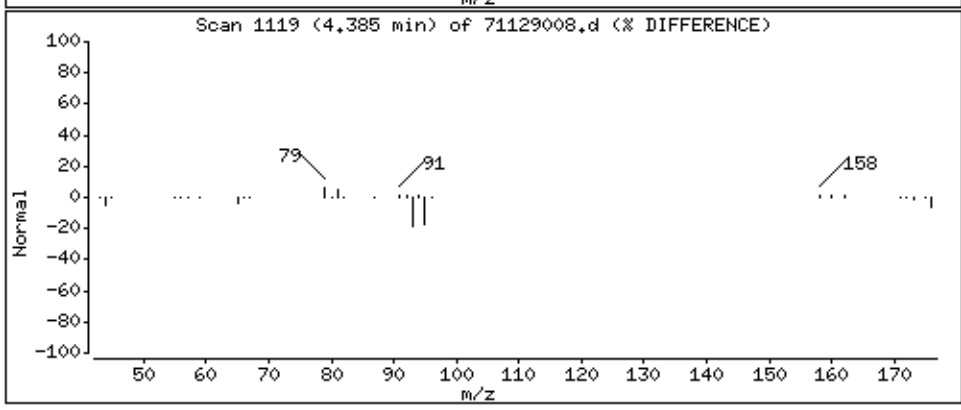












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

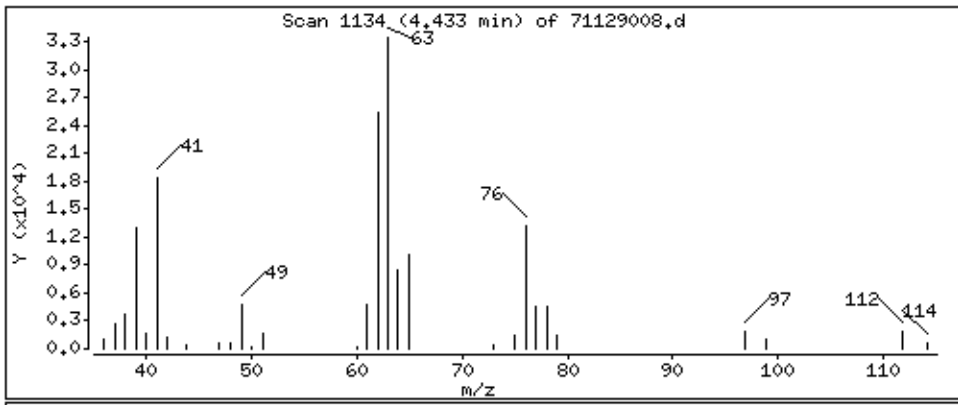
Column phase: RTX-VMS

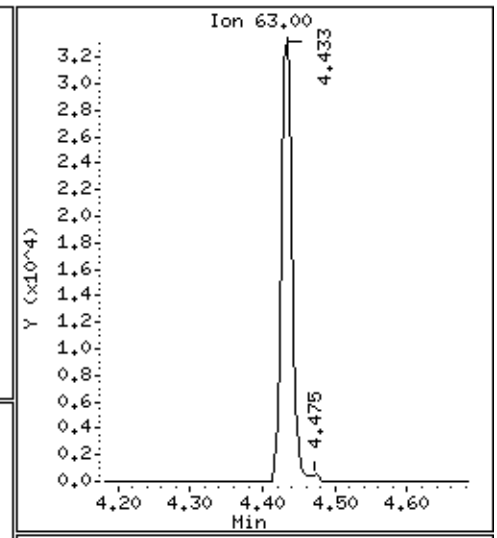
Column diameter: 0.18

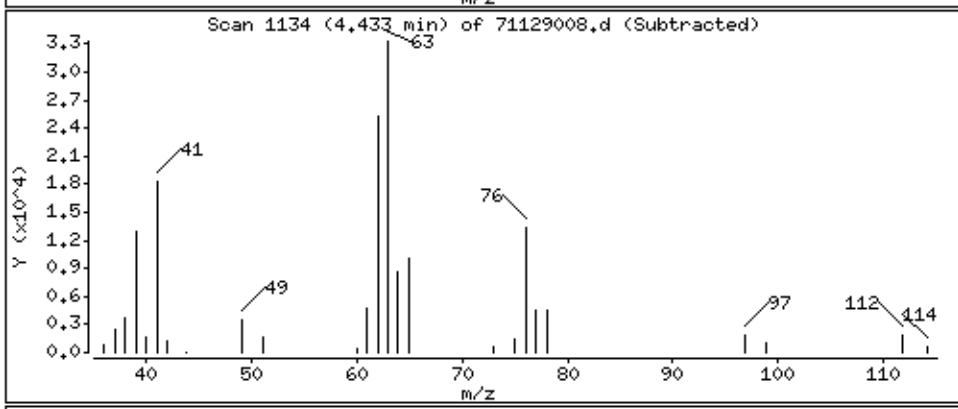
52 1,2-Dichloropropane

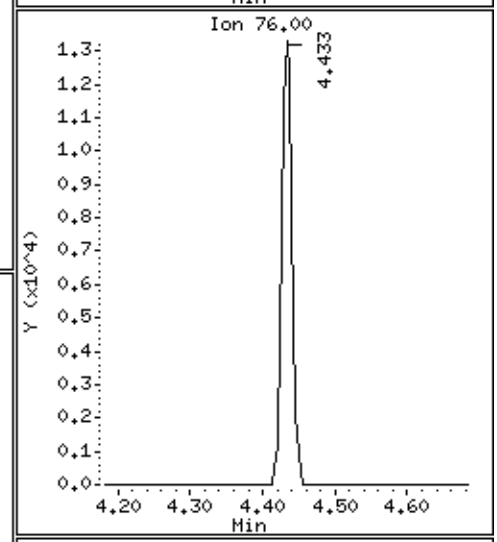
Concentration: 20.2 ug/L

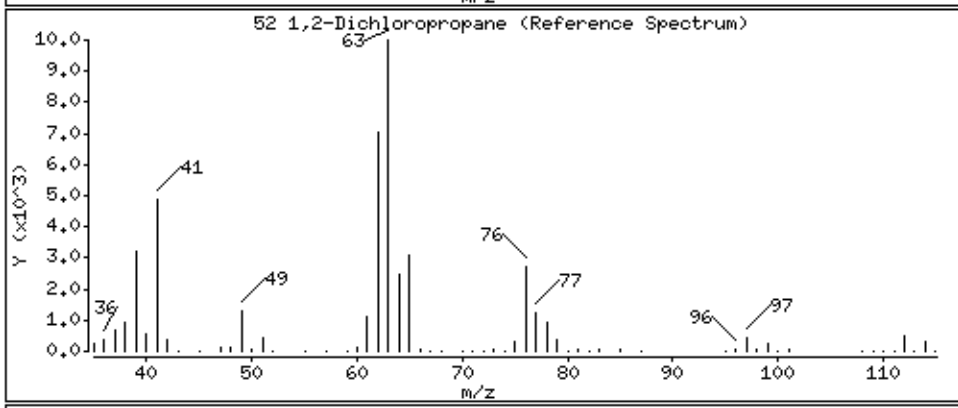
Review Code:

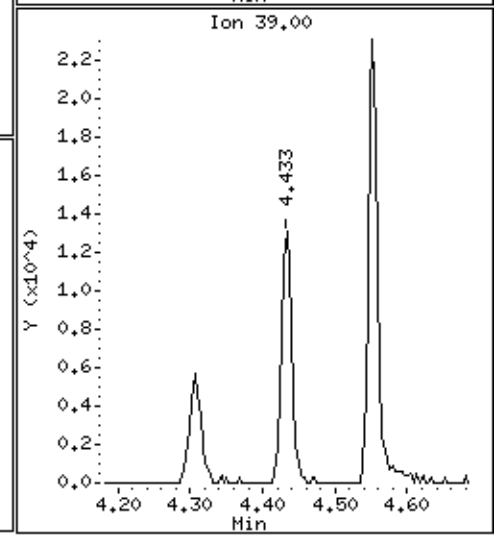


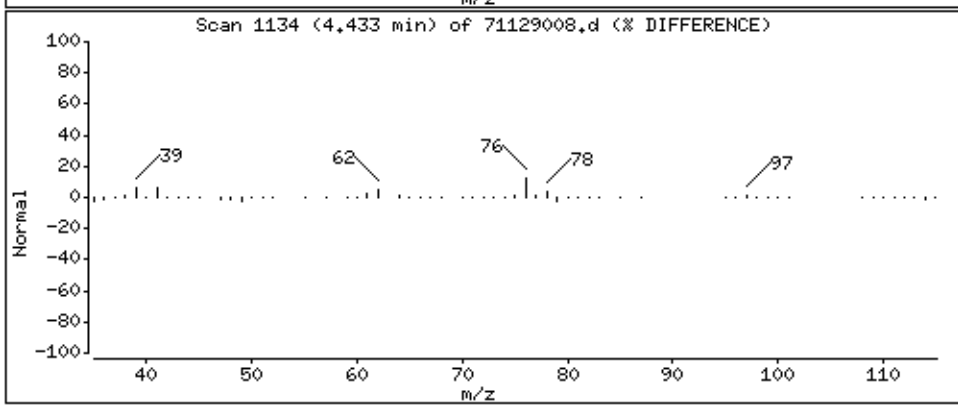












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

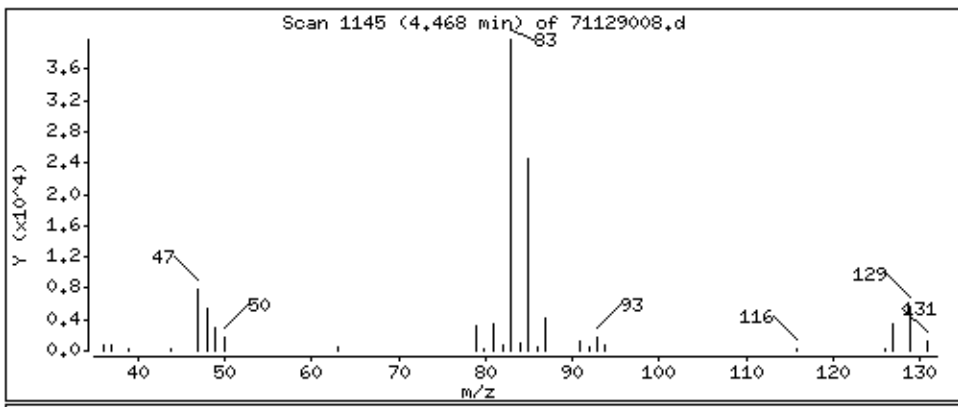
Column phase: RTX-VMS

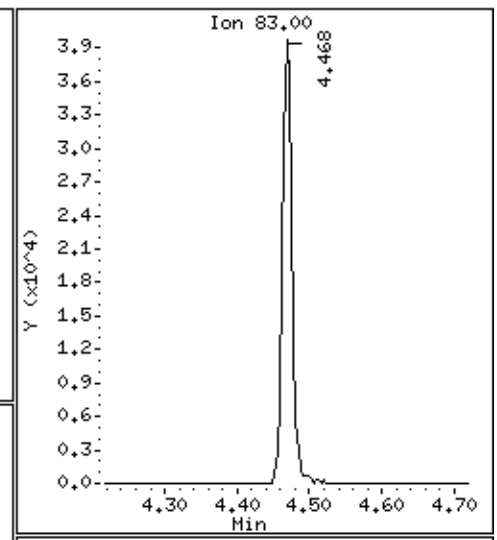
Column diameter: 0.18

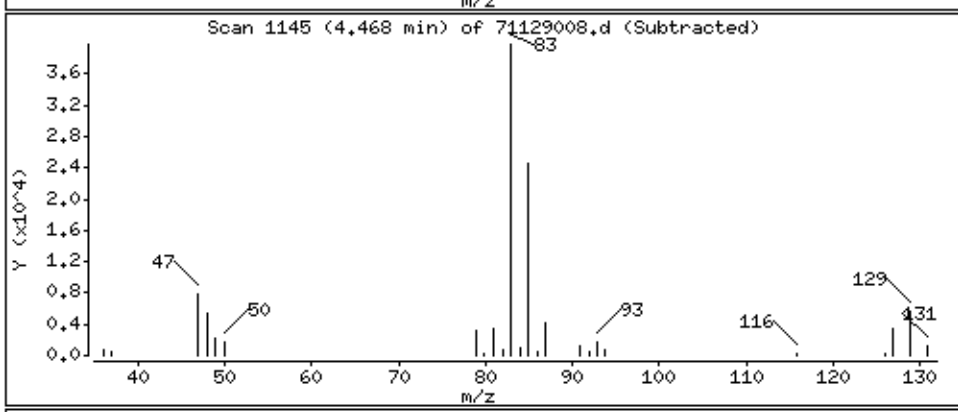
53 Bromodichloromethane

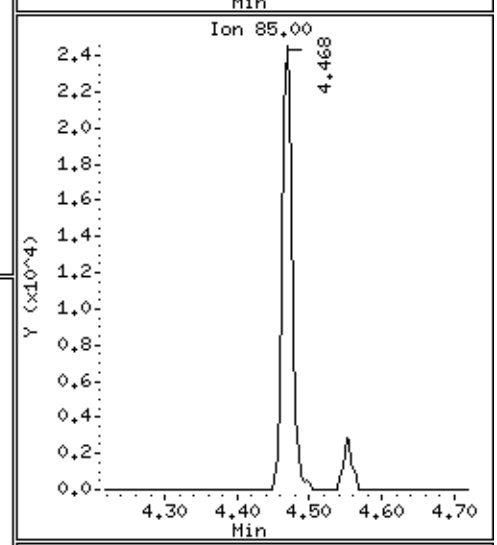
Concentration: 18.8 ug/L

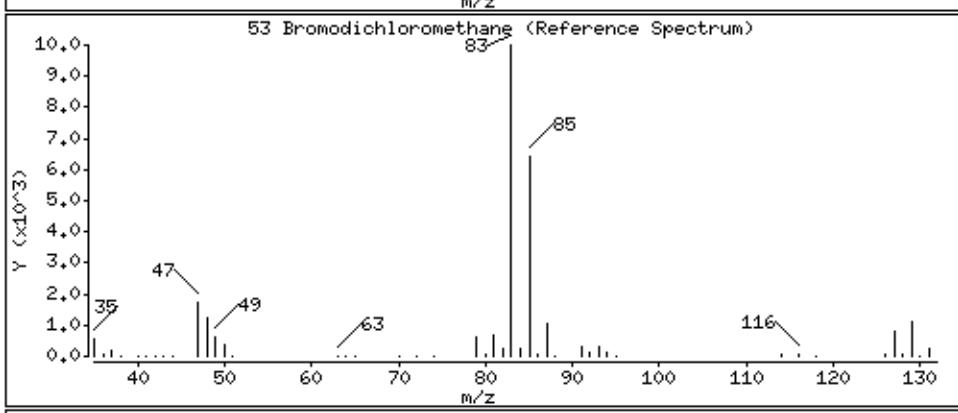
Review Code:

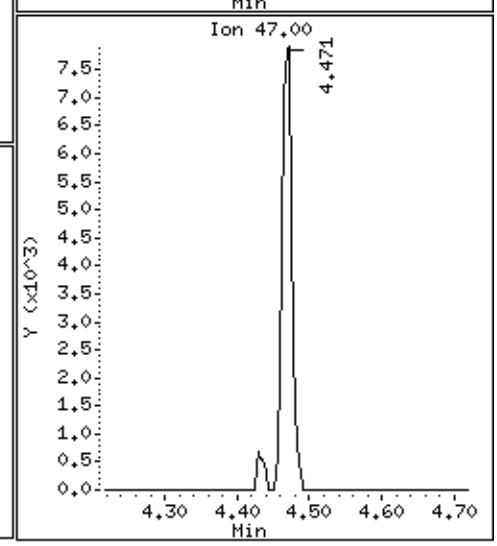


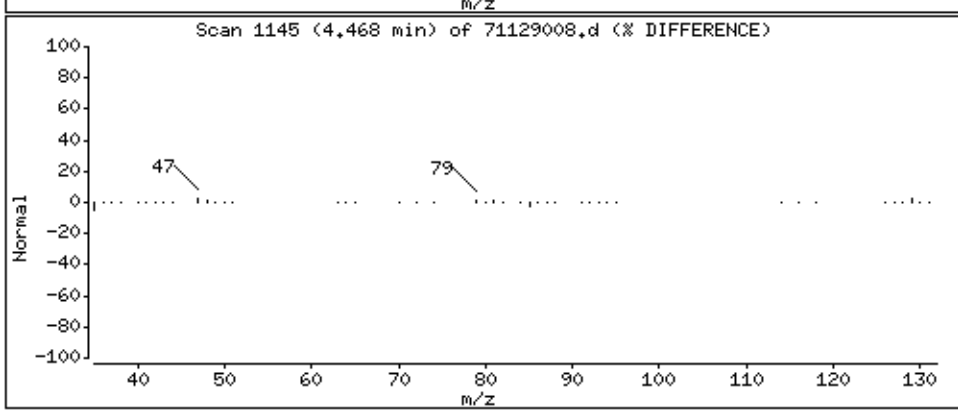












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

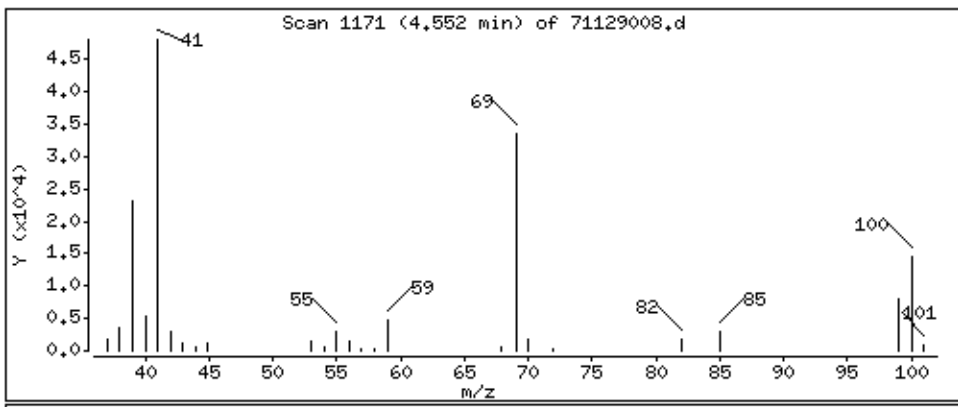
Column phase: RTX-VMS

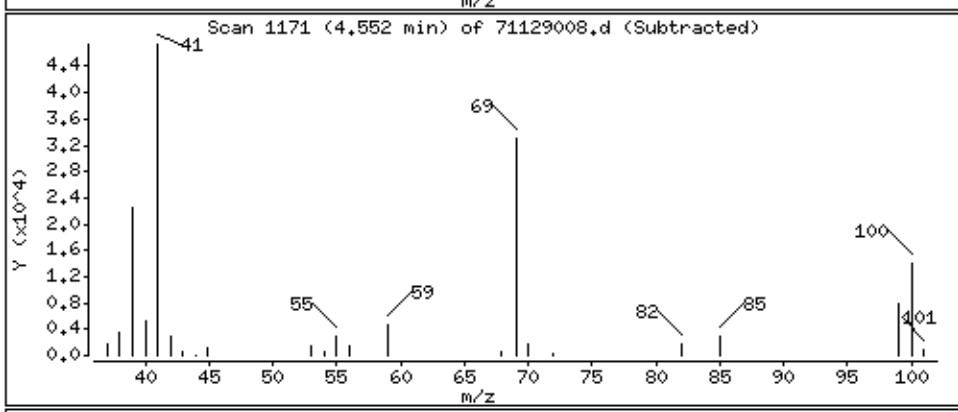
Column diameter: 0.18

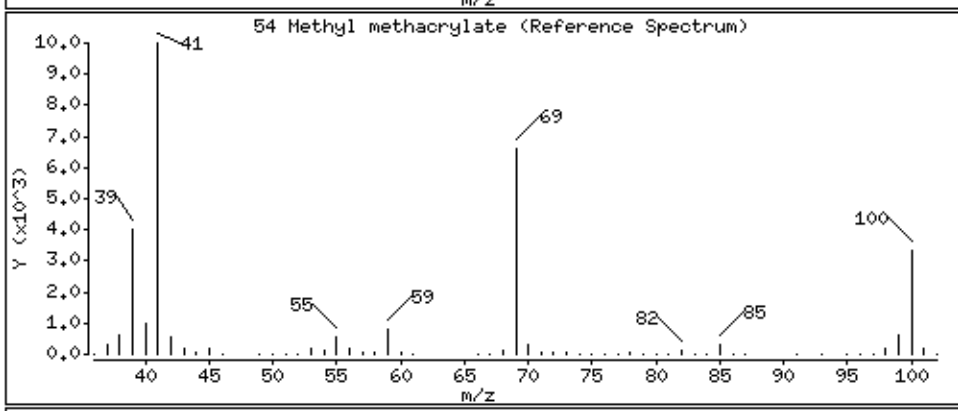
54 Methyl methacrylate

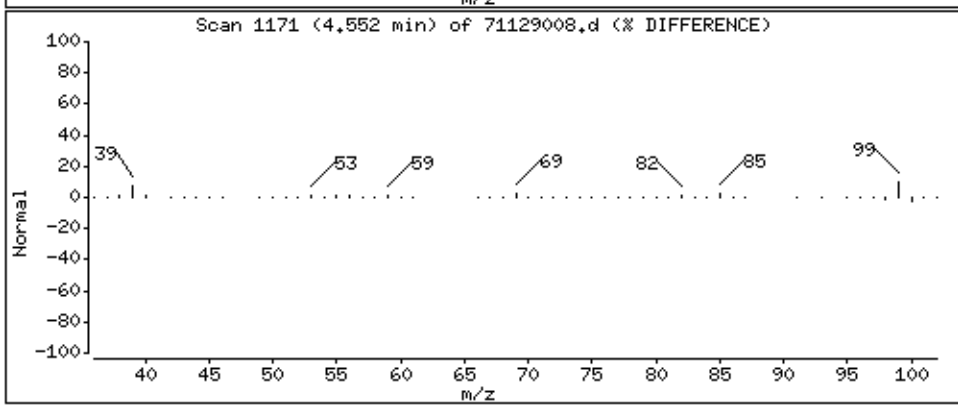
Concentration: 18.6 ug/L

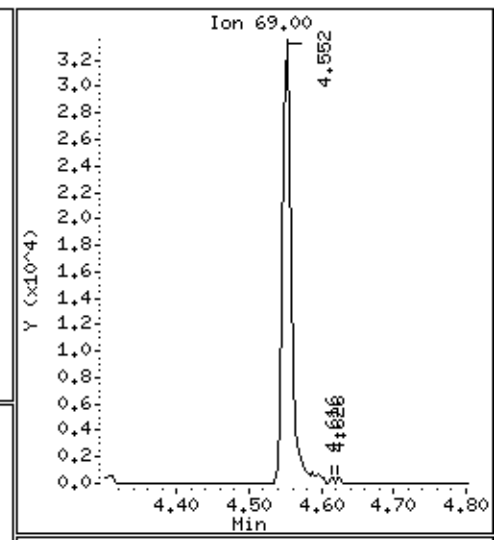
Review Code:

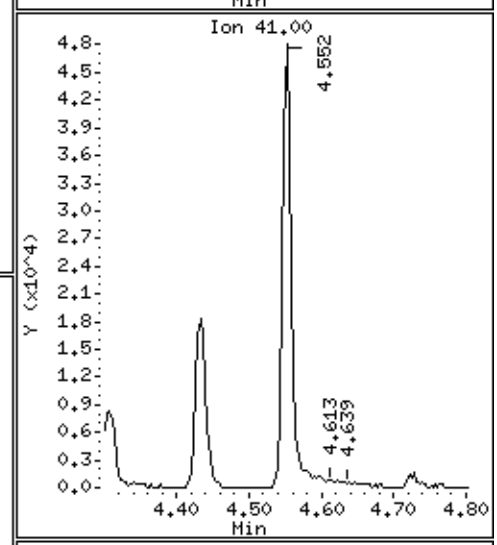


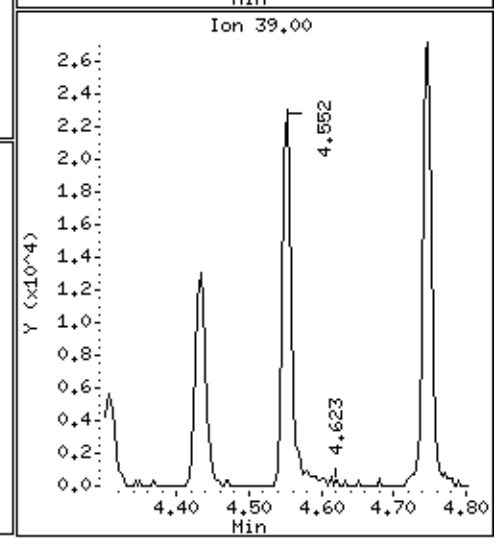












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

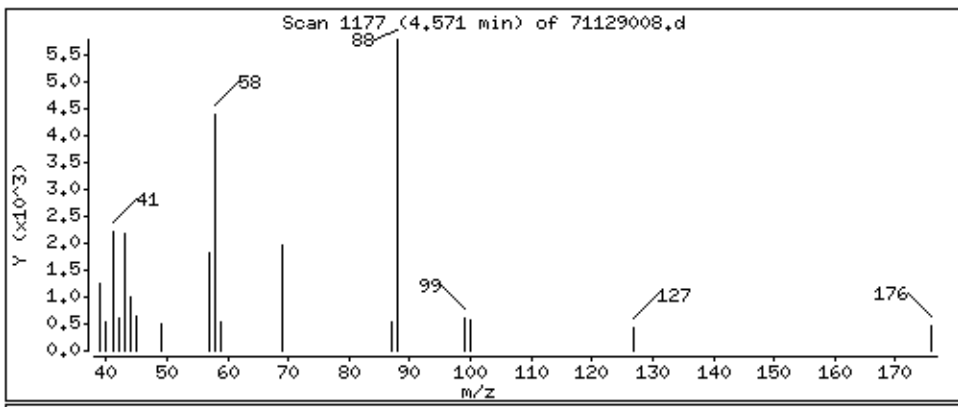
Column phase: RTX-VMS

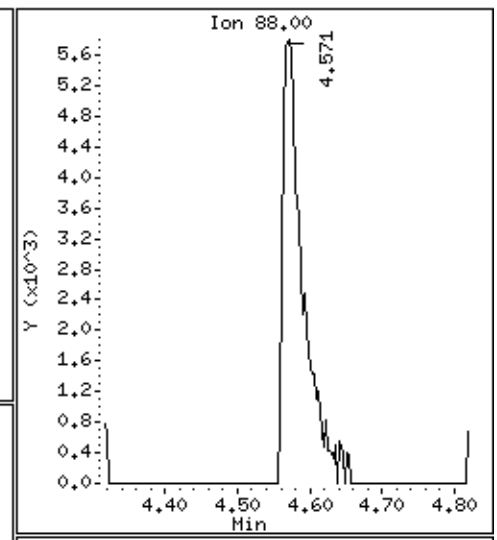
Column diameter: 0.18

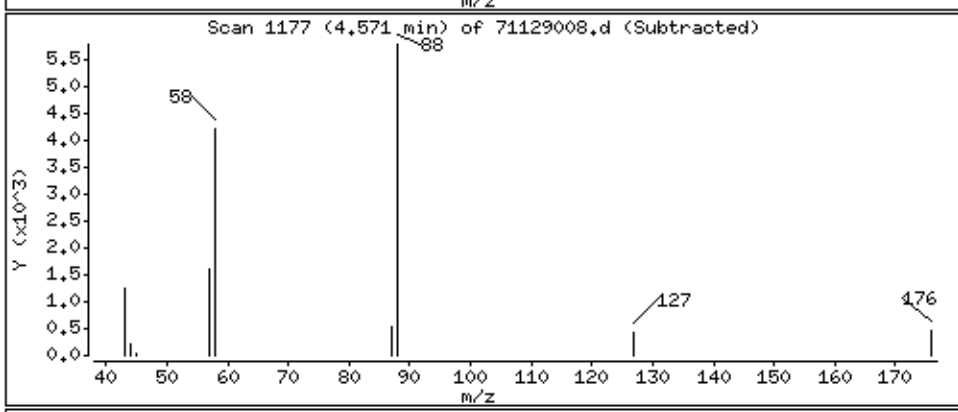
55 1,4-Dioxane (p-Dioxane)

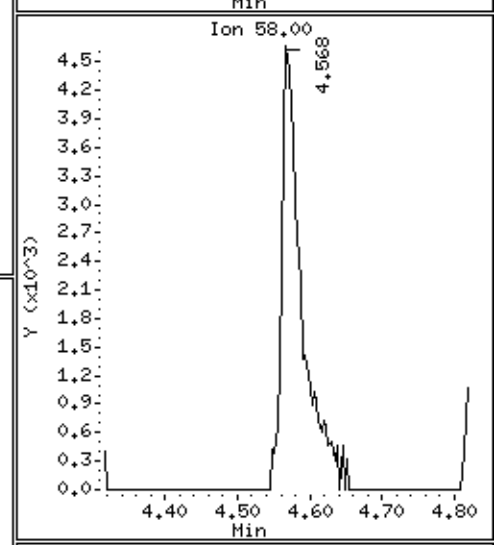
Concentration: 355 ug/L

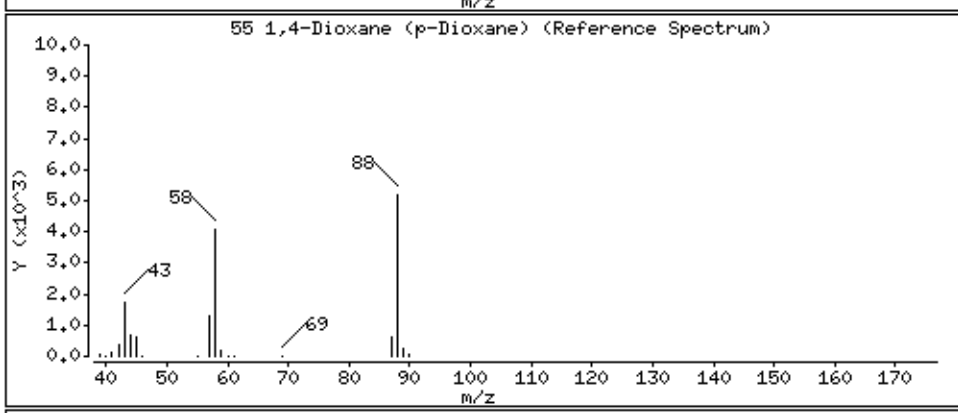
Review Code:

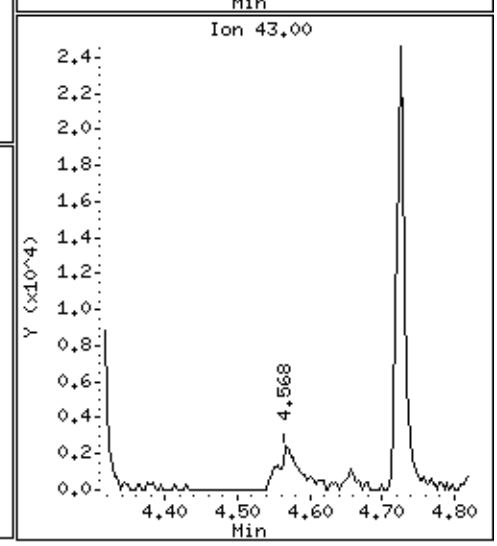


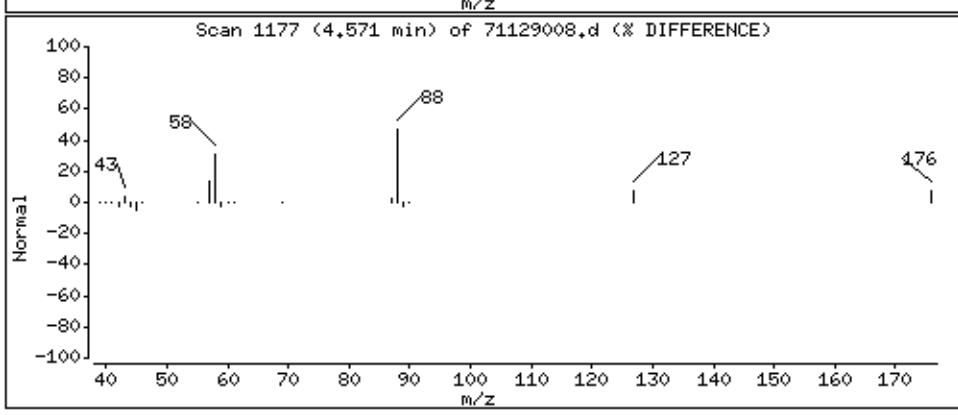












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

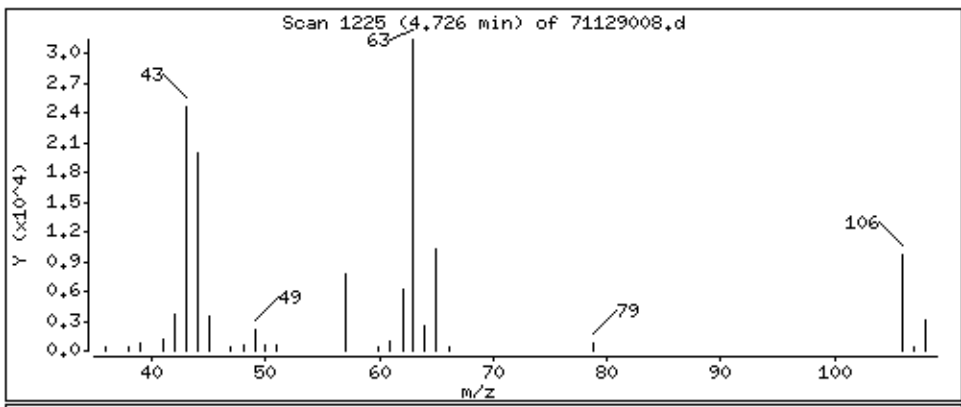
Column phase: RTX-VMS

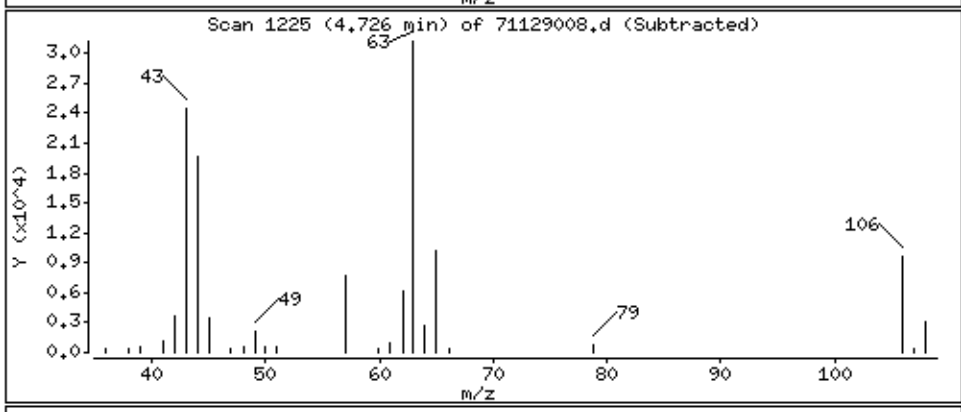
Column diameter: 0.18

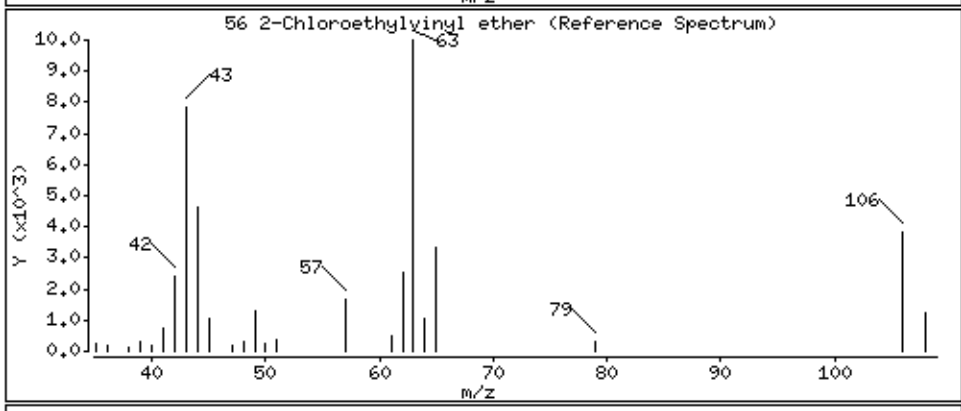
56 2-Chloroethylvinyl ether

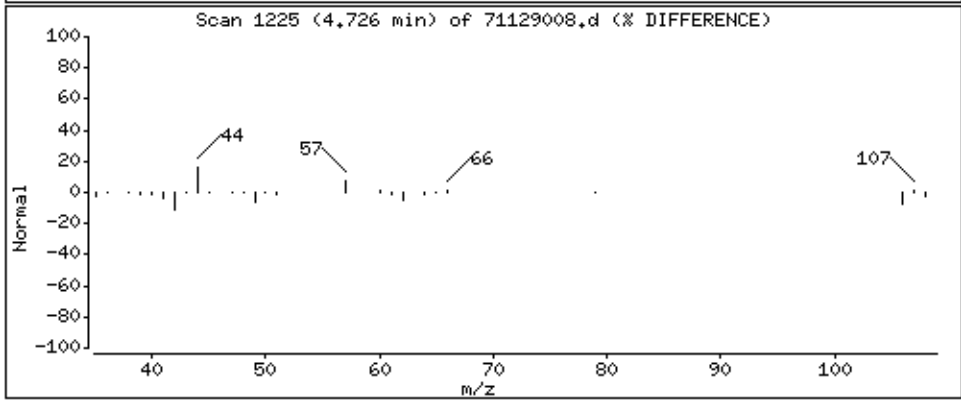
Concentration: 18.2 ug/L

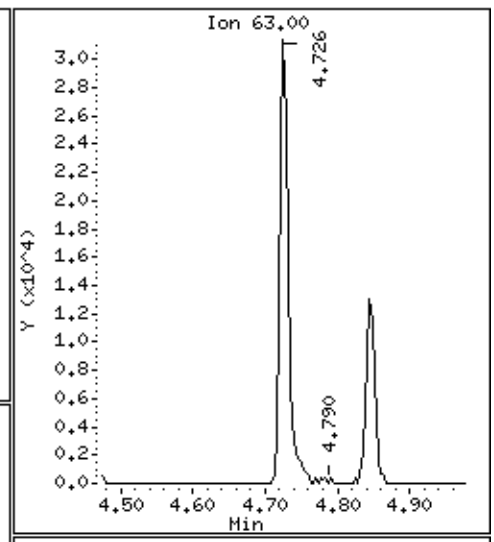
Review Code:

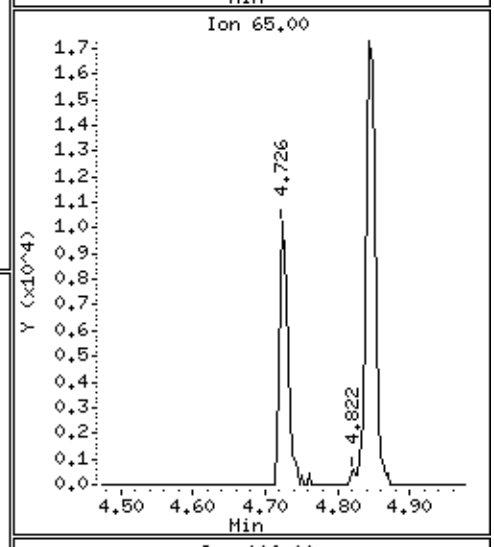


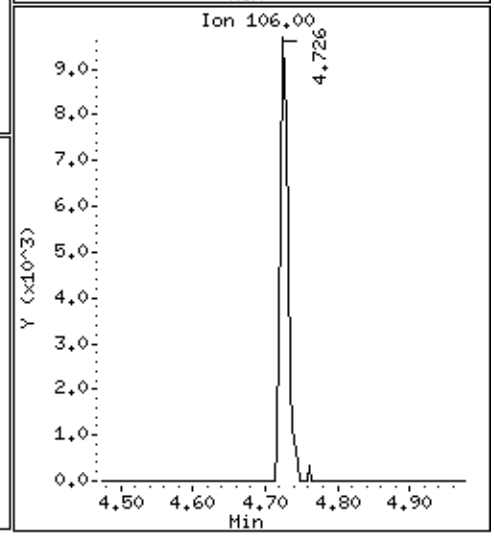












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

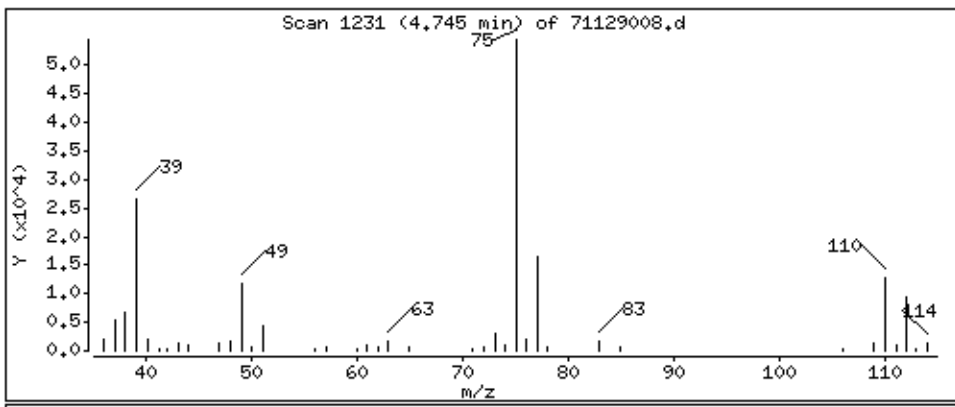
Column phase: RTX-VMS

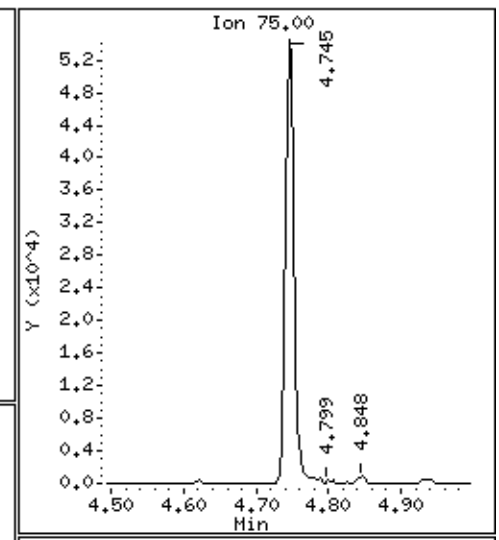
Column diameter: 0.18

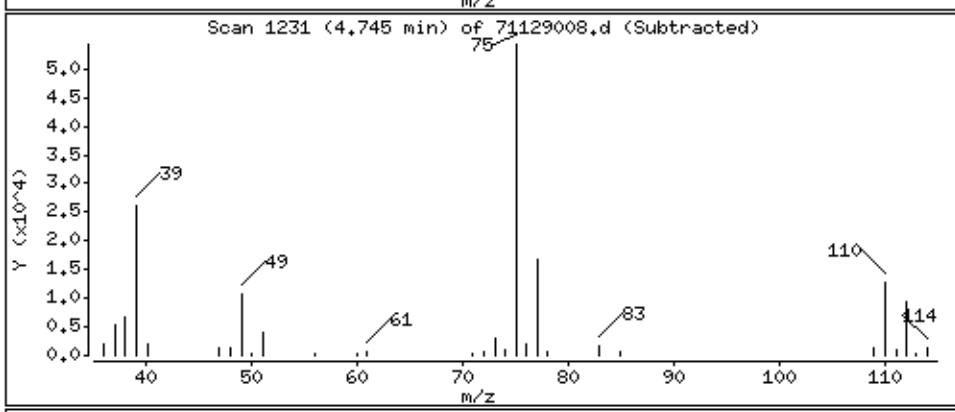
57 cis-1,3-Dichloropropene

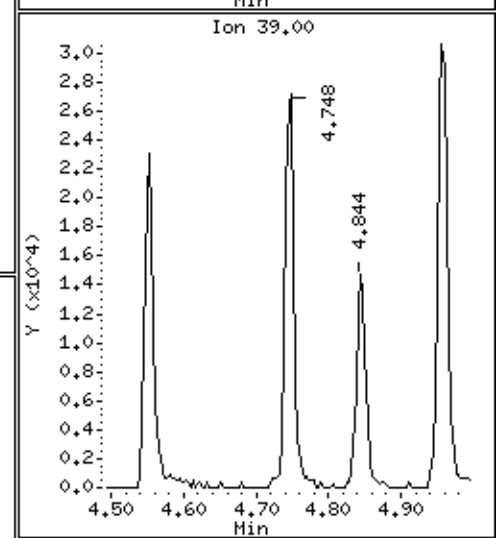
Concentration: 18.8 ug/L

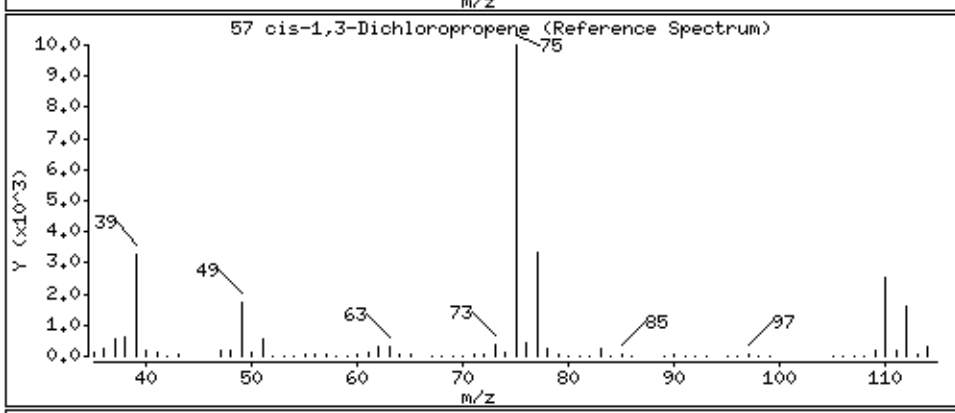
Review Code:

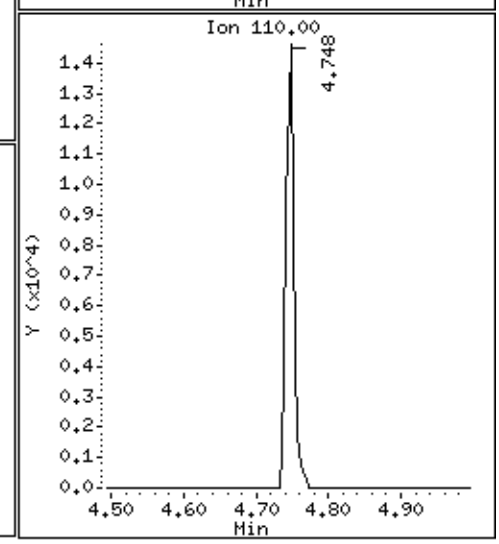


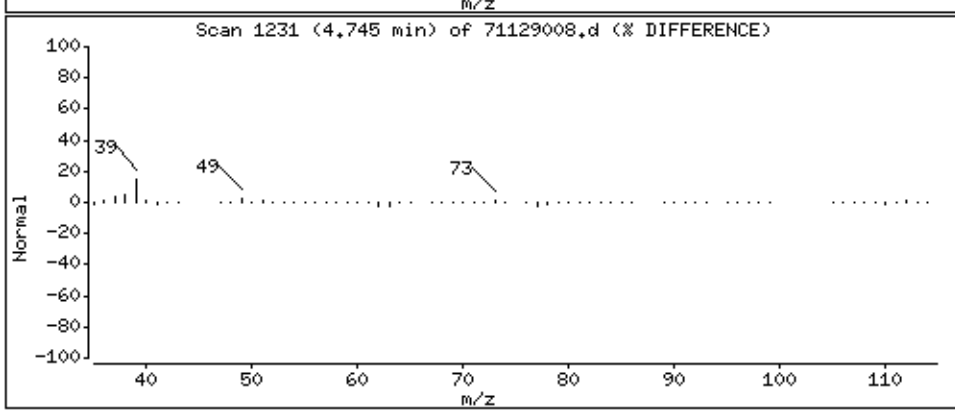












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

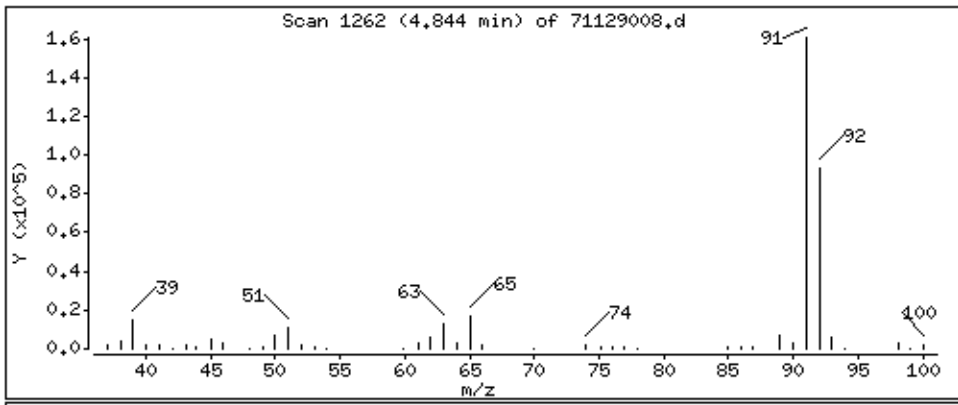
Column phase: RTX-VMS

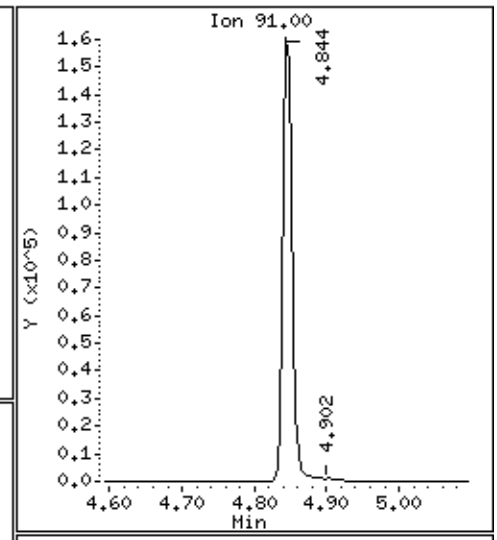
Column diameter: 0.18

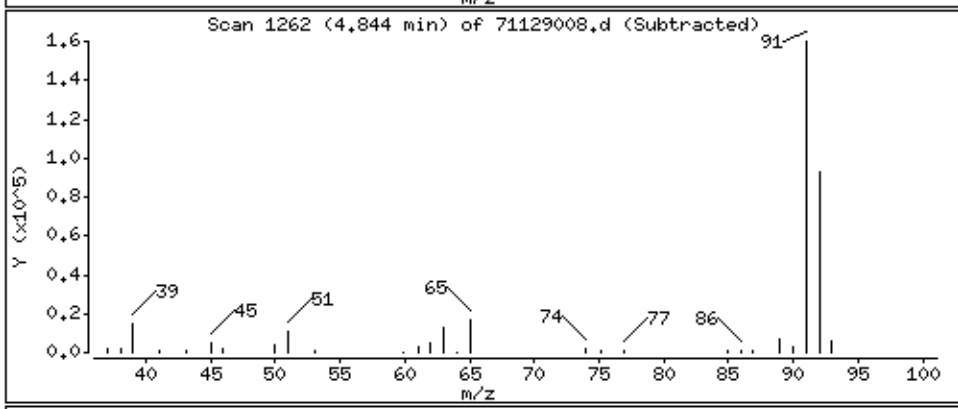
59 Toluene

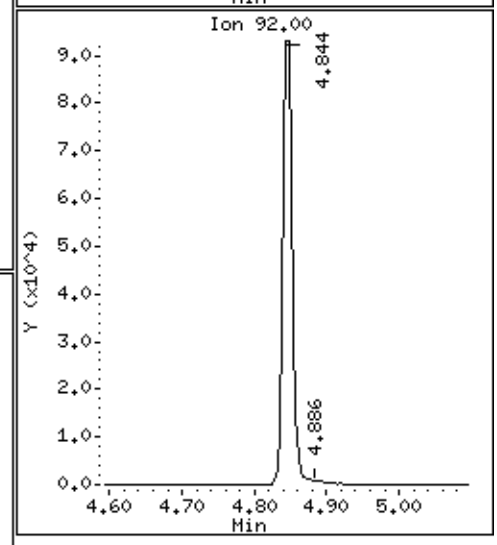
Concentration: 18.6 ug/L

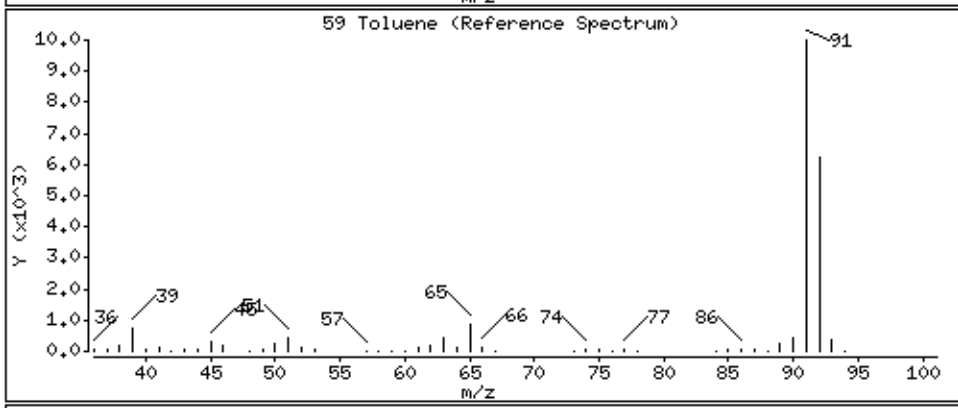
Review Code:

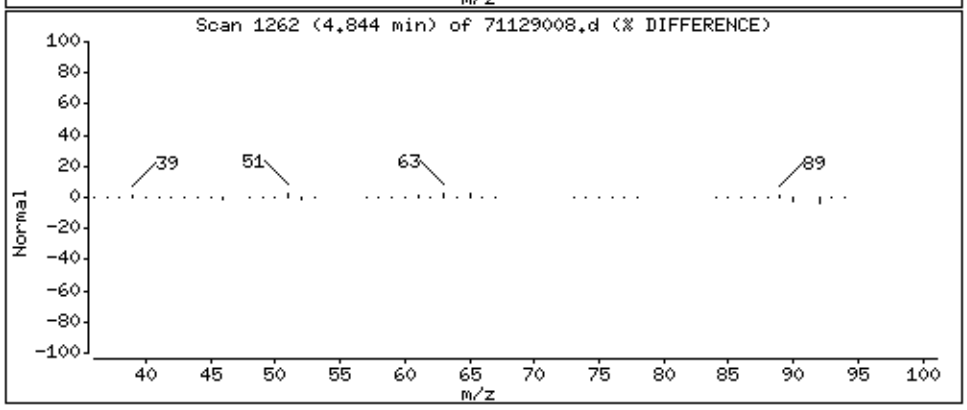












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

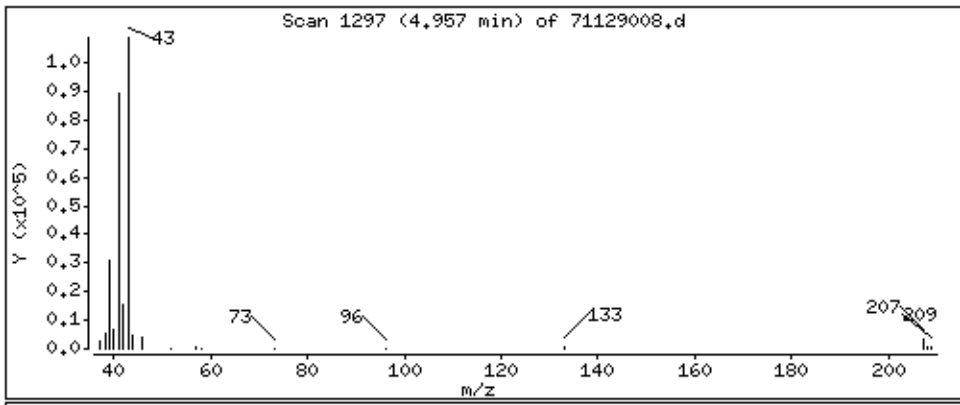
Column phase: RTX-VMS

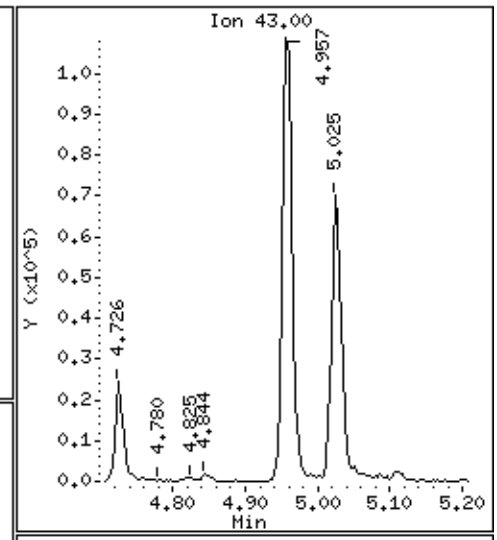
Column diameter: 0.18

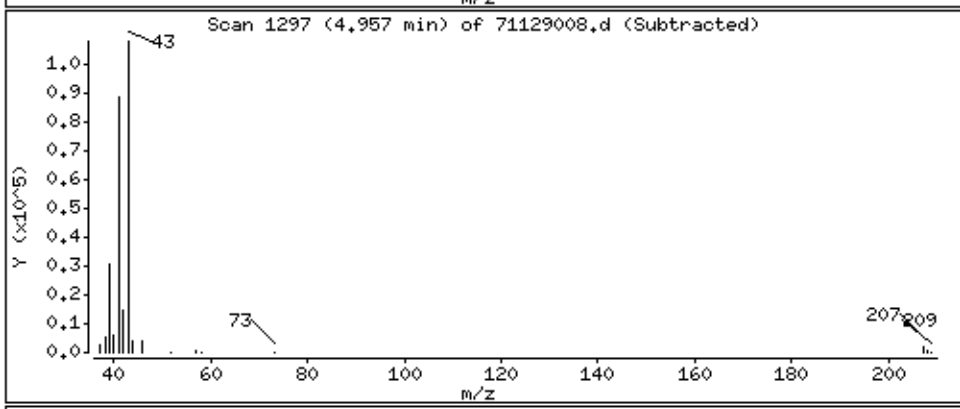
60 2-Nitropropane

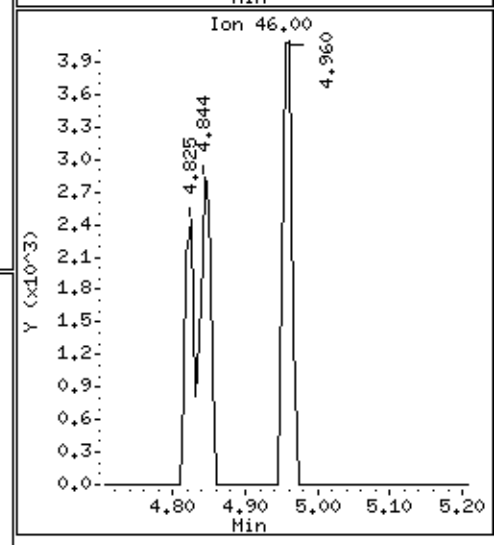
Concentration: 112 ug/L

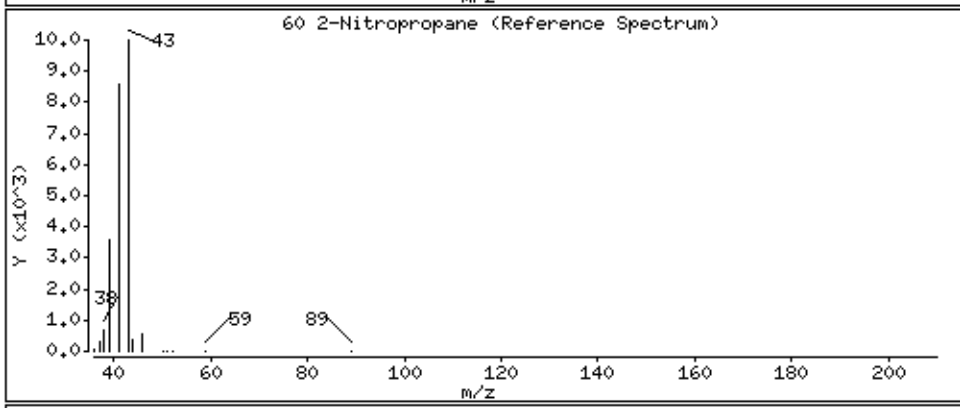
Review Code:

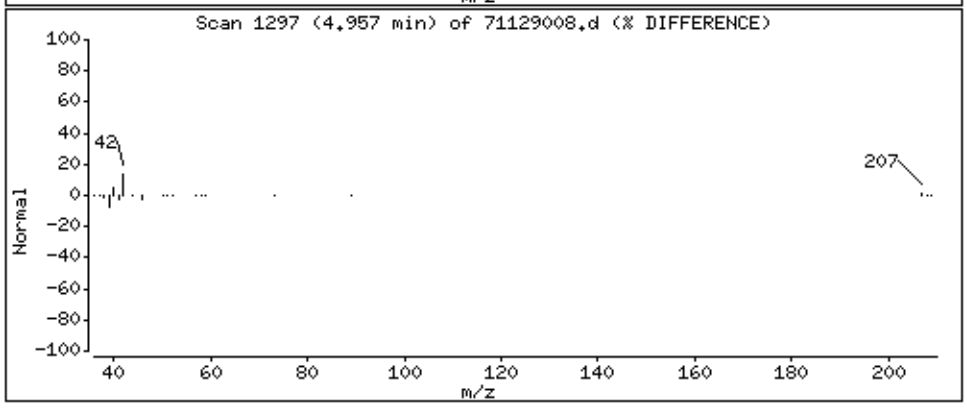












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

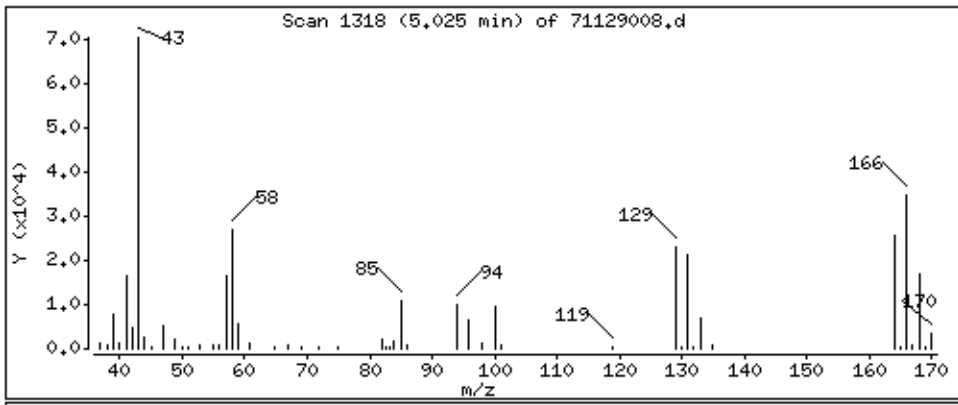
Column phase: RTX-VMS

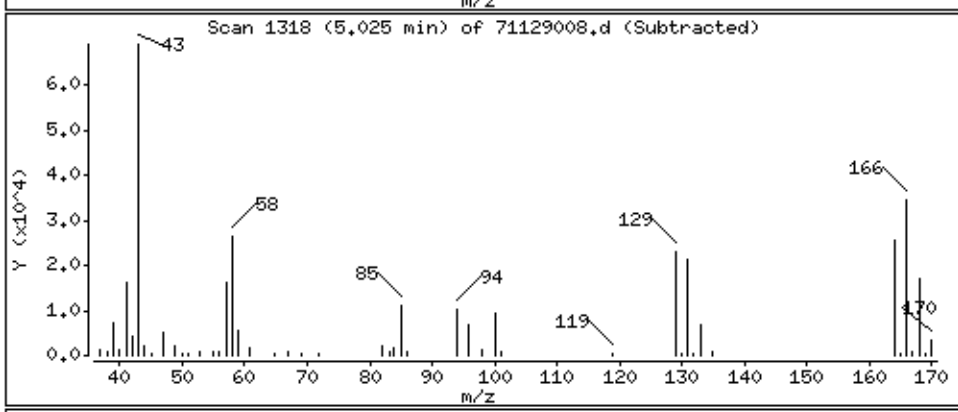
Column diameter: 0.18

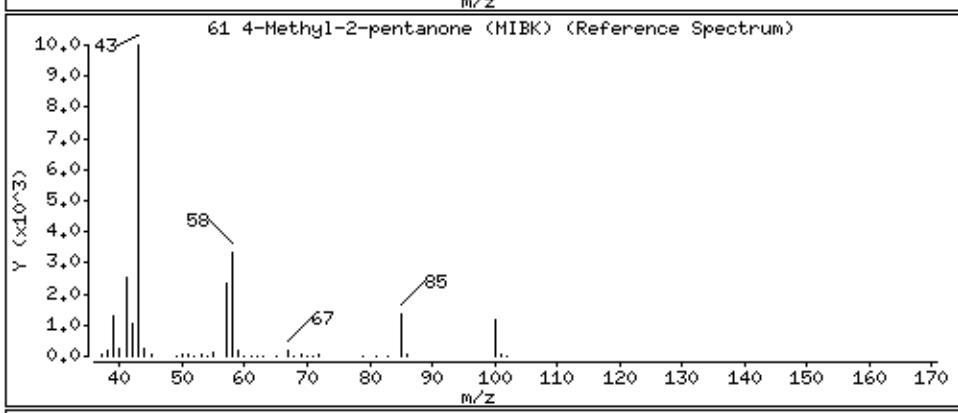
61 4-Methyl-2-pentanone (MIBK)

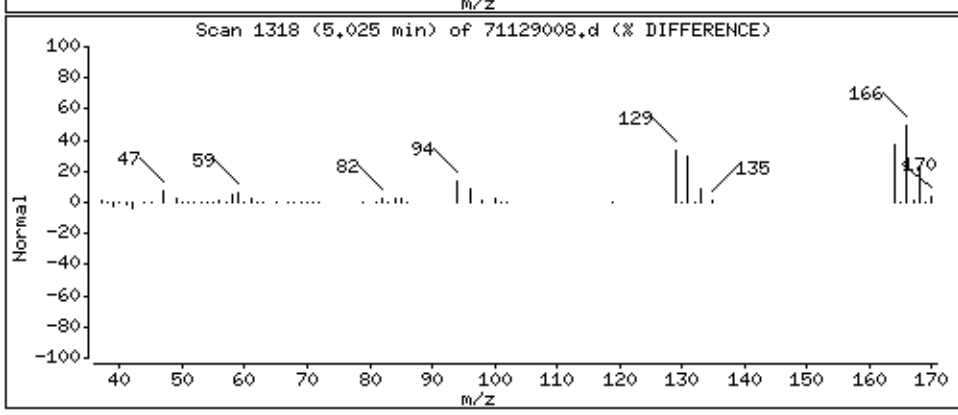
Concentration: 23.2 ug/L

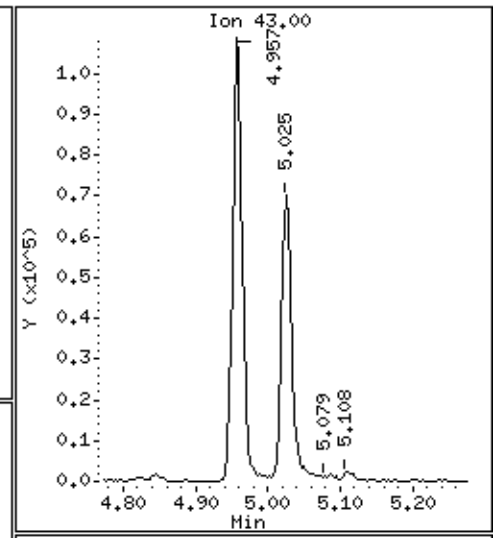
Review Code:

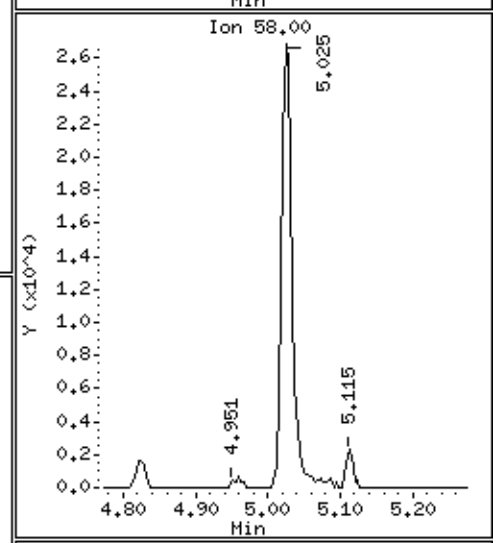


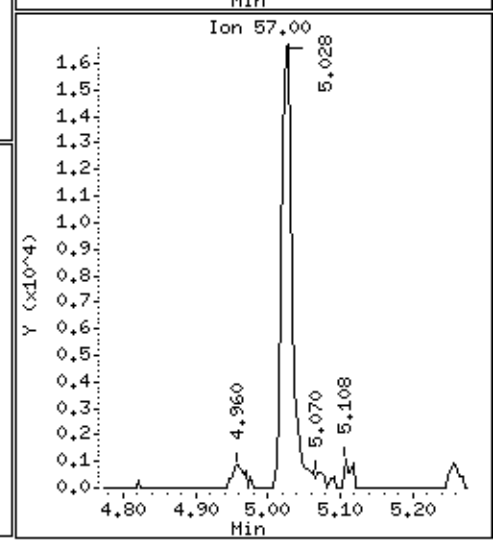












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

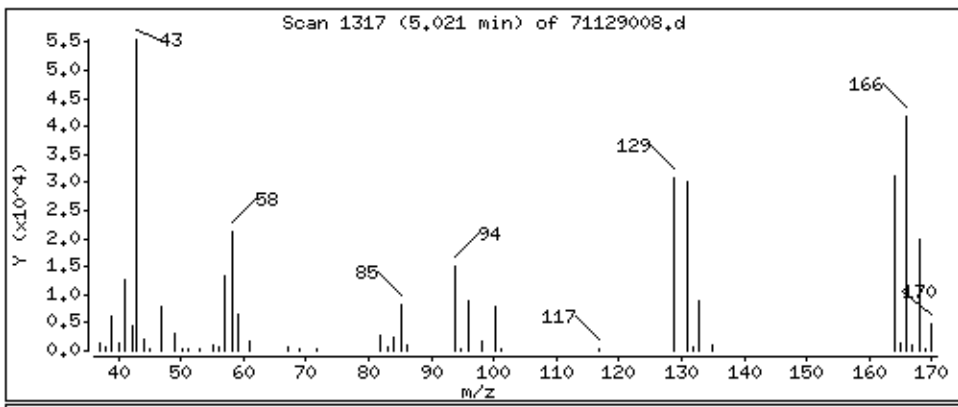
Column phase: RTX-VMS

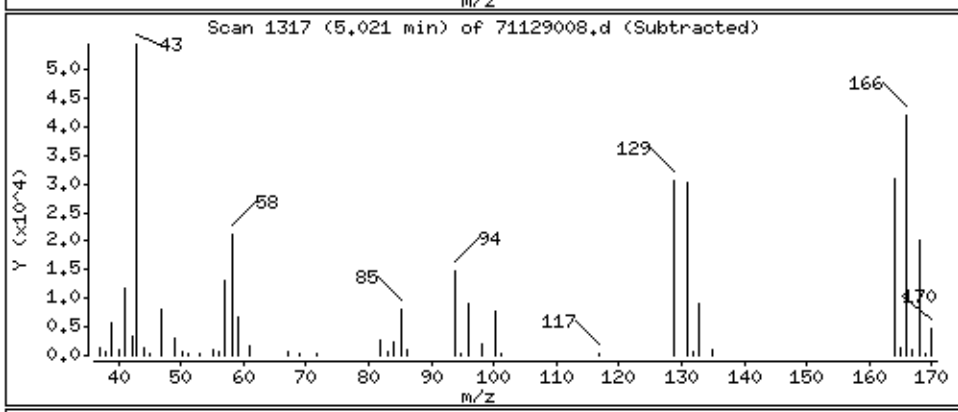
Column diameter: 0.18

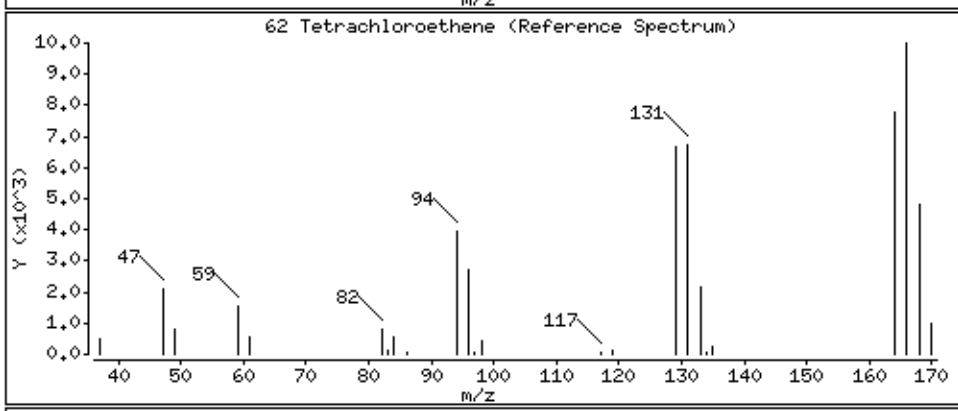
62 Tetrachloroethene

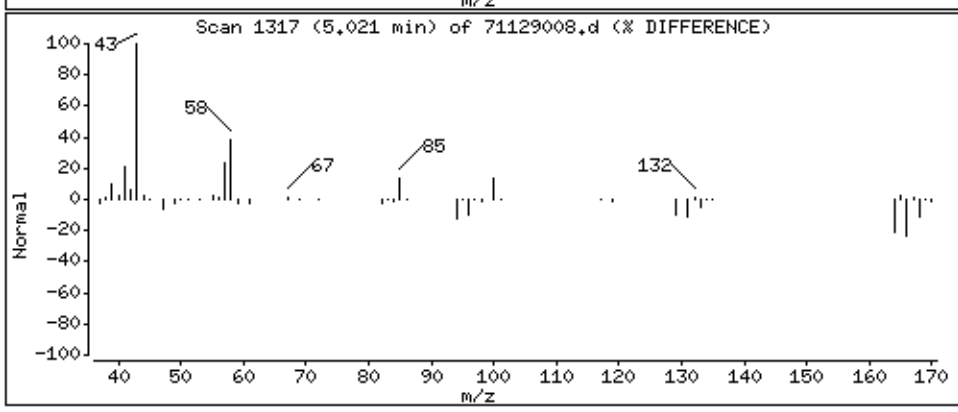
Concentration: 18.5 ug/L

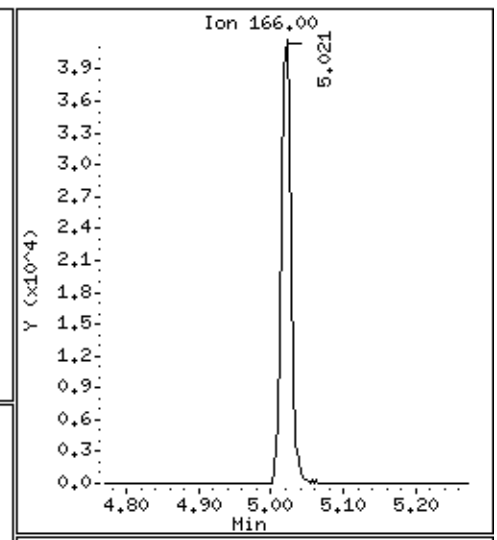
Review Code:

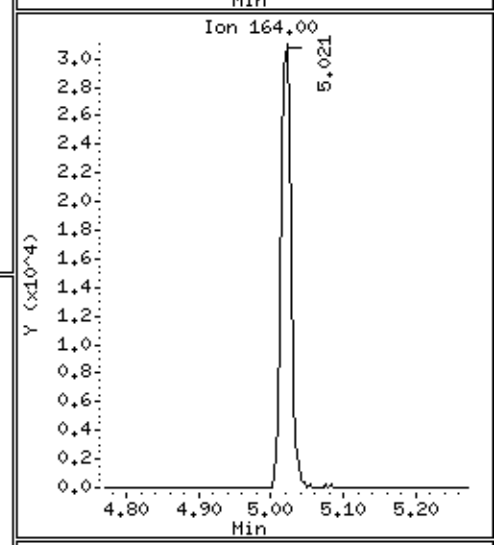


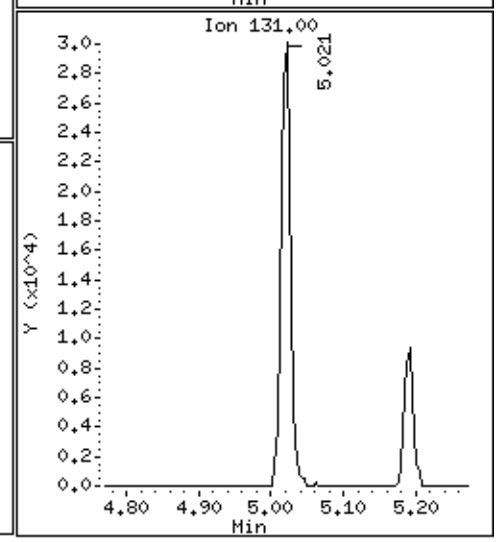












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

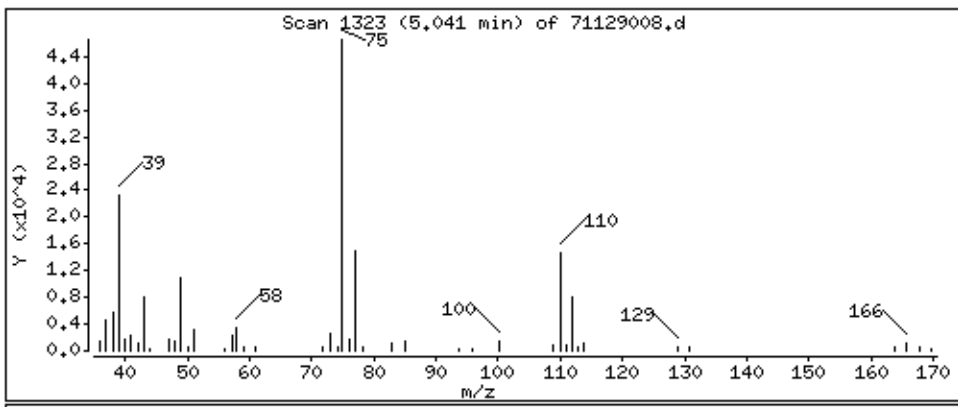
Column phase: RTX-VMS

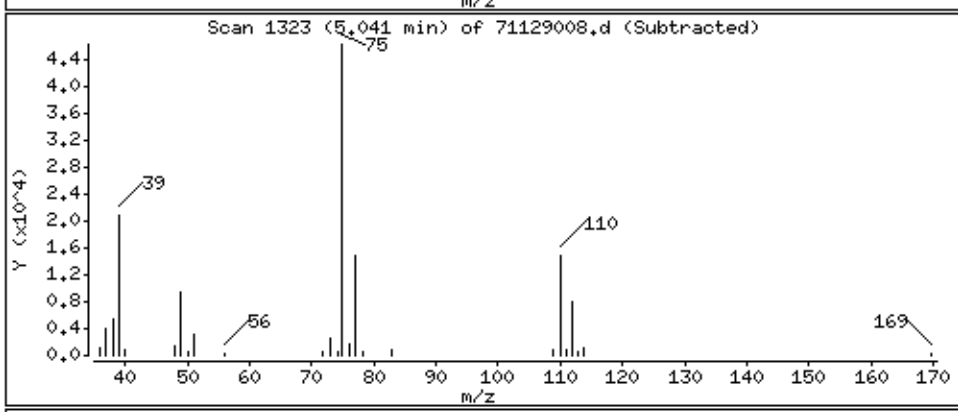
Column diameter: 0.18

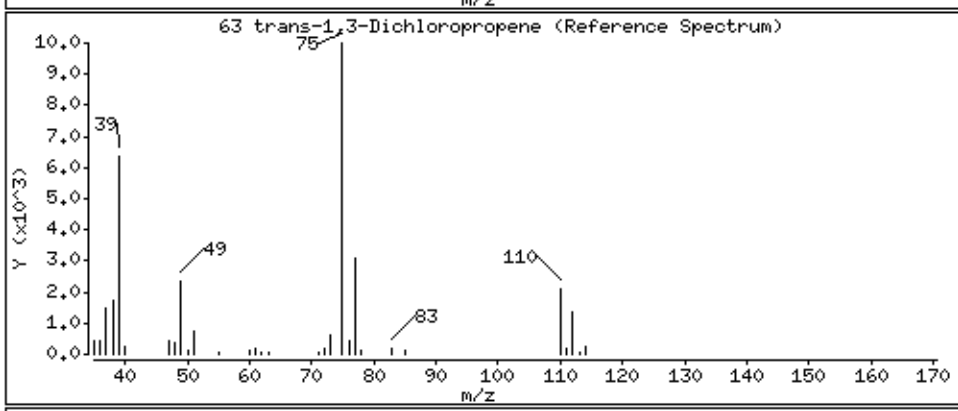
63 trans-1,3-Dichloropropene

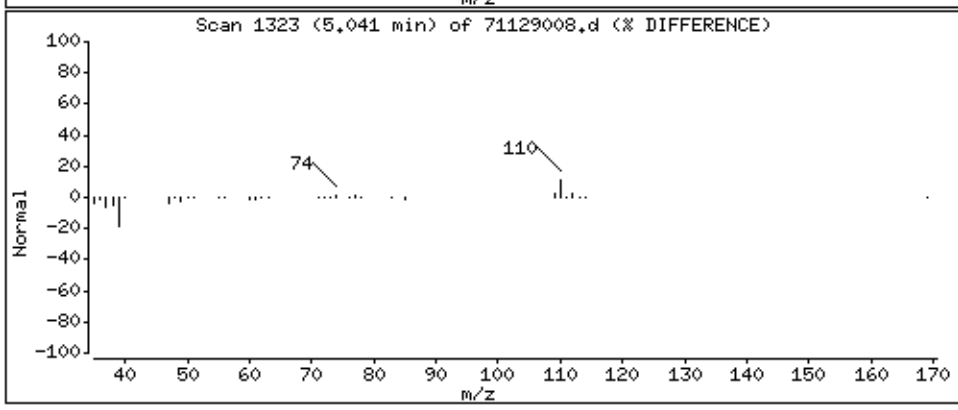
Concentration: 18.2 ug/L

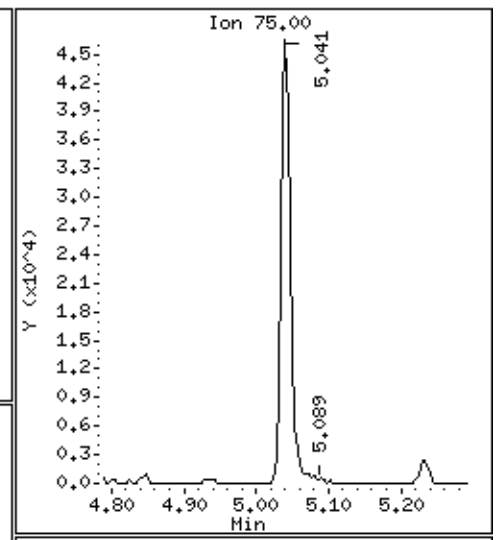
Review Code:

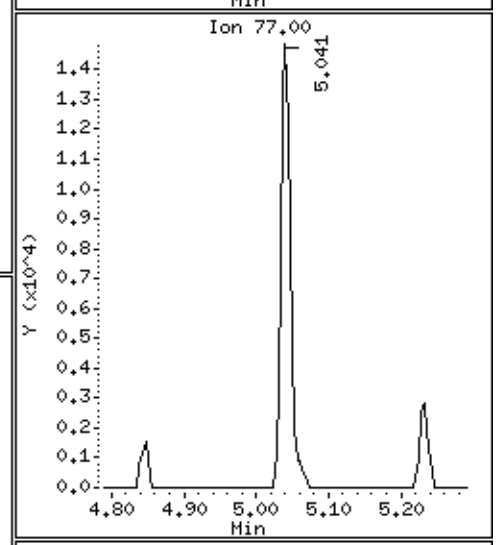


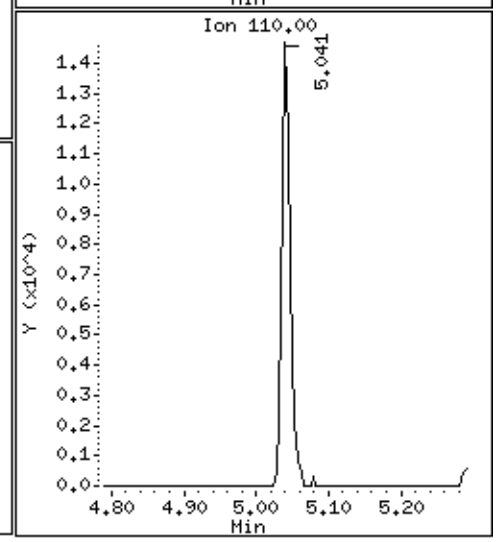












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

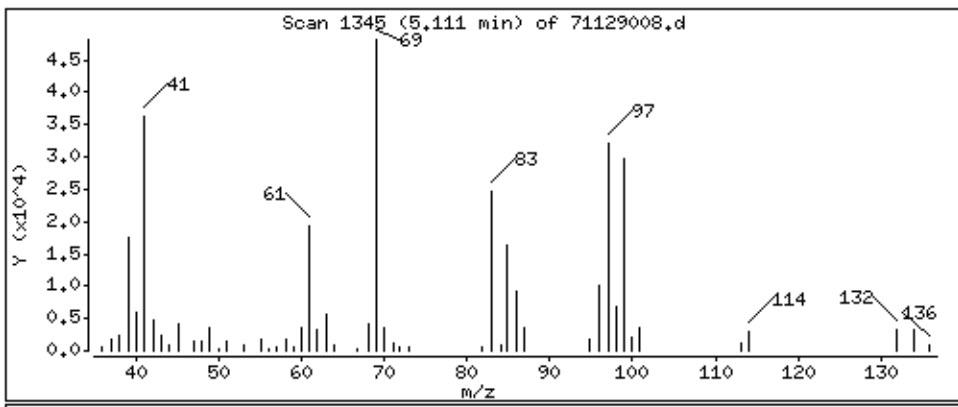
Column phase: RTX-VMS

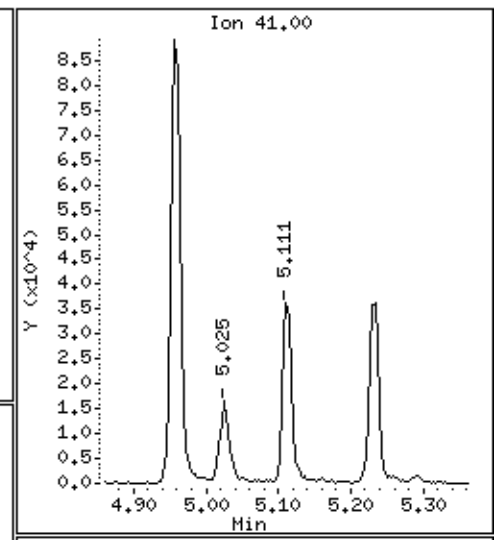
Column diameter: 0.18

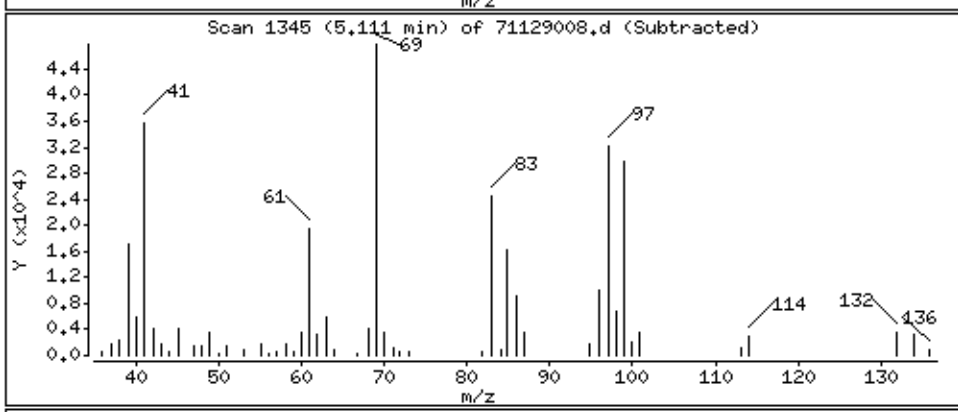
64 Ethyl methacrylate

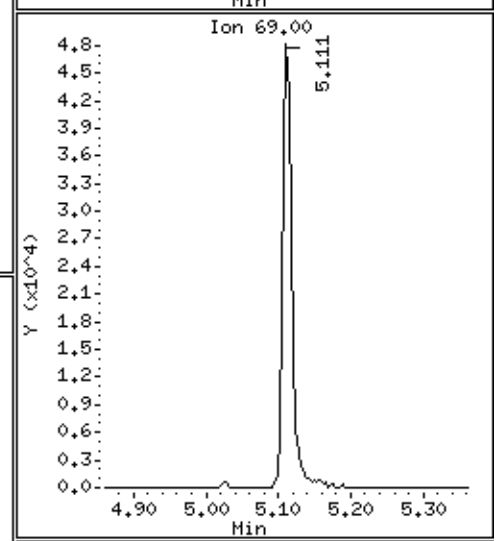
Concentration: 19.7 ug/L

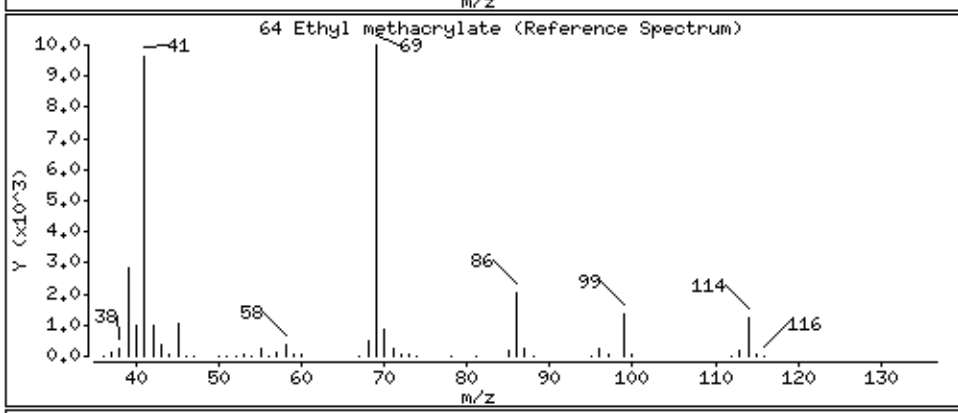
Review Code:

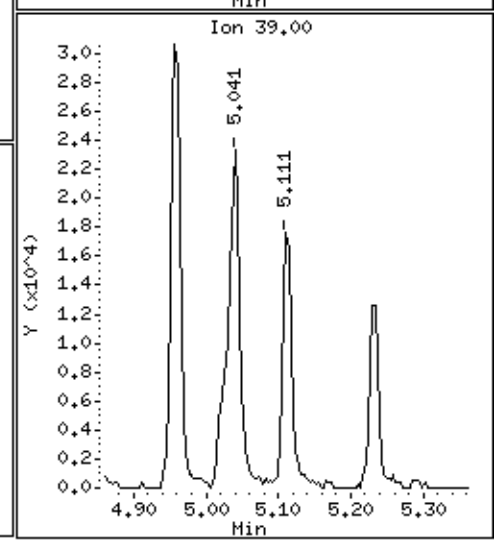


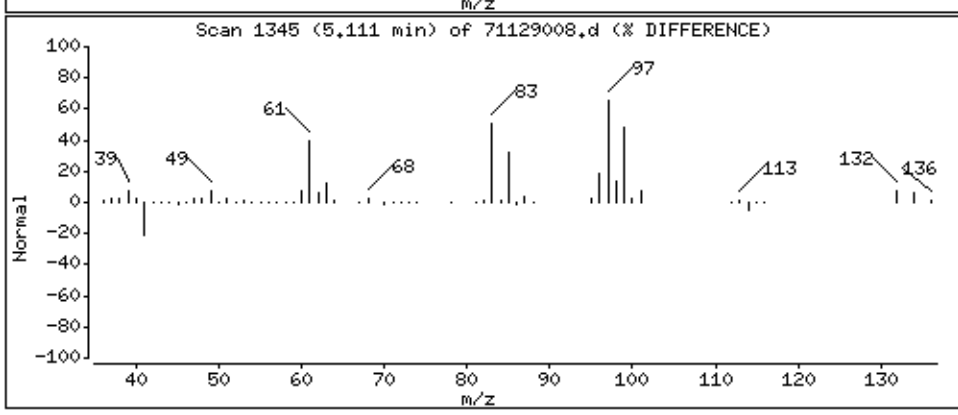












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

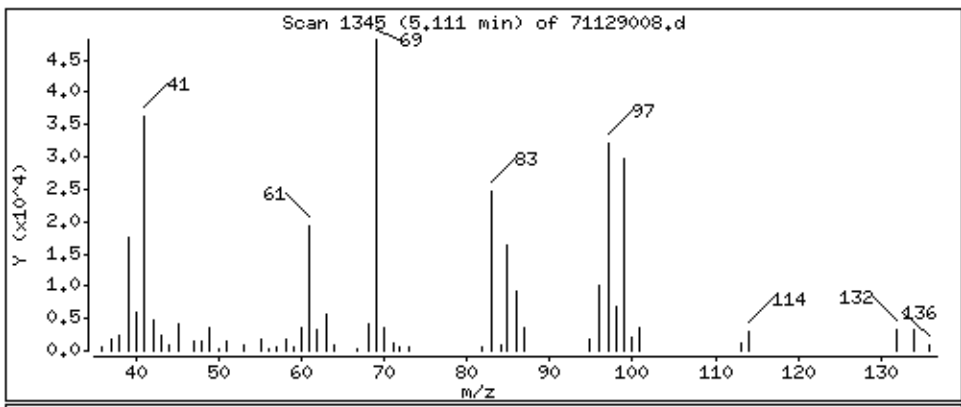
Column phase: RTX-VMS

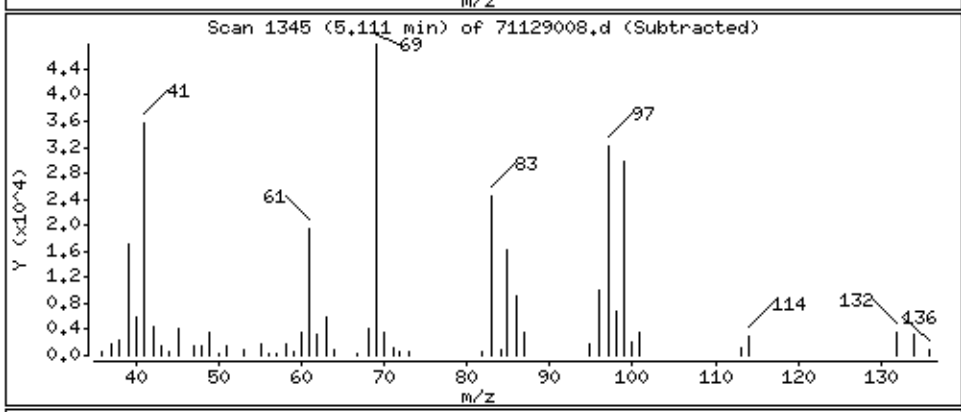
Column diameter: 0.18

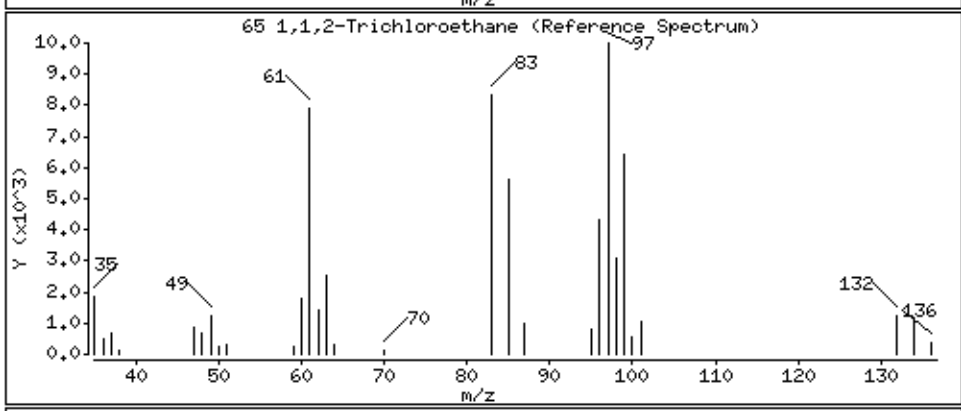
65 1,1,2-Trichloroethane

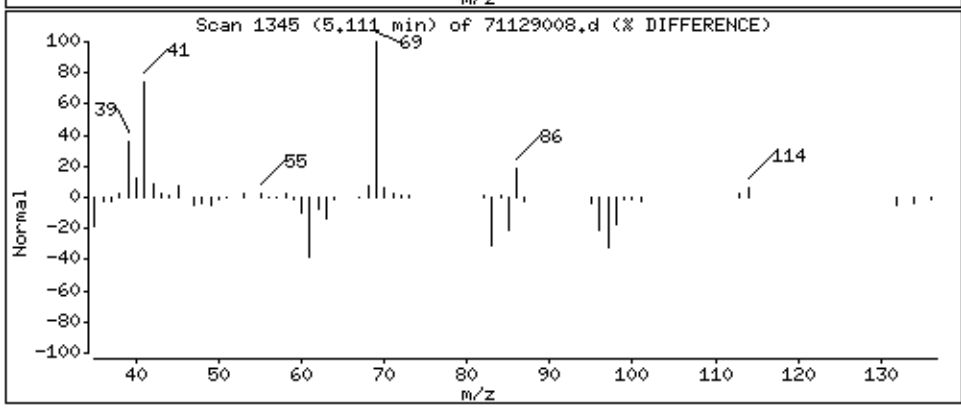
Concentration: 18.0 ug/L

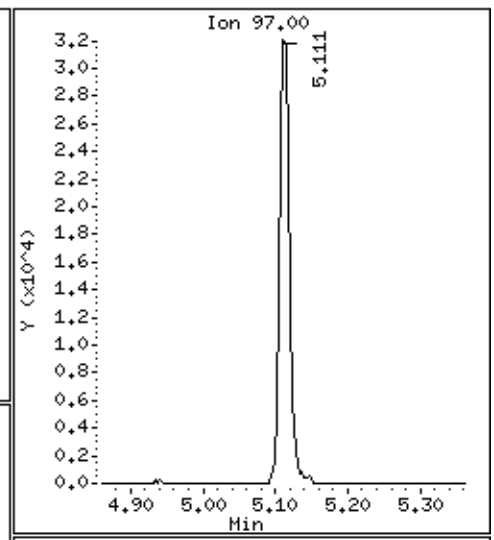
Review Code:

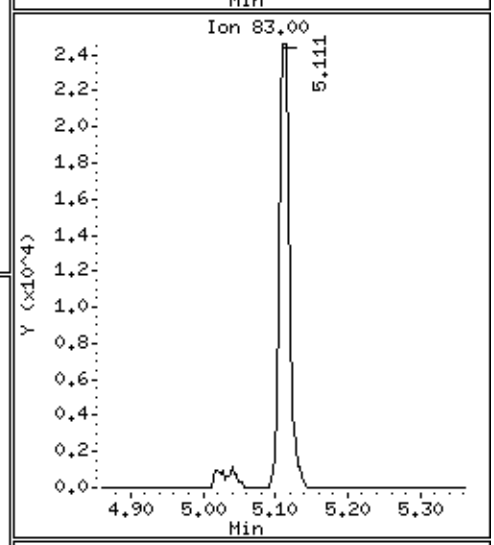


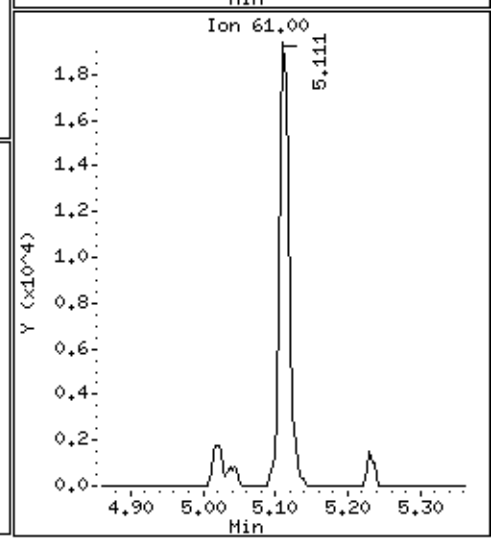












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

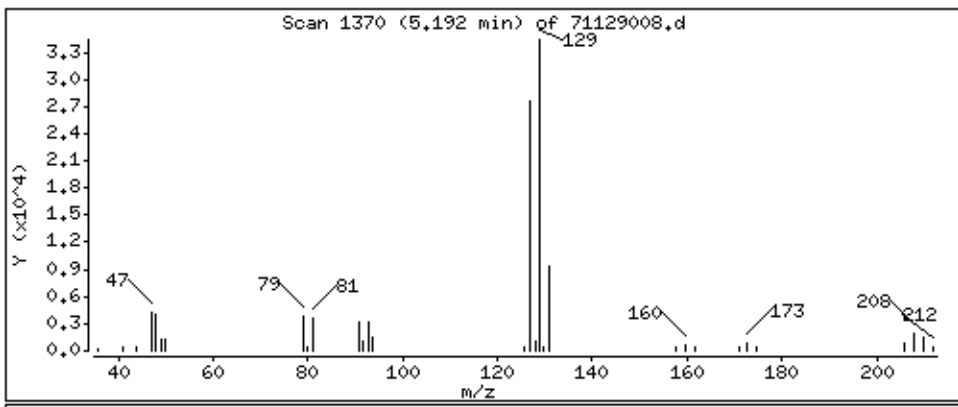
Column phase: RTX-VMS

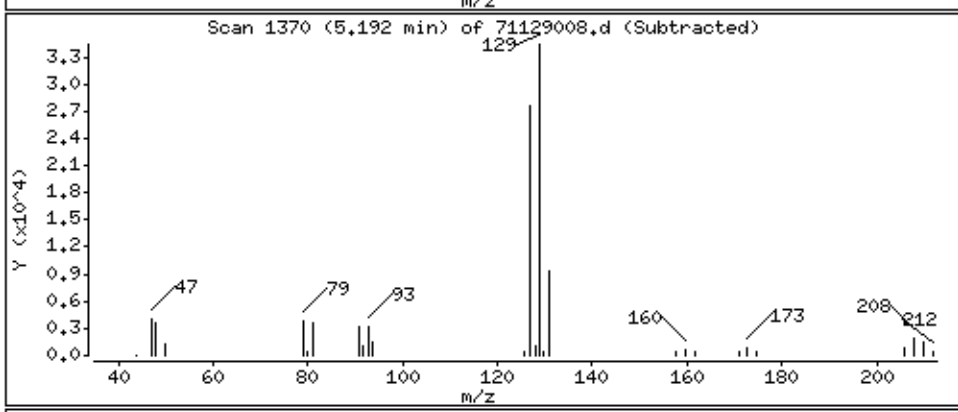
Column diameter: 0.18

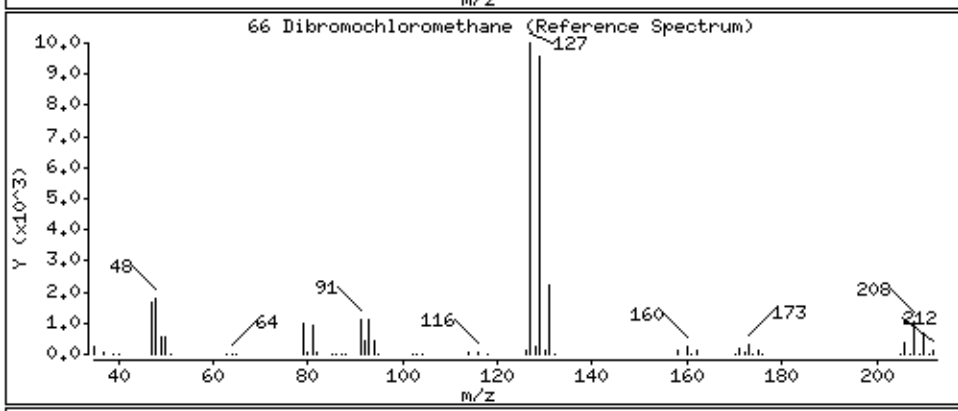
66 Dibromochloromethane

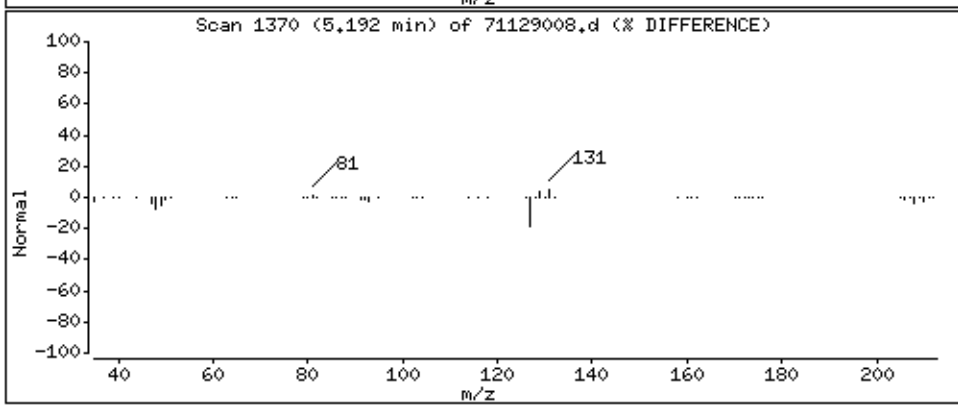
Concentration: 17.1 ug/L

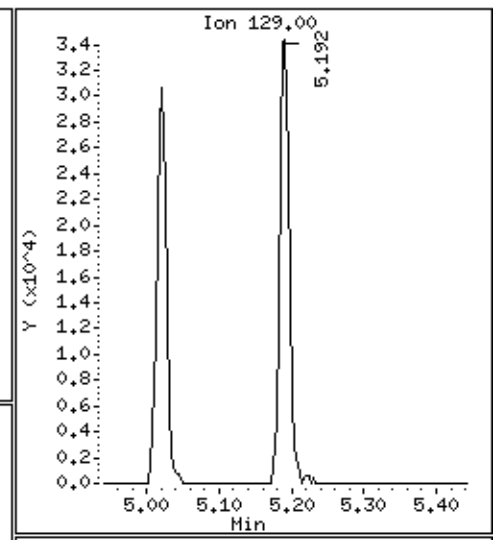
Review Code:

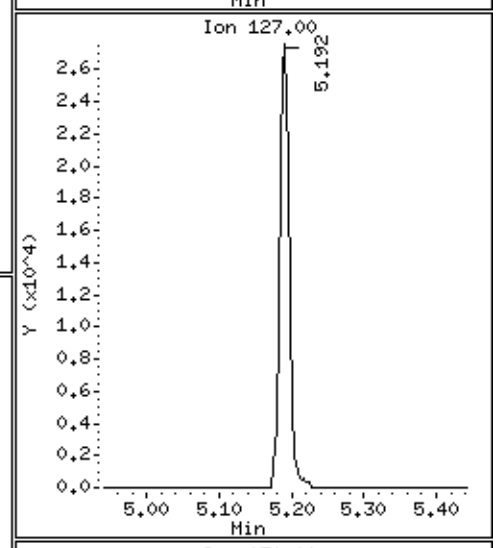


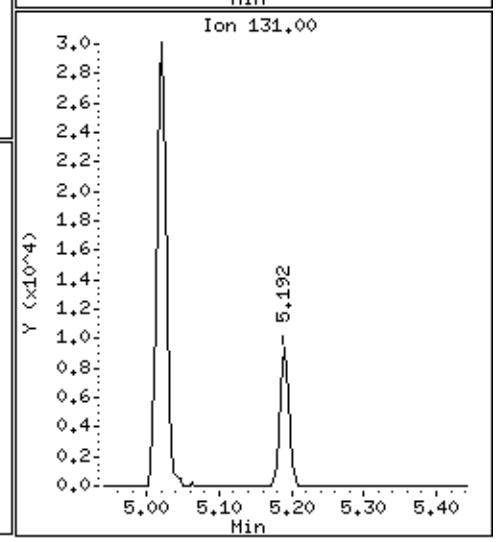












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

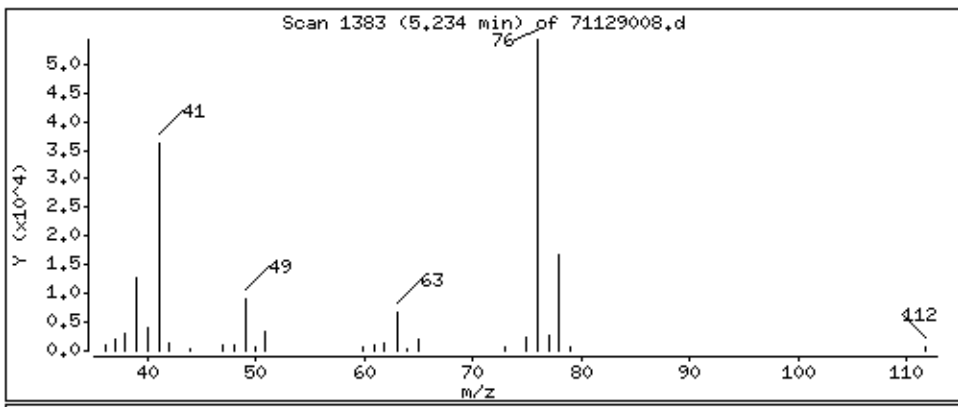
Column phase: RTX-VMS

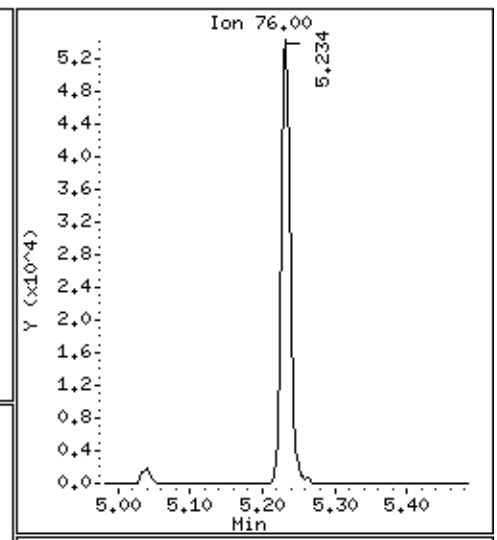
Column diameter: 0.18

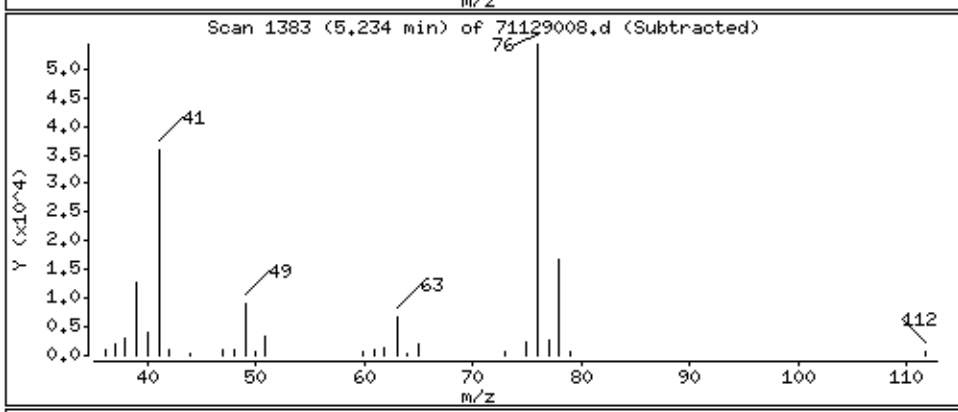
67 1,3-Dichloropropane

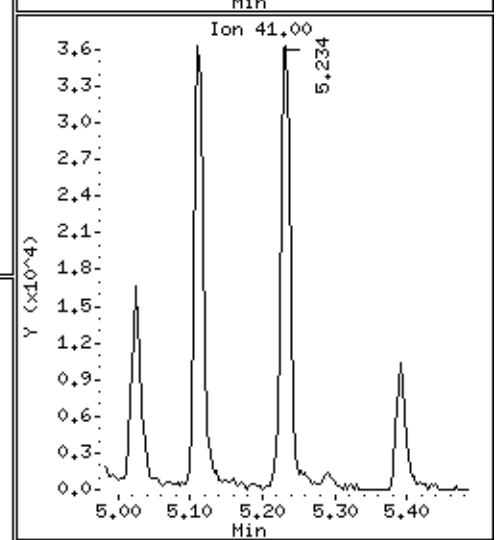
Concentration: 16.6 ug/L

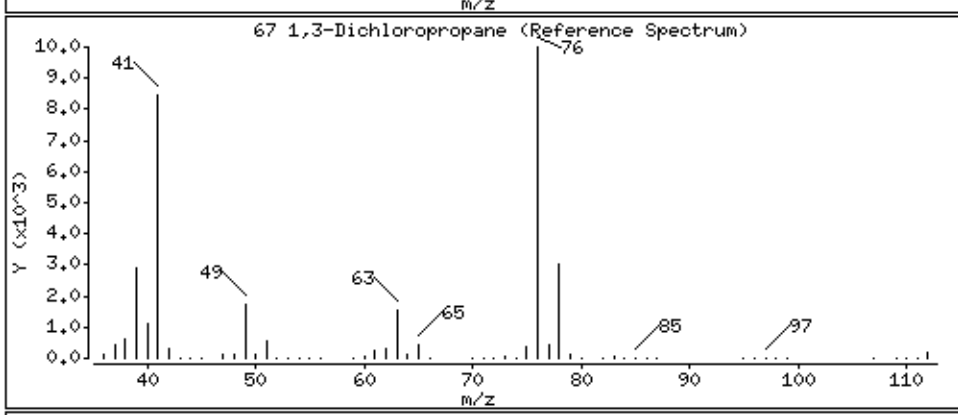
Review Code:

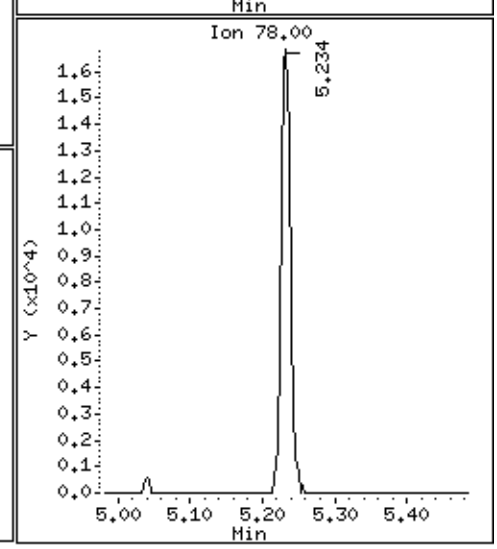


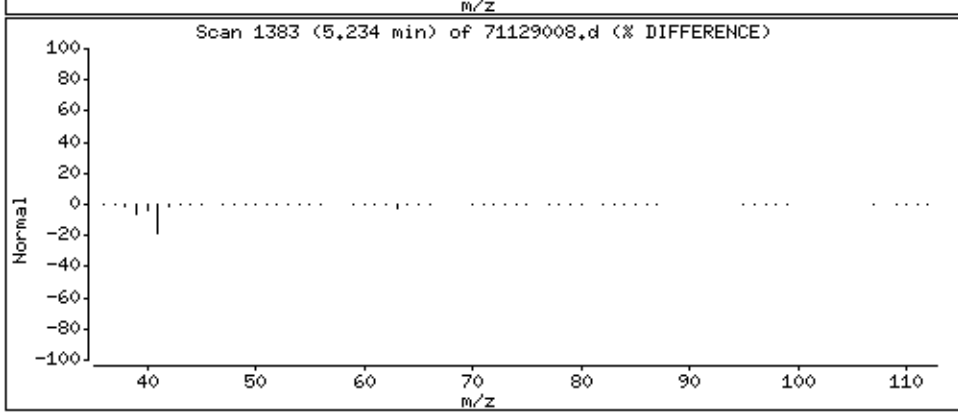












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

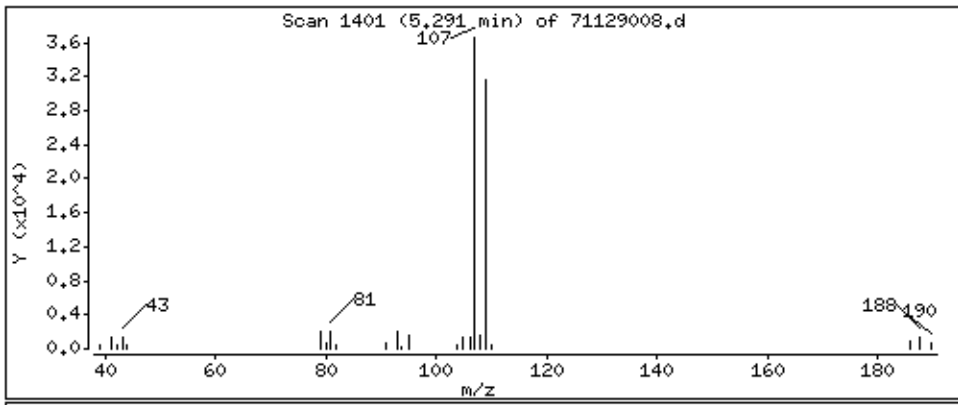
Column phase: RTX-VMS

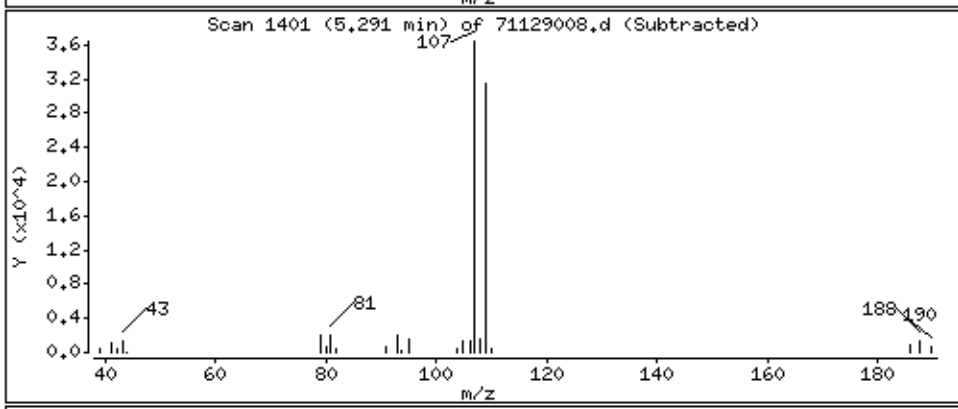
Column diameter: 0.18

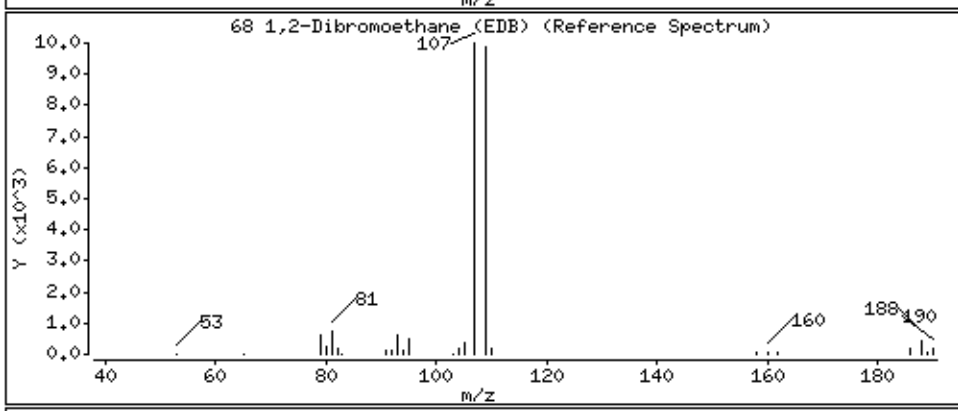
68 1,2-Dibromoethane (EDB)

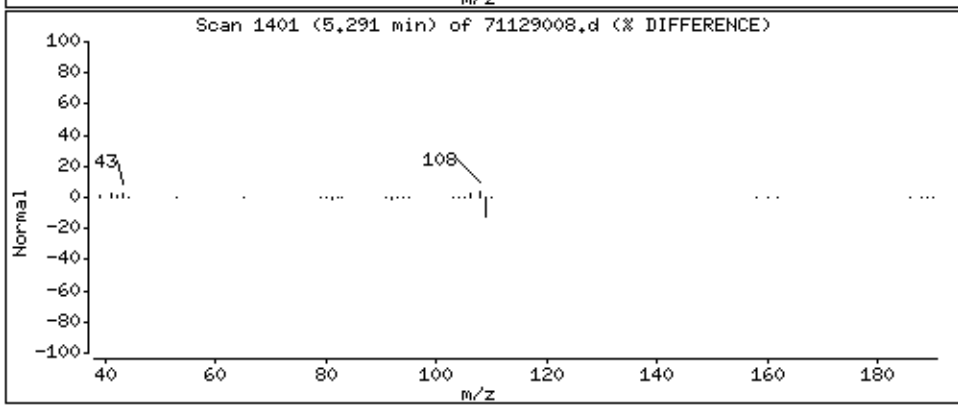
Concentration: 17.3 ug/L

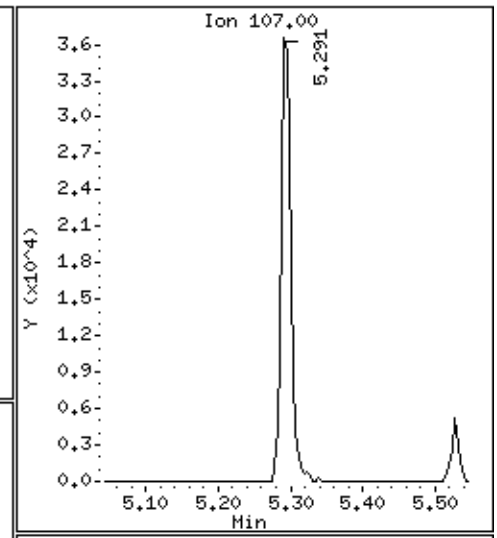
Review Code:

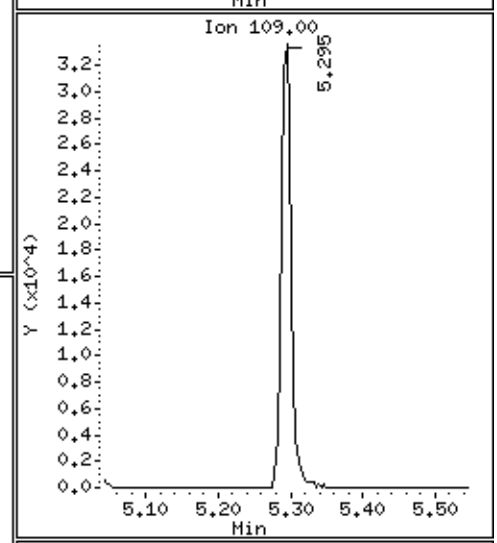


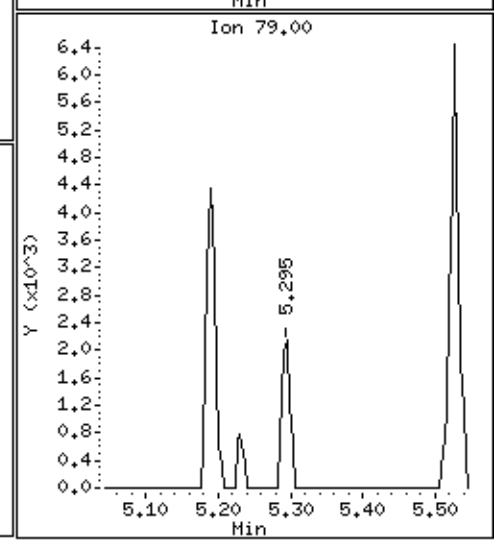












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

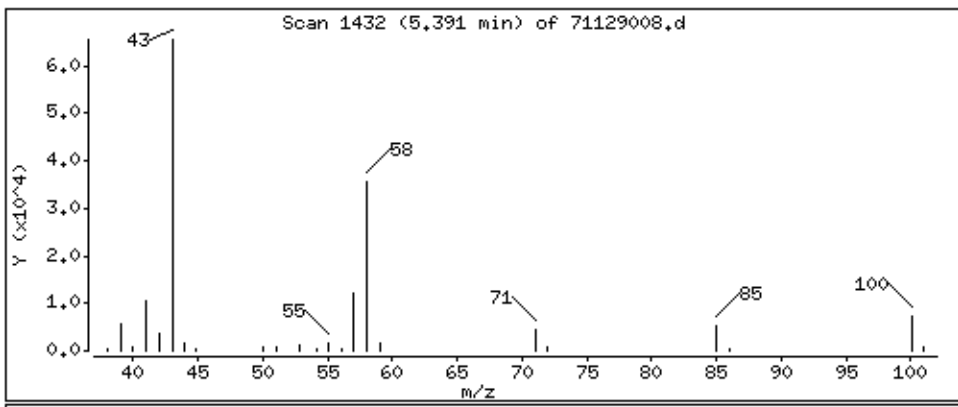
Column phase: RTX-VMS

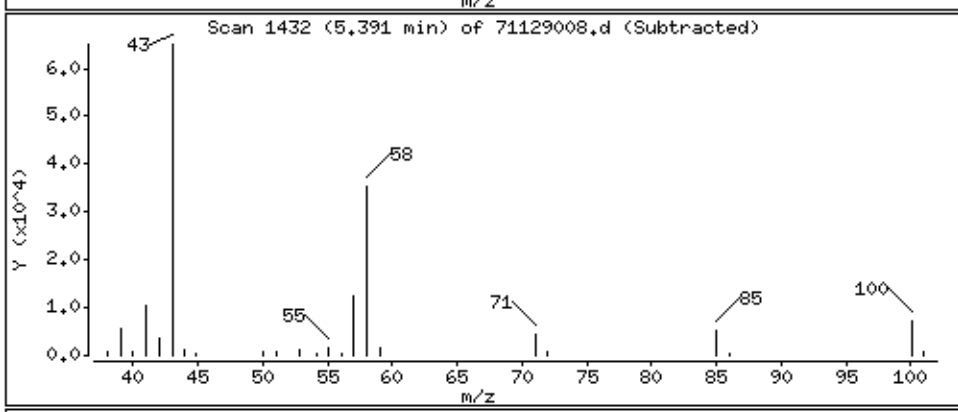
Column diameter: 0.18

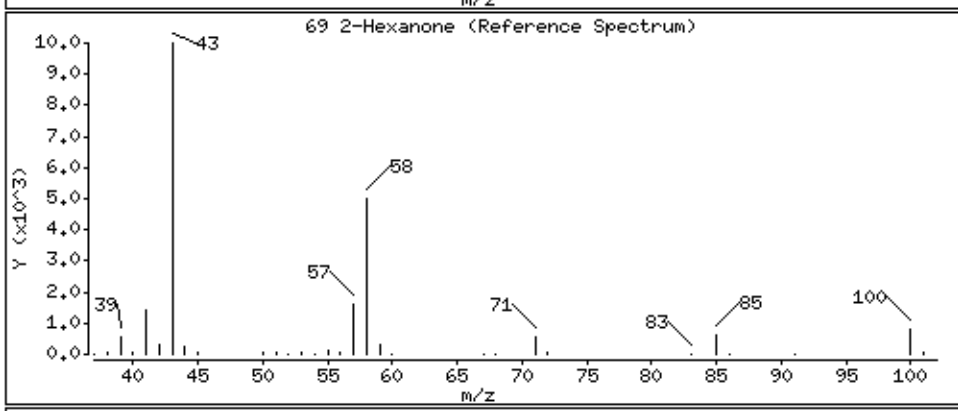
69 2-Hexanone

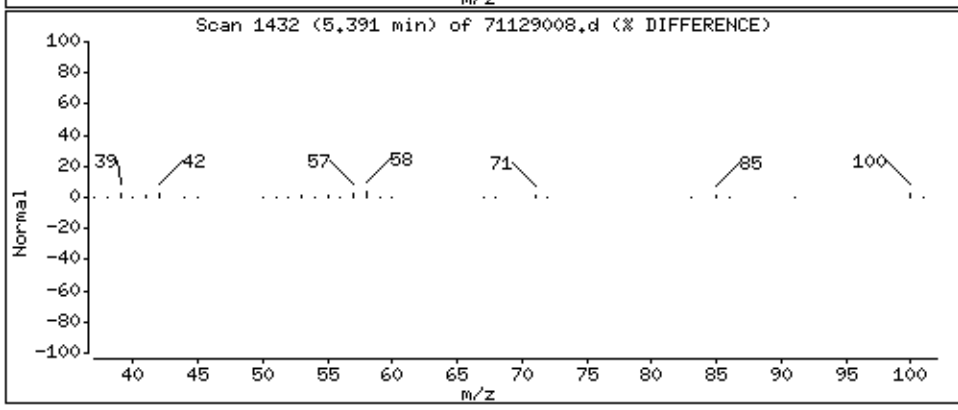
Concentration: 21.8 ug/L

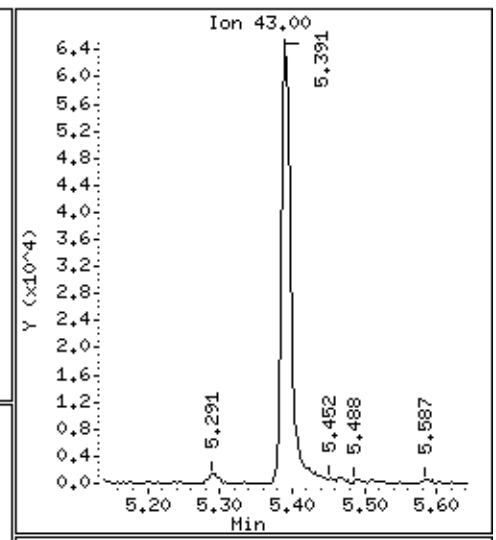
Review Code:

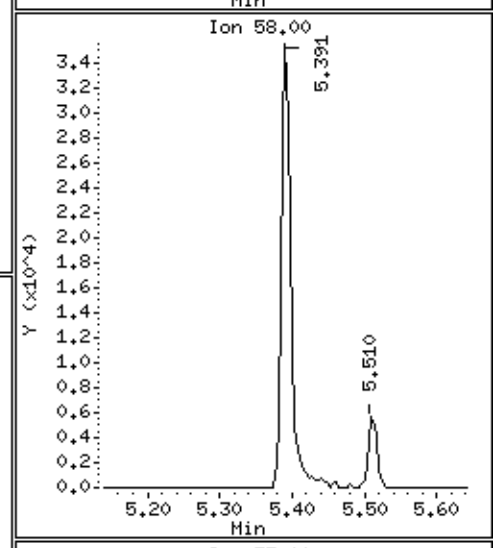


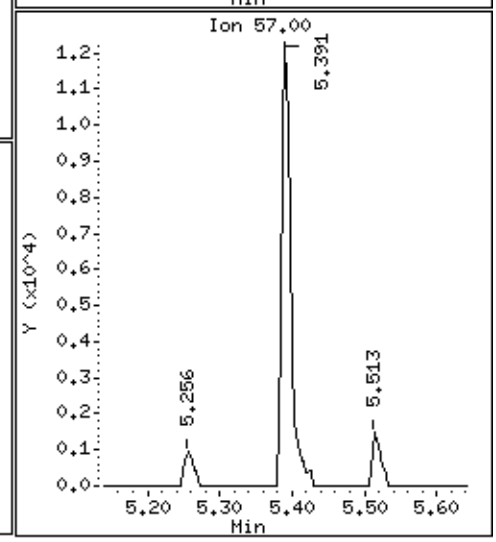












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

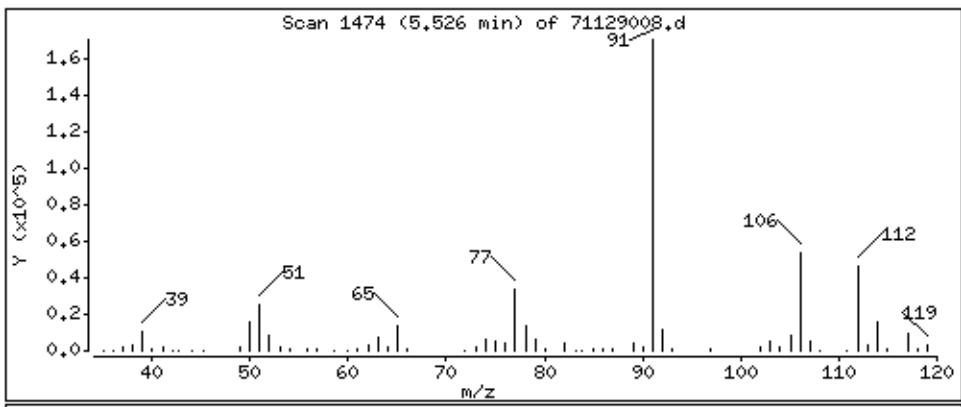
Column phase: RTX-VMS

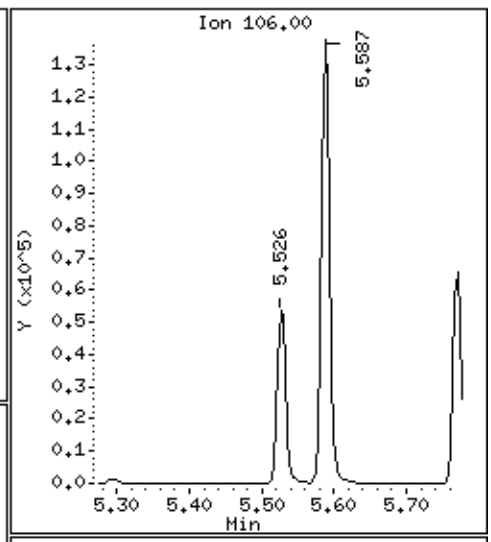
Column diameter: 0.18

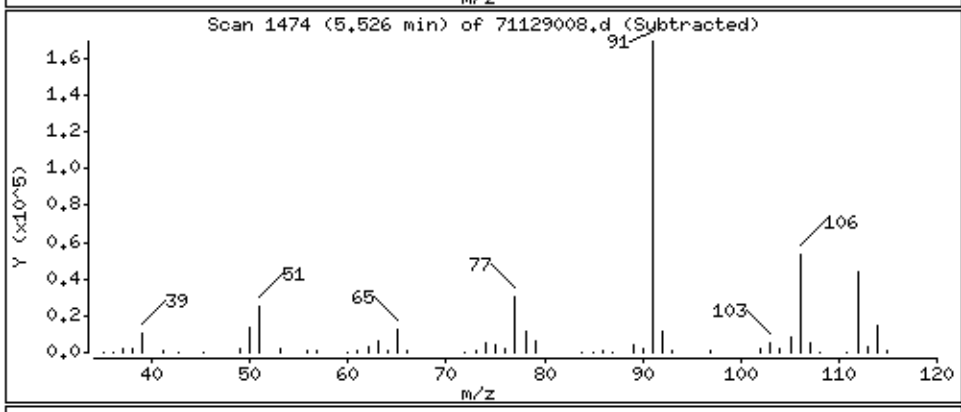
71 Ethylbenzene

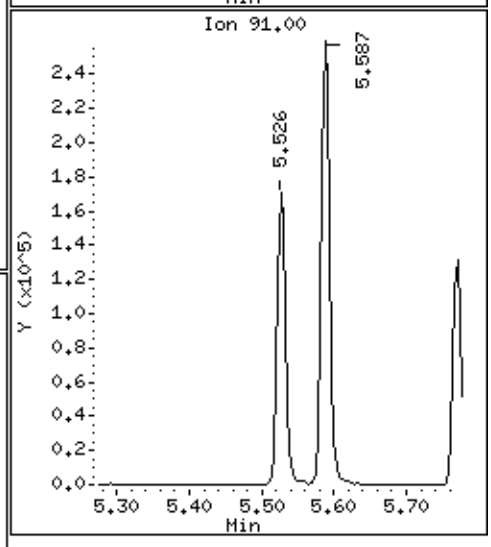
Concentration: 18.9 ug/L

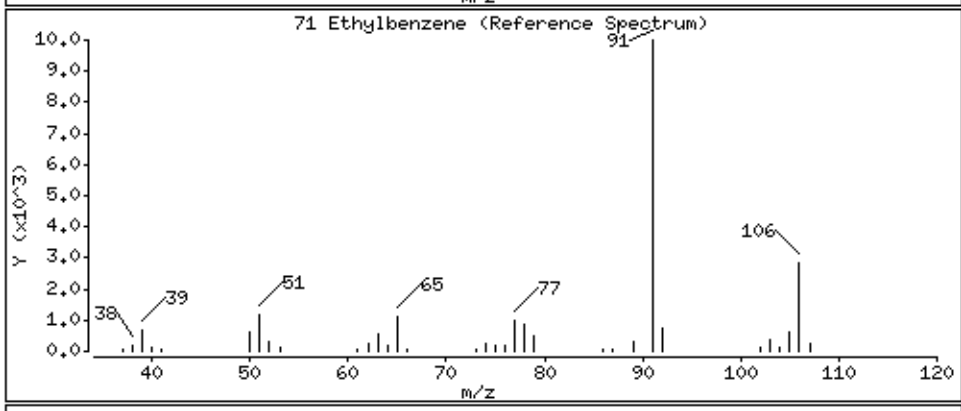
Review Code:

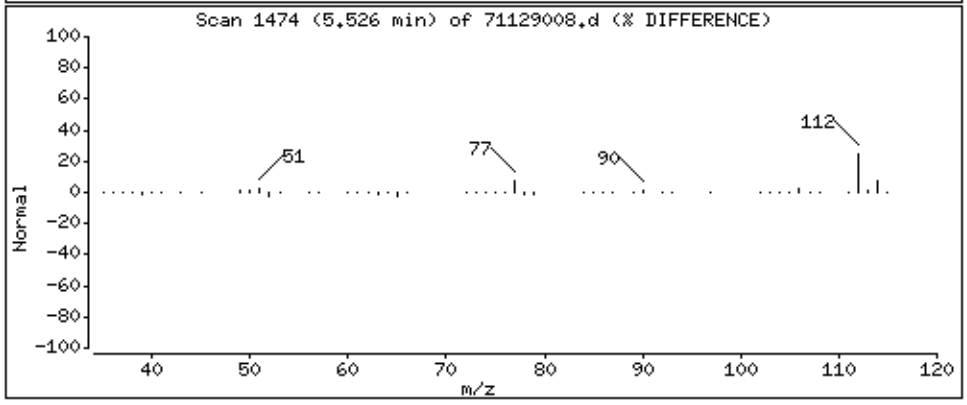












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

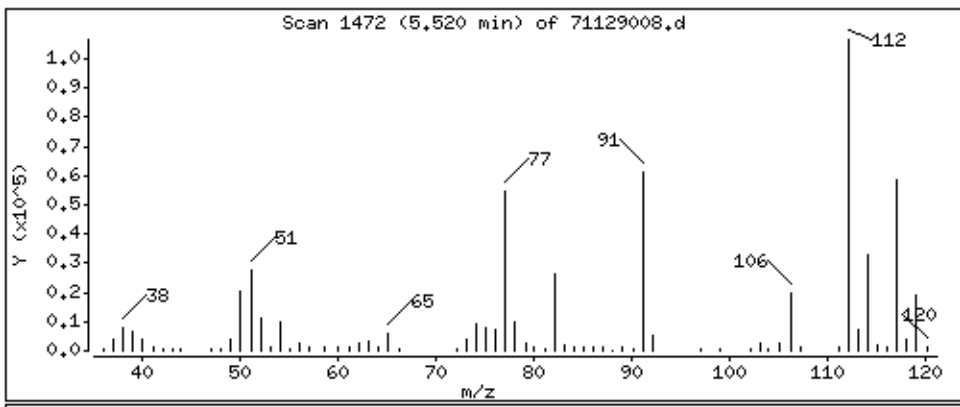
Column phase: RTX-VMS

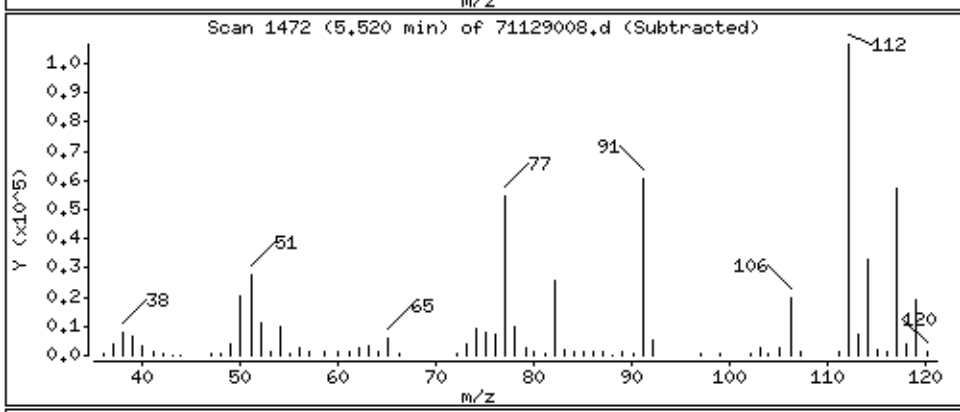
Column diameter: 0.18

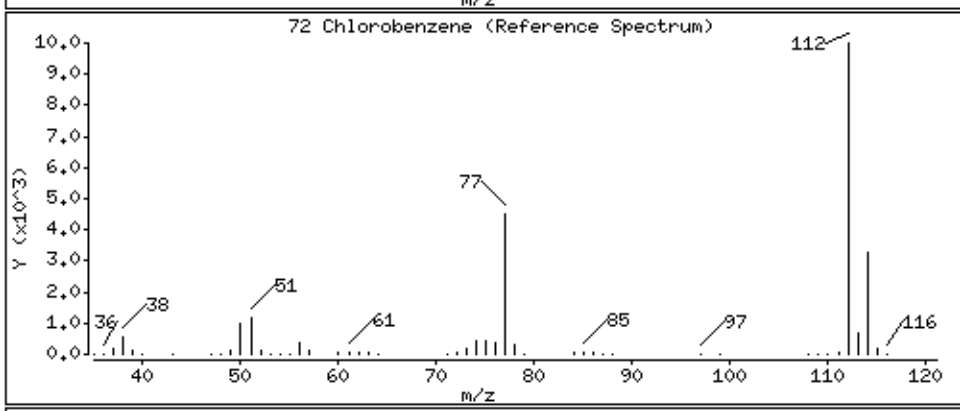
72 Chlorobenzene

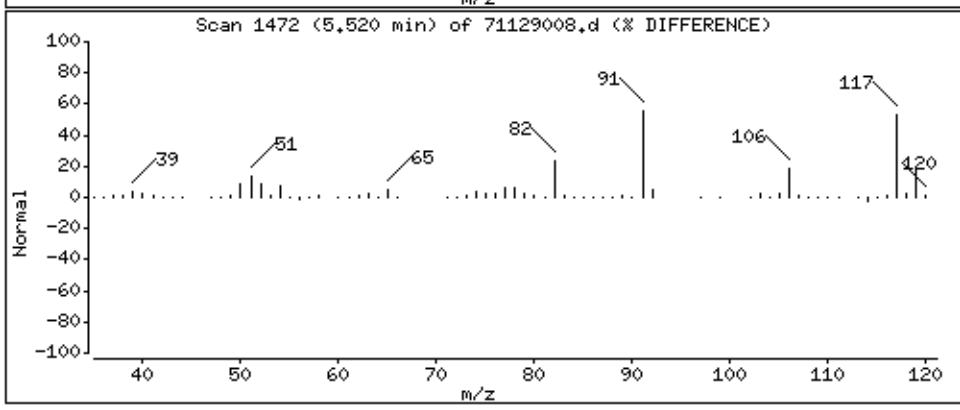
Concentration: 19.2 ug/L

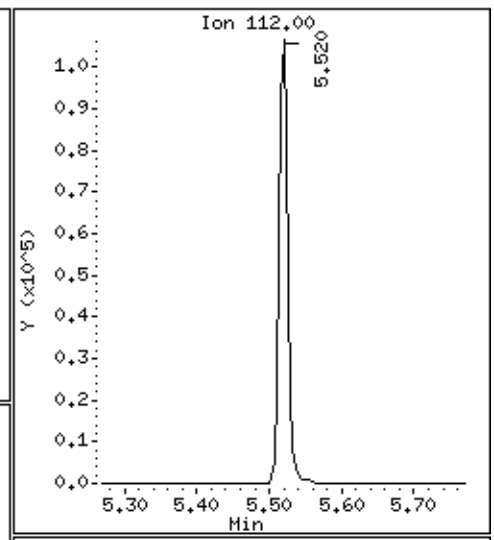
Review Code:

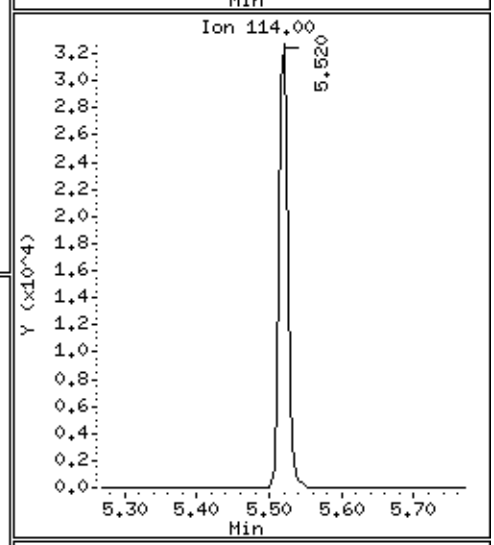


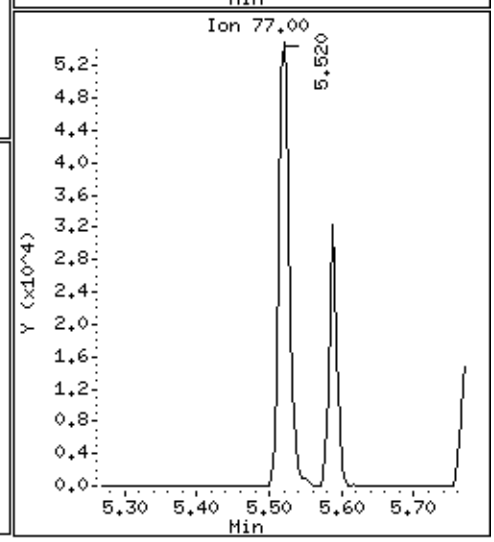












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

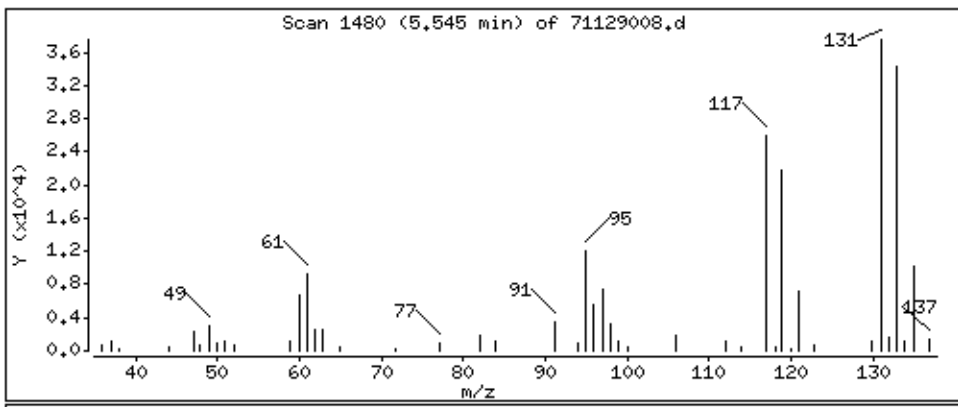
Column phase: RTX-VMS

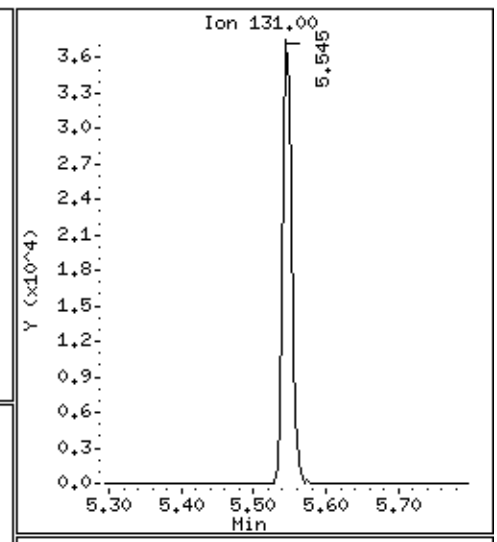
Column diameter: 0.18

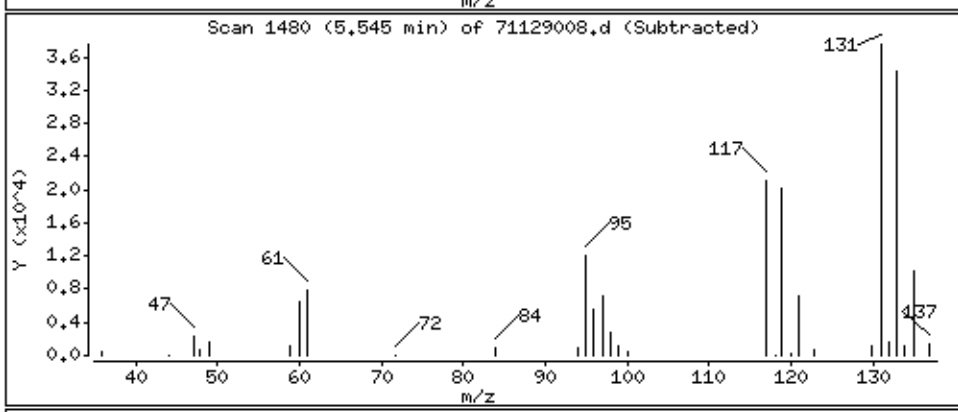
73 1,1,1,2-Tetrachloroethane

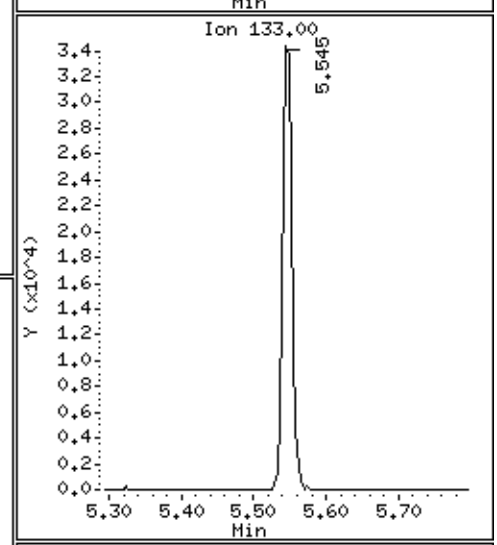
Concentration: 19.0 ug/L

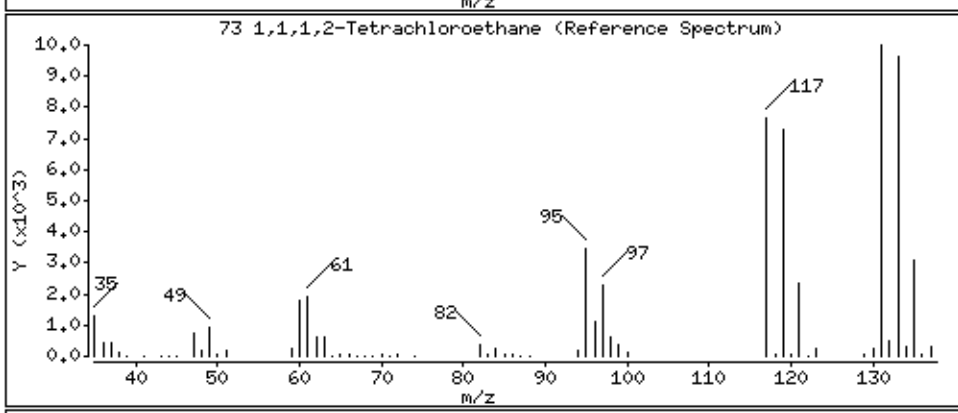
Review Code:

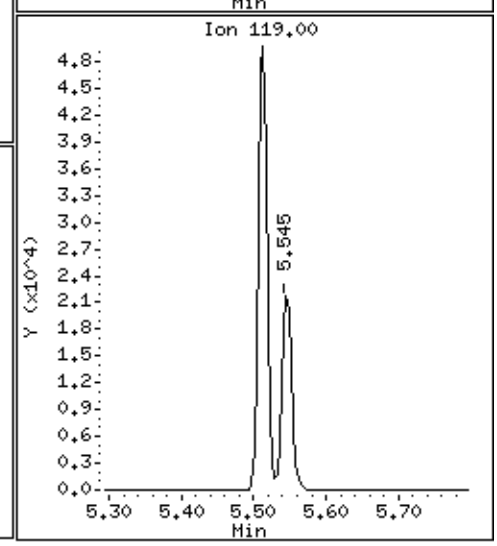


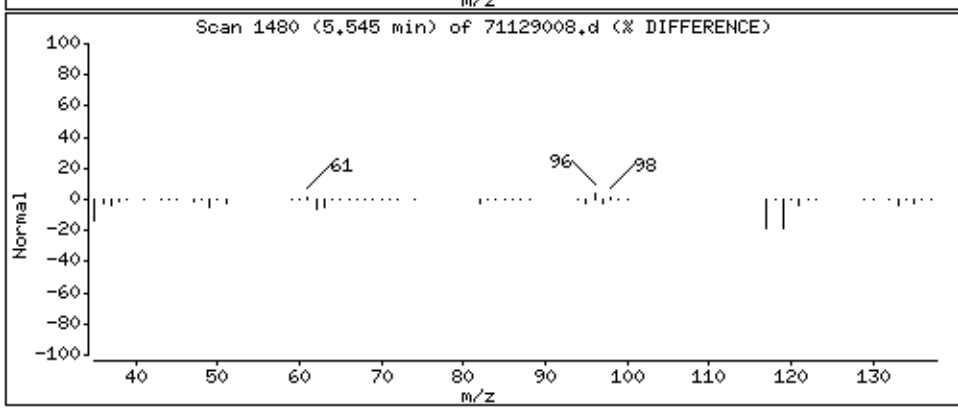












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

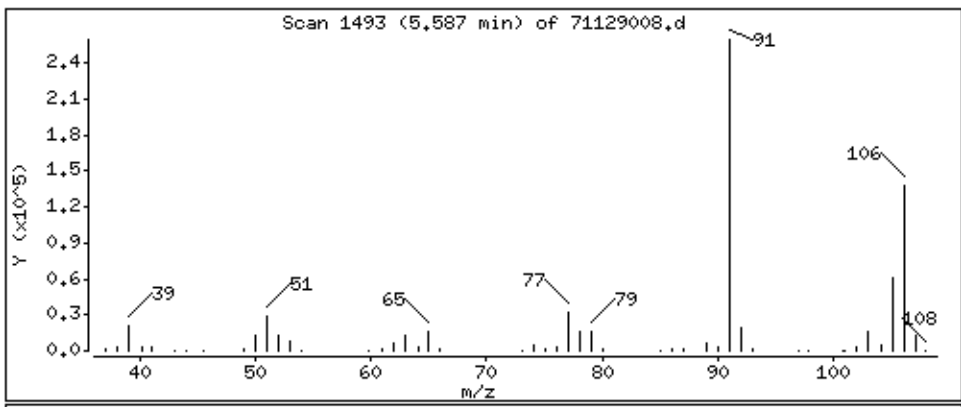
Column phase: RTX-VMS

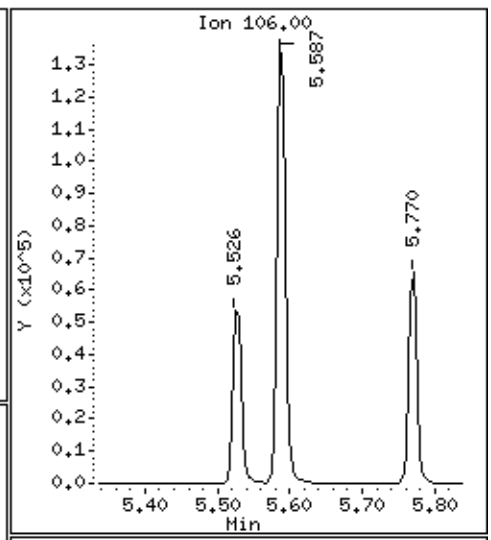
Column diameter: 0.18

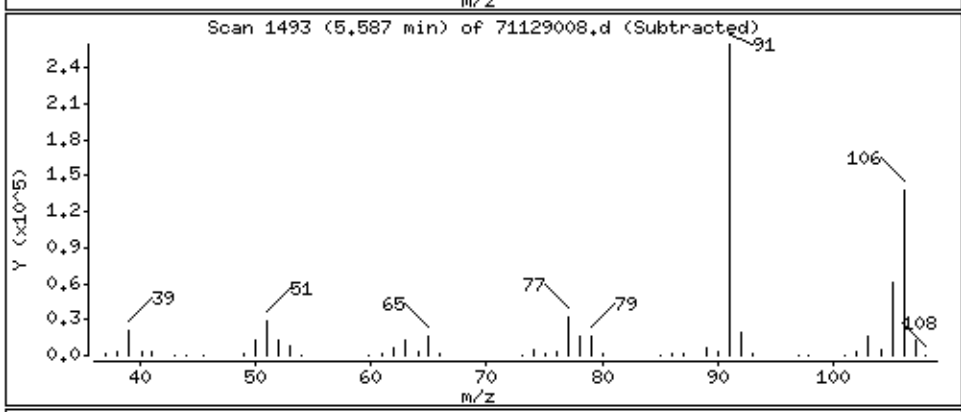
74 m&p-Xylene

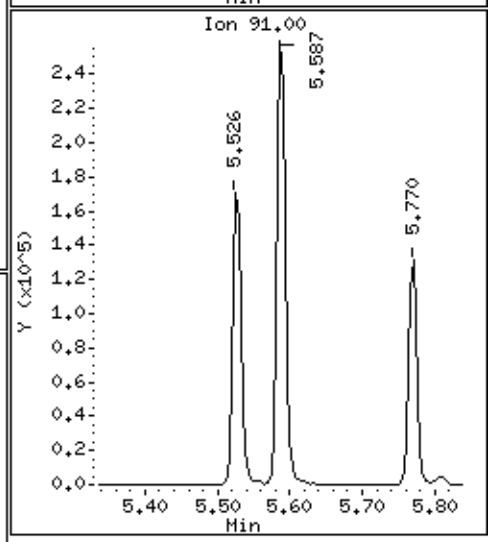
Concentration: 37.3 ug/L

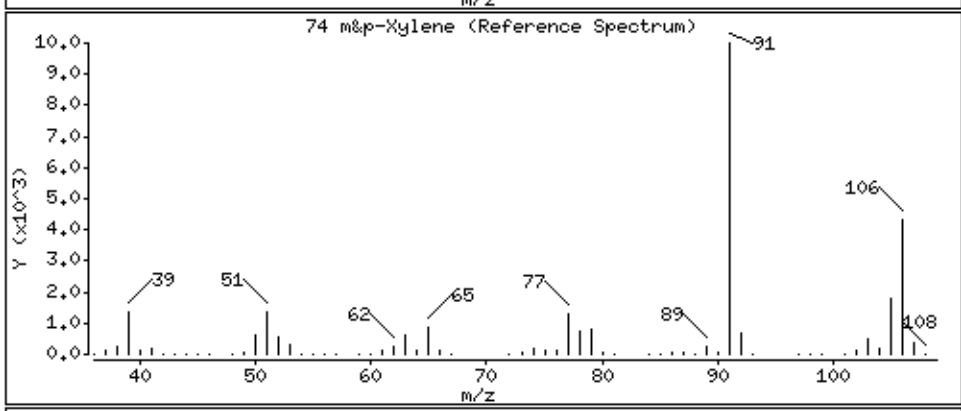
Review Code:

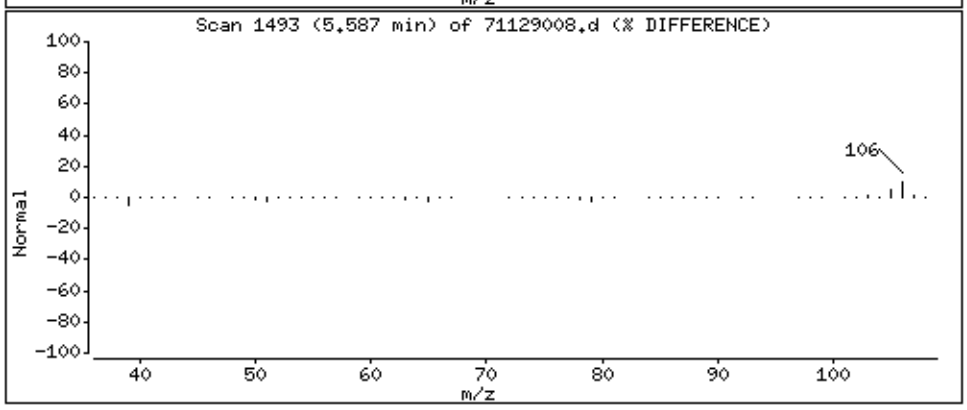












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

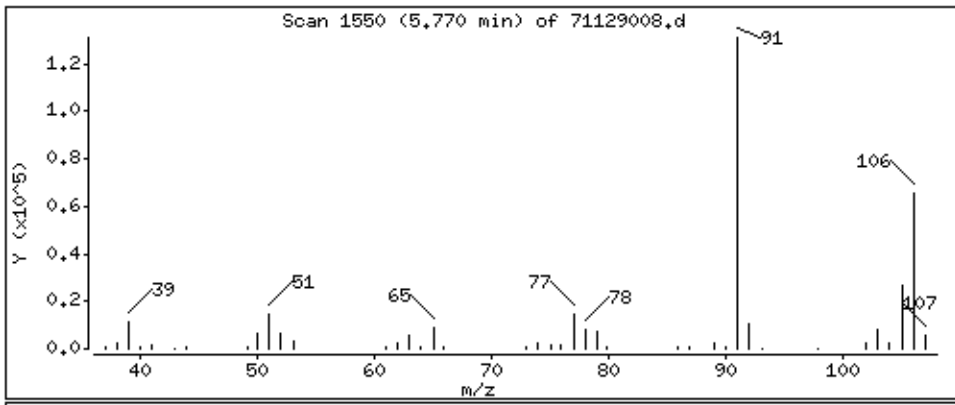
Column phase: RTX-VMS

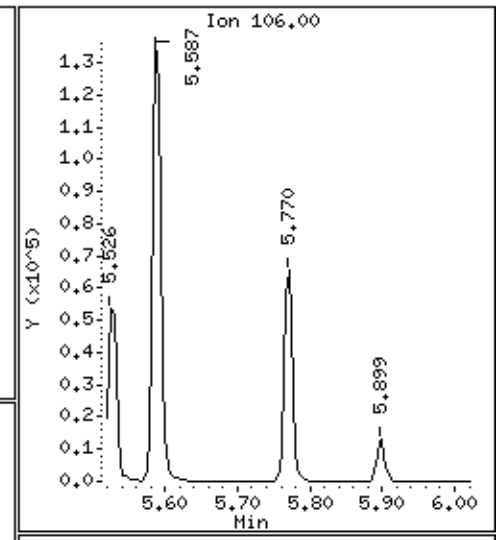
Column diameter: 0.18

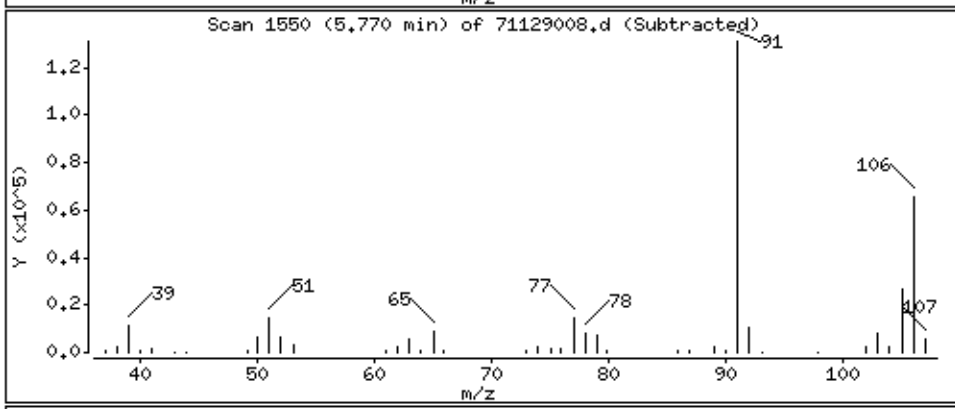
75 o-Xylene

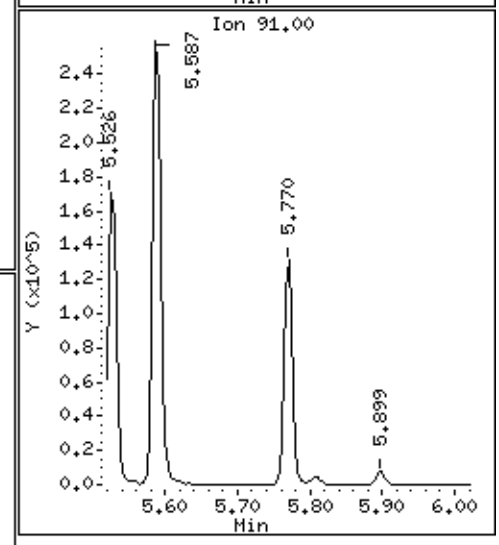
Concentration: 18.2 ug/L

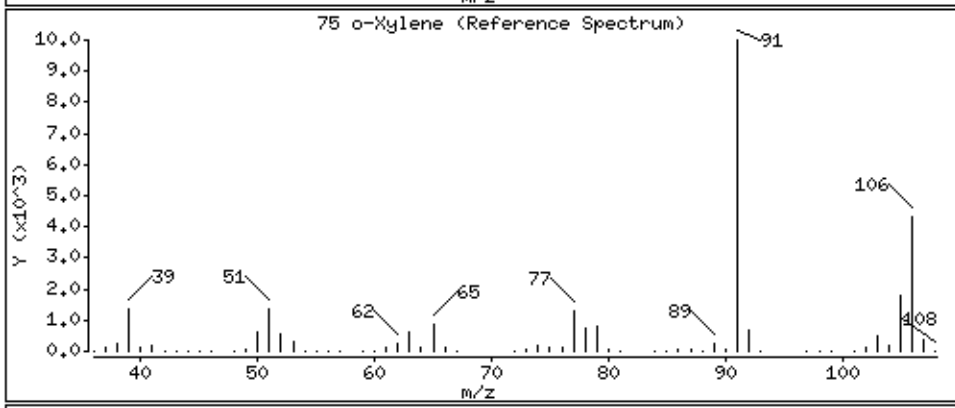
Review Code:

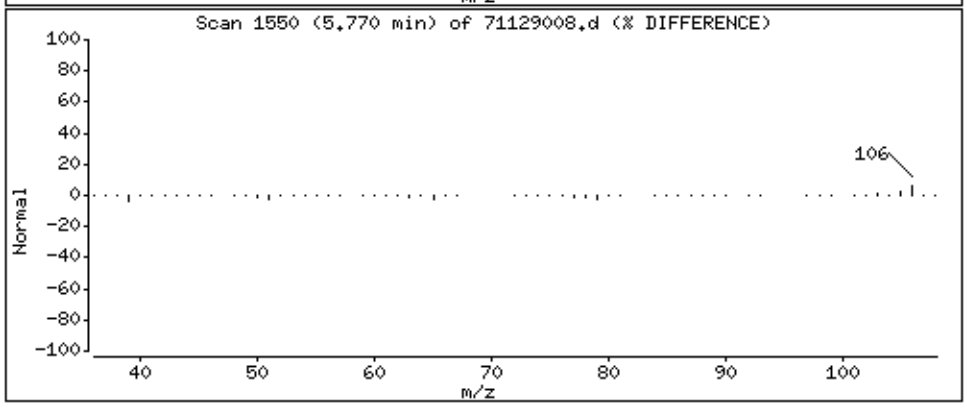












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

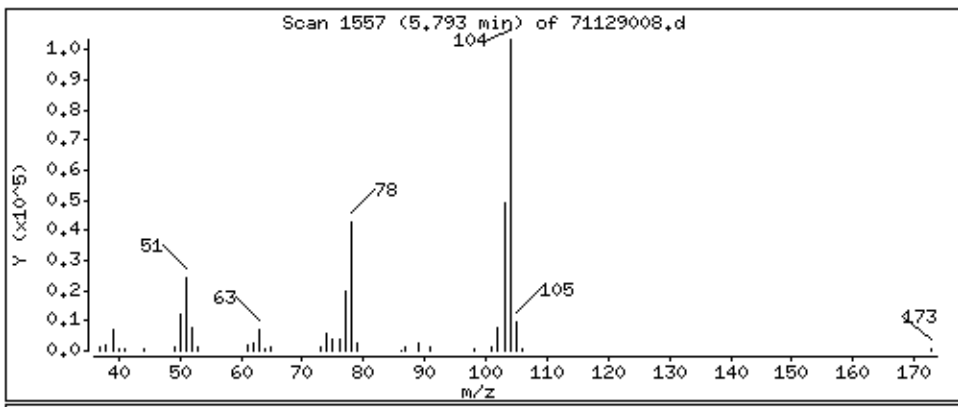
Column phase: RTX-VMS

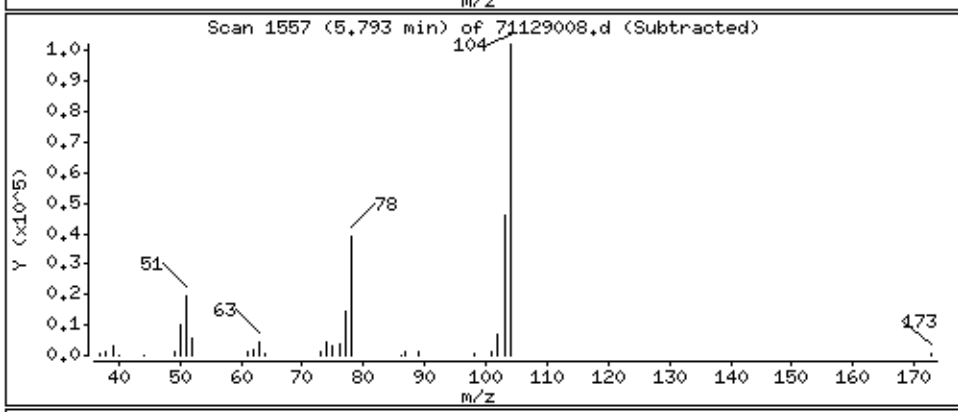
Column diameter: 0.18

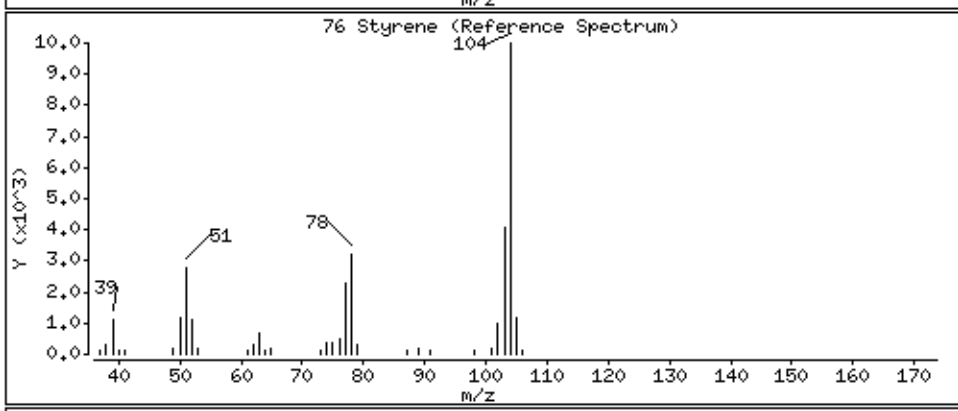
76 Styrene

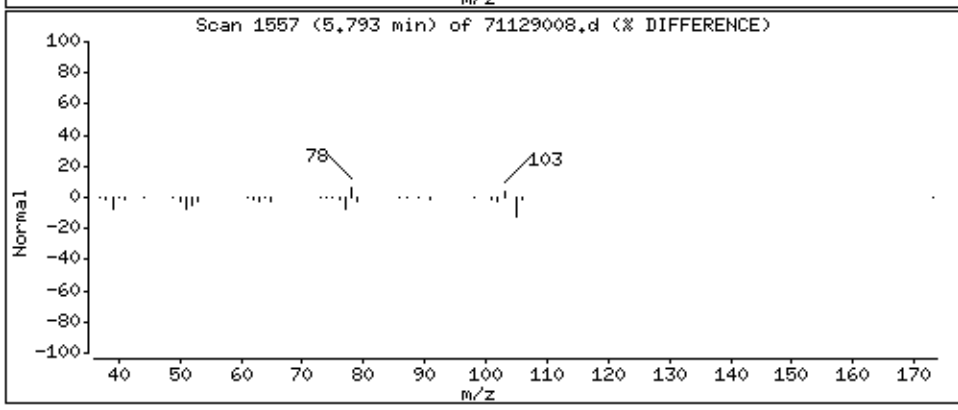
Concentration: 19.5 ug/L

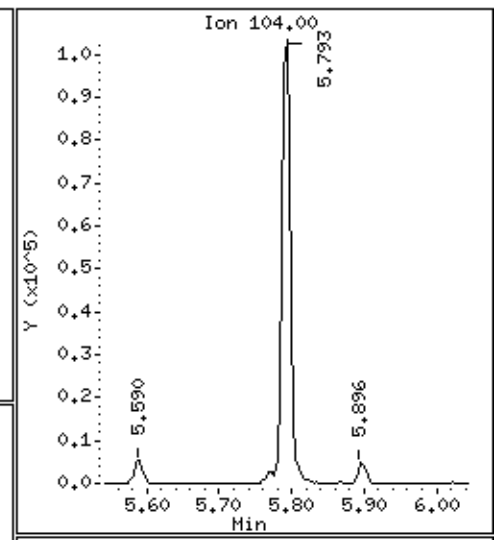
Review Code:

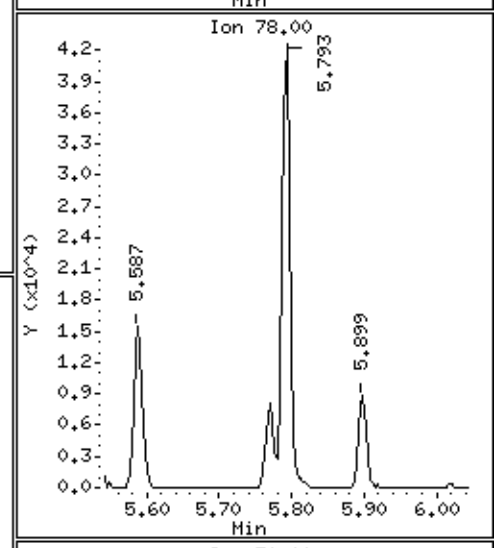


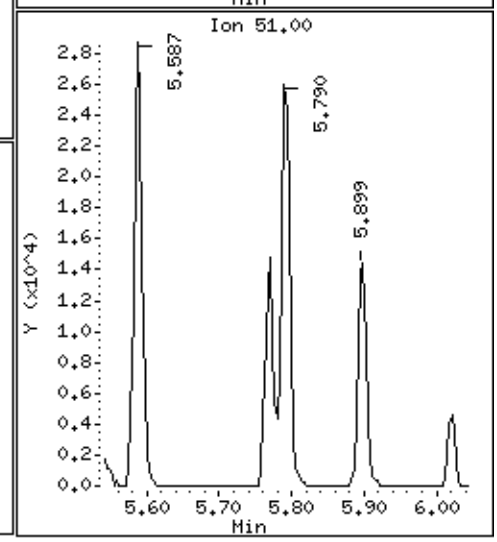












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

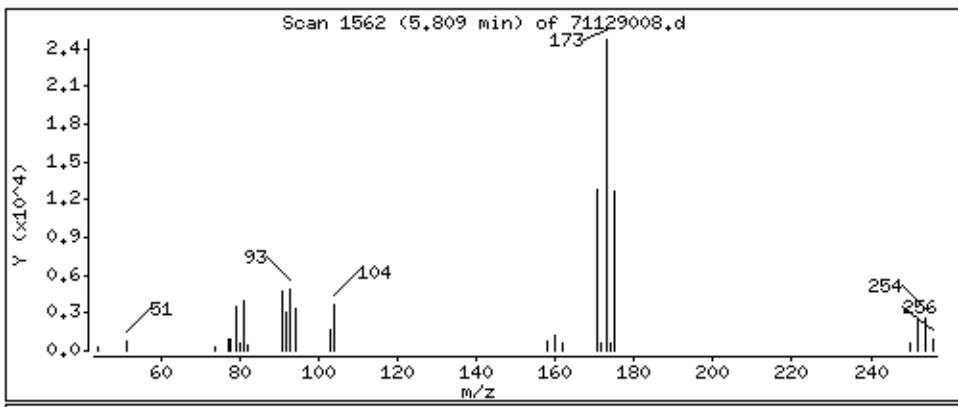
Column phase: RTX-VMS

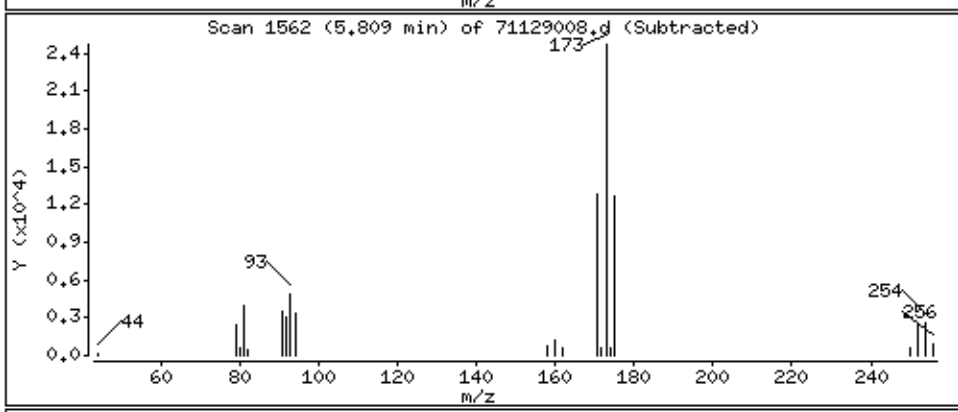
Column diameter: 0.18

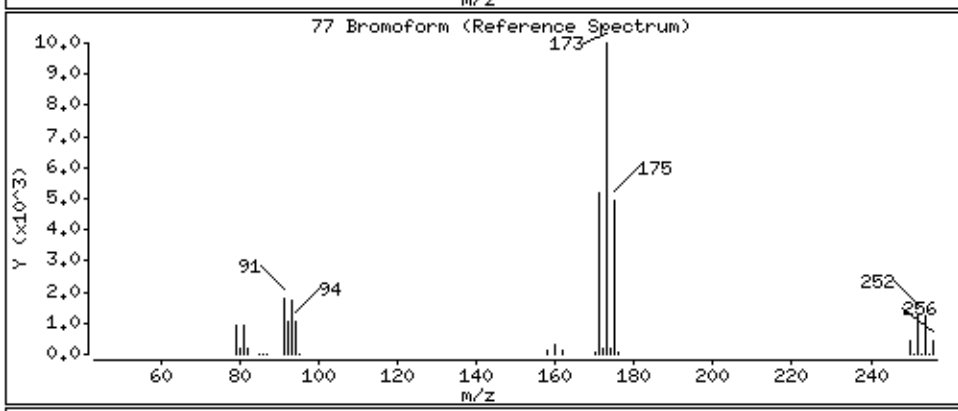
77 Bromoform

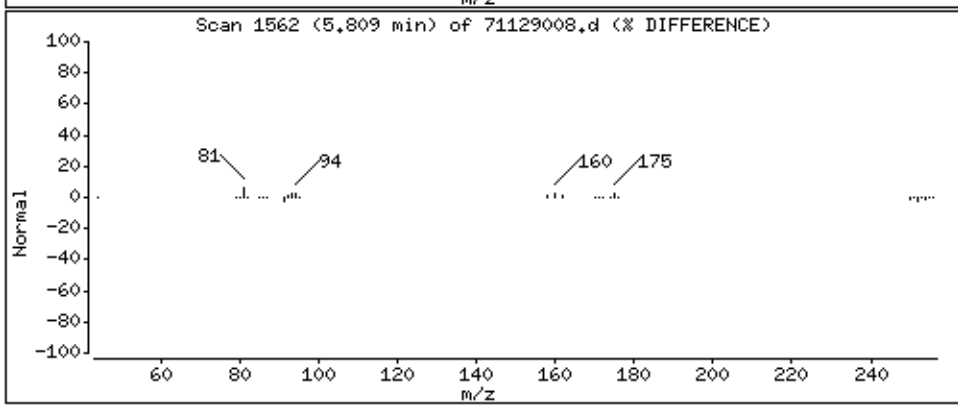
Concentration: 14.8 ug/L

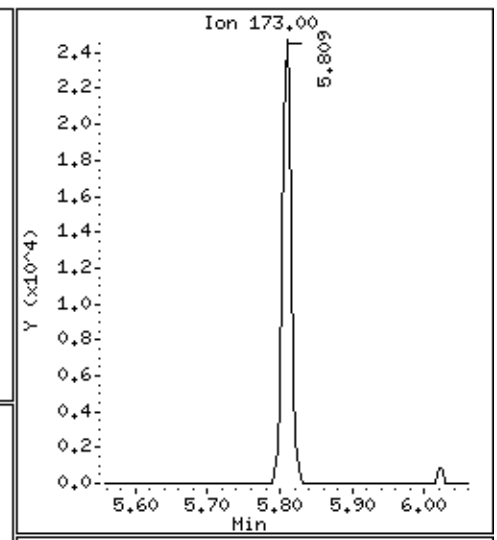
Review Code:

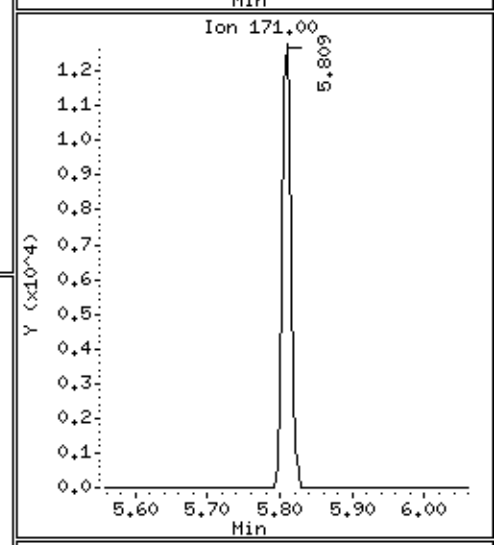


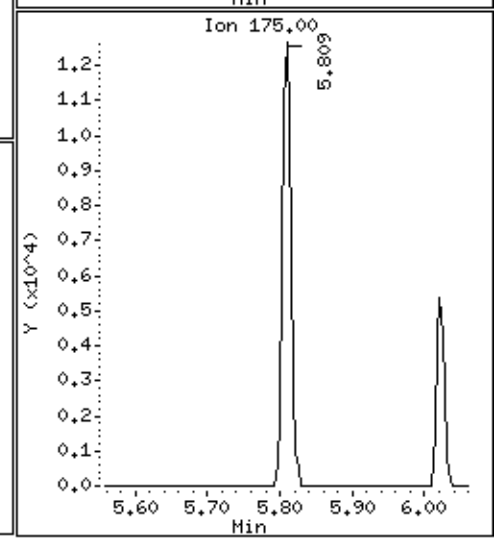












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

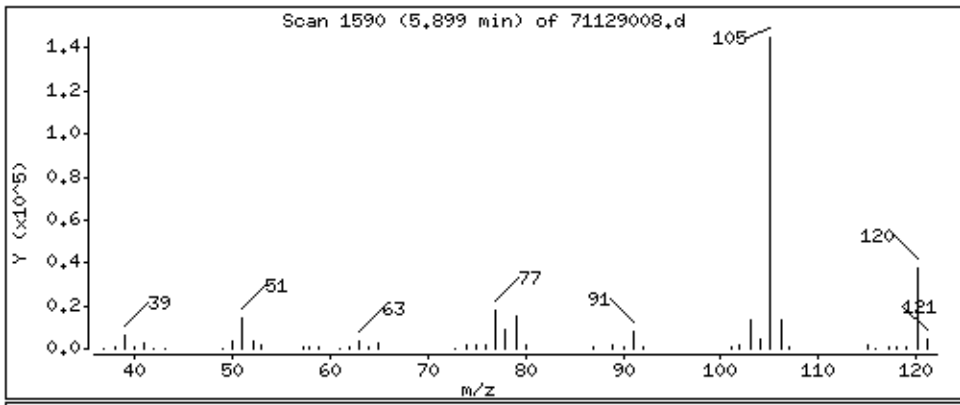
Column phase: RTX-VMS

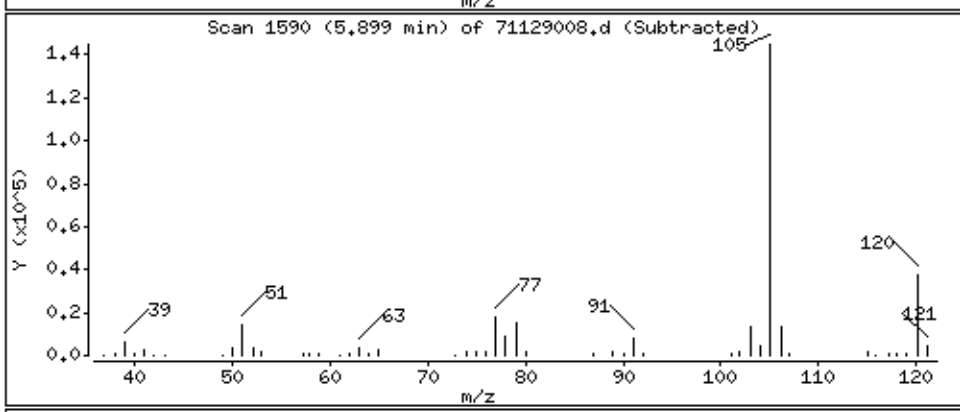
Column diameter: 0.18

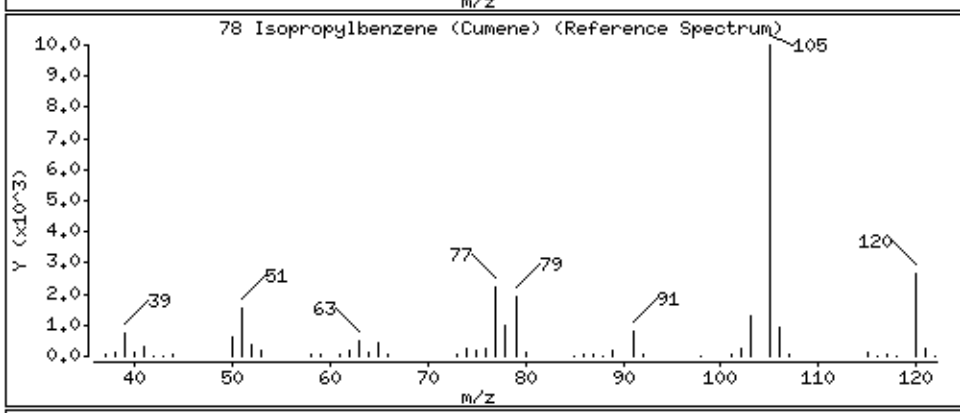
78 Isopropylbenzene (Cumene)

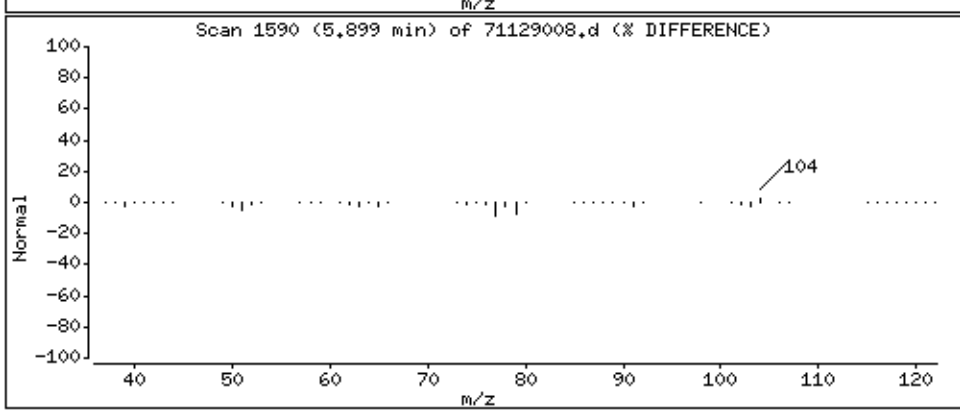
Concentration: 20.6 ug/L

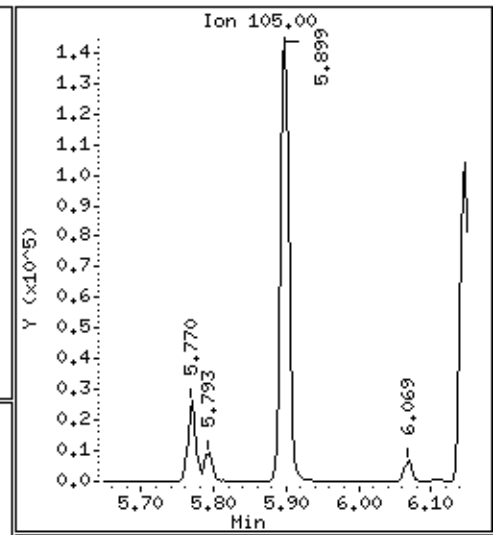
Review Code:

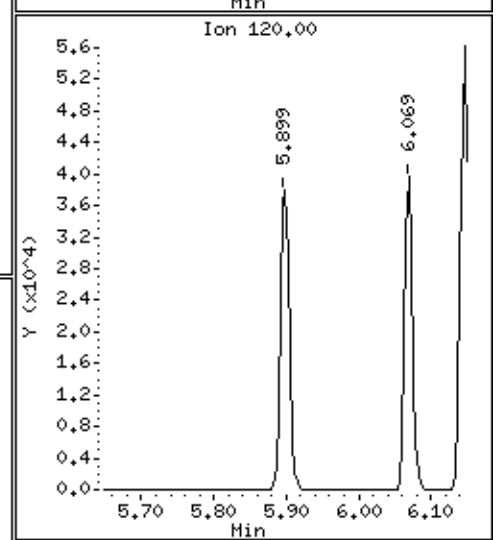


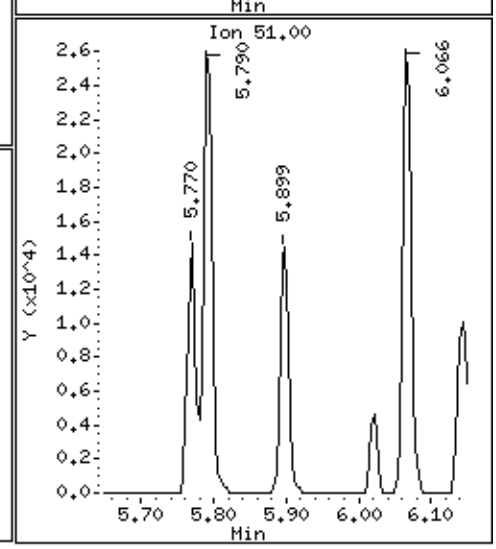












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

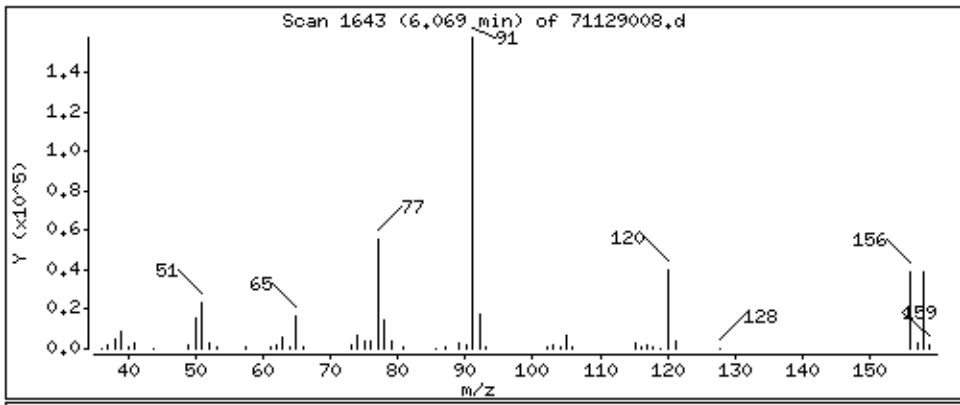
Column phase: RTX-VMS

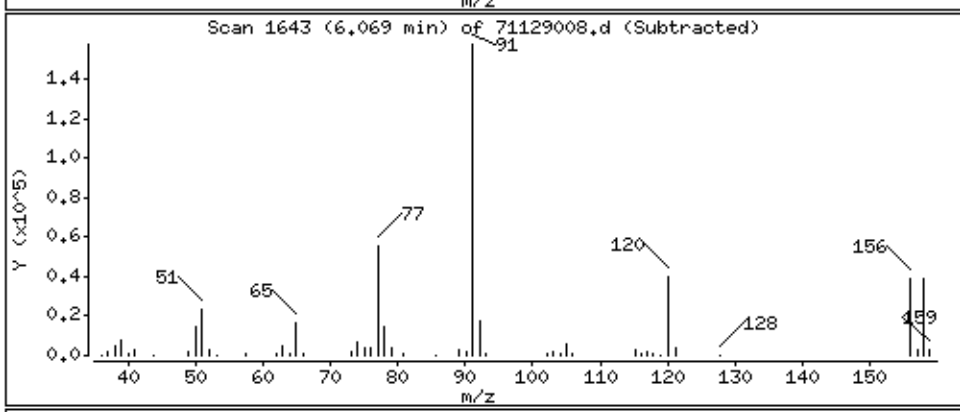
Column diameter: 0.18

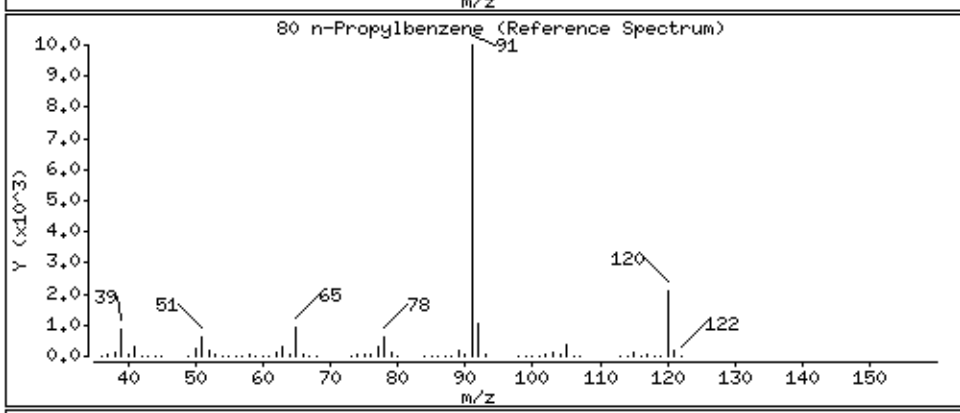
80 n-Propylbenzene

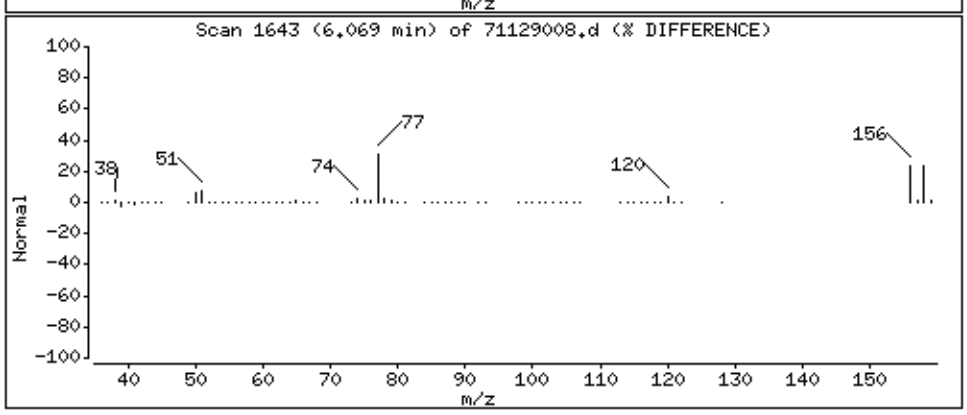
Concentration: 18.7 ug/L

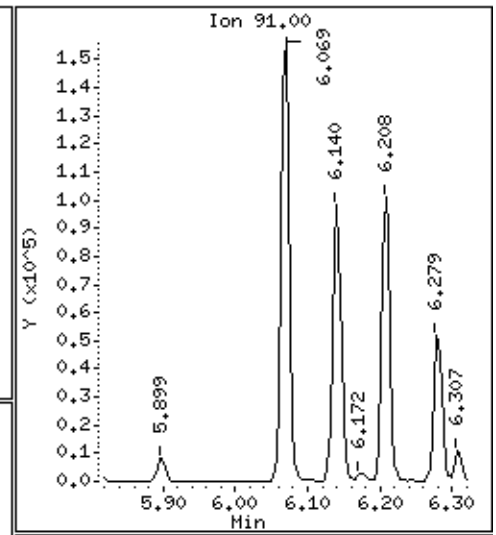
Review Code:

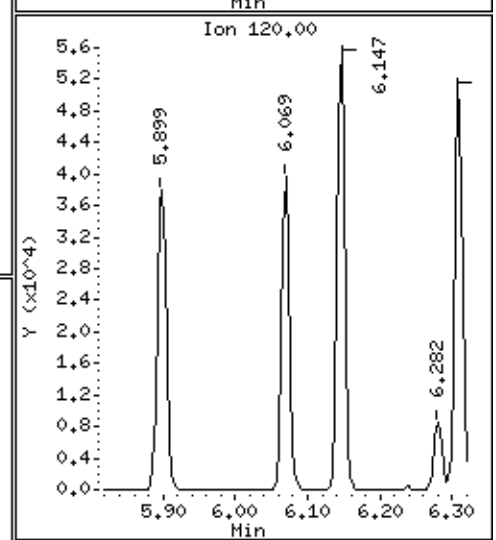












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

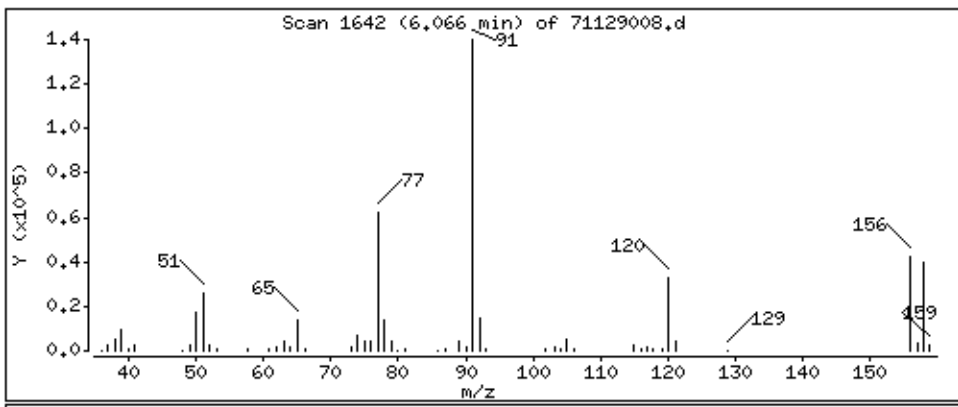
Column phase: RTX-VMS

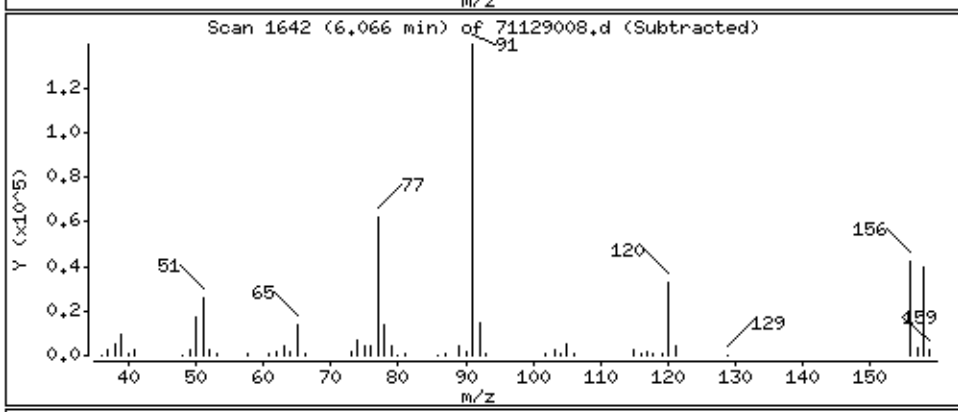
Column diameter: 0.18

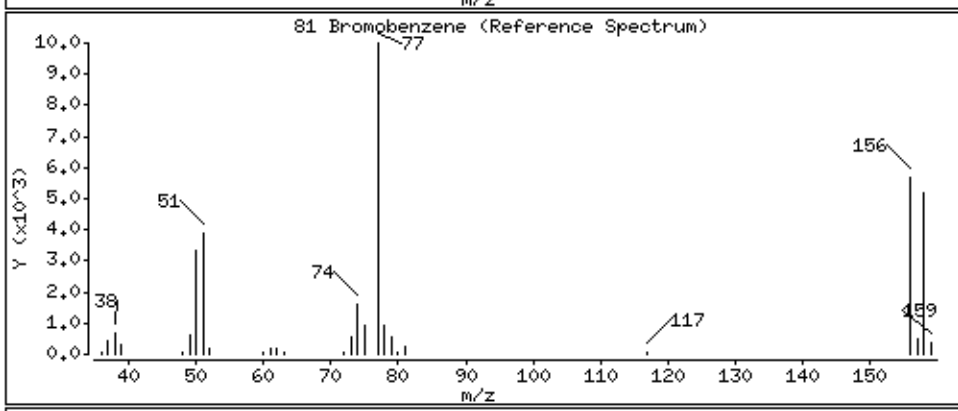
81 Bromobenzene

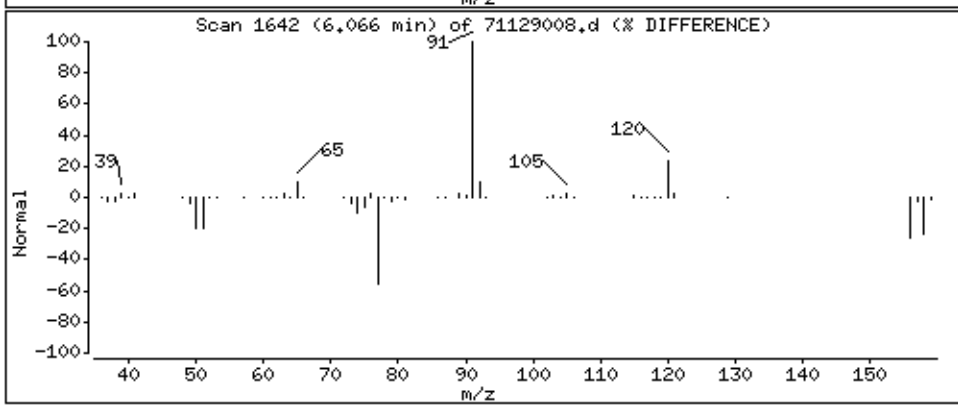
Concentration: 17.5 ug/L

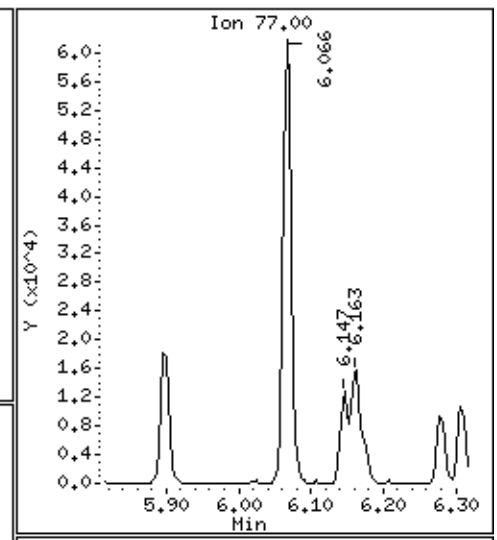
Review Code:

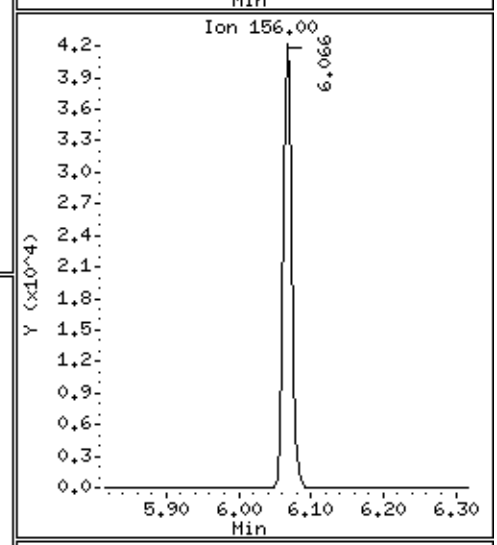


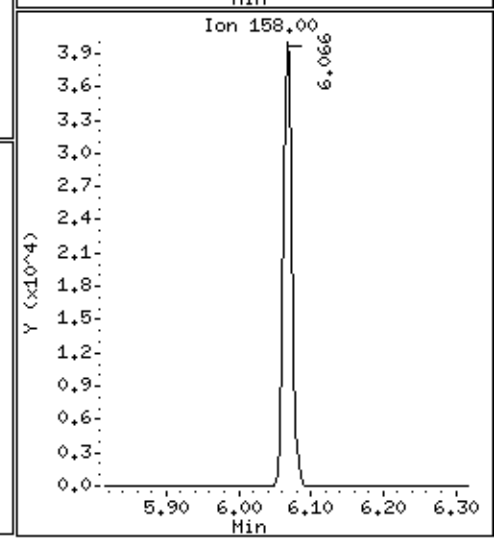












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

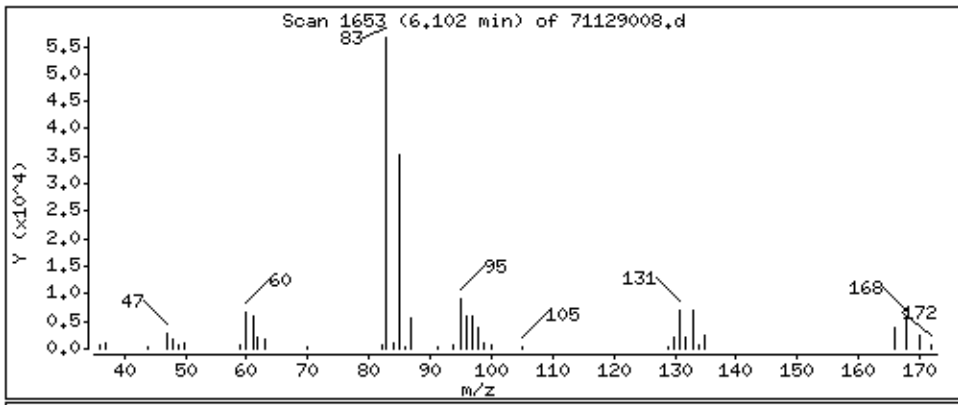
Column phase: RTX-VMS

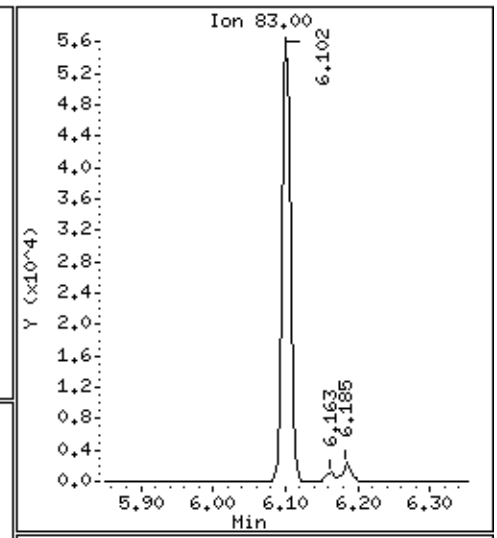
Column diameter: 0.18

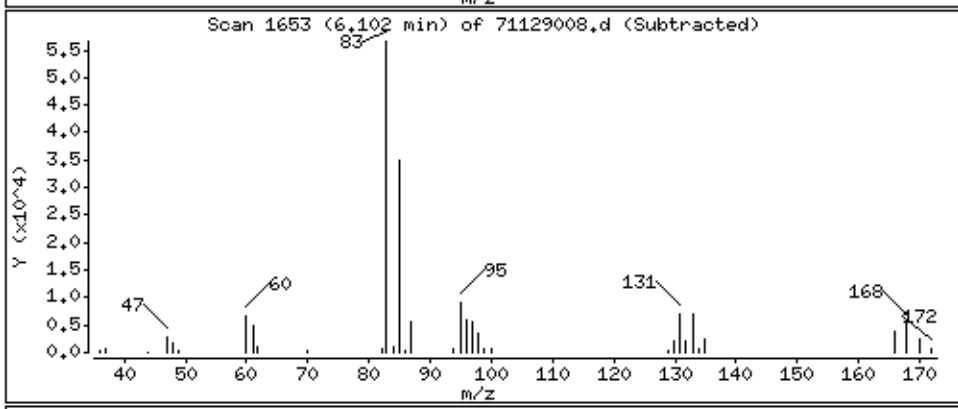
82 1,1,2,2-Tetrachloroethane

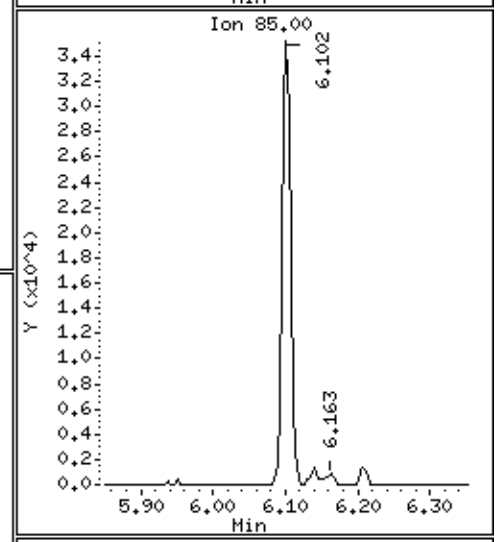
Concentration: 18.6 ug/L

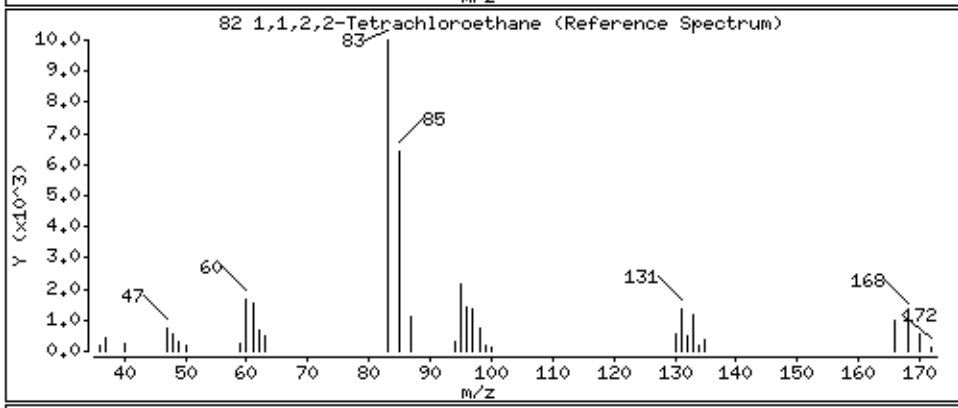
Review Code:

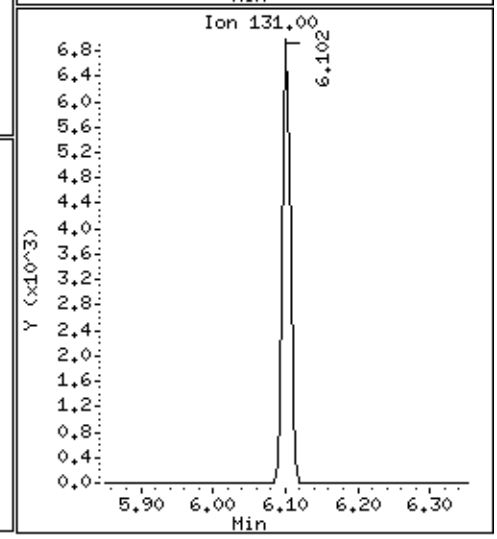


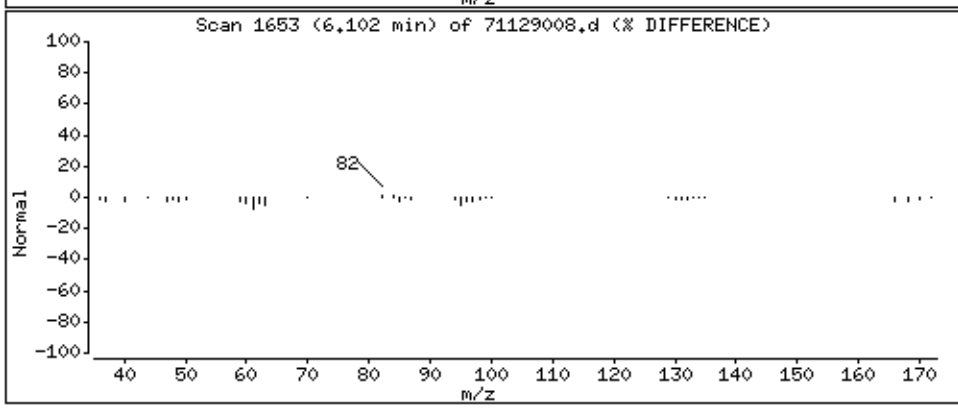












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

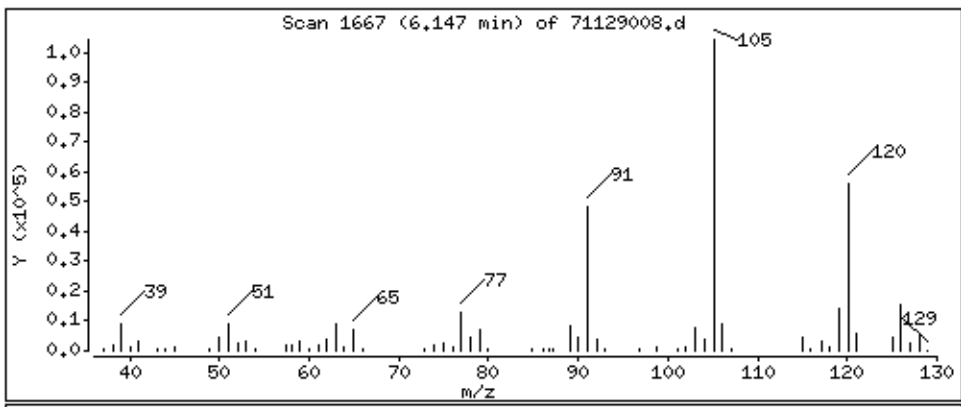
Column phase: RTX-VMS

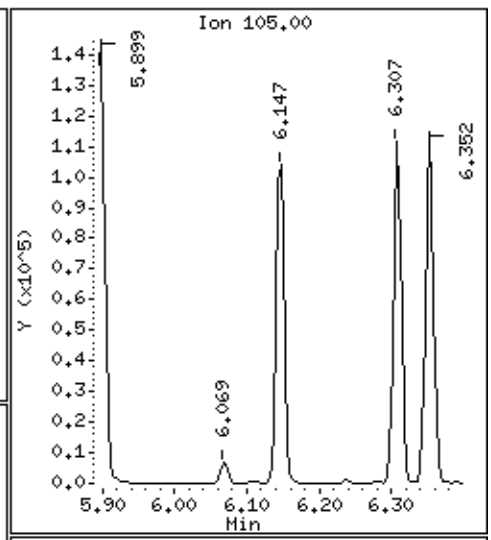
Column diameter: 0.18

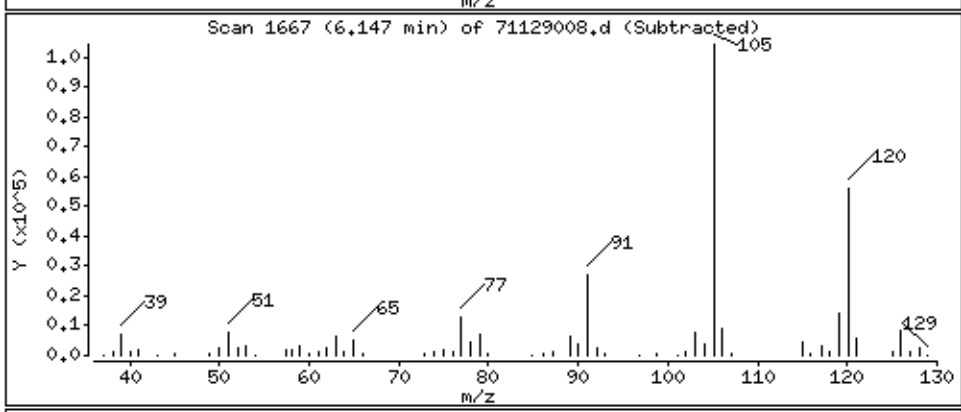
83 1,3,5-Trimethylbenzene

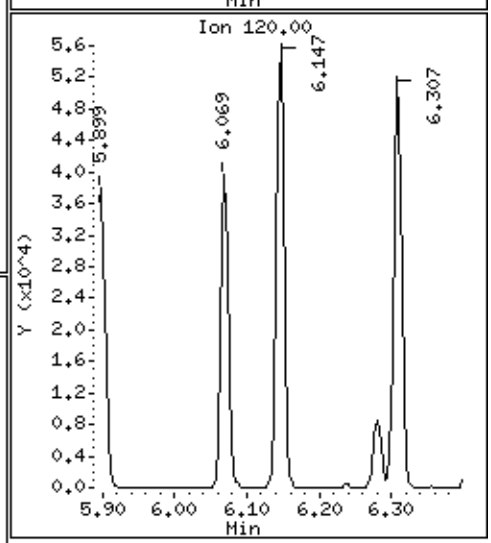
Concentration: 18.3 ug/L

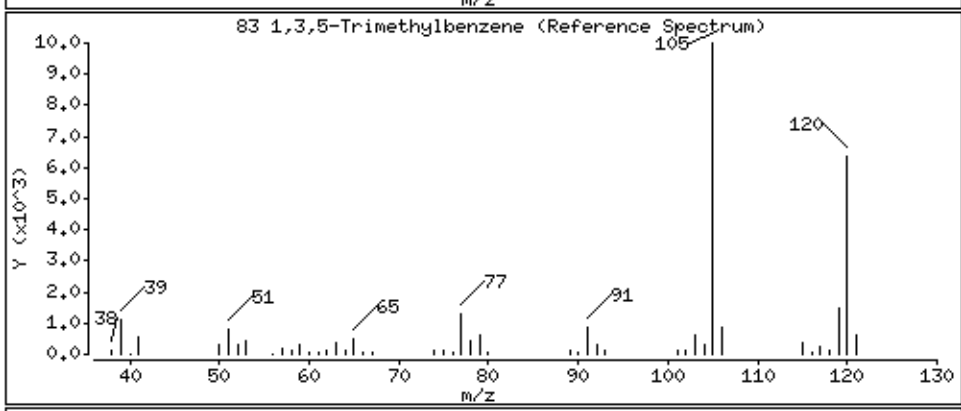
Review Code:

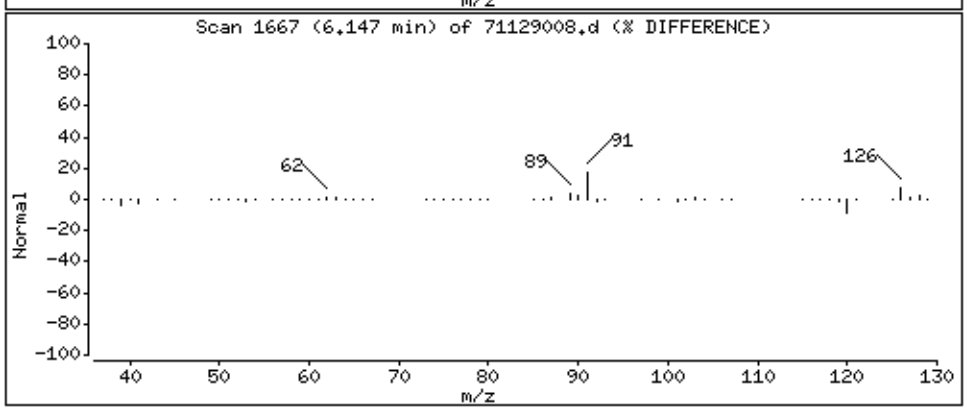












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

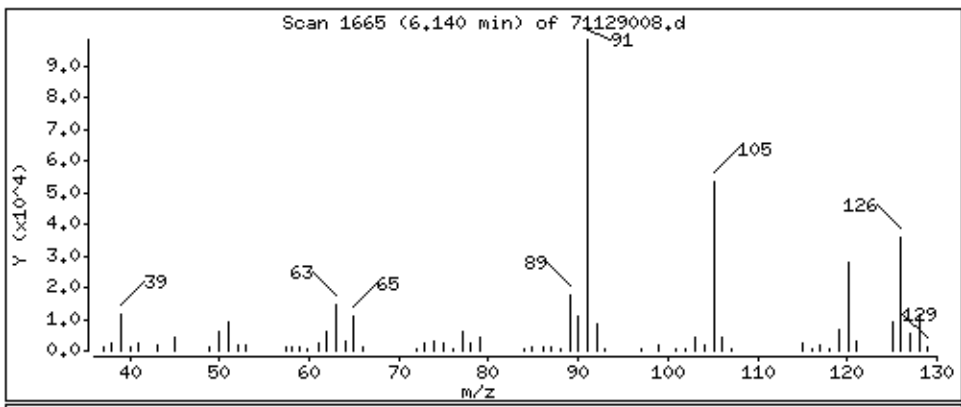
Column phase: RTX-VMS

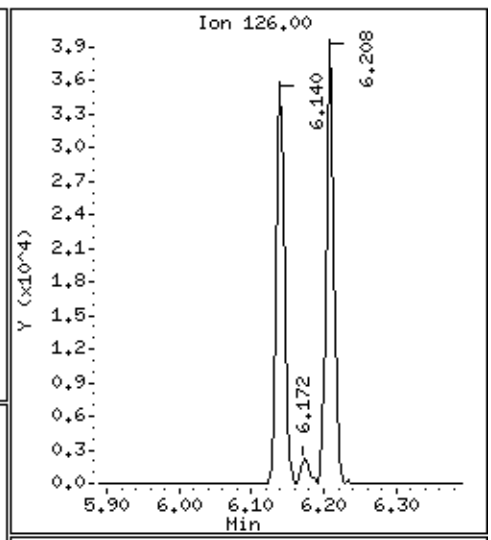
Column diameter: 0.18

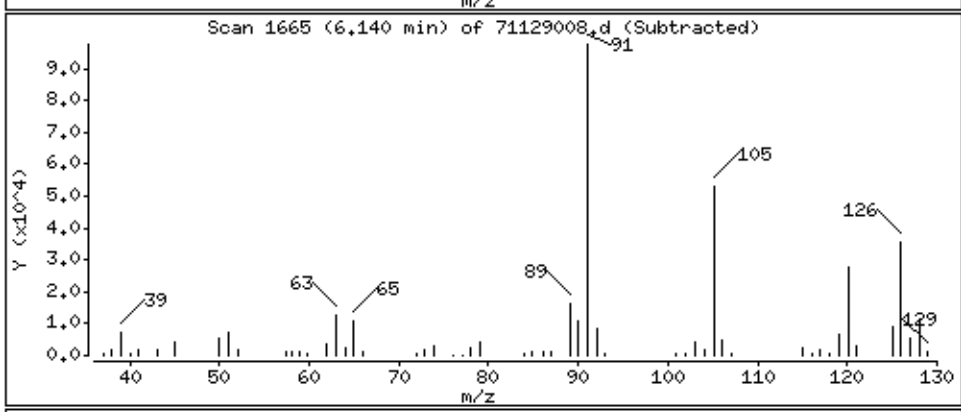
84 2-Chlorotoluene

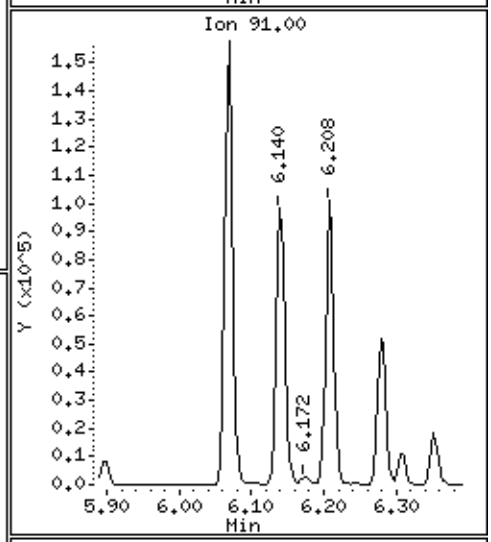
Concentration: 18.3 ug/L

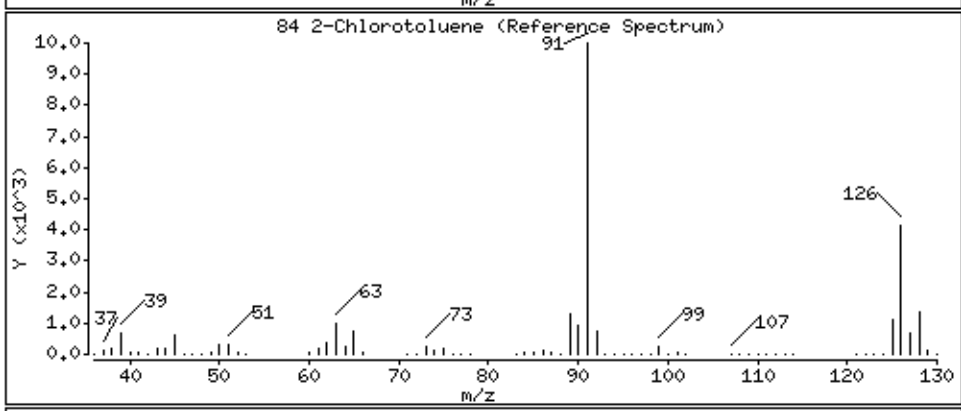
Review Code:

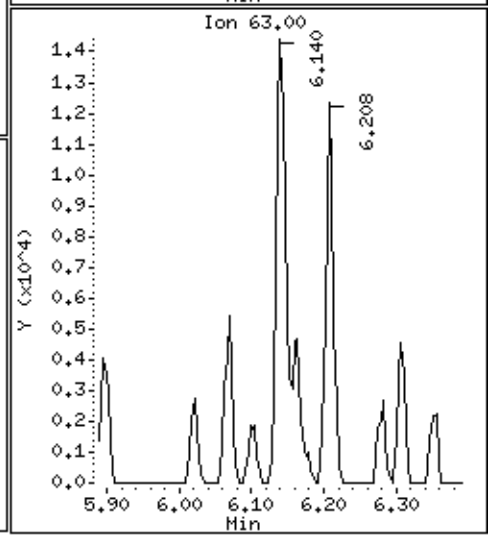


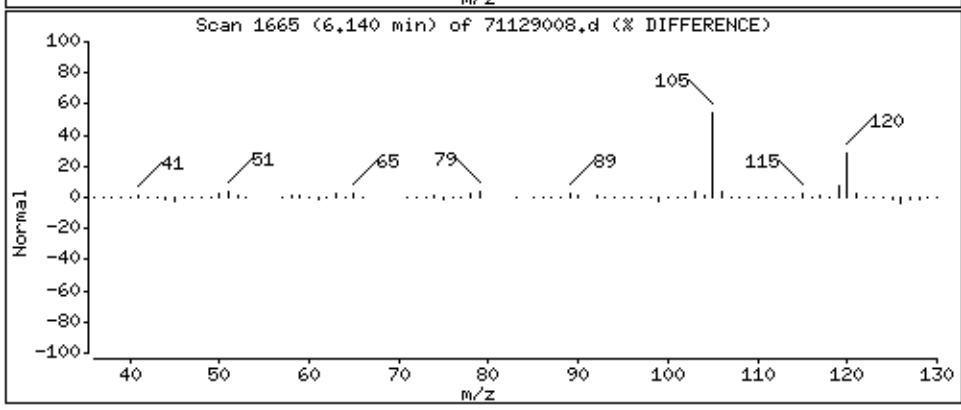












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

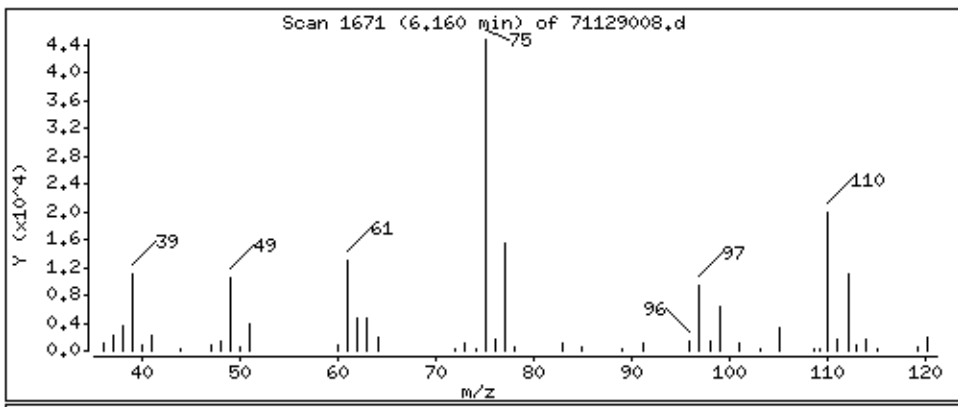
Column phase: RTX-VMS

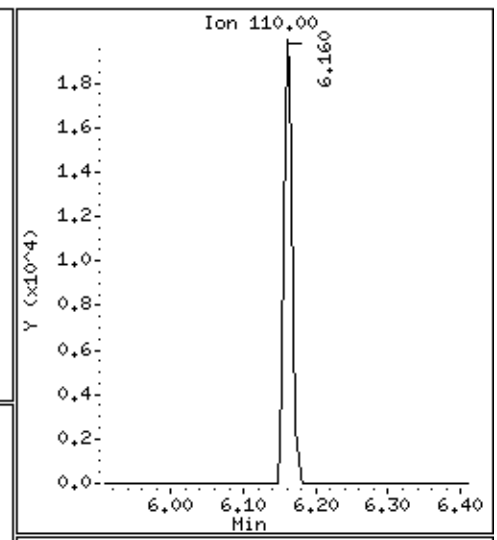
Column diameter: 0.18

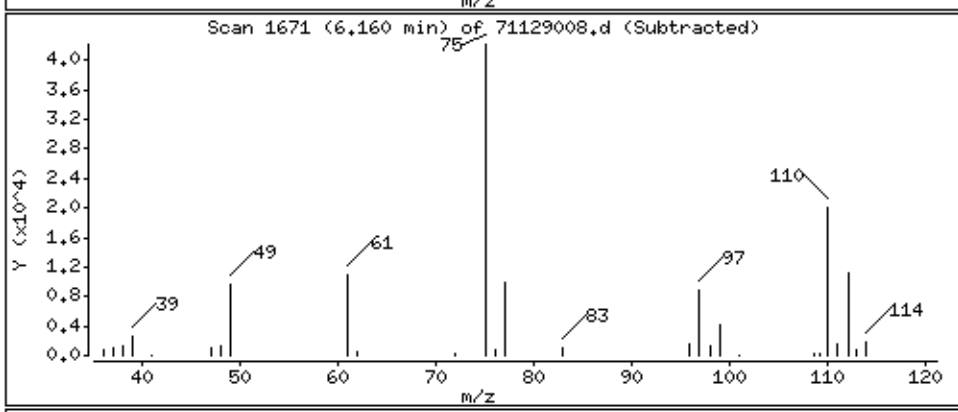
85 1,2,3-Trichloropropane

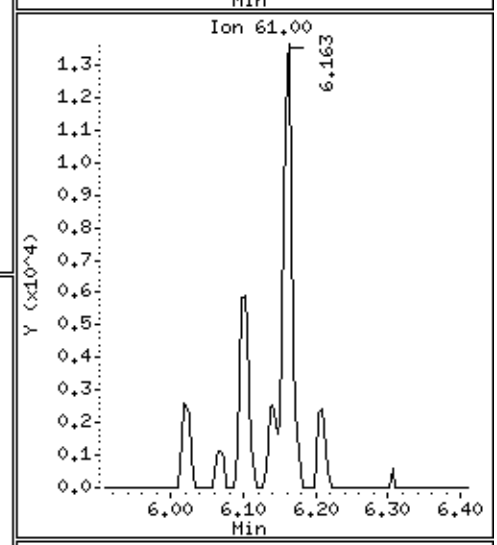
Concentration: 18.4 ug/L

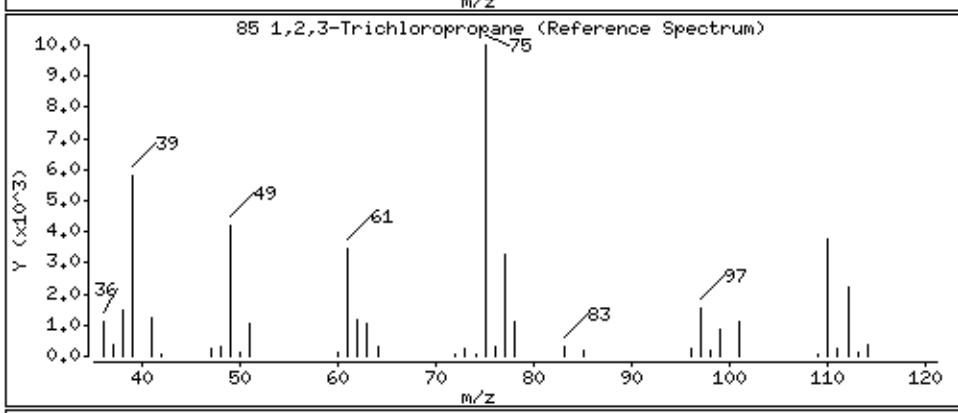
Review Code:

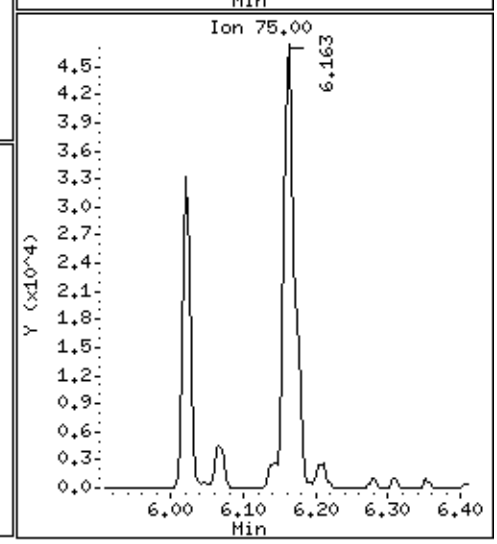


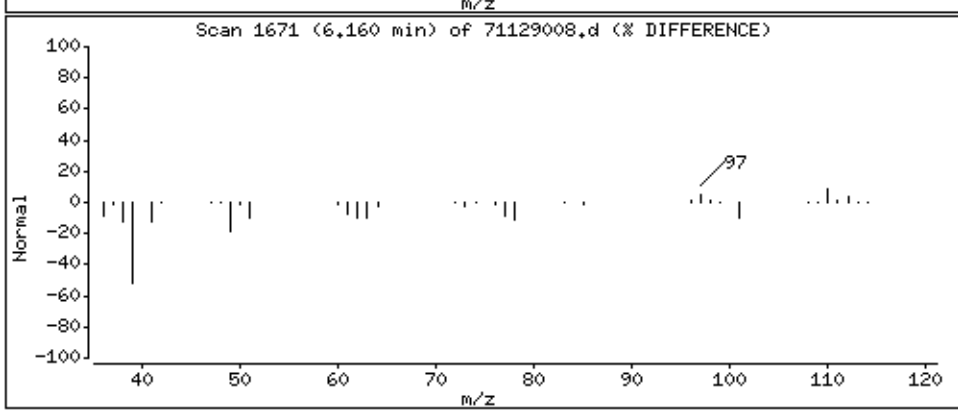












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

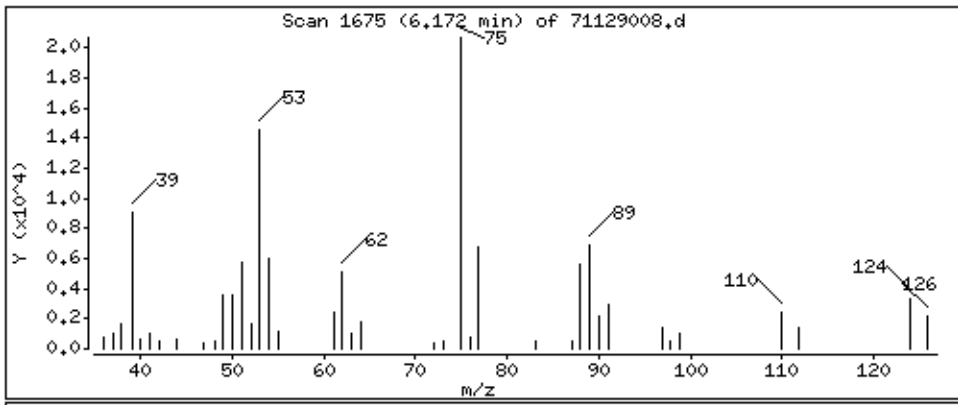
Column phase: RTX-VMS

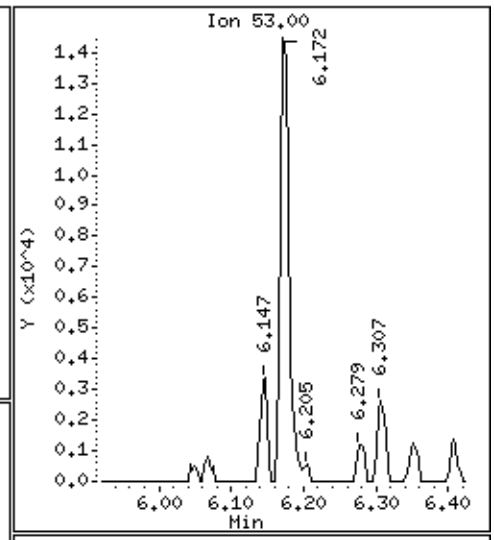
Column diameter: 0.18

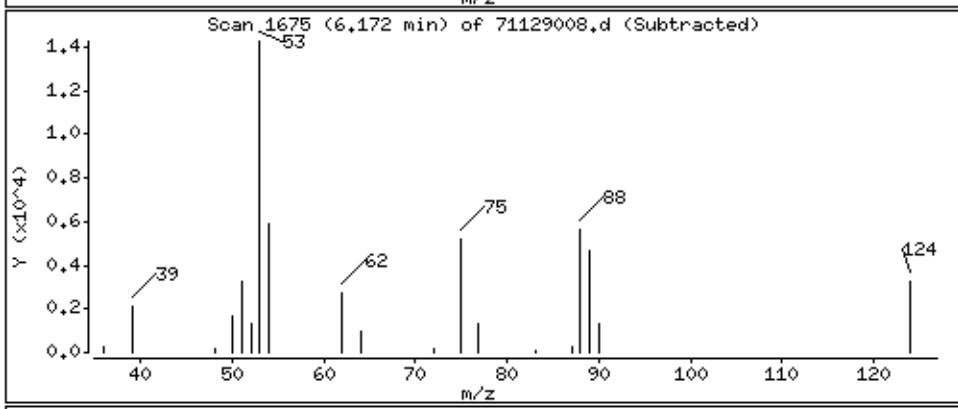
86 trans-1,4-Dichloro-2-butene

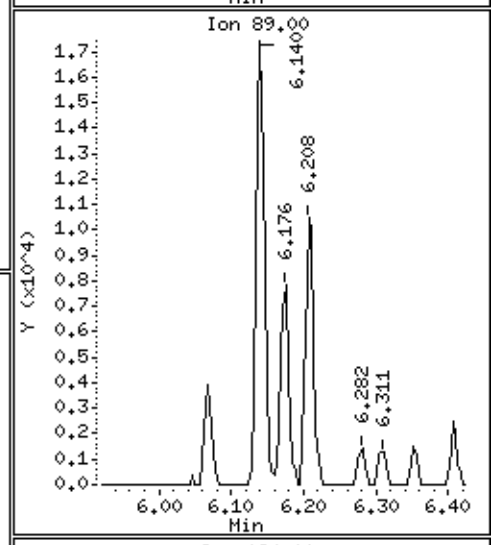
Concentration: 15.4 ug/L

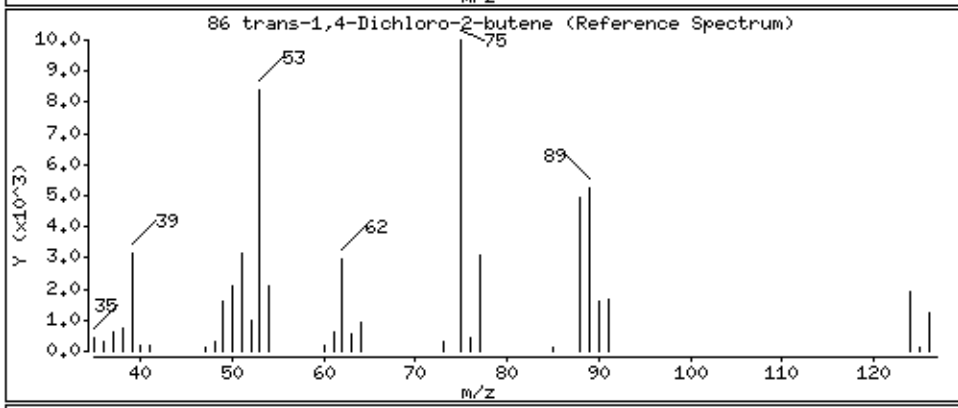
Review Code:

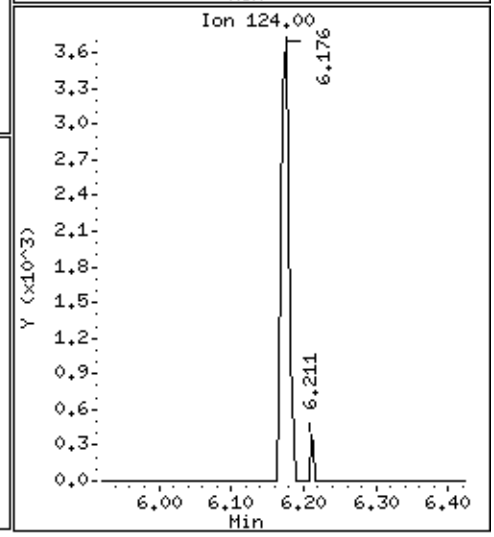


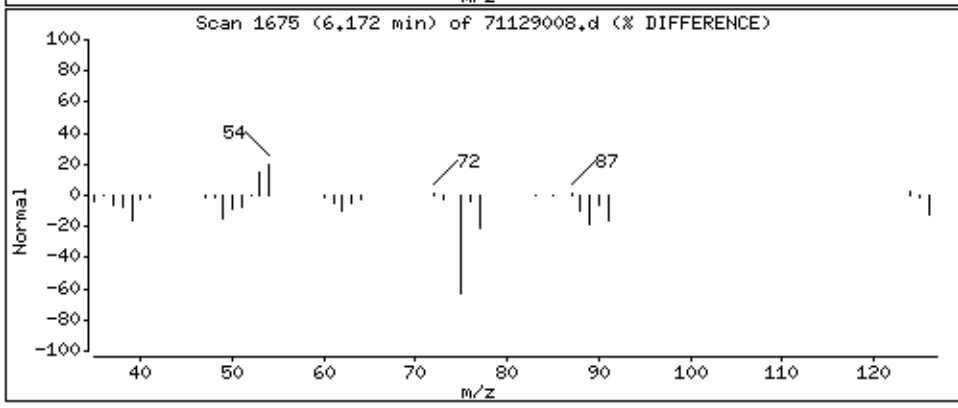












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

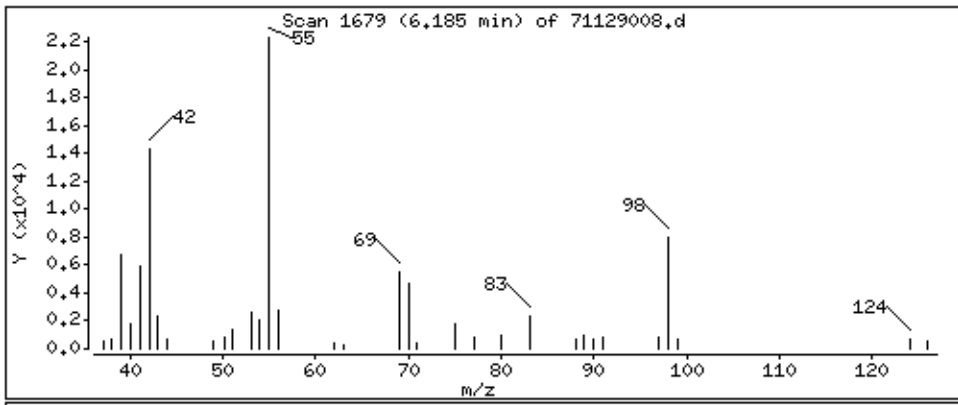
Column phase: RTX-VMS

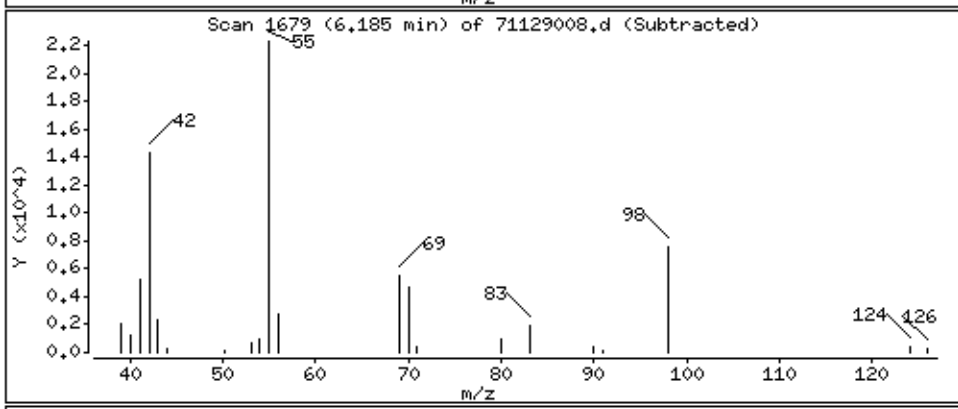
Column diameter: 0.18

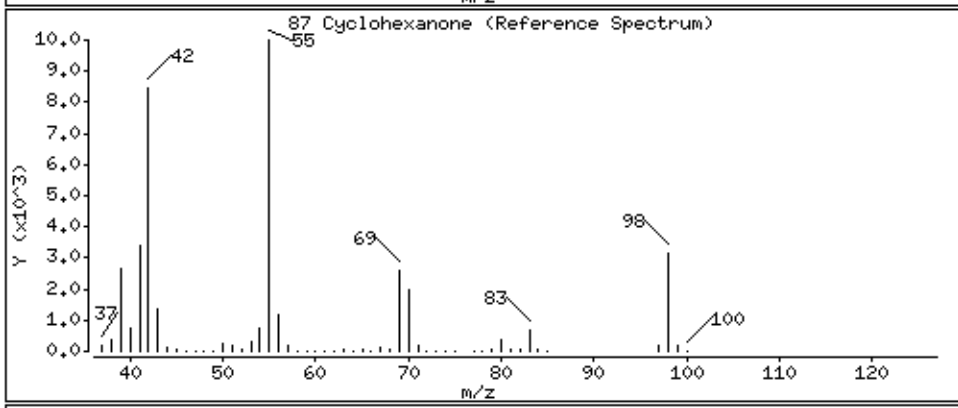
87 Cyclohexanone

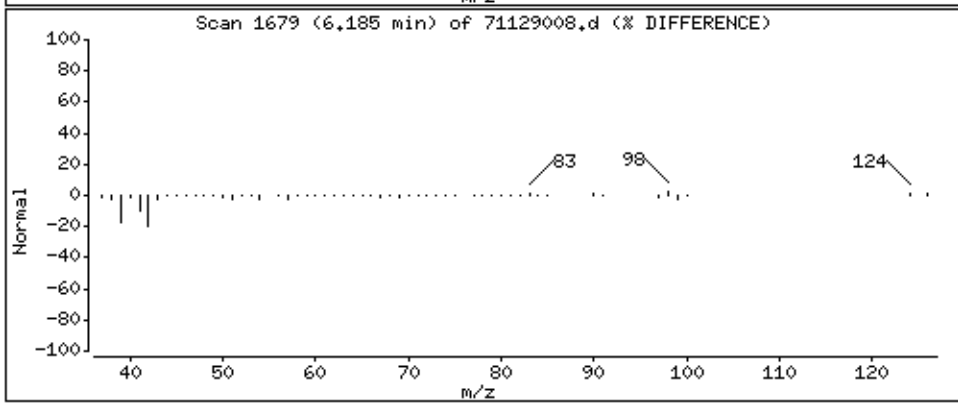
Concentration: 90.1 ug/L

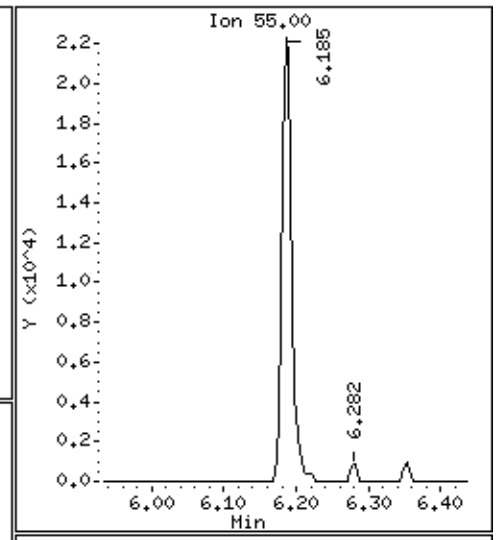
Review Code:

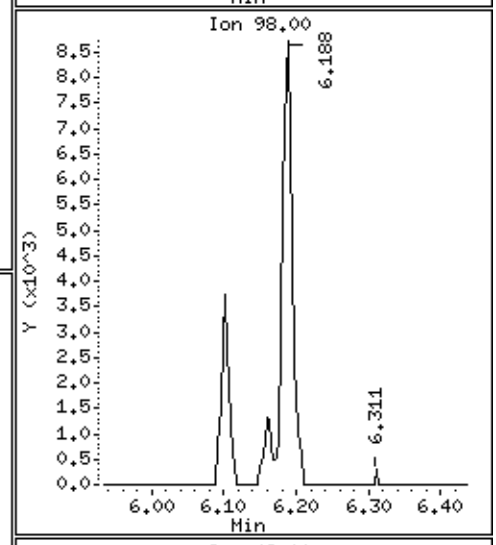


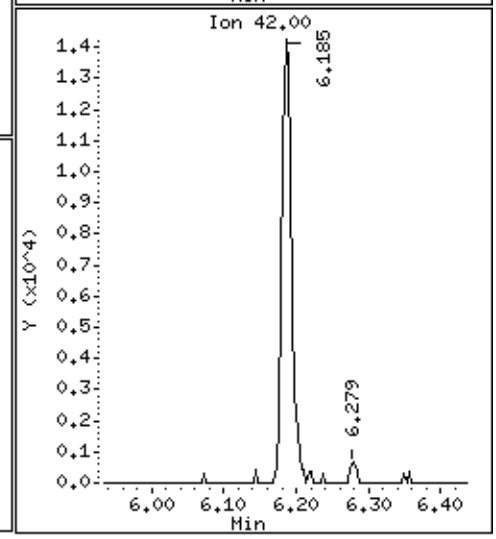












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

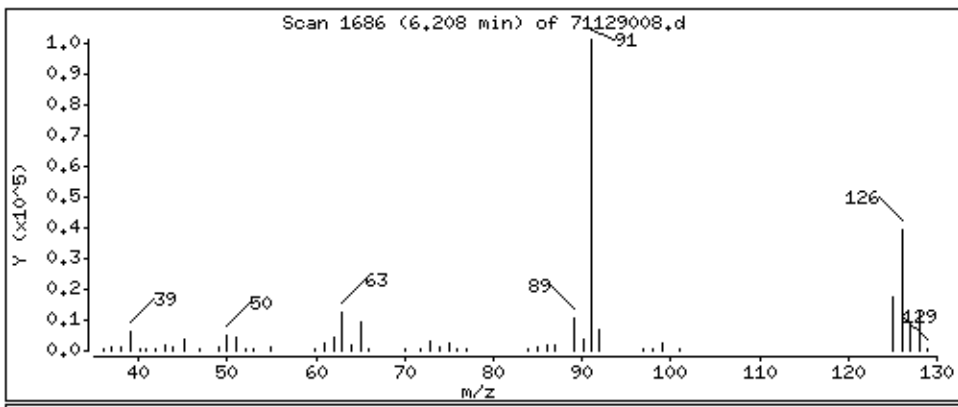
Column phase: RTX-VMS

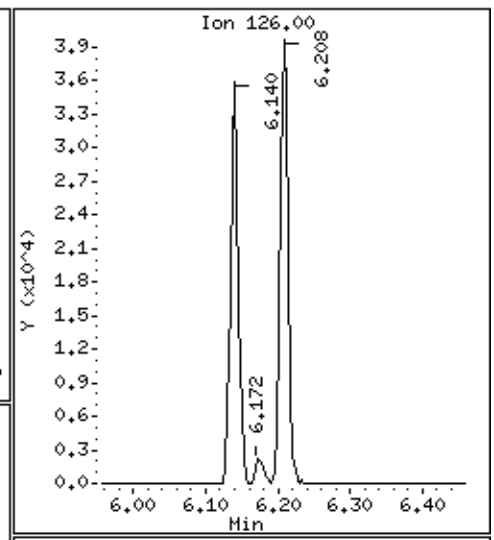
Column diameter: 0.18

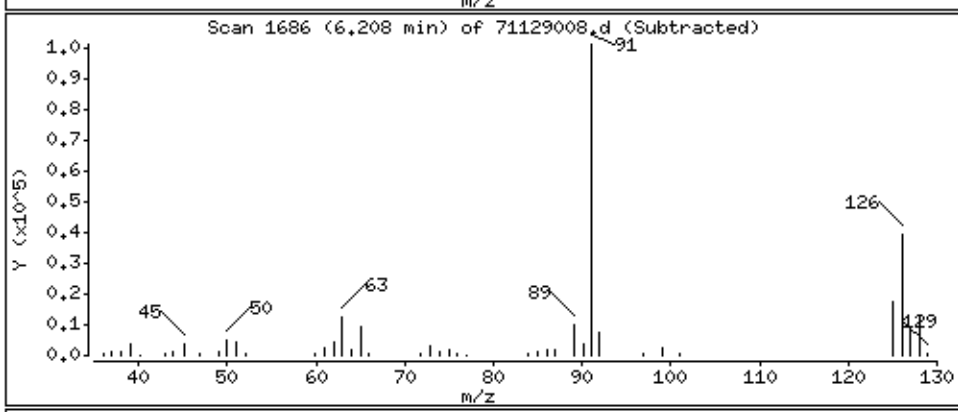
88 4-Chlorotoluene

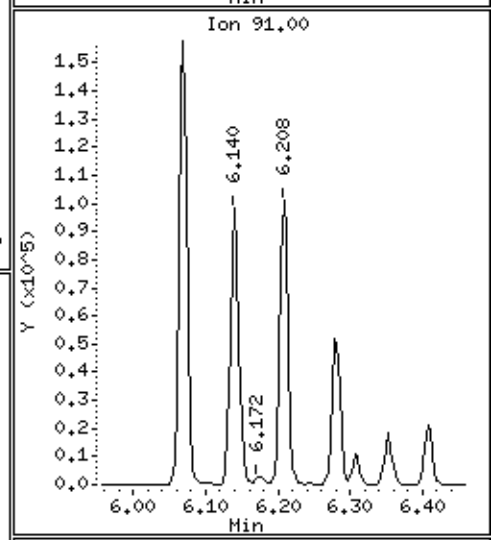
Concentration: 18.8 ug/L

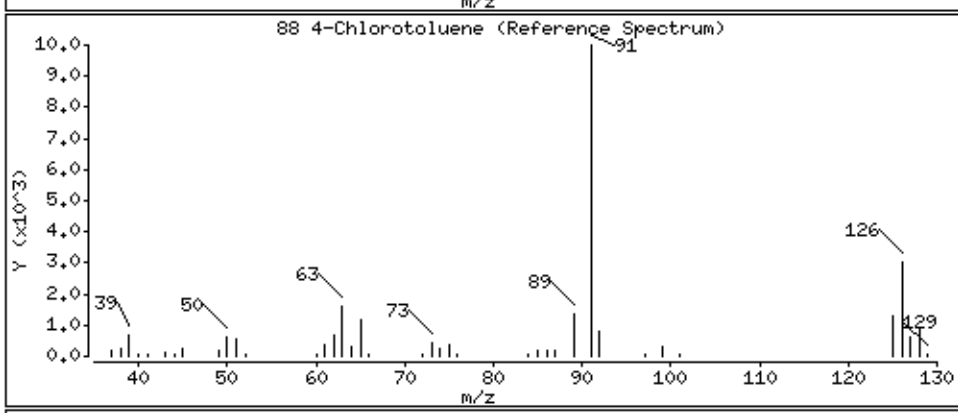
Review Code:

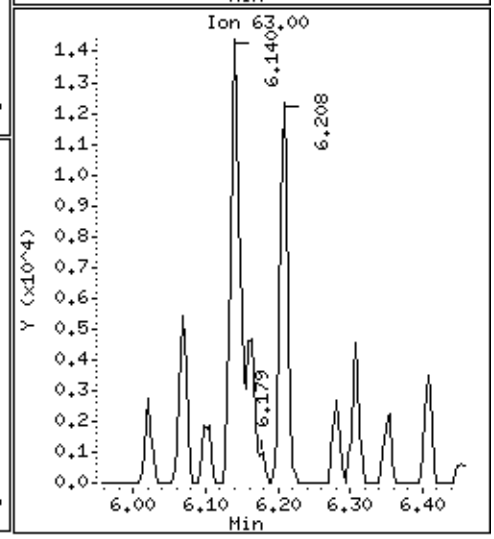


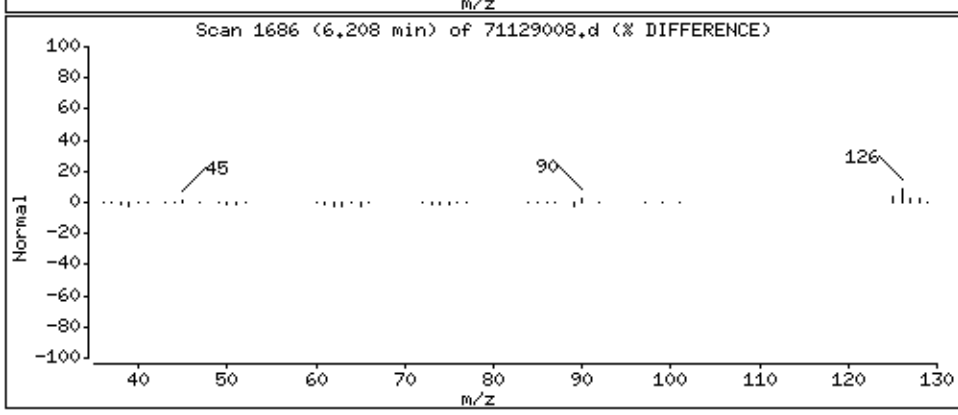












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

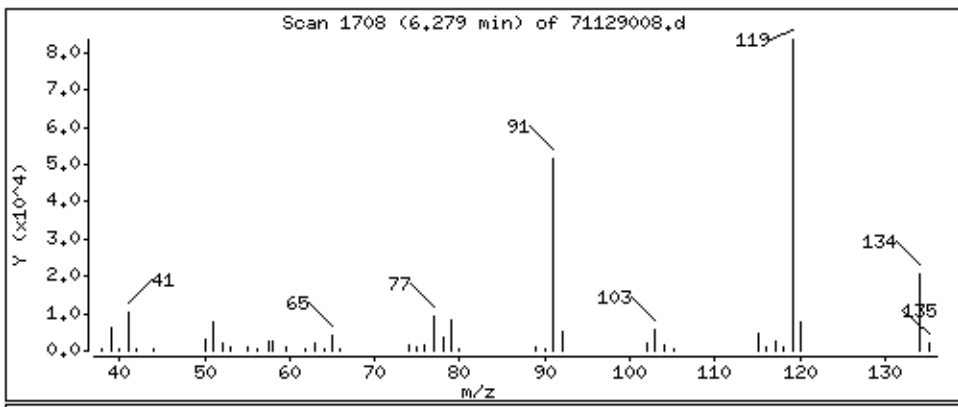
Column phase: RTX-VMS

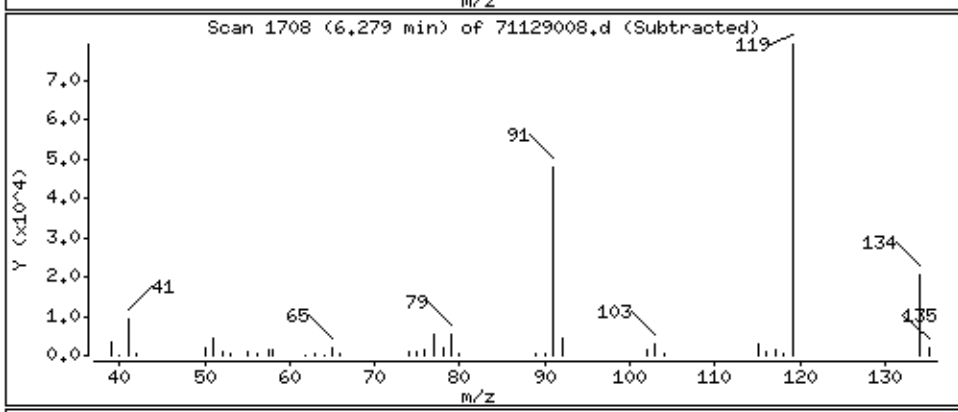
Column diameter: 0.18

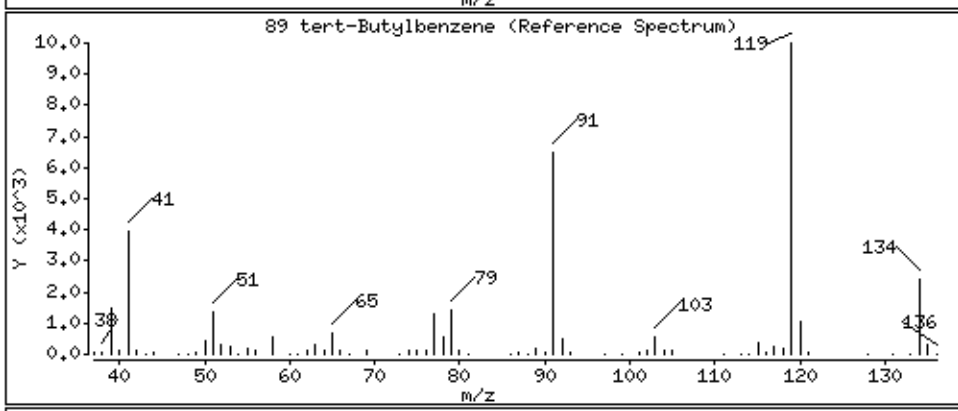
89 tert-Butylbenzene

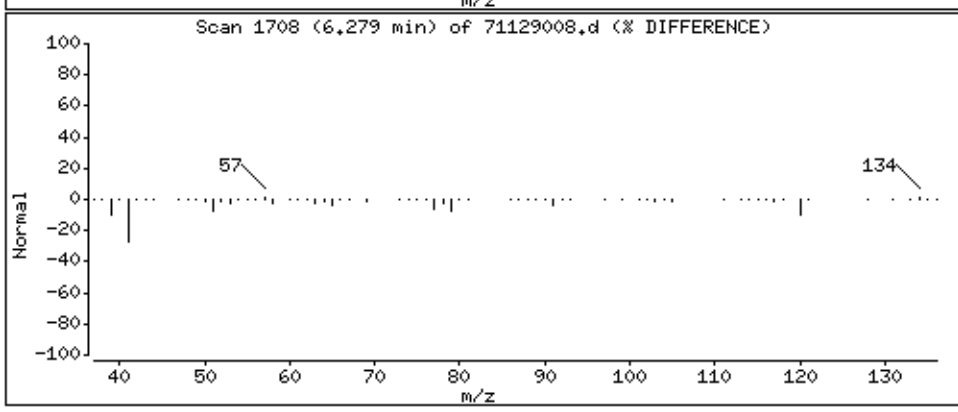
Concentration: 18.9 ug/L

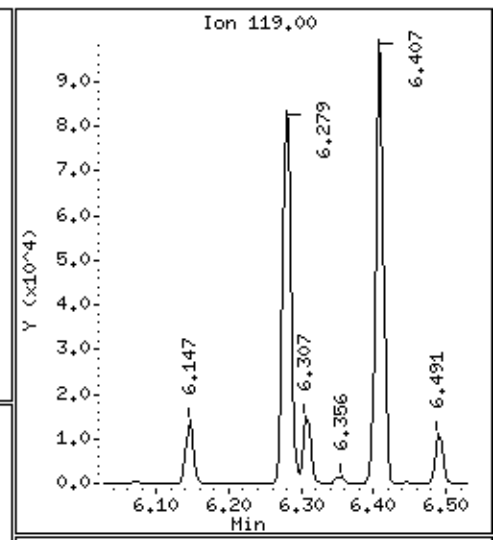
Review Code:

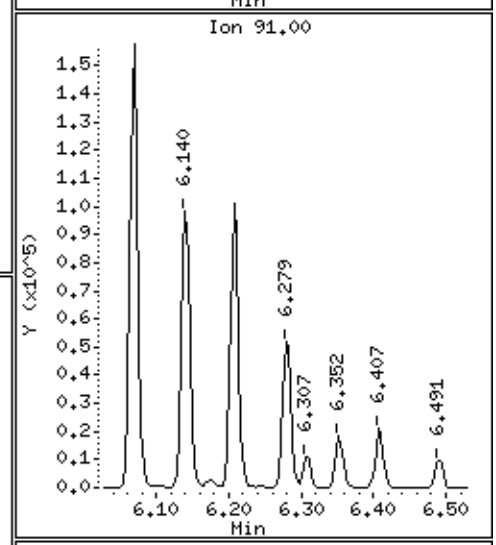


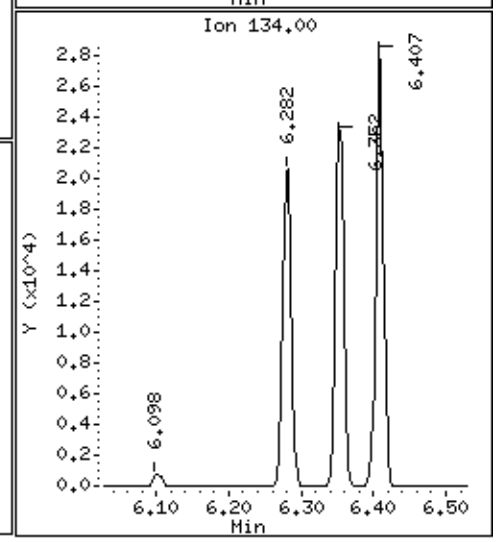












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

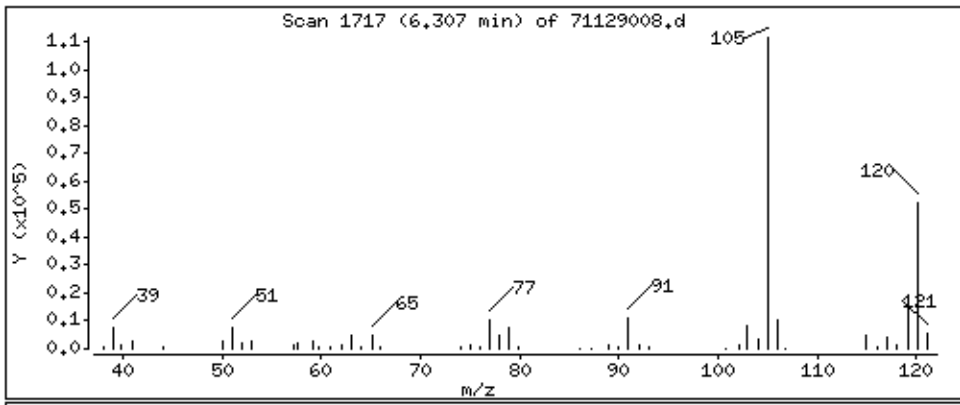
Column phase: RTX-VMS

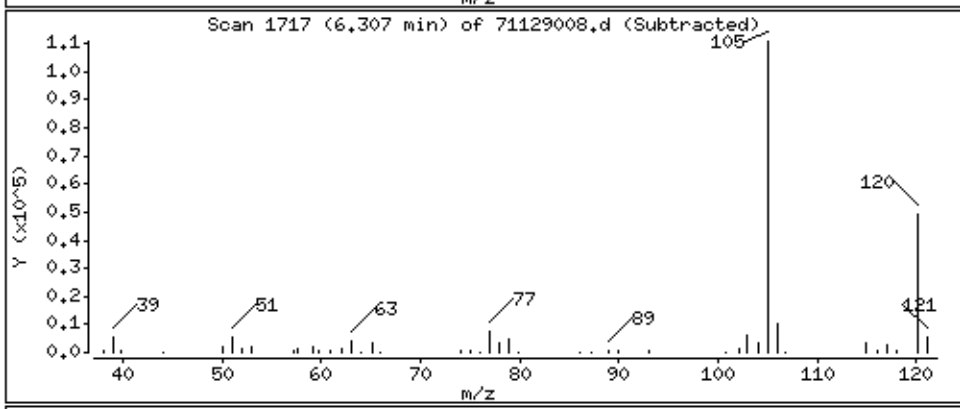
Column diameter: 0.18

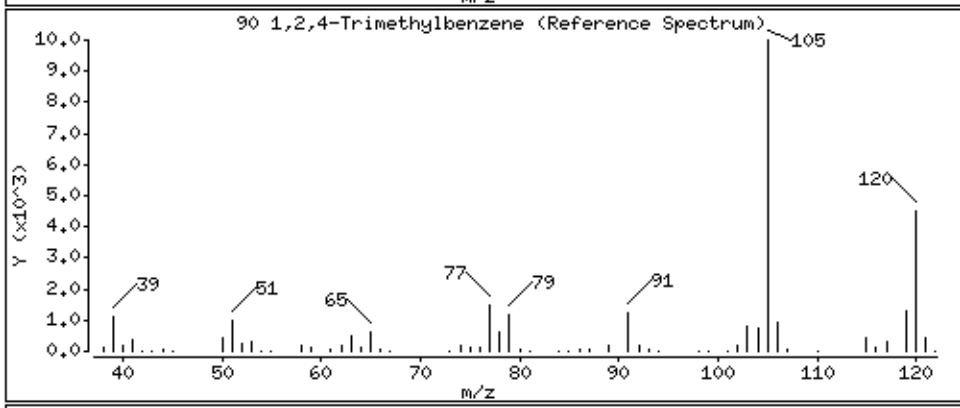
90 1,2,4-Trimethylbenzene

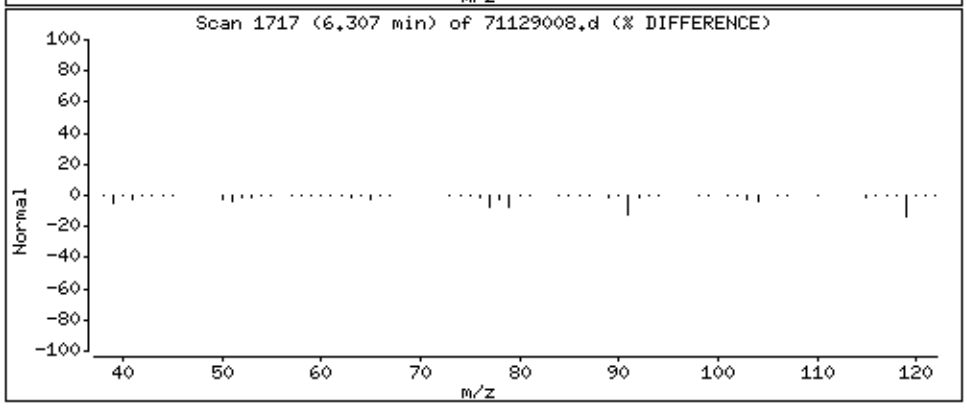
Concentration: 18.7 ug/L

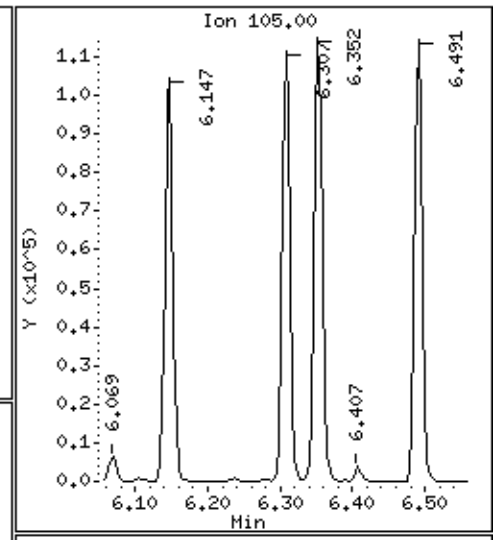
Review Code:

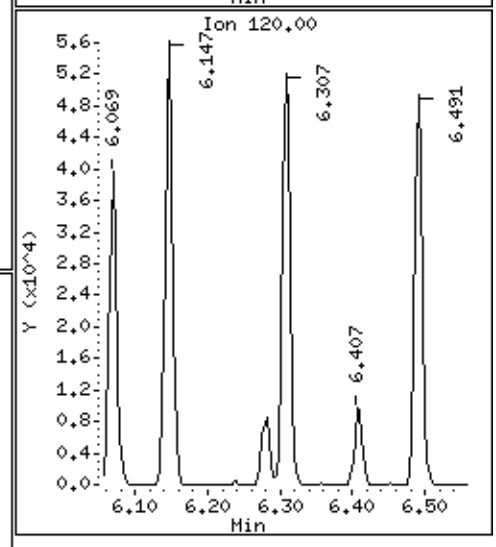












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

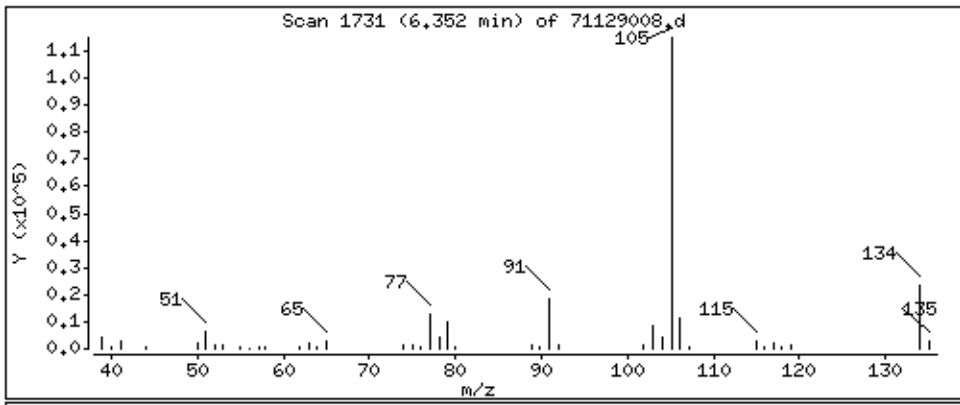
Column phase: RTX-VMS

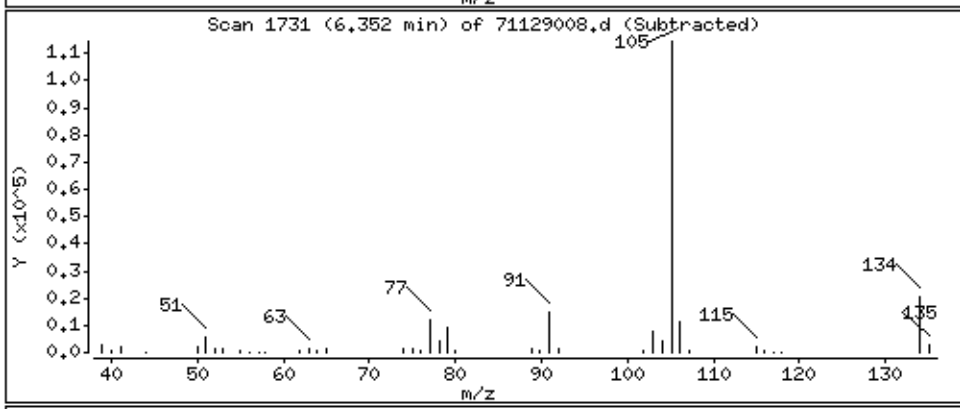
Column diameter: 0.18

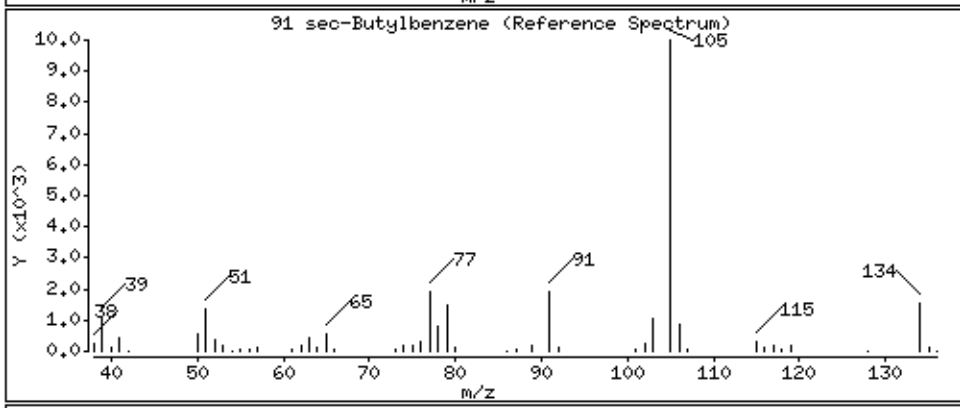
91 sec-Butylbenzene

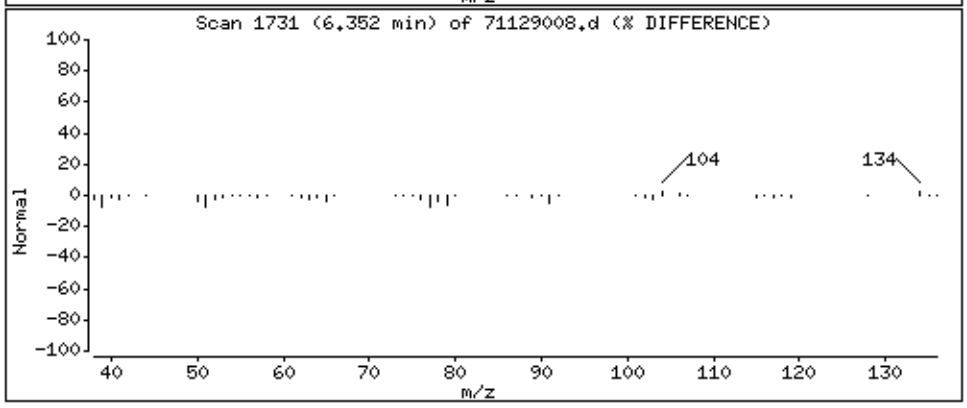
Concentration: 18.5 ug/L

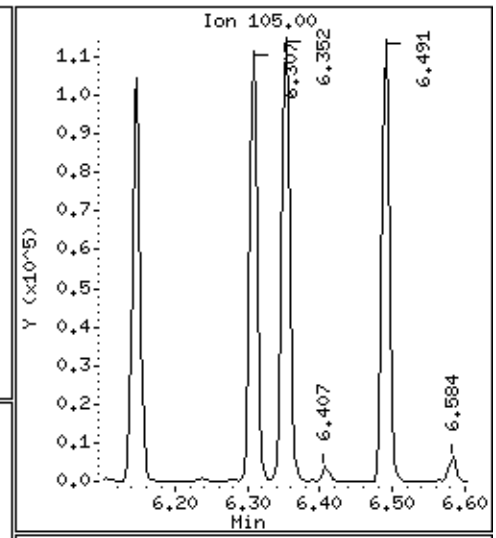
Review Code:

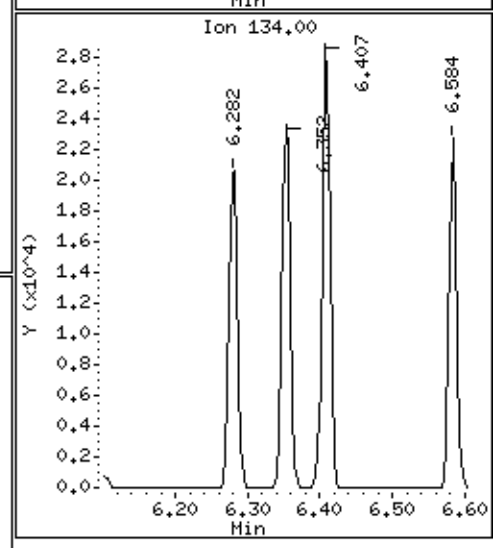












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

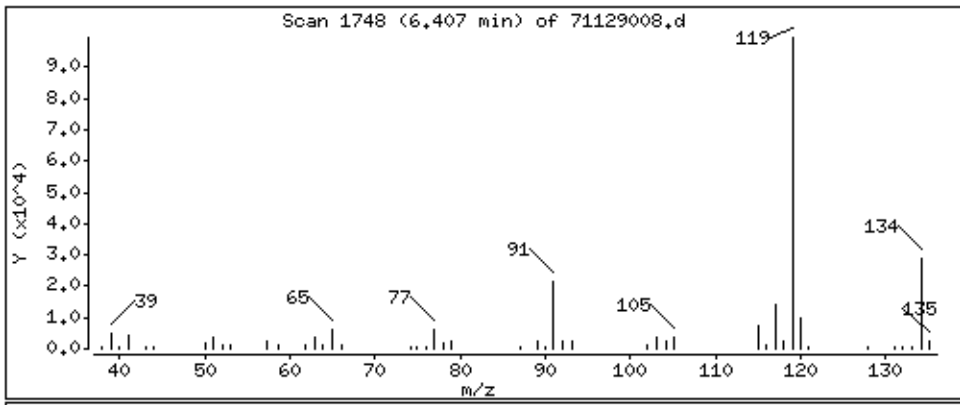
Column phase: RTX-VMS

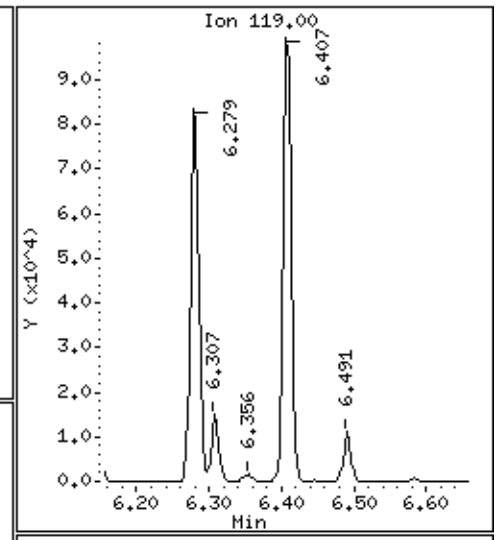
Column diameter: 0.18

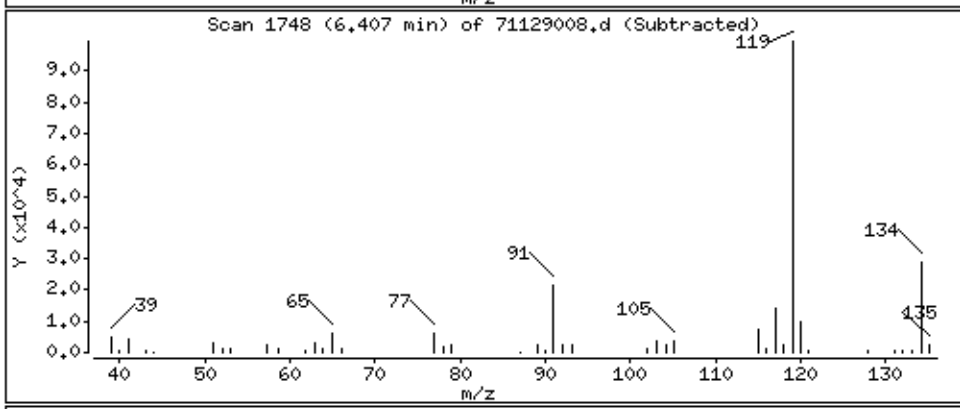
92 p-Isopropyltoluene

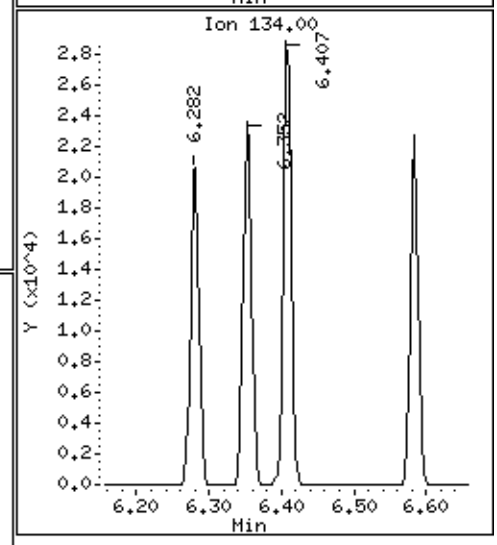
Concentration: 18.5 ug/L

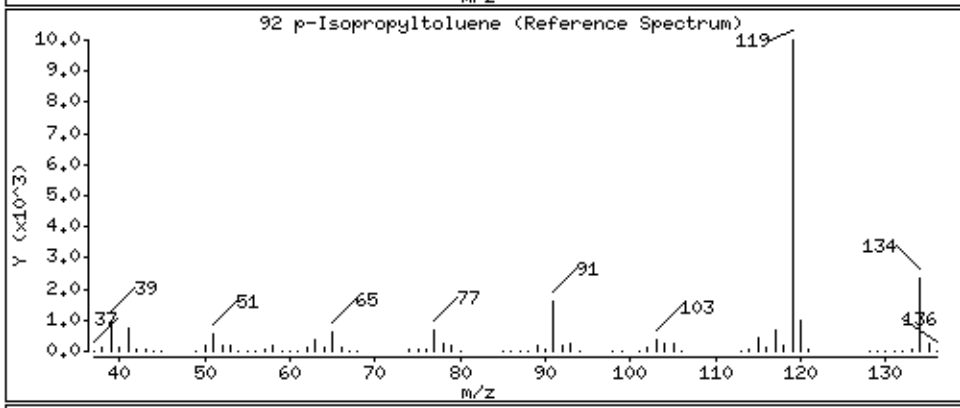
Review Code:

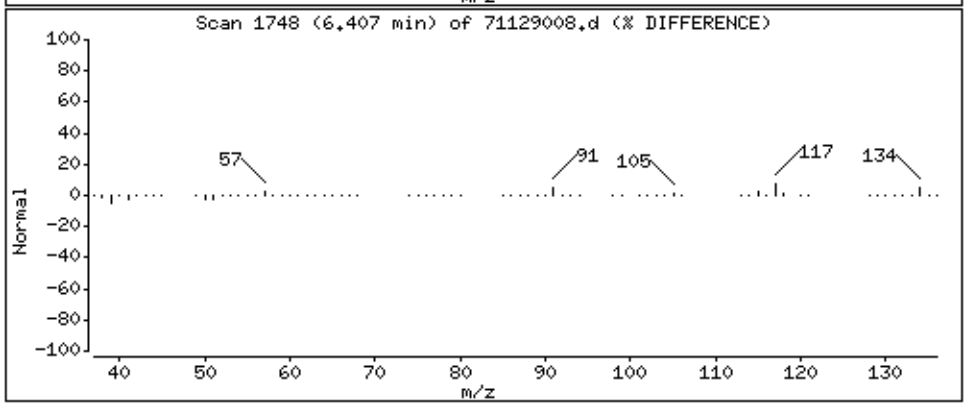












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

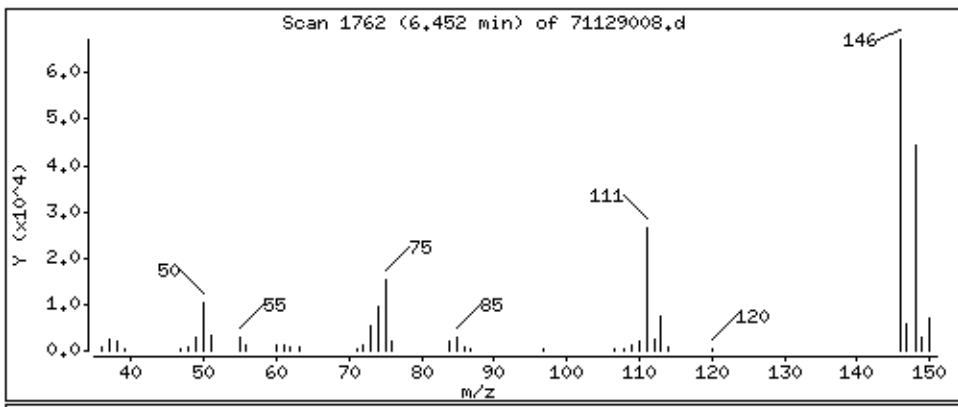
Column phase: RTX-VMS

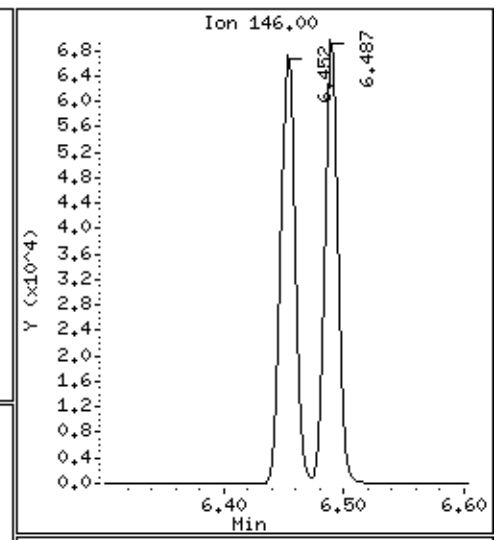
Column diameter: 0.18

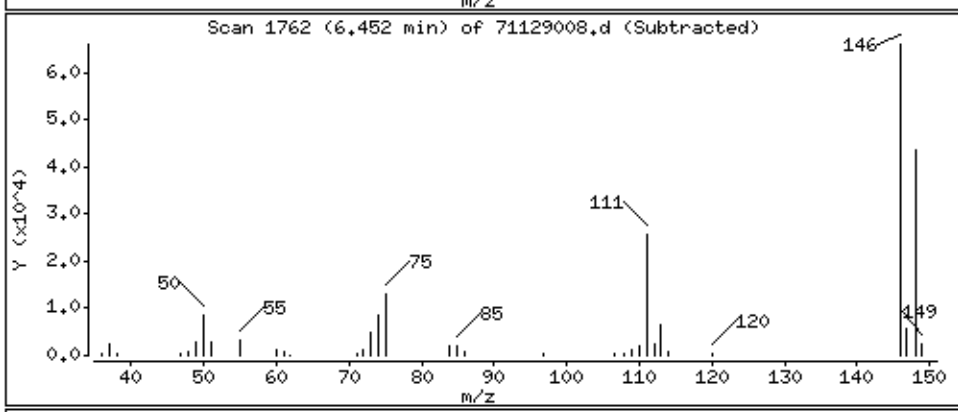
93 1,3-Dichlorobenzene

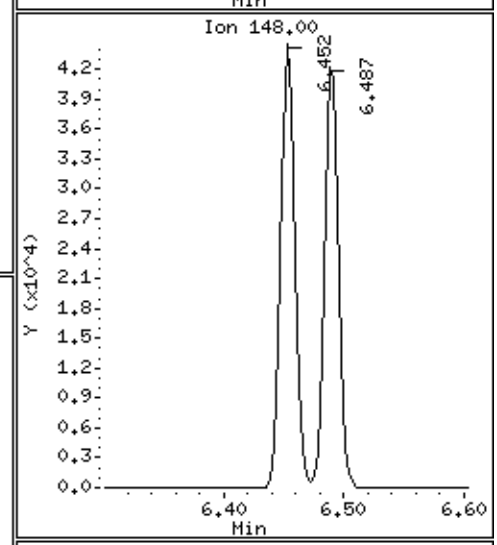
Concentration: 18.7 ug/L

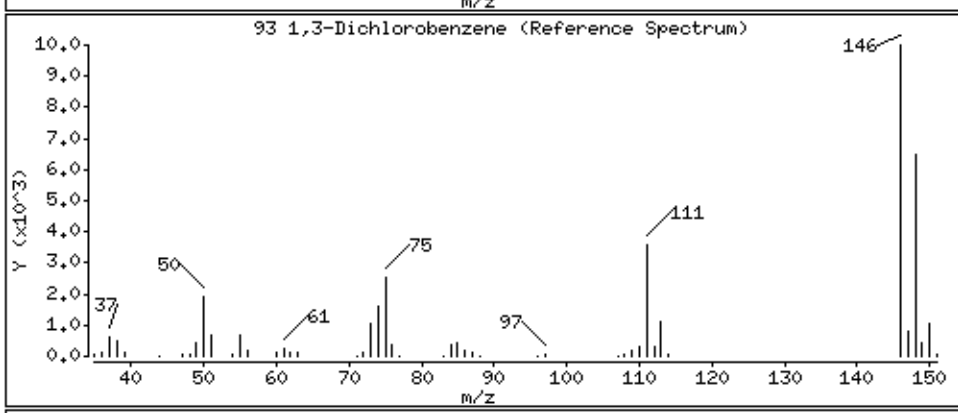
Review Code:

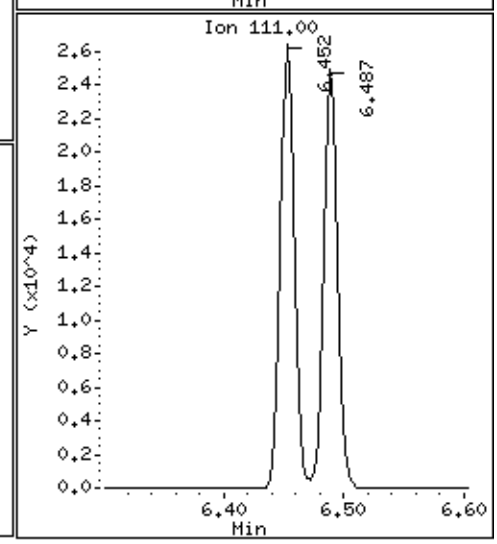


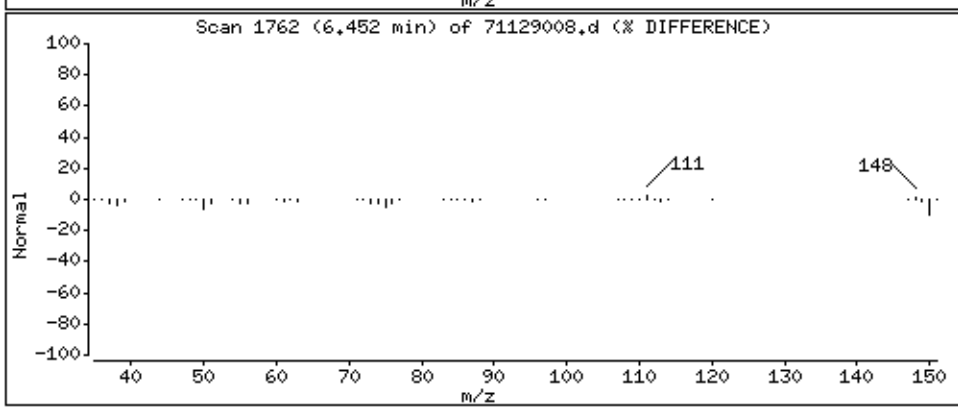












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

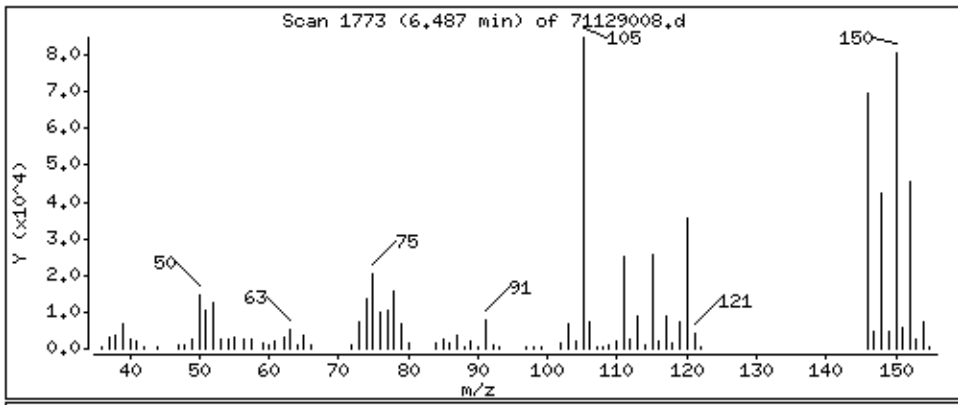
Column phase: RTX-VMS

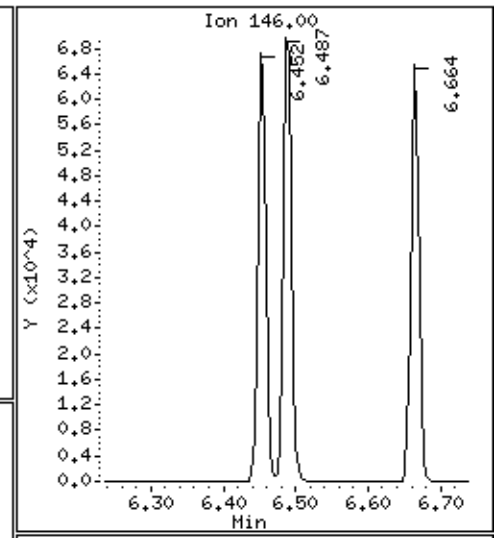
Column diameter: 0.18

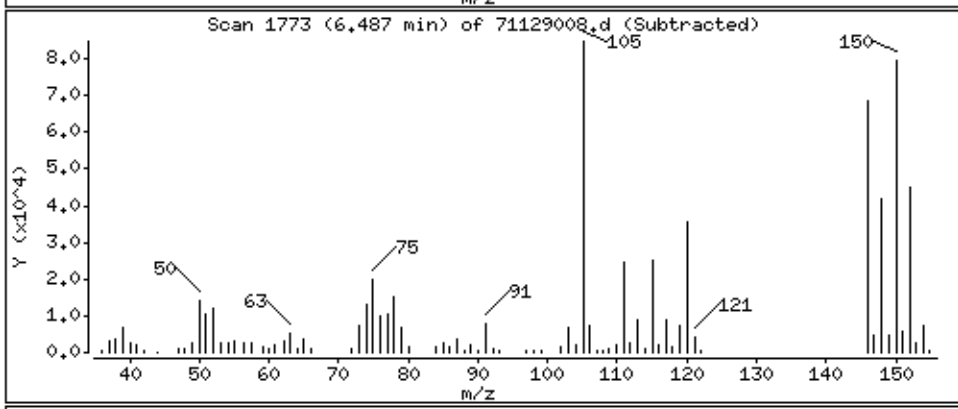
95 1,4-Dichlorobenzene

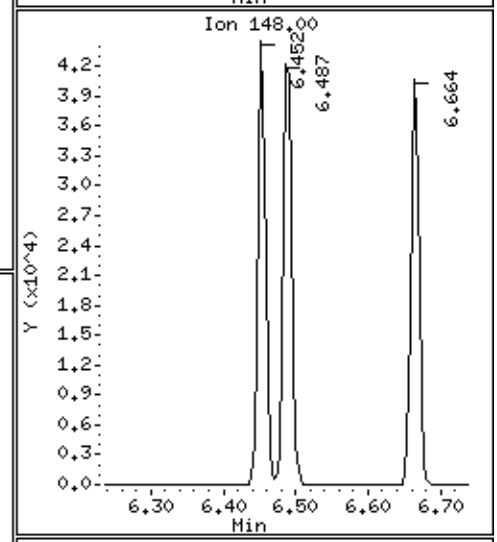
Concentration: 18.1 ug/L

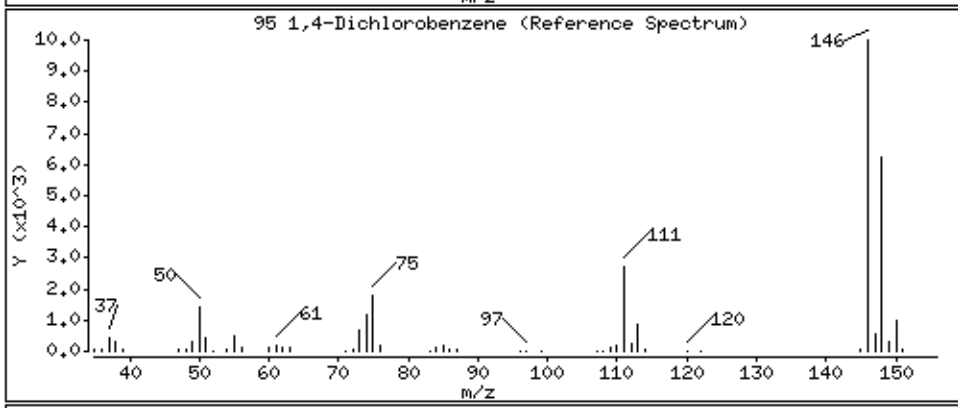
Review Code:

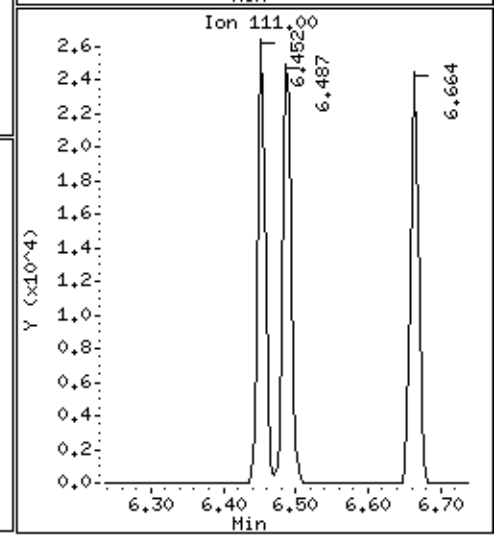


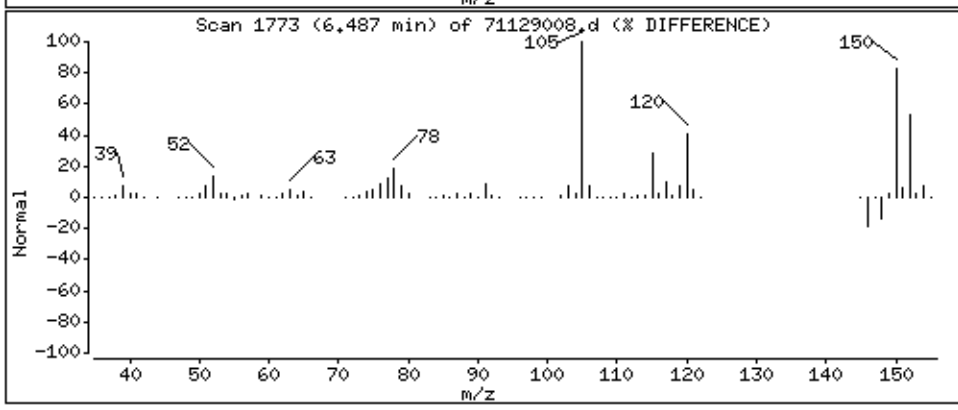












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

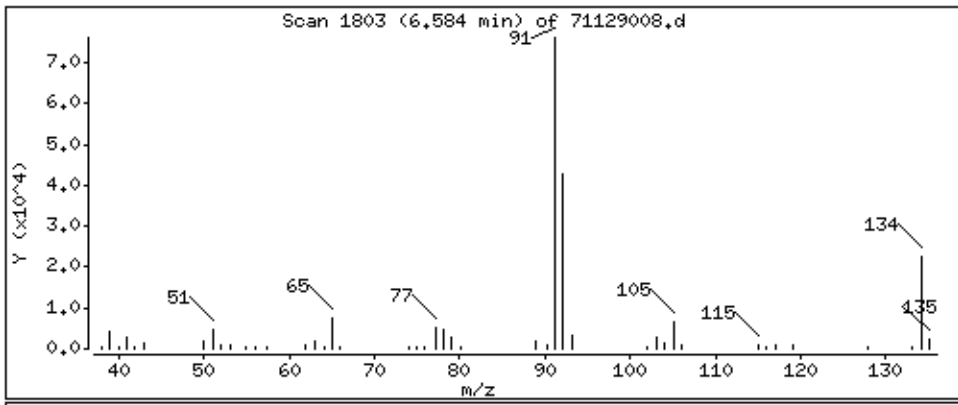
Column phase: RTX-VMS

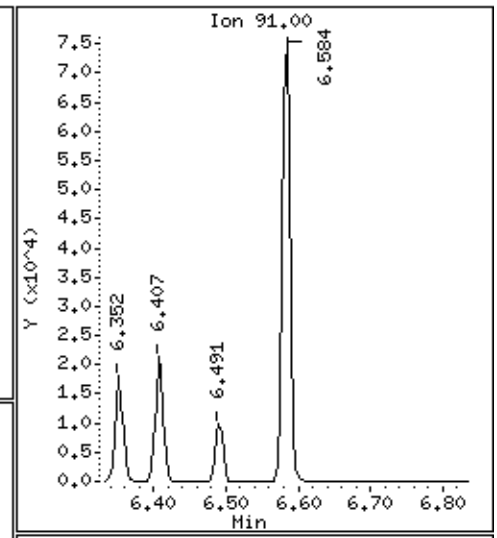
Column diameter: 0.18

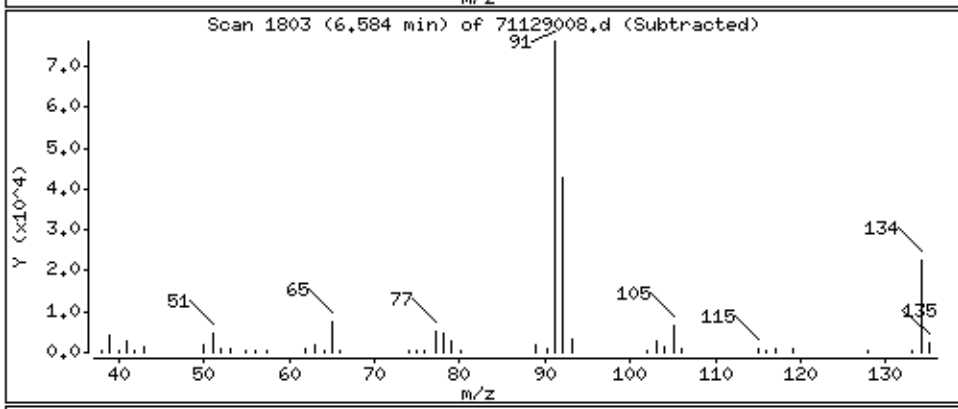
96 n-Butylbenzene

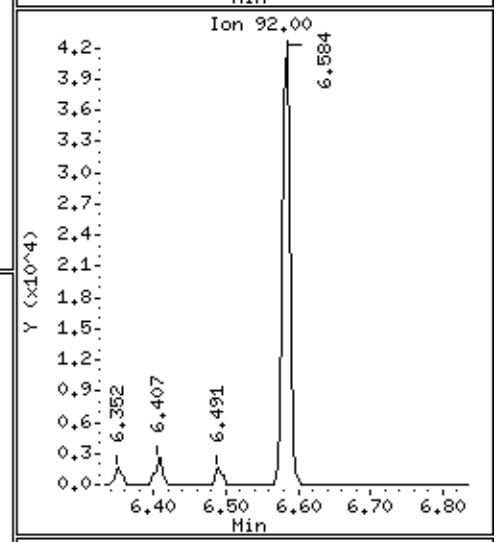
Concentration: 17.8 ug/L

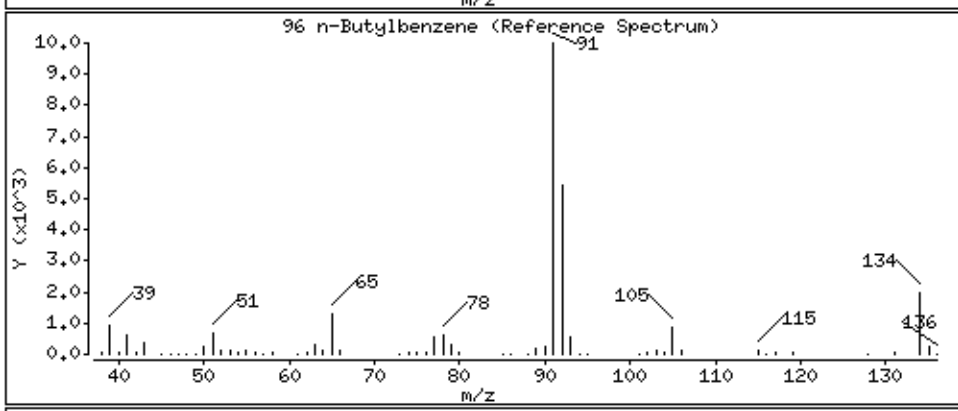
Review Code:

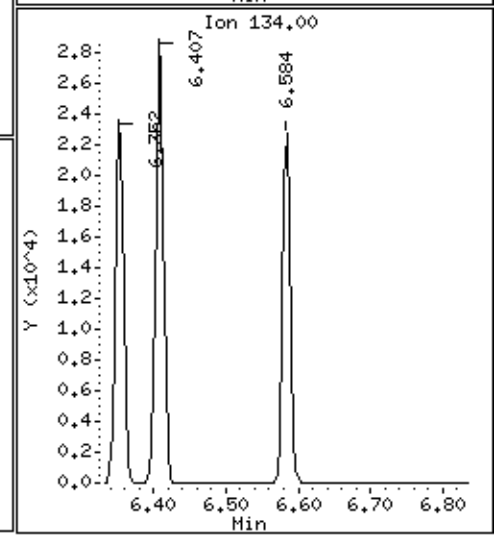


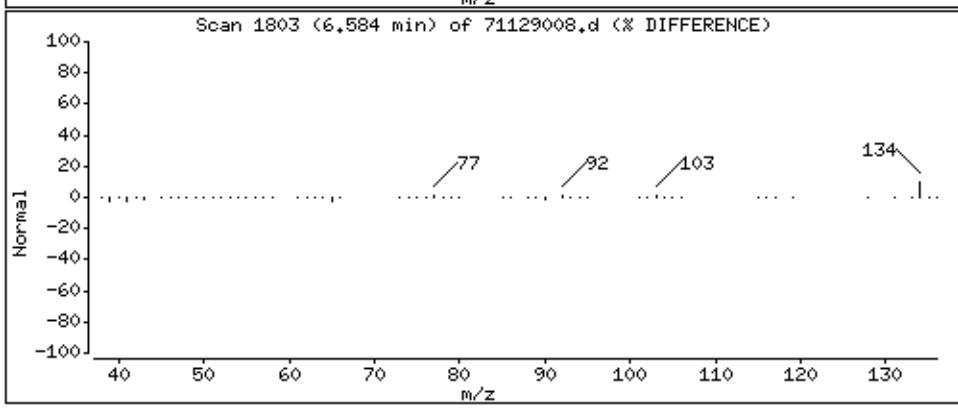












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

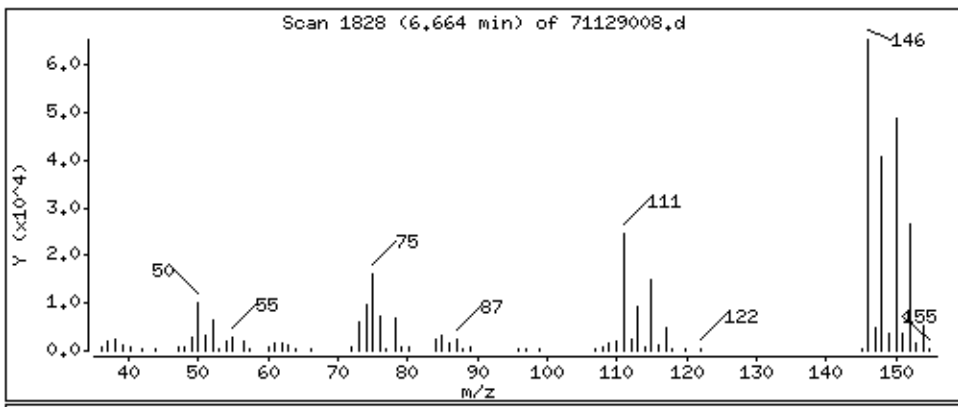
Column phase: RTX-VMS

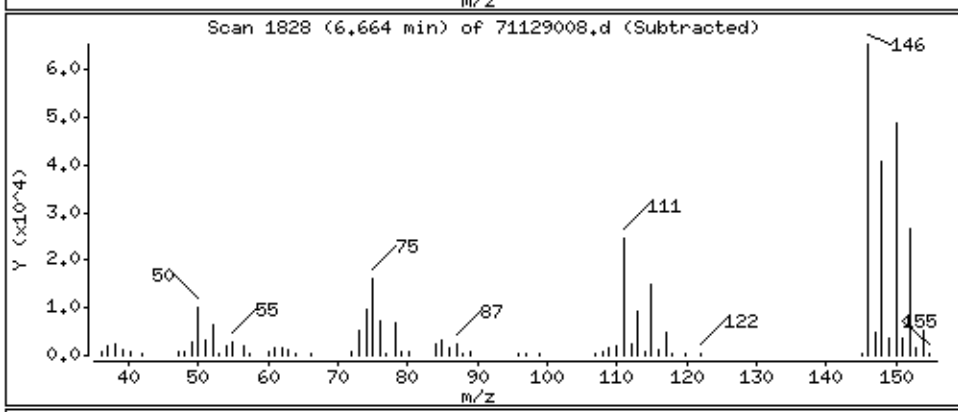
Column diameter: 0.18

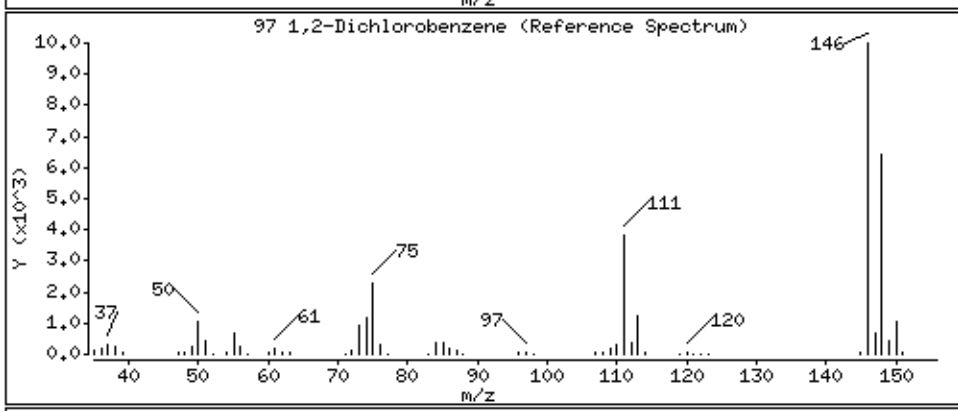
97 1,2-Dichlorobenzene

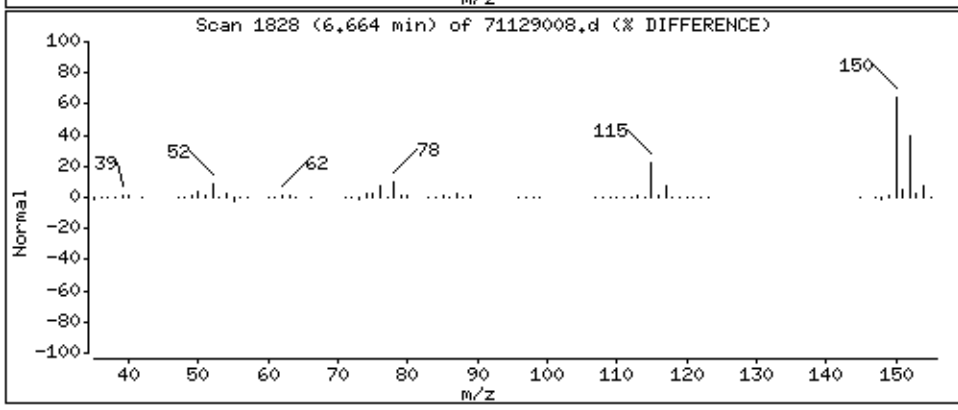
Concentration: 18.3 ug/L

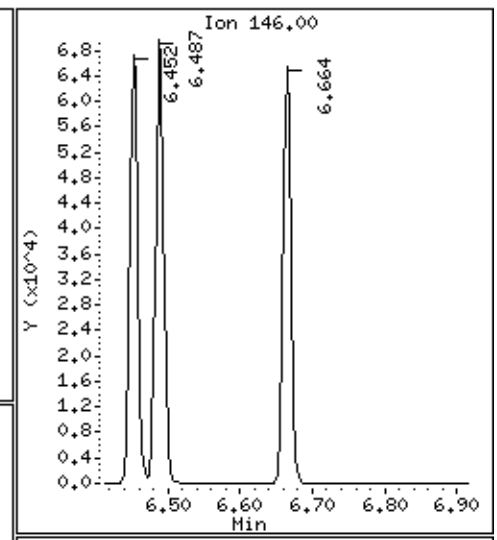
Review Code:

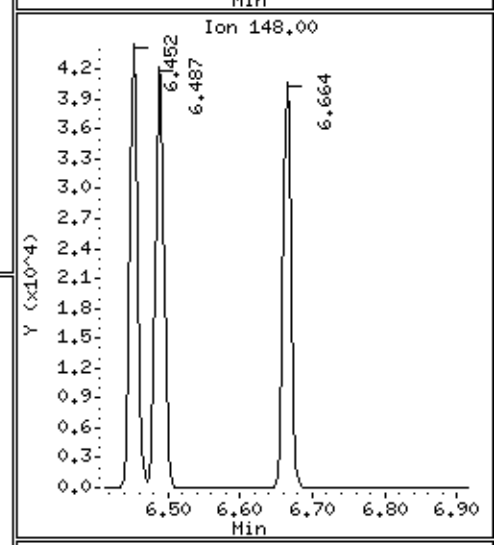


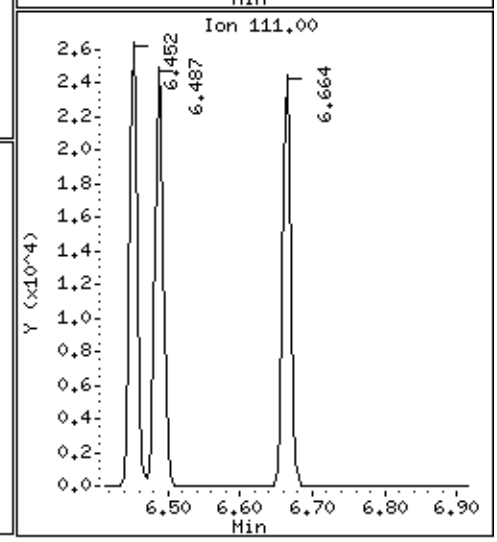












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

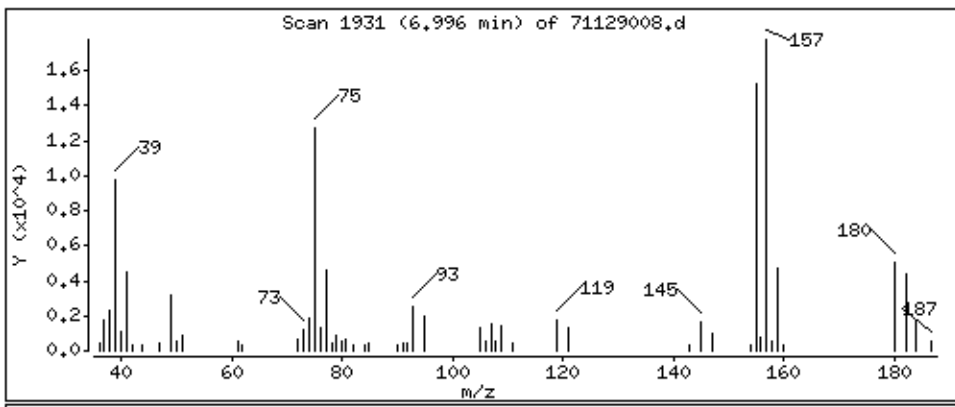
Column phase: RTX-VMS

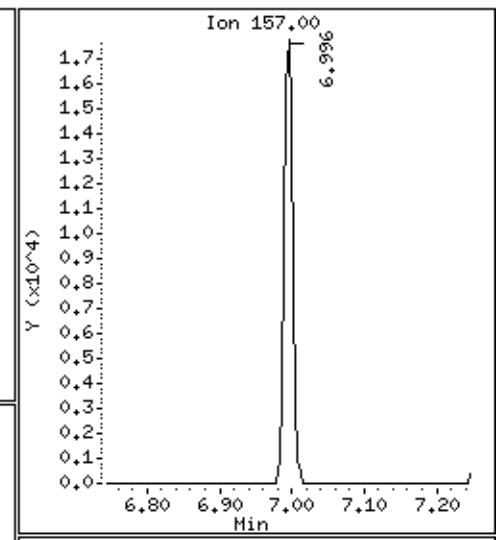
Column diameter: 0.18

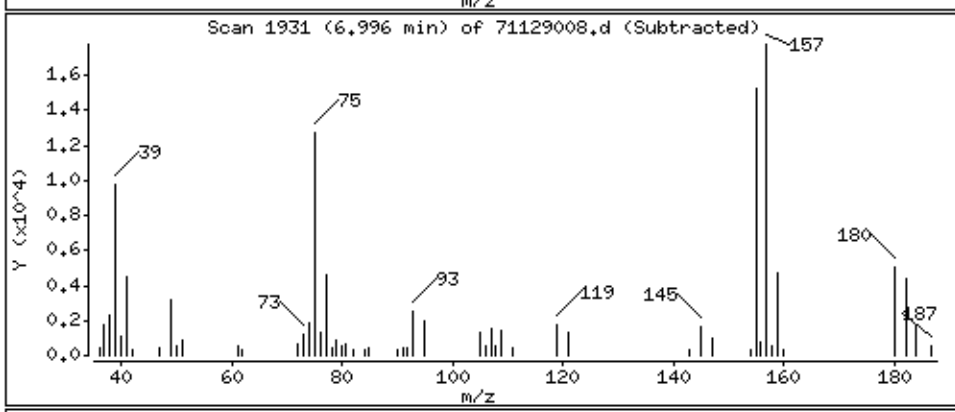
99 1,2-Dibromo-3-chloropropane

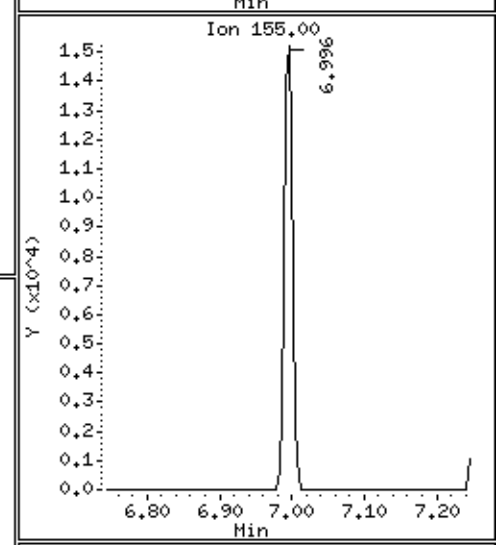
Concentration: 16.4 ug/L

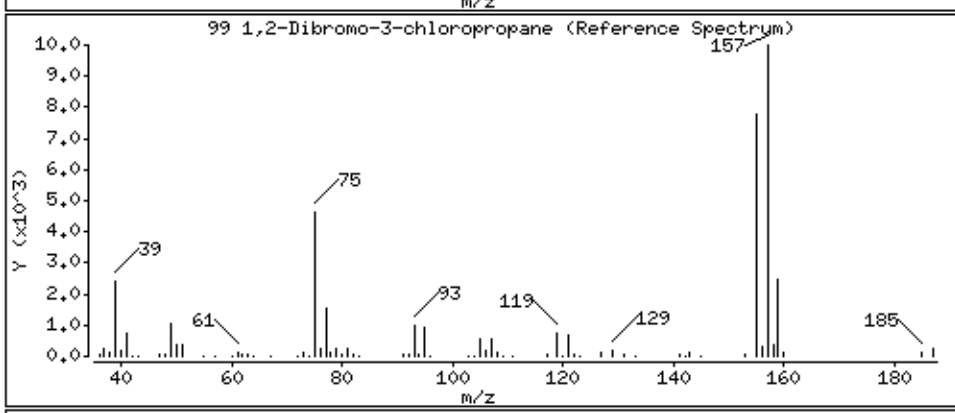
Review Code:

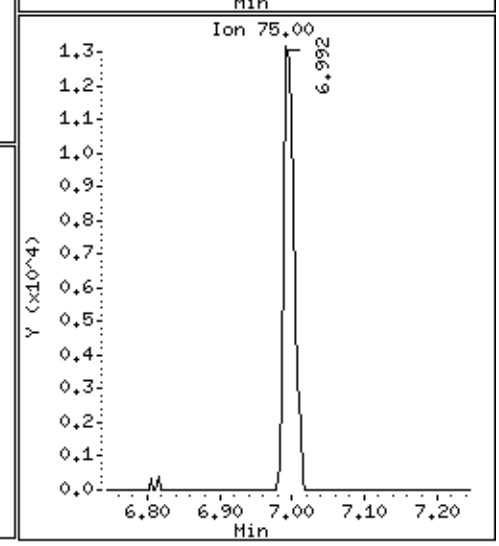


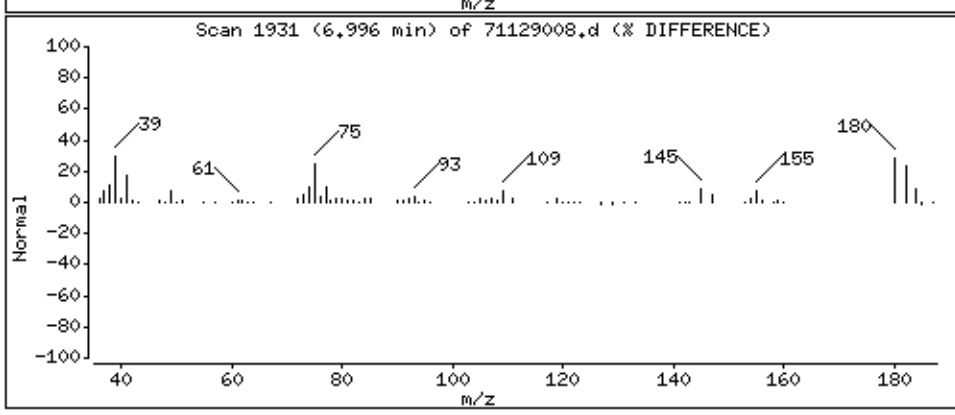












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

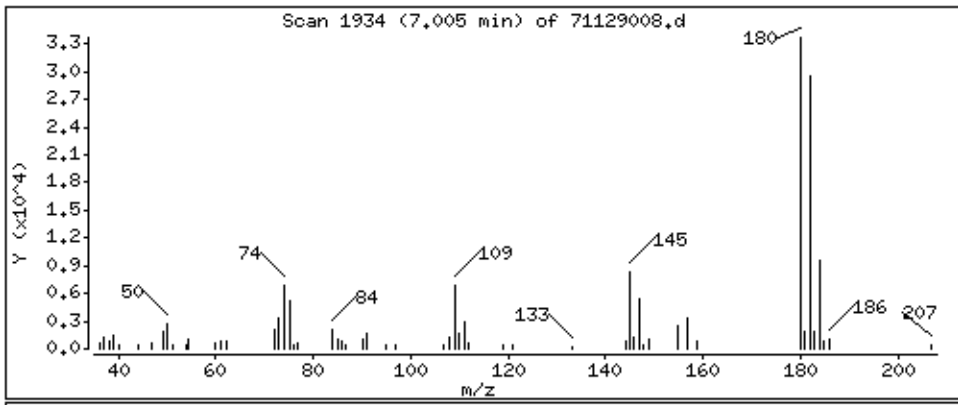
Column phase: RTX-VMS

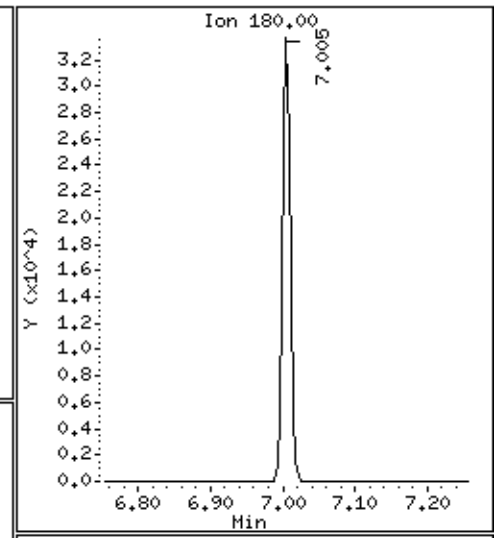
Column diameter: 0.18

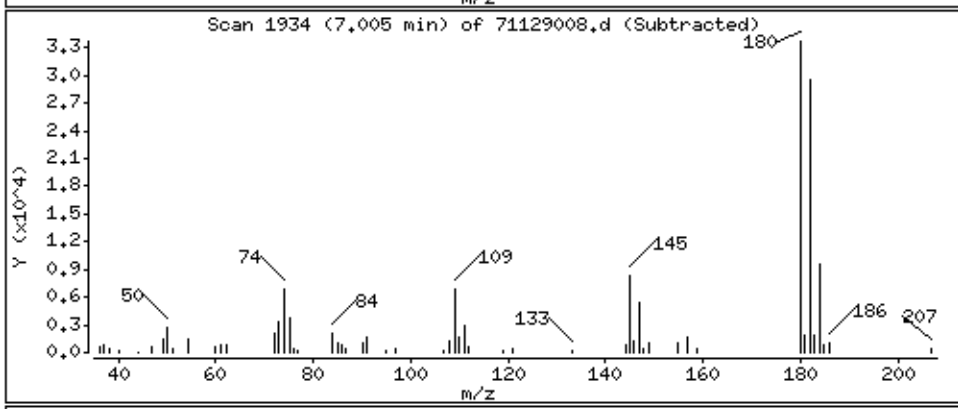
103 1,3,5-Trichlorobenzene

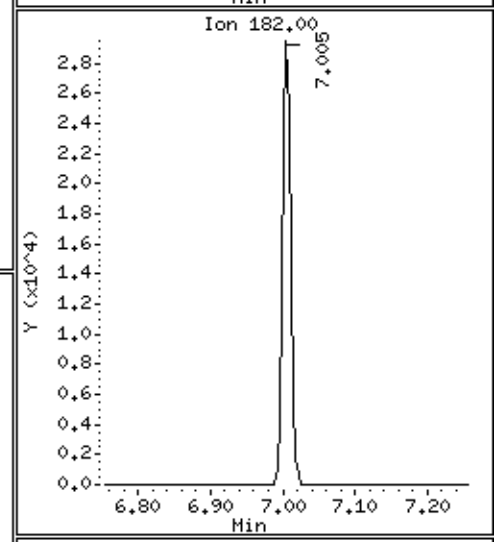
Concentration: 17.0 ug/L

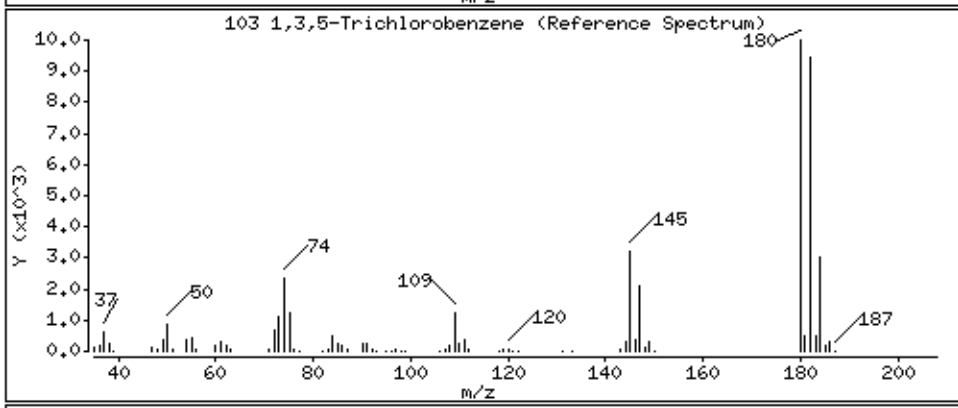
Review Code:

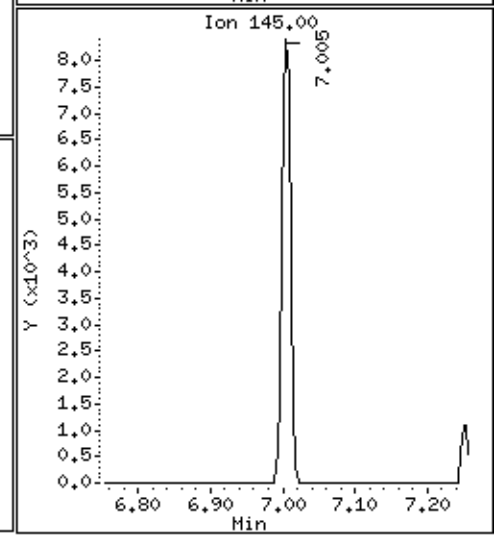


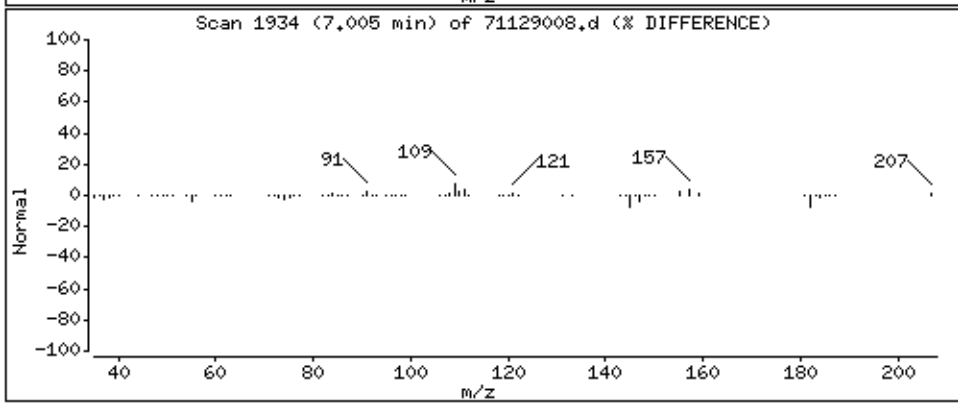












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

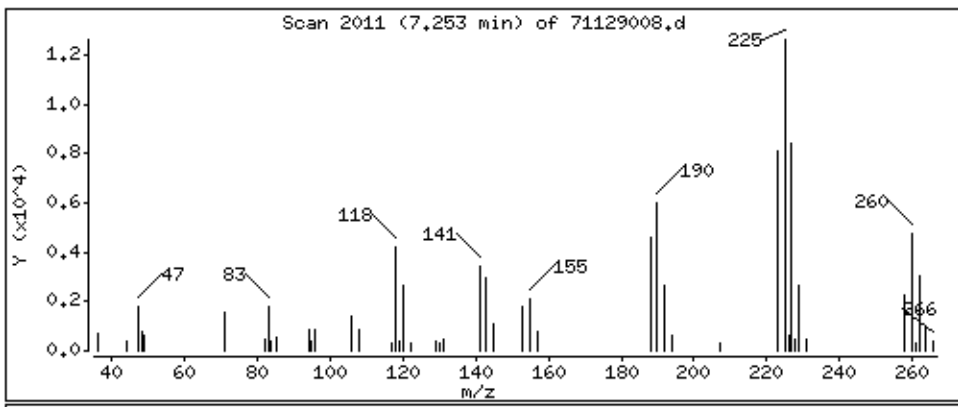
Column phase: RTX-VMS

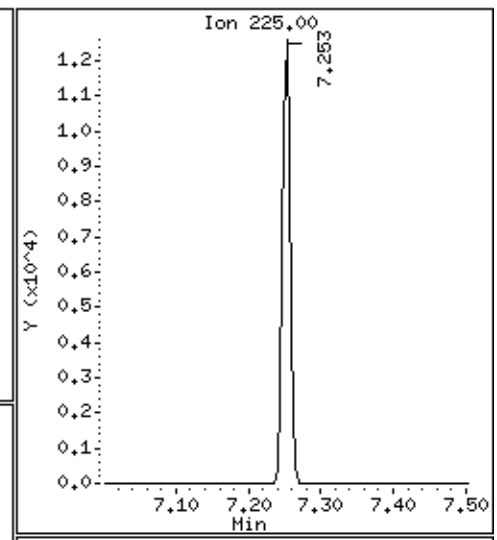
Column diameter: 0.18

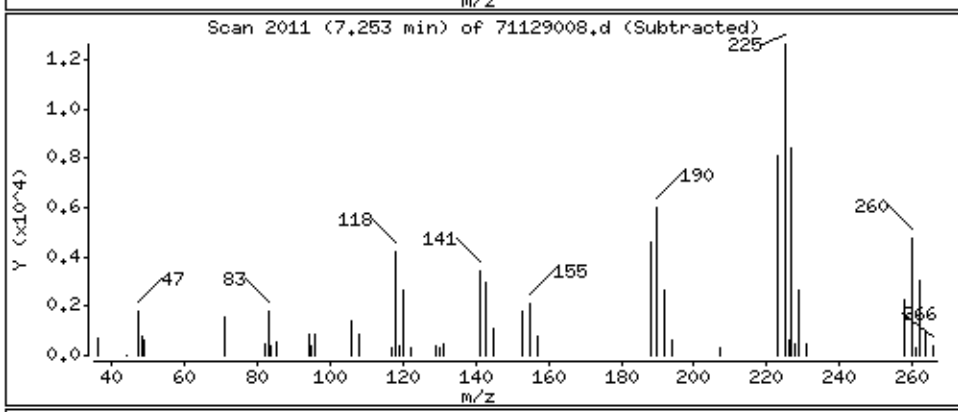
100 Hexachloro-1,3-butadiene

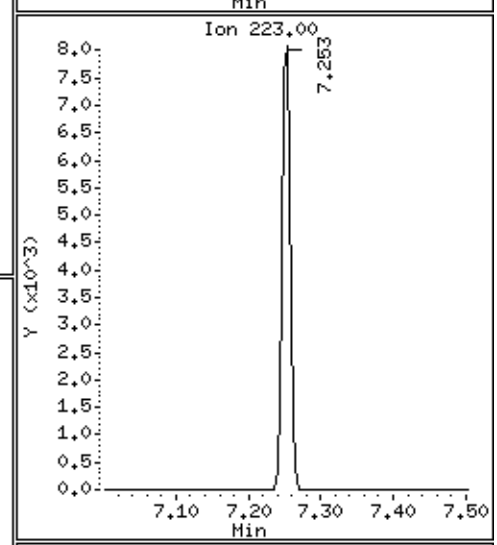
Concentration: 14.2 ug/L

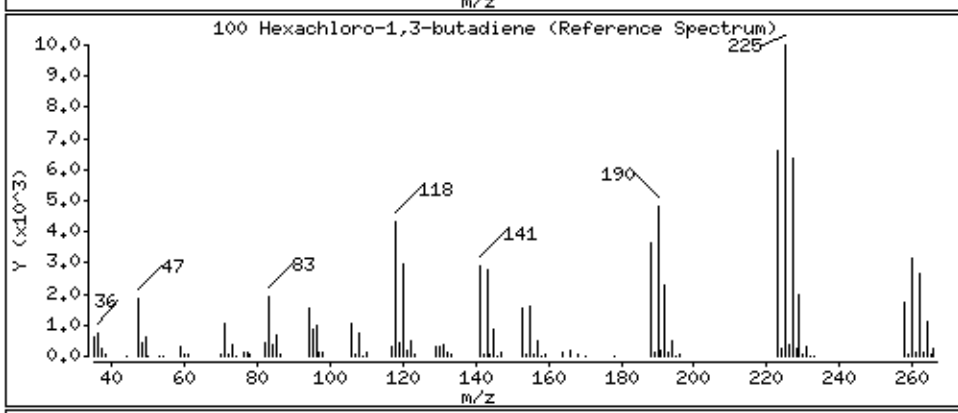
Review Code:

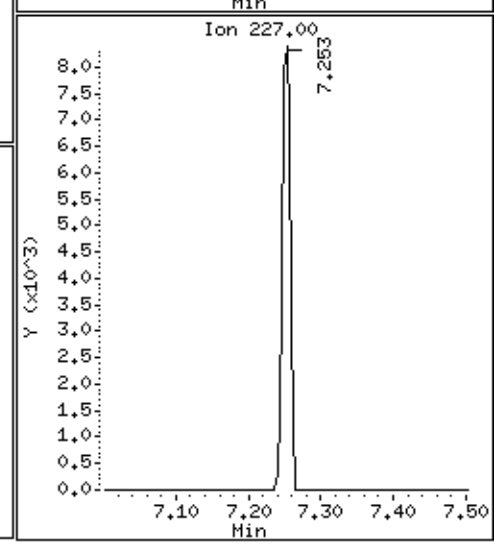


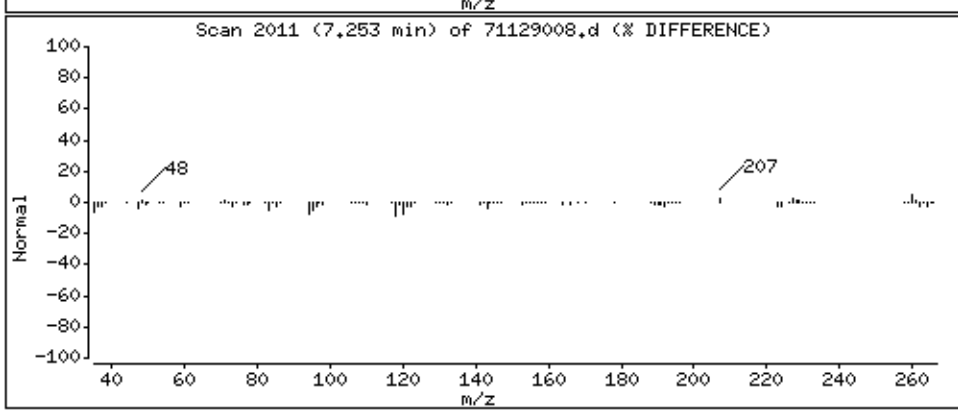












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

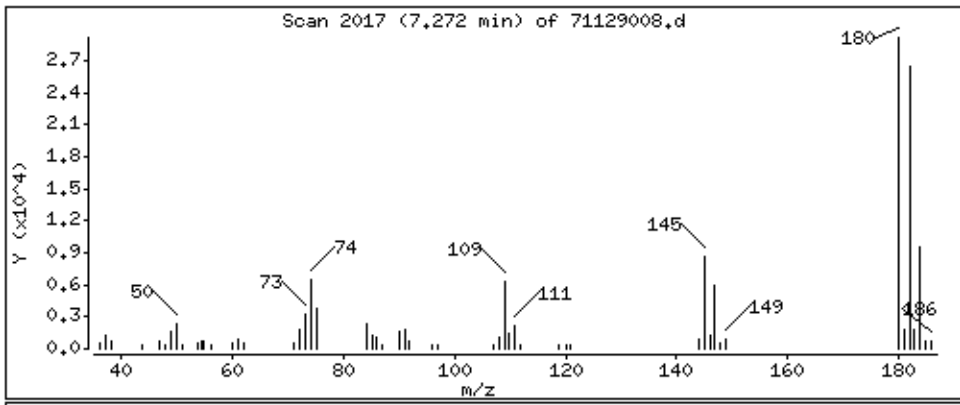
Column phase: RTX-VMS

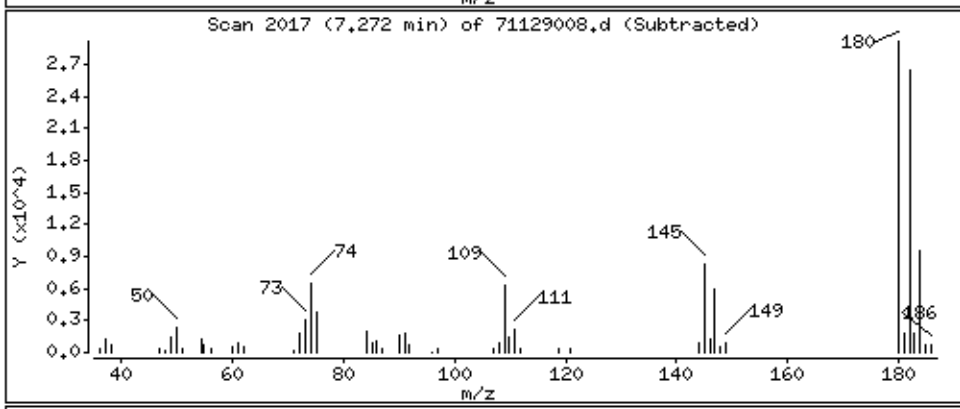
Column diameter: 0.18

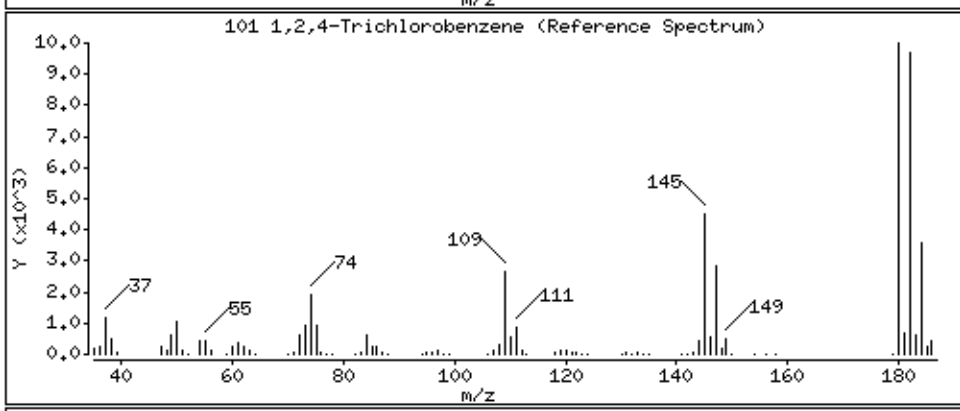
101 1,2,4-Trichlorobenzene

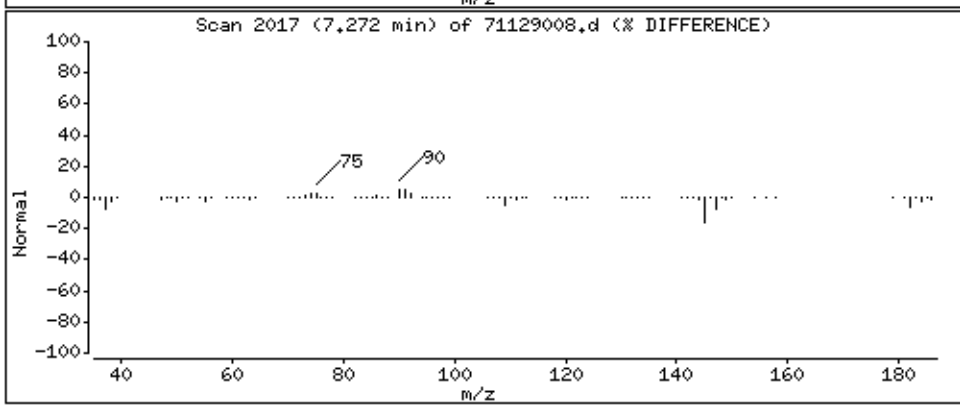
Concentration: 16.8 ug/L

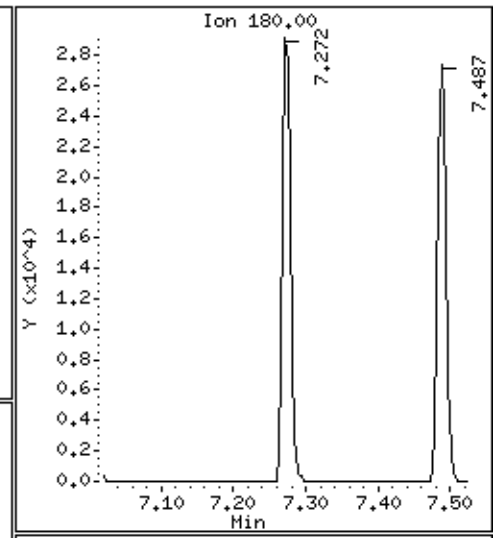
Review Code:

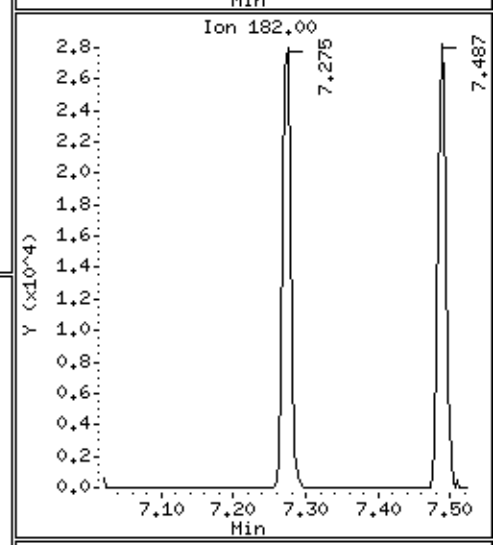


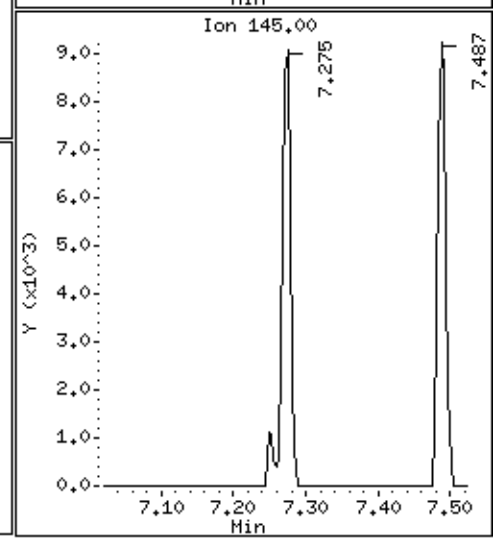












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

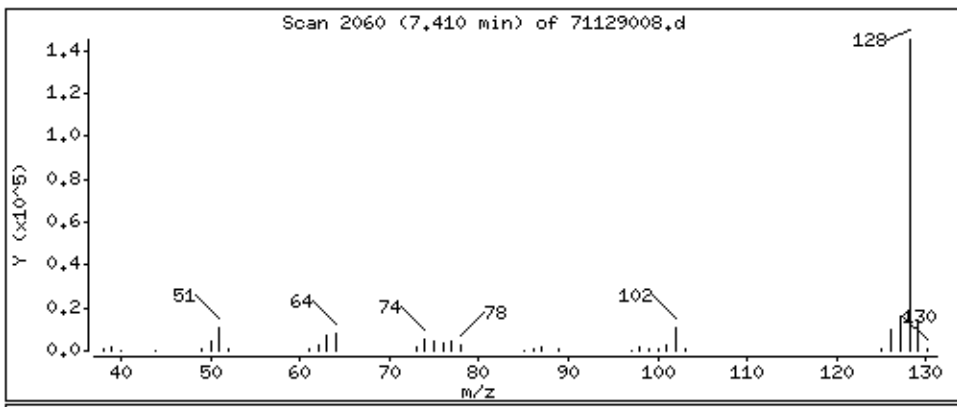
Column phase: RTX-VMS

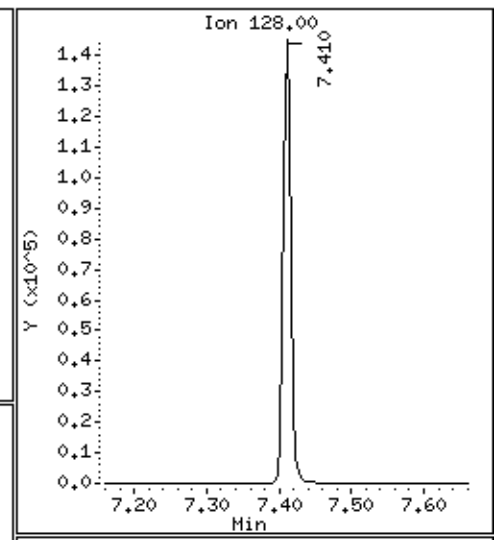
Column diameter: 0.18

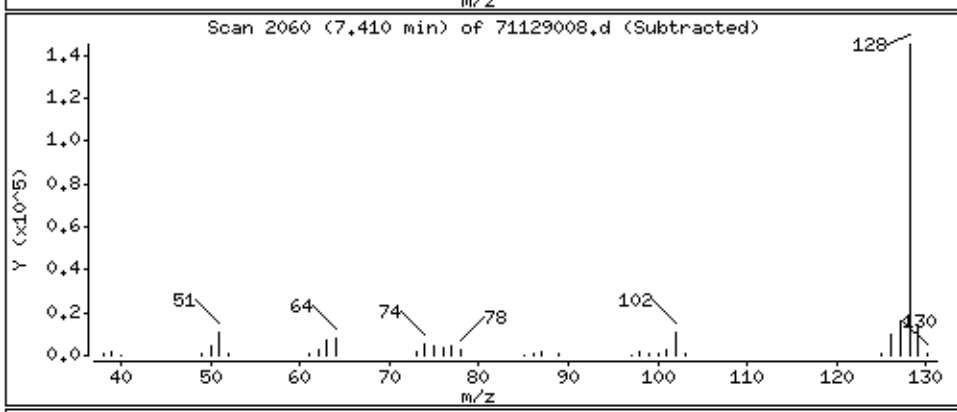
102 Naphthalene

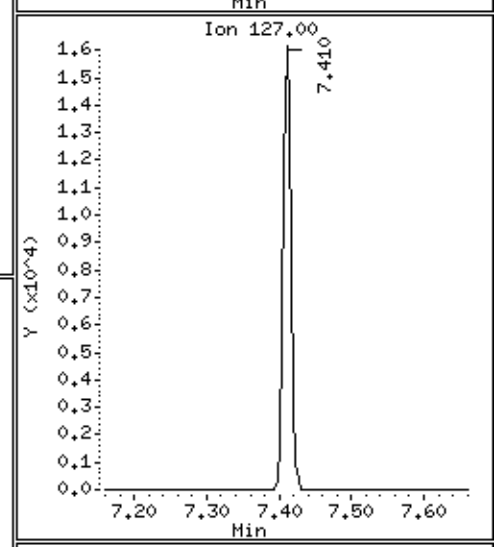
Concentration: 17.8 ug/L

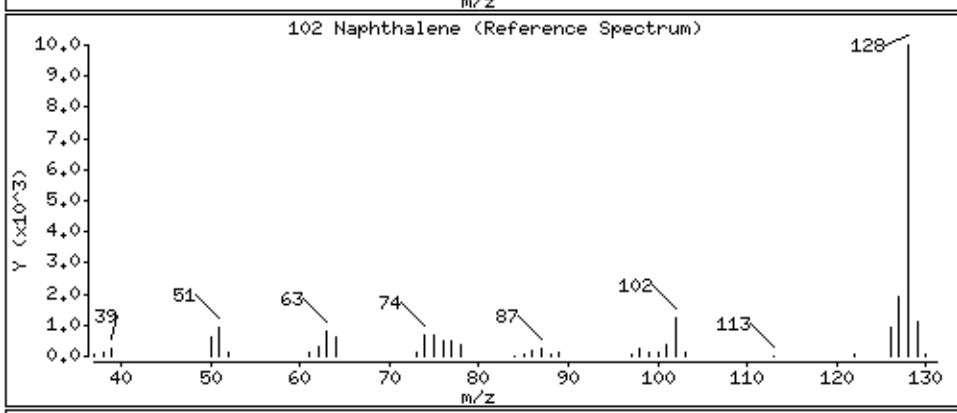
Review Code:

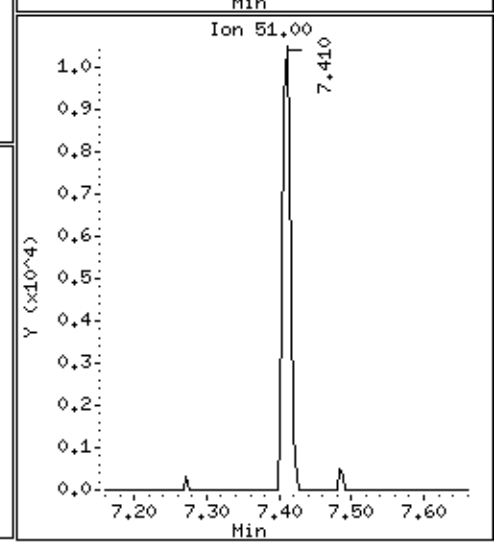


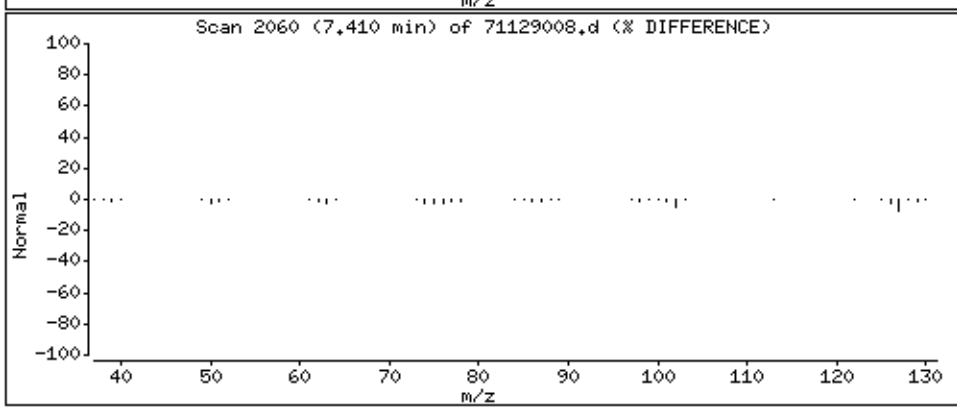












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Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

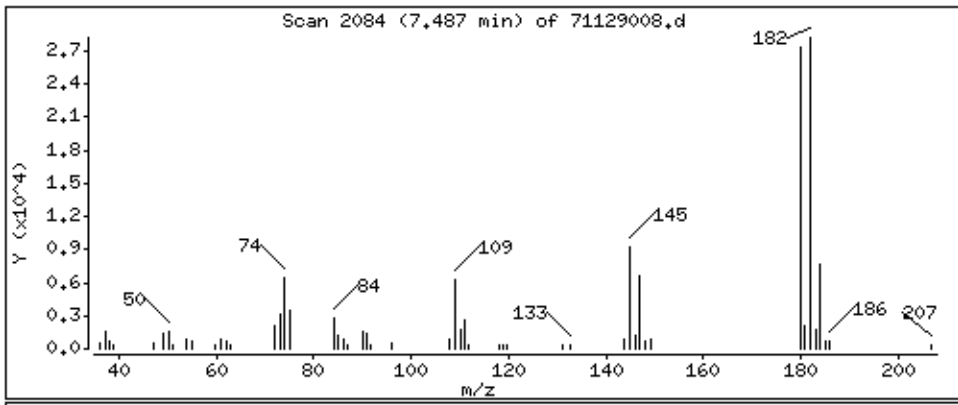
Column phase: RTX-VMS

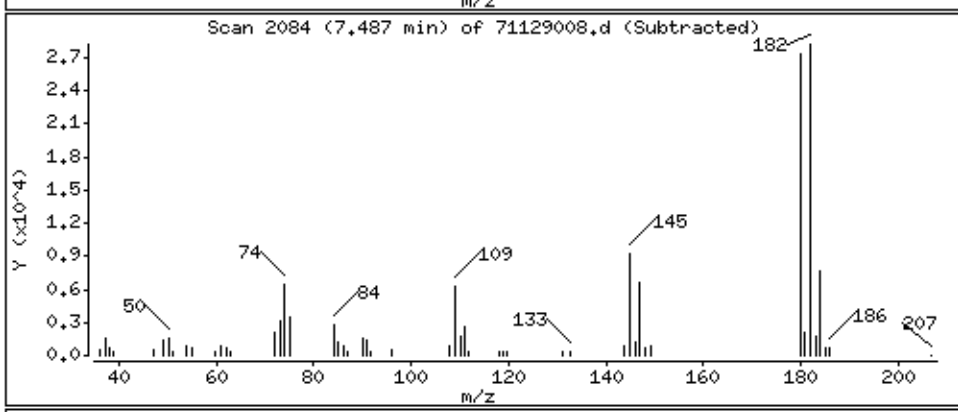
Column diameter: 0.18

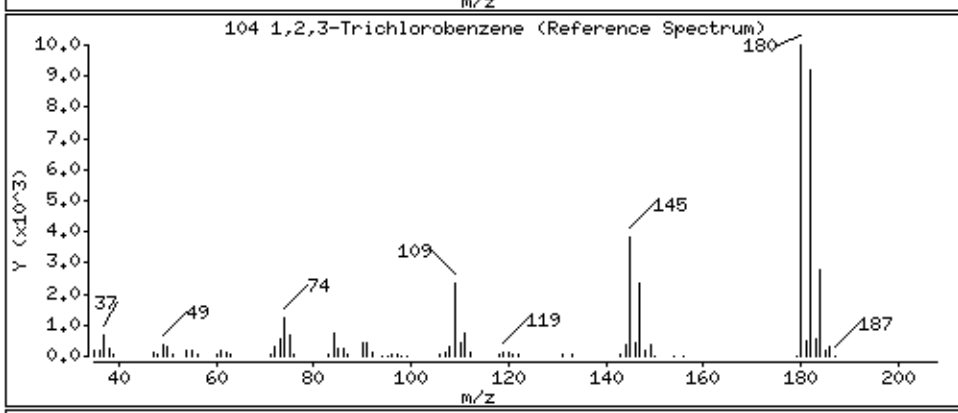
104 1,2,3-Trichlorobenzene

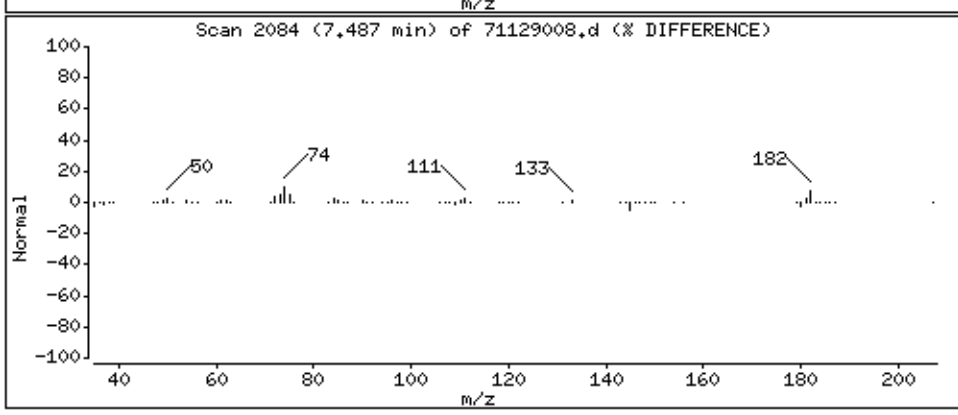
Concentration: 16.5 ug/L

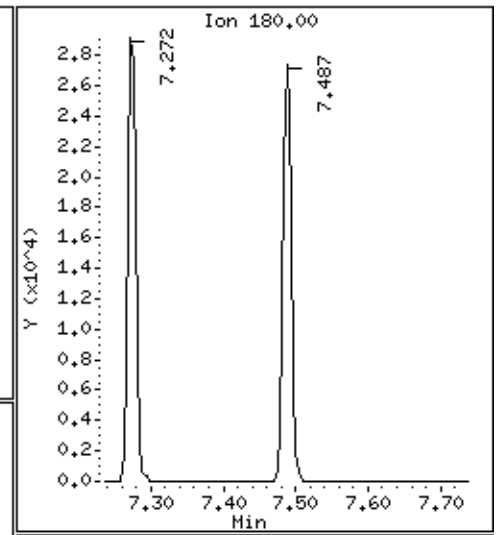
Review Code:

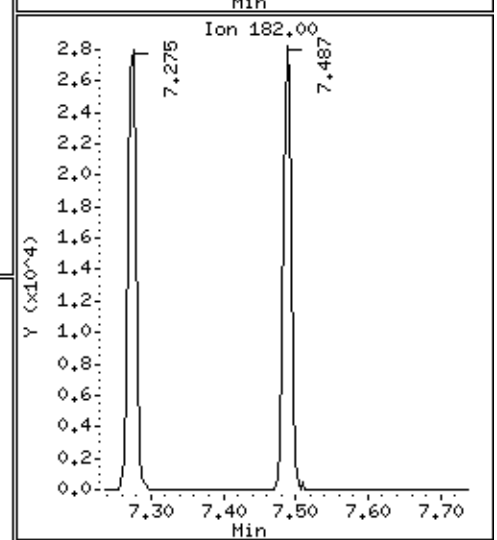


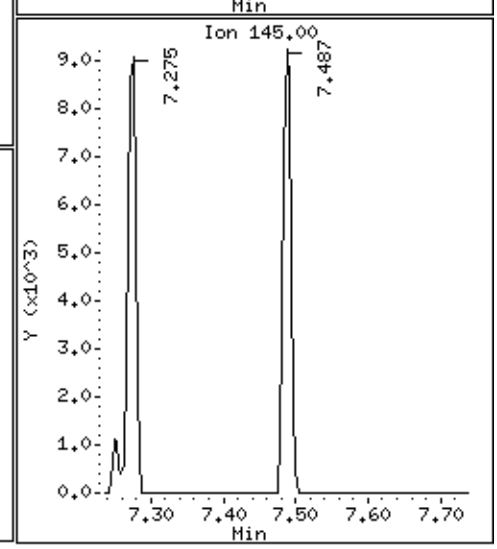












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129008.d

Date : 29-NOV-2019 09:33

Client ID: MBLCS

Instrument: 30mv7b.i

Sample Info: 1811178, 107036 :5,

Purge Volume: 5.0

Operator: LEL

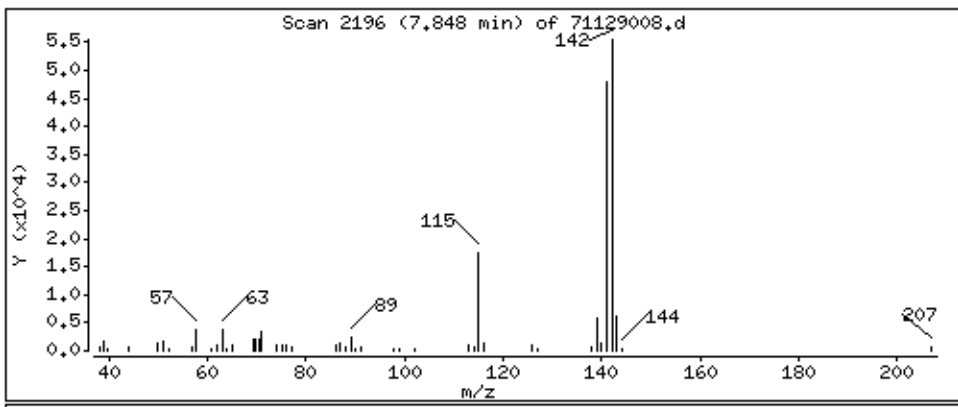
Column phase: RTX-VMS

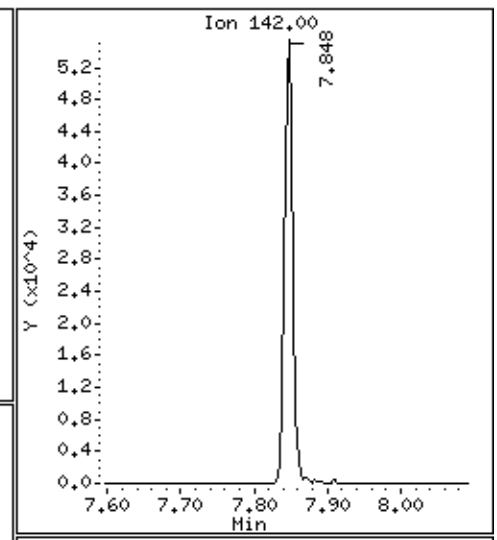
Column diameter: 0.18

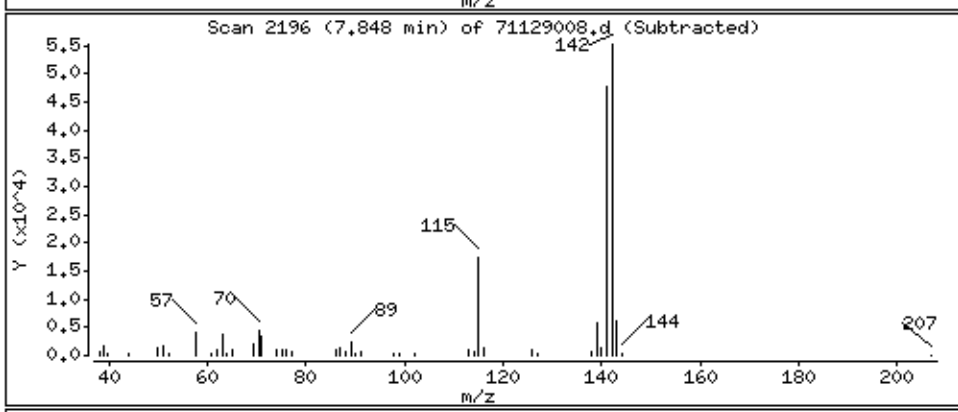
105 2-Methylnaphthalene

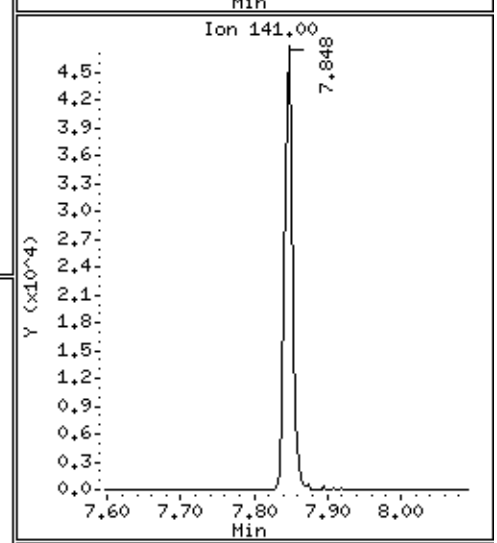
Concentration: 18.0 ug/L

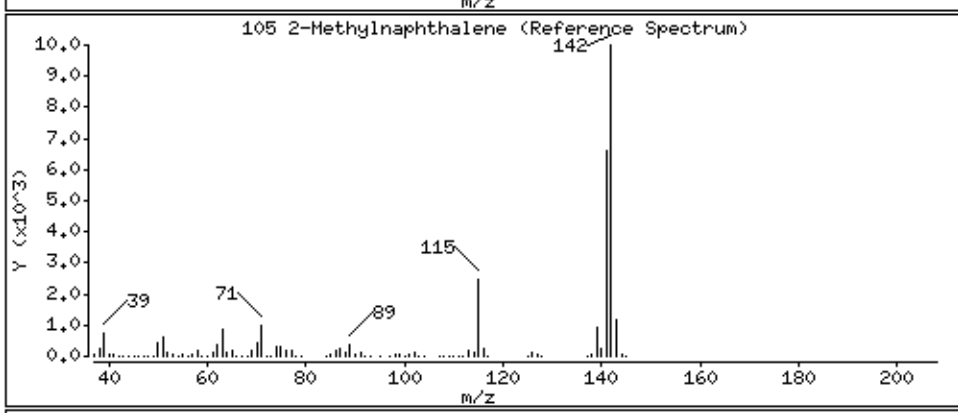
Review Code:

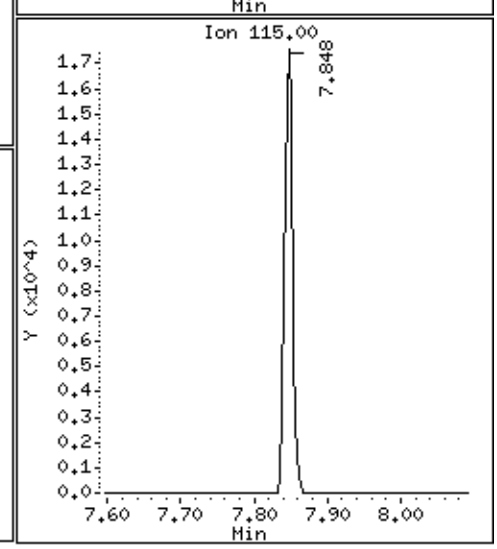


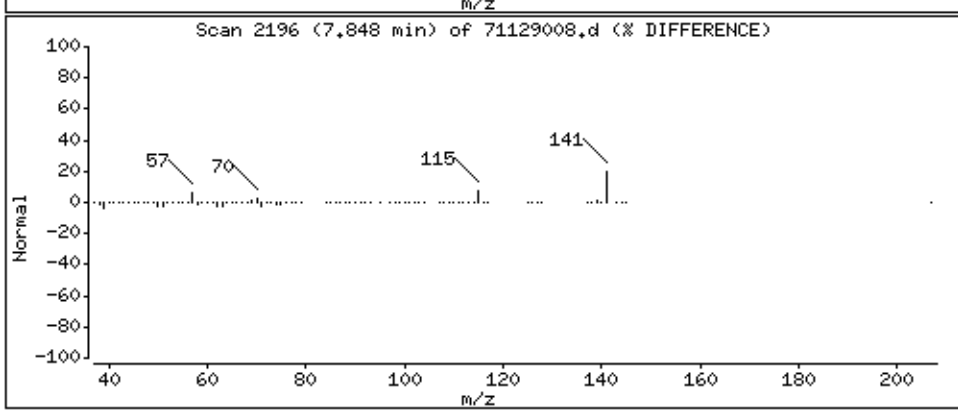












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129008.d
Injection Date: 29-NOV-2019 09:33
Instrument: 30mv7b.i
Lab Sample ID: 1811178

Compound: Methacrylonitrile Review Code: LT
CAS Number: 126-98-7

SAMPLE NO.

MS

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:12 Lab Sample ID: 1811547

Date Analyzed: 11/29/2019 16:12 Lab File ID: 7191129.B\2.B\71129040-MS.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	20.4	
71-43-2	Benzene	16.2	
108-86-1	Bromobenzene	14.3	
74-97-5	Bromochloromethane	16.9	
75-27-4	Bromodichloromethane	16.3	
75-25-2	Bromoform	12.4	
74-83-9	Bromomethane	4.7	
78-93-3	2-Butanone (MEK)	17.2	
104-51-8	n-Butylbenzene	14.3	
135-98-8	sec-Butylbenzene	15.4	
98-06-6	tert-Butylbenzene	16.2	
75-15-0	Carbon disulfide	14.0	
56-23-5	Carbon tetrachloride	17.7	
108-90-7	Chlorobenzene	16.8	
75-00-3	Chloroethane	21.7	
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	16.5	
74-87-3	Chloromethane	16.4	
95-49-8	2-Chlorotoluene	16.2	
106-43-4	4-Chlorotoluene	15.6	
96-12-8	1,2-Dibromo-3-chloropropane	13.3	
124-48-1	Dibromochloromethane	14.6	
106-93-4	1,2-Dibromoethane (EDB)	15.0	
74-95-3	Dibromomethane	15.5	
95-50-1	1,2-Dichlorobenzene	15.1	
541-73-1	1,3-Dichlorobenzene	15.6	
106-46-7	1,4-Dichlorobenzene	14.8	
75-71-8	Dichlorodifluoromethane	22.2	
75-34-3	1,1-Dichloroethane	44.5	
107-06-2	1,2-Dichloroethane	18.1	
75-35-4	1,1-Dichloroethene	67.9	
156-59-2	cis-1,2-Dichloroethene	59.9	
156-60-5	trans-1,2-Dichloroethene	18.5	
78-87-5	1,2-Dichloropropane	17.1	
142-28-9	1,3-Dichloropropane	14.5	
594-20-7	2,2-Dichloropropane	17.2	
563-58-6	1,1-Dichloropropene	16.8	

SAMPLE NO.

MS

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:12 Lab Sample ID: 1811547

Date Analyzed: 11/29/2019 16:12 Lab File ID: 7191129.B\2.B\71129040-MS.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	15.2	
10061-02-6	trans-1,3-Dichloropropene	15.5	
100-41-4	Ethylbenzene	16.5	
87-68-3	Hexachloro-1,3-butadiene	11.8	
591-78-6	2-Hexanone	18.0	
98-82-8	Isopropylbenzene (Cumene)	17.4	
99-87-6	p-Isopropyltoluene	15.7	
75-09-2	Methylene Chloride	20.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2	
1634-04-4	Methyl-tert-butyl ether	15.8	
91-20-3	Naphthalene	13.6	
103-65-1	n-Propylbenzene	15.8	
100-42-5	Styrene	16.8	
630-20-6	1,1,1,2-Tetrachloroethane	16.9	
79-34-5	1,1,2,2-Tetrachloroethane	15.2	
127-18-4	Tetrachloroethene	17.2	
108-88-3	Toluene	16.0	
87-61-6	1,2,3-Trichlorobenzene	13.3	
120-82-1	1,2,4-Trichlorobenzene	13.4	
71-55-6	1,1,1-Trichloroethane	183	
79-00-5	1,1,2-Trichloroethane	16.0	
79-01-6	Trichloroethene	317	
75-69-4	Trichlorofluoromethane	18.7	
95-63-6	1,2,4-Trimethylbenzene	15.4	
108-67-8	1,3,5-Trimethylbenzene	15.3	
108-05-4	Vinyl acetate	13.4	
75-01-4	Vinyl chloride	24.4	
1330-20-7	Xylene (Total)	47.8	
179601-23-1	m&p-Xylene	32.5	
95-47-6	o-Xylene	15.3	

Data File: ...intarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d
Lab Smp Id: 1811547 Client Smp ID: MW-04MS
Inj Date : 29-NOV-2019 16:12
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 1811547
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 40 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.844	0.841	(0.208)	39054	22.2188	22.2	
2	Chloromethane	50	0.941	0.941	(0.231)	36285	16.3601	16.4	
3	Vinyl chloride	62	0.983	0.979	(0.242)	51747	24.4066	24.4	
4	Bromomethane	94	1.140	1.140	(0.280)	3307	4.69441	4.69	
5	Chloroethane	64	1.195	1.198	(0.294)	13699	21.7196	21.7	
6	Trichlorofluoromethane	101	1.269	1.269	(0.312)	55354	18.7021	18.7	
7	Diethyl ether (Ethyl ether)	59	1.439	1.439	(0.354)	25109	16.2542	16.2	
8	Ethanol	46	1.536	1.542	(0.237)	3167	141.094	141(Q)	
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	186407	67.9013	67.9(R)	
10	1,1,2-Trichlorotrifluoroethane	151	1.568	1.571	(0.386)	24861	16.7610	16.8	
11	Carbon disulfide	76	1.568	1.568	(0.386)	64422	13.9610	14.0	
12	Iodomethane	142	1.635	1.635	(0.402)	3301	3.86720	3.87(Q)	
13	Acrolein	56	1.757	1.754	(0.432)	7431	15.6089	15.6	
14	Allyl chloride	41	1.835	1.835	(0.451)	227981	97.4174	97.4	
15	Methylene Chloride	49	1.905	1.902	(0.469)	40772	20.8430	20.8	
16	Acetone	58	1.947	1.944	(0.479)	7676	20.4211	20.4	
17	trans-1,2-Dichloroethene	61	2.011	2.008	(0.495)	43396	18.5091	18.5	
18	Methyl acetate	74	2.028	2.024	(0.499)	13075	17.5078	17.5	
19	n-Hexane	86	2.060	2.063	(0.507)	4000	14.3872	14.4	
20	Methyl-tert-butyl ether	73	2.089	2.089	(0.514)	75445	15.8427	15.8(QR)	
21	tert-Butyl Alcohol	59	2.169	2.172	(0.533)	67206	94.6645	94.7(Q)	
22	Acetonitrile	41	2.278	2.278	(0.560)	38626	98.8337	98.8	
23	Diisopropyl ether	45	2.378	2.375	(0.585)	99307	19.3491	19.3	

Data File: ...intarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d
Report Date: 02-Dec-2019 10:32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	2.452	2.452	(0.603)	34874	19.5829	19.6	
	25 1,1-Dichloroethane	63	2.471	2.471	(0.608)	128796	44.5353	44.5(R)	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	23113	19.0085	19.0	
	27 Ethyl-tert-butyl ether	59	2.690	2.687	(0.662)	85319	17.4223	17.4	
	28 Vinyl acetate	43	2.712	2.706	(0.667)	59720	13.3822	13.4(R)	
	29 cis-1,2-Dichloroethene	61	2.960	2.957	(0.728)	132401	59.8883	59.9(R)	
	30 2,2-Dichloropropane	77	3.063	3.066	(0.753)	37969	17.1946	17.2	
	31 Cyclohexane	56	3.146	3.146	(0.774)	48697	18.5113	18.5	
	32 Bromochloromethane	130	3.166	3.159	(0.779)	18618	16.9318	16.9	
	33 Chloroform	83	3.253	3.246	(0.800)	46076	16.4886	16.5	
	34 Ethyl acetate	43	3.417	3.407	(0.840)	25903	17.1568	17.2(Q)	
	35 Carbon tetrachloride	117	3.365	3.365	(0.828)	39844	17.7381	17.7	
	36 Tetrahydrofuran	42	3.417	3.407	(0.840)	29568	22.8038	22.8	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	47176	31.7856	31.8	
	38 1,1,1-Trichloroethane	97	3.442	3.439	(0.847)	441023	183.493	183(R)	
	39 2-Butanone (MEK)	43	3.590	3.584	(0.883)	33712	17.1519	17.2	
	40 1,1-Dichloropropene	75	3.577	3.571	(0.880)	36843	16.7830	16.8	
	41 Benzene	78	3.783	3.780	(0.930)	104235	16.1796	16.2	
	42 Propionitrile	54	3.825	3.822	(0.941)	9014	19.1980	19.2(Q)	
	43 Methacrylonitrile	41	3.835	3.831	(0.943)	26763	17.6049	17.6	
	44 tert-Amylmethyl ether	73	3.889	3.886	(0.957)	63845	15.5351	15.5	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	50451	33.0415	33.0(Q)	
	45 Isobutanol	43	3.995	3.992	(0.983)	18739	94.2737	94.3(Q)	
	47 1,2-Dichloroethane	62	3.931	3.931	(0.967)	36773	18.1012	18.1	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	171682	30.0000		
	49 Methylcyclohexane	55	4.146	4.150	(1.020)	29133	18.8516	18.8(Q)	
	50 Trichloroethene	132	4.166	4.162	(1.025)	588074	317.339	317(R)	
	51 Dibromomethane	174	4.384	4.384	(1.078)	19839	15.5143	15.5	
	52 1,2-Dichloropropane	63	4.433	4.433	(1.090)	25998	17.1435	17.1	
	53 Bromodichloromethane	83	4.468	4.468	(1.099)	28404	16.3463	16.3	
	54 Methyl methacrylate	69	4.552	4.551	(1.119)	20655	15.4647	15.5	
	55 1,4-Dioxane (p-Dioxane)	88	4.577	4.568	(1.126)	4583	159.145	159	
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	4.748	4.744	(1.168)	32801	15.2236	15.2	
$	58 Toluene-d8 (S)	98	4.822	4.822	(0.875)	150454	28.2828	28.3	
	59 Toluene	91	4.847	4.844	(0.879)	109241	16.0185	16.0	
	60 2-Nitropropane	43	4.957	4.957	(1.219)	78161	94.3641	94.4	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	52737	19.2029	19.2	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	32221	17.1701	17.2	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	32137	15.4612	15.5	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	24966	17.5894	17.6	
	65 1,1,2-Trichloroethane	97	5.111	5.111	(0.927)	24251	16.0105	16.0	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	24454	14.6156	14.6	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	36900	14.4941	14.5(R)	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	26137	15.0297	15.0	
	69 2-Hexanone	43	5.391	5.391	(0.978)	44091	17.9977	18.0	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	118259	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	35437	16.5383	16.5	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	68571	16.8372	16.8	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	25519	16.9059	16.9	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	84340	32.4805	32.5	
	75 o-Xylene	106	5.770	5.770	(1.047)	38596	15.3269	15.3	
	76 Styrene	104	5.793	5.793	(1.051)	64168	16.8206	16.8	
	77 Bromoform	173	5.809	5.809	(0.896)	16357	12.3903	12.4	

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Report Date: 02-Dec-2019 10:32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	92824	17.3633	17.4	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	46987	28.4456	28.4	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	93840	15.7875	15.8	
	81 Bromobenzene	77	6.066	6.066	(0.936)	37264	14.2516	14.2	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	34229	15.2423	15.2	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	63296	15.3234	15.3	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	22741	16.2266	16.2	
	85 1,2,3-Trichloropropane	110	6.159	6.159	(0.950)	12464	15.5844	15.6	
	86 trans-1,4-Dichloro-2-butene	53	6.172	6.172	(0.952)	6965	9.63063	9.63	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	11932	54.8566	54.8	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	23125	15.5892	15.6	
	89 tert-Butylbenzene	119	6.281	6.278	(0.969)	54167	16.1839	16.2	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	62945	15.3528	15.4	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	69048	15.4242	15.4	
	92 p-Isopropyltoluene	119	6.407	6.407	(0.989)	59496	15.6979	15.7	
	93 1,3-Dichlorobenzene	146	6.452	6.452	(0.996)	40054	15.5803	15.6	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	52995	30.0000		
	95 1,4-Dichlorobenzene	146	6.487	6.487	(1.001)	40877	14.8268	14.8	
	96 n-Butylbenzene	91	6.584	6.584	(1.016)	41992	14.3003	14.3	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	24107	29.8345	29.8	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	37813	15.0733	15.1	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	10941	13.3093	13.3	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	18548	13.7255	13.7(R)	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	7229	11.7878	11.8	
	101 1,2,4-Trichlorobenzene	180	7.272	7.272	(1.122)	16758	13.4289	13.4	
	102 Naphthalene	128	7.410	7.410	(1.143)	74860	13.5780	13.6	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	16493	13.2538	13.2	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	28727	12.4847	12.5	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Review Codes Legend

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Data File: ...intarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 1811547
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-04MS
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	22.2	
74-87-3	Chloromethane	16.4	
75-01-4	Vinyl chloride	24.4	
74-83-9	Bromomethane	4.69	
75-00-3	Chloroethane	21.7	
75-69-4	Trichlorofluoromethane	18.7	
60-29-7	Diethyl ether (Ethyl ether)	16.2	
64-17-5	Ethanol	141	
75-35-4	1,1-Dichloroethene	67.9	
76-13-1	1,1,2-Trichlorotrifluoroetha	16.8	
75-15-0	Carbon disulfide	14.0	
74-88-4	Iodomethane	3.87	
107-02-8	Acrolein	15.6	
107-05-1	Allyl chloride	97.4	
75-09-2	Methylene Chloride	20.8	
67-64-1	Acetone	20.4	
156-60-5	trans-1,2-Dichloroethene	18.5	
79-20-9	Methyl acetate	17.5	
110-54-3	n-Hexane	14.4	
1634-04-4	Methyl-tert-butyl ether	15.8	
75-65-0	tert-Butyl Alcohol	94.7	
75-05-8	Acetonitrile	98.8	
108-20-3	Diisopropyl ether	19.3	
126-99-8	Chloroprene	19.6	
75-34-3	1,1-Dichloroethane	44.5	
107-13-1	Acrylonitrile	19.0	
637-92-3	Ethyl-tert-butyl ether	17.4	
108-05-4	Vinyl acetate	13.4	
156-59-2	cis-1,2-Dichloroethene	59.9	
594-20-7	2,2-Dichloropropane	17.2	
110-82-7	Cyclohexane	18.5	
74-97-5	Bromochloromethane	16.9	
67-66-3	Chloroform	16.5	
141-78-6	Ethyl acetate	17.2	
56-23-5	Carbon tetrachloride	17.7	
109-99-9	Tetrahydrofuran	22.8	
71-55-6	1,1,1-Trichloroethane	183	
78-93-3	2-Butanone (MEK)	17.2	
563-58-6	1,1-Dichloropropene	16.8	
71-43-2	Benzene	16.2	
107-12-0	Propionitrile	19.2	
126-98-7	Methacrylonitrile	17.6	

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Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 1811547
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-04MS
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	15.5	
78-83-1	Isobutanol	94.3	
107-06-2	1,2-Dichloroethane	18.1	
108-87-2	Methylcyclohexane	18.8	
79-01-6	Trichloroethene	317	
74-95-3	Dibromomethane	15.5	
78-87-5	1,2-Dichloropropane	17.1	
75-27-4	Bromodichloromethane	16.3	
80-62-6	Methyl methacrylate	15.5	
123-91-1	1,4-Dioxane (p-Dioxane)	159	
10061-01-5	cis-1,3-Dichloropropene	15.2	
108-88-3	Toluene	16.0	
79-46-9	2-Nitropropane	94.4	
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2	
127-18-4	Tetrachloroethene	17.2	
10061-02-6	trans-1,3-Dichloropropene	15.5	
97-63-2	Ethyl methacrylate	17.6	
79-00-5	1,1,2-Trichloroethane	16.0	
124-48-1	Dibromochloromethane	14.6	
142-28-9	1,3-Dichloropropane	14.5	
106-93-4	1,2-Dibromoethane (EDB)	15.0	
591-78-6	2-Hexanone	18.0	
100-41-4	Ethylbenzene	16.5	
108-90-7	Chlorobenzene	16.8	
630-20-6	1,1,1,2-Tetrachloroethane	16.9	
7816-60-0	m&p-Xylene	32.5	
95-47-6	o-Xylene	15.3	
100-42-5	Styrene	16.8	
75-25-2	Bromoform	12.4	
98-82-8	Isopropylbenzene (Cumene)	17.4	
103-65-1	n-Propylbenzene	15.8	
108-86-1	Bromobenzene	14.2	
79-34-5	1,1,2,2-Tetrachloroethane	15.2	
108-67-8	1,3,5-Trimethylbenzene	15.3	
95-49-8	2-Chlorotoluene	16.2	
96-18-4	1,2,3-Trichloropropane	15.6	
110-57-6	trans-1,4-Dichloro-2-butene	9.63	
108-94-1	Cyclohexanone	54.8	
106-43-4	4-Chlorotoluene	15.6	
98-06-6	tert-Butylbenzene	16.2	
95-63-6	1,2,4-Trimethylbenzene	15.4	
135-98-8	sec-Butylbenzene	15.4	

Data File: ...intarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d
Report Date: 02-Dec-2019 10:32

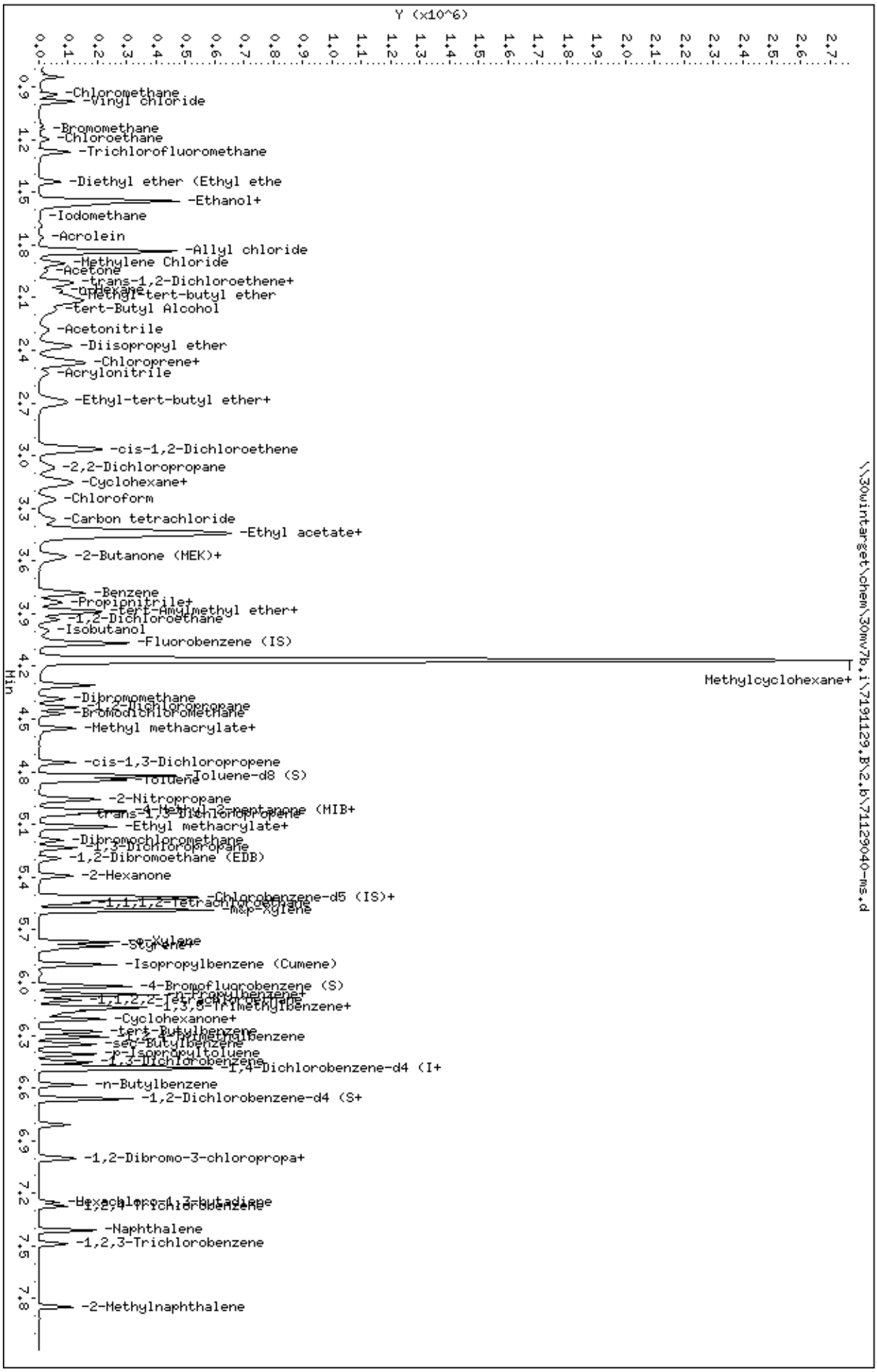
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 1811547
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-04MS
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
99-87-6	p-Isopropyltoluene	15.7	
541-73-1	1,3-Dichlorobenzene	15.6	
106-46-7	1,4-Dichlorobenzene	14.8	
104-51-8	n-Butylbenzene	14.3	
95-50-1	1,2-Dichlorobenzene	15.1	
96-12-8	1,2-Dibromo-3-chloropropane	13.3	
108-70-3	1,3,5-Trichlorobenzene	13.7	
87-68-3	Hexachloro-1,3-butadiene	11.8	
120-82-1	1,2,4-Trichlorobenzene	13.4	
91-20-3	Naphthalene	13.6	
87-61-6	1,2,3-Trichlorobenzene	13.2	
91-57-6	2-Methylnaphthalene	12.5	
1868-53-7	Dibromofluoromethane (S)	31.8	
17060-07-0	1,2-Dichloroethane-d4 (S)	33.0	
2037-26-5	Toluene-d8 (S)	28.3	
460-00-4	4-Bromofluorobenzene (S)	28.4	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.8	


Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d
Date : 29-NOV-2019 16:12
Client ID: MW-04MS
Sample Info: 1811547
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d
Y (x10^6)
Min
-Chloromethane
-Vinyl chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane
-Methyl-tert-butyl ether
-tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Propionitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
Methylcyclohexane+
-Dibromomethane
-1,2-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-cis-1,3-Dichloropropene
-Toluene-d8 (S)
-Toluene
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
trans-1,3-Dichloropropene
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
-o-Xylene
-Styrene+
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,3,5-Trimethylbenzene+
-Cyclohexanone+
-tert-Butylbenzene
-2-Chlorotoluene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene
-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

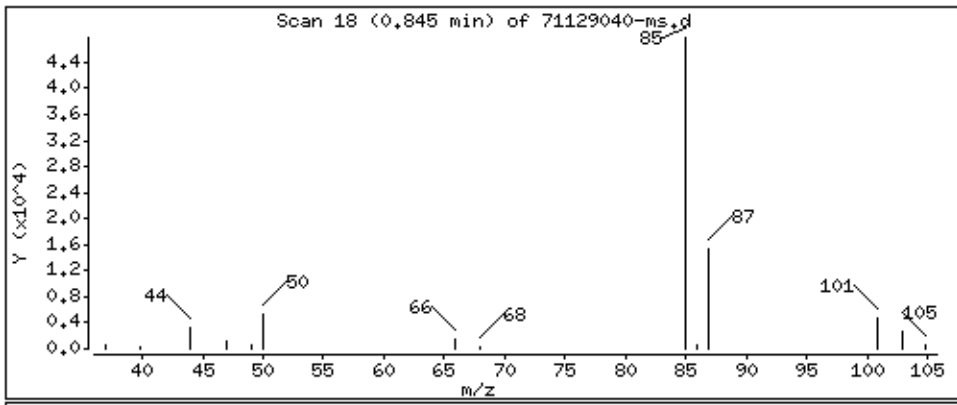
Column phase: RTX-VMS

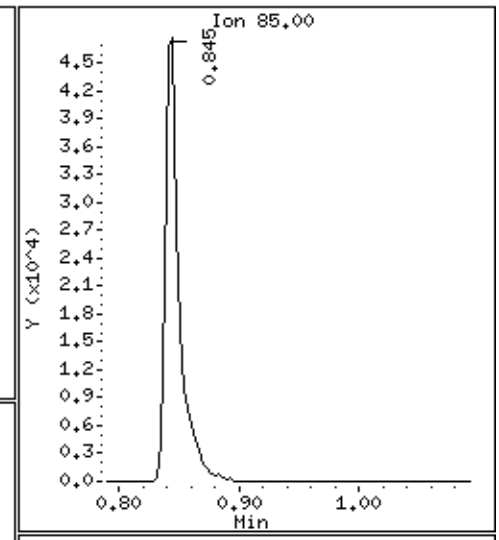
Column diameter: 0.18

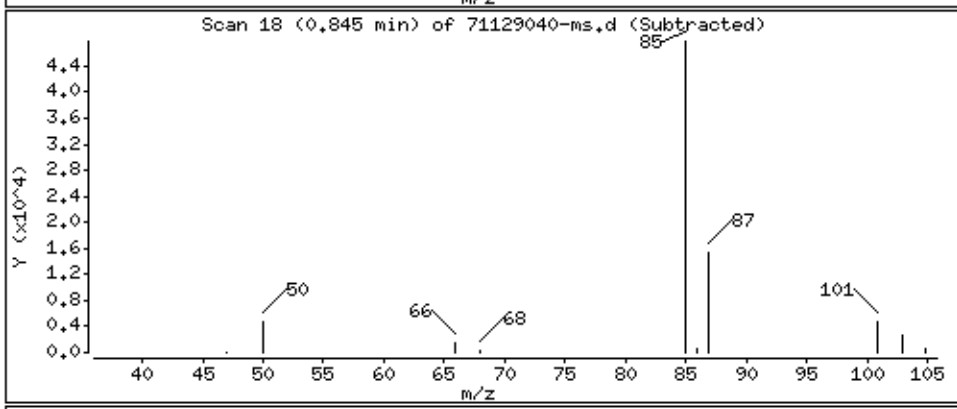
1 Dichlorodifluoromethane

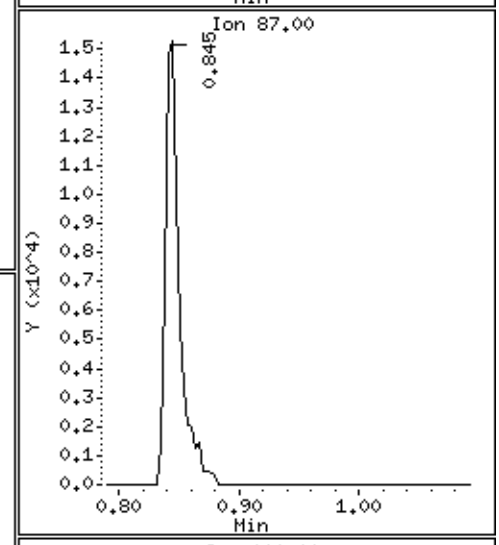
Concentration: 22.2 ug/L

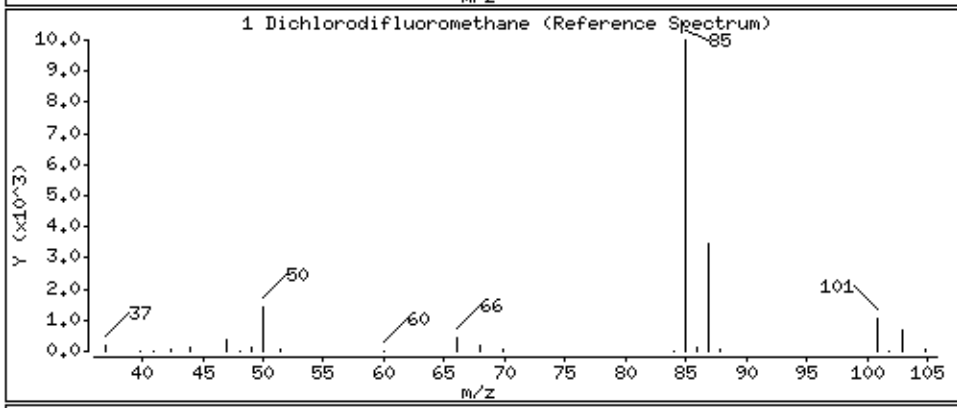
Review Code:

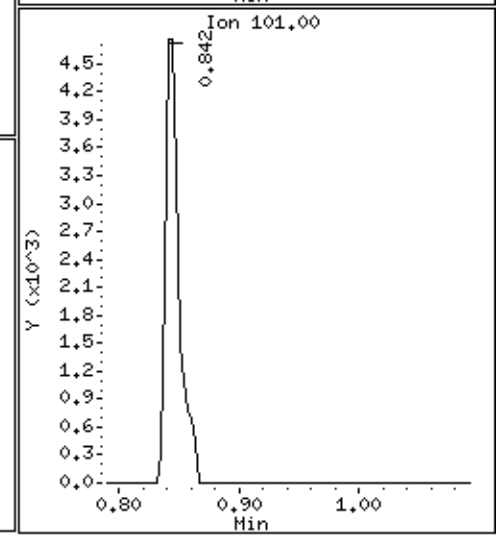


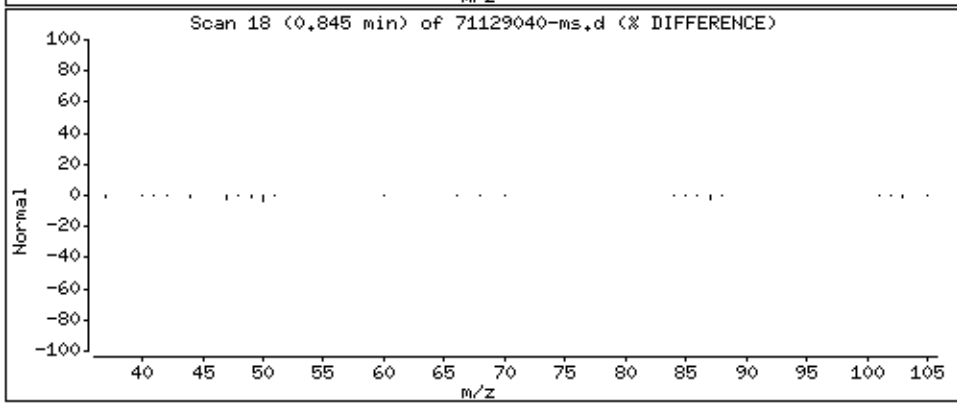












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

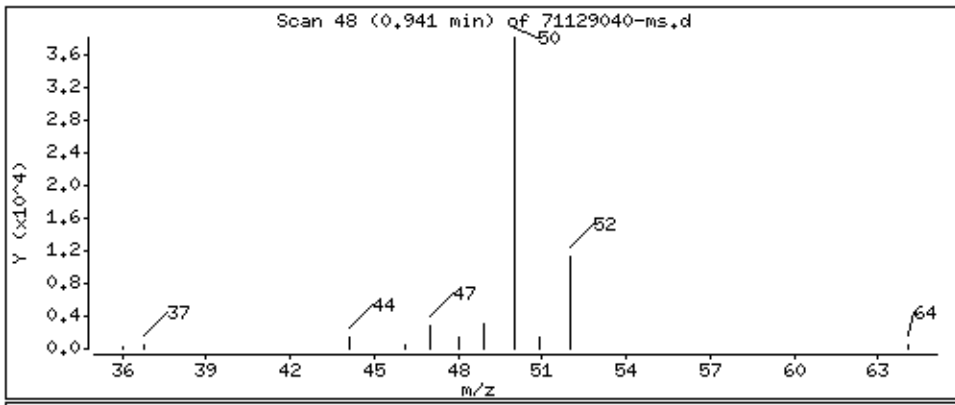
Column phase: RTX-VMS

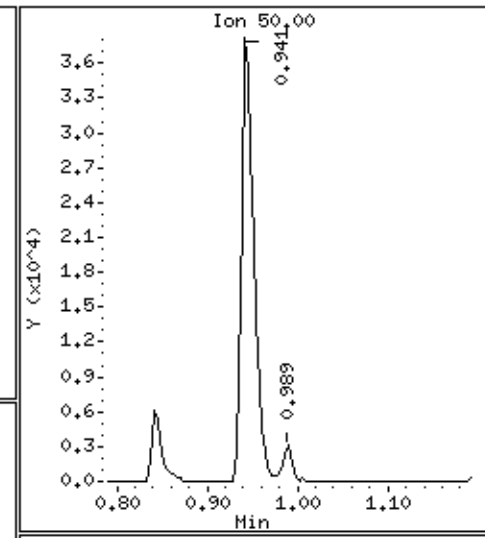
Column diameter: 0.18

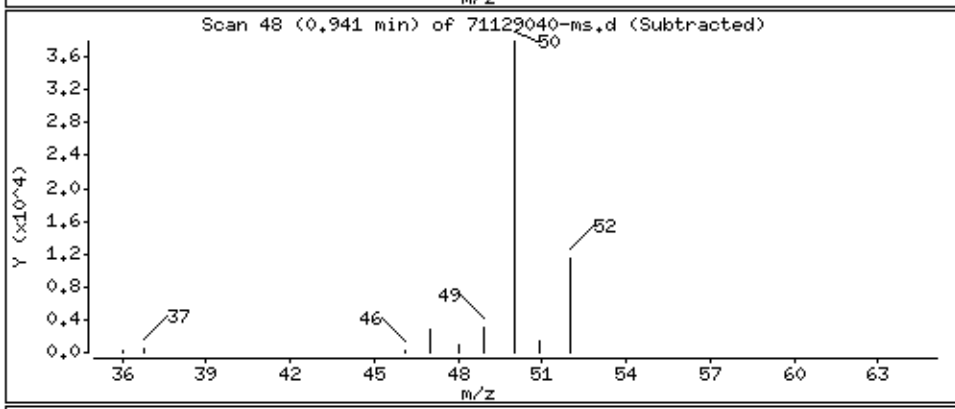
2 Chloromethane

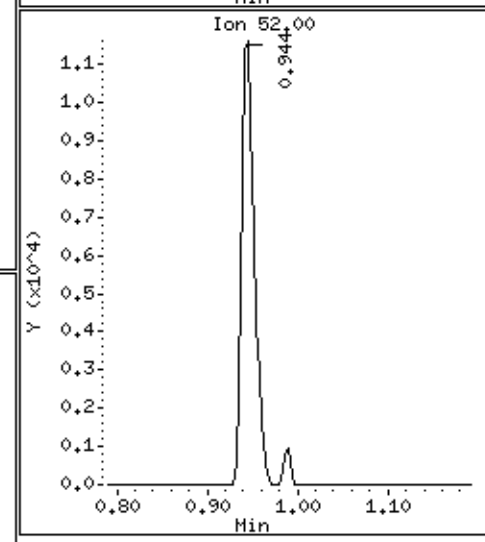
Concentration: 16.4 ug/L

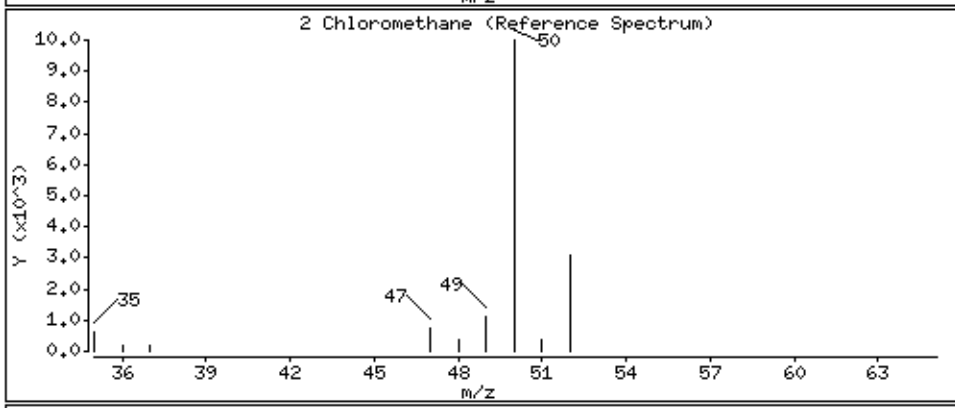
Review Code:

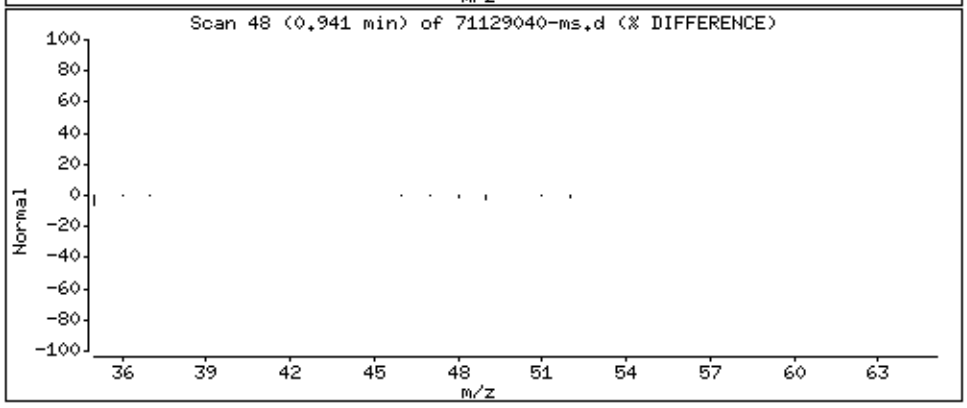












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

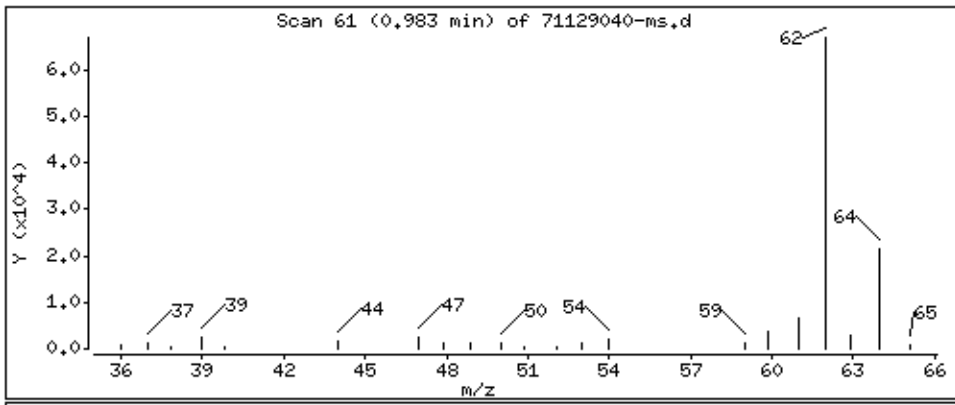
Column phase: RTX-VMS

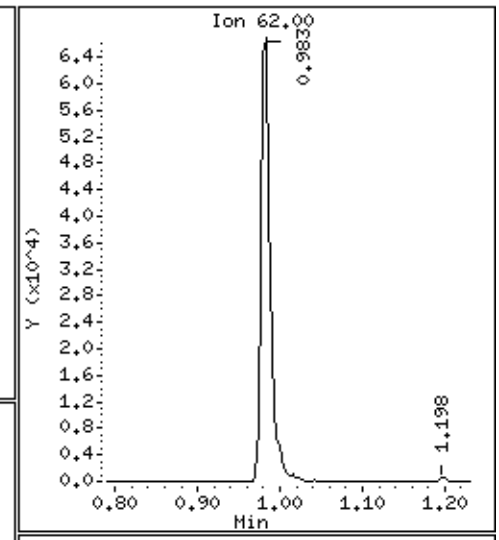
Column diameter: 0.18

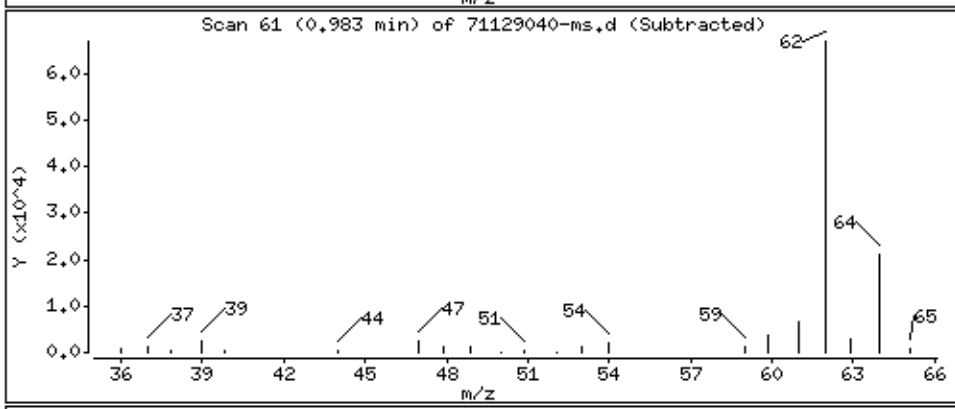
3 Vinyl chloride

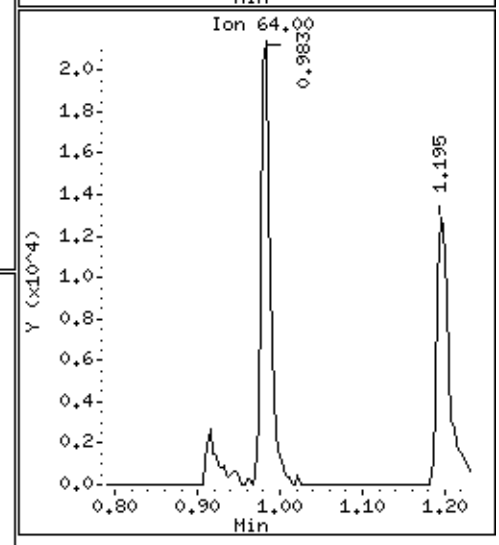
Concentration: 24.4 ug/L

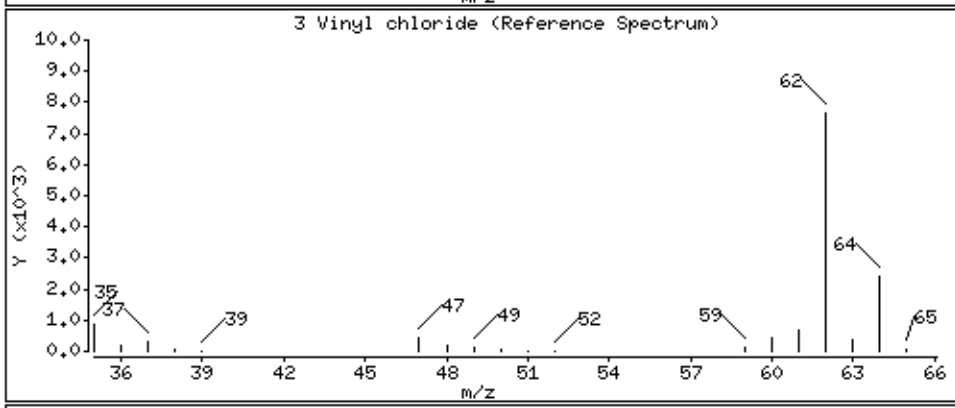
Review Code:

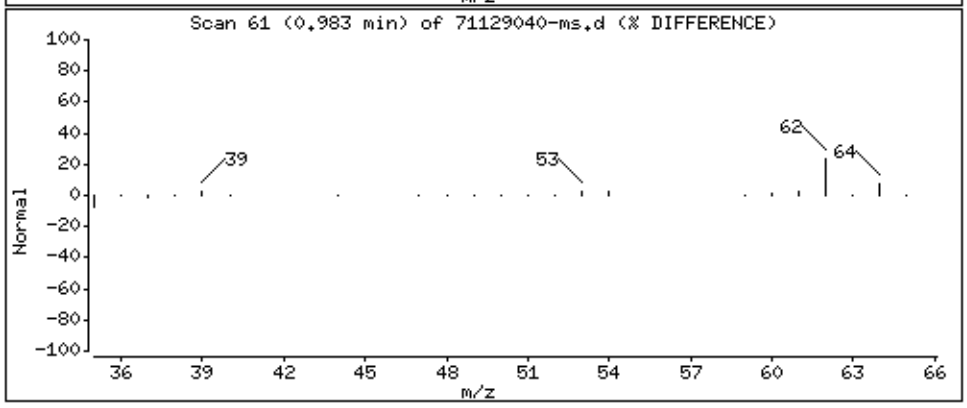












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

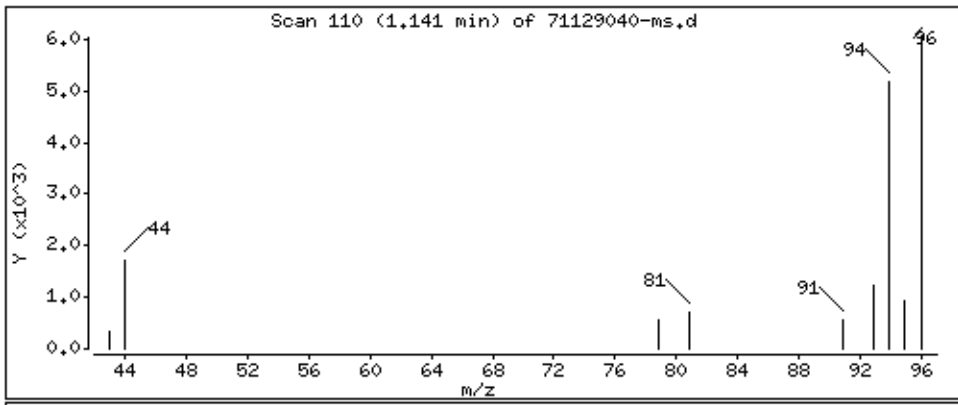
Column phase: RTX-VMS

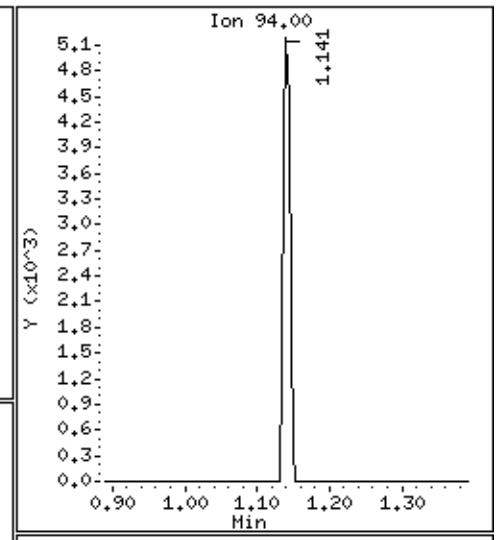
Column diameter: 0.18

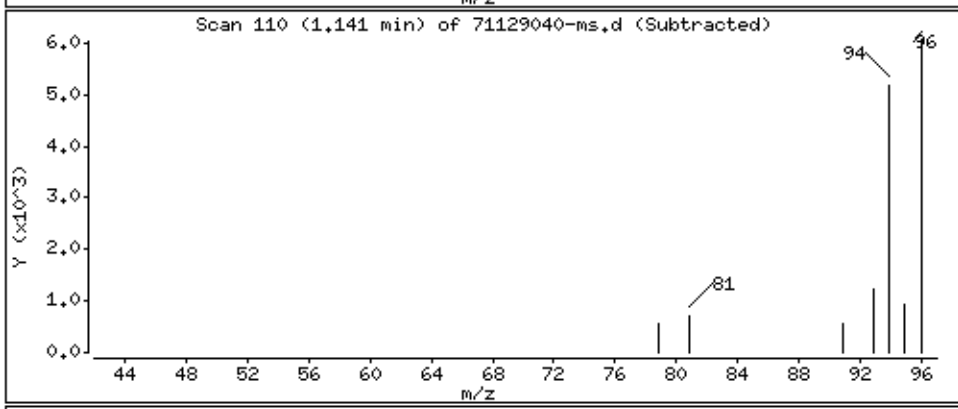
4 Bromomethane

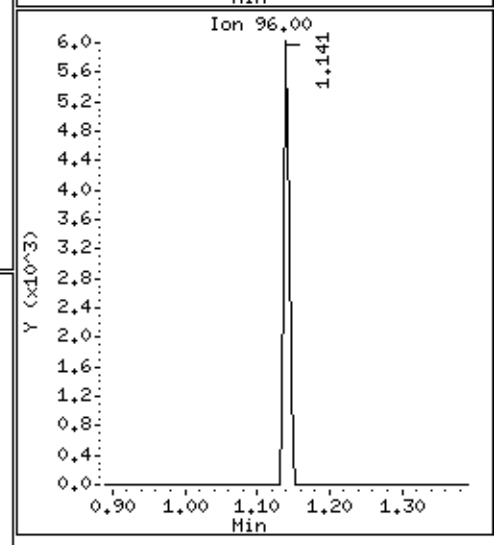
Concentration: 4.69 ug/L

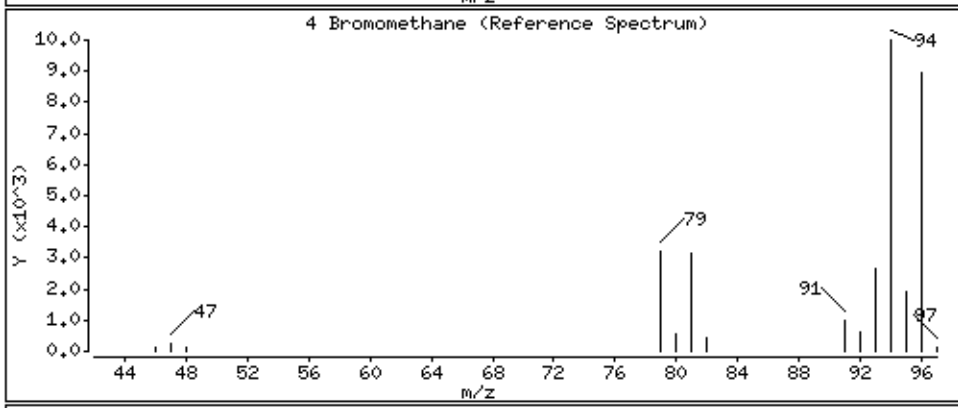
Review Code:

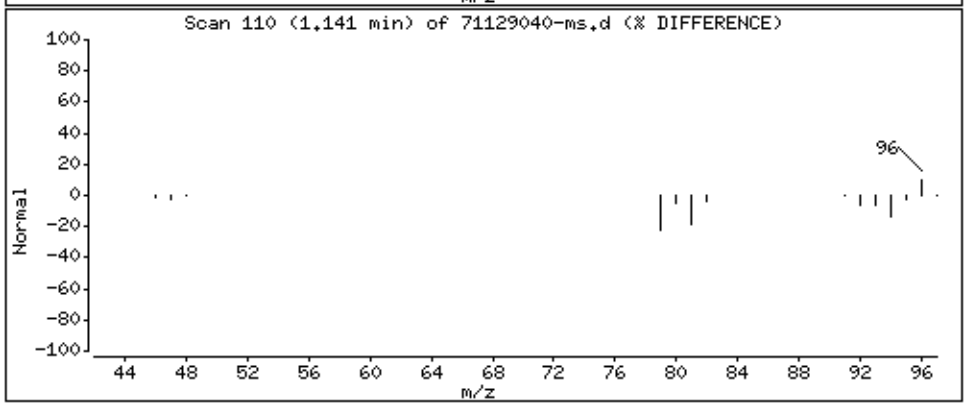












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

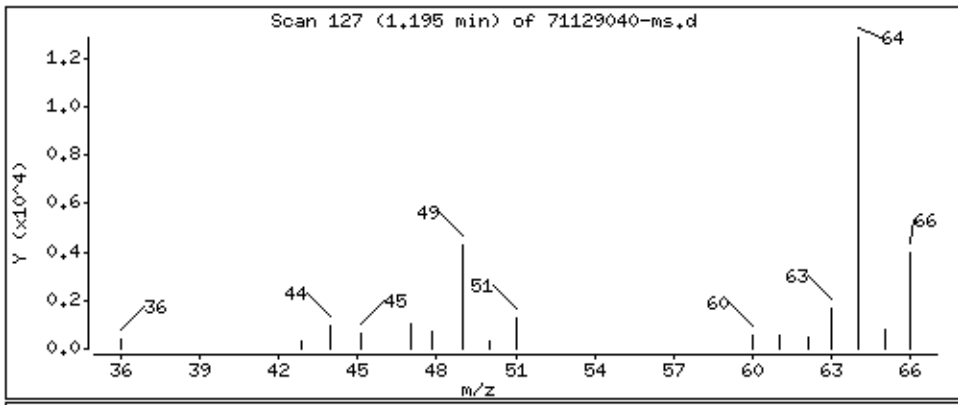
Column phase: RTX-VMS

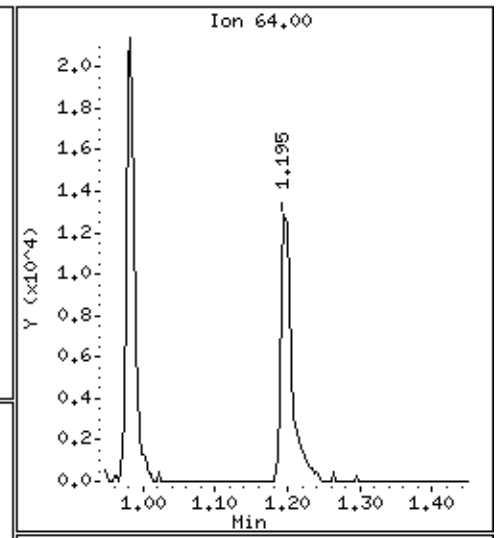
Column diameter: 0.18

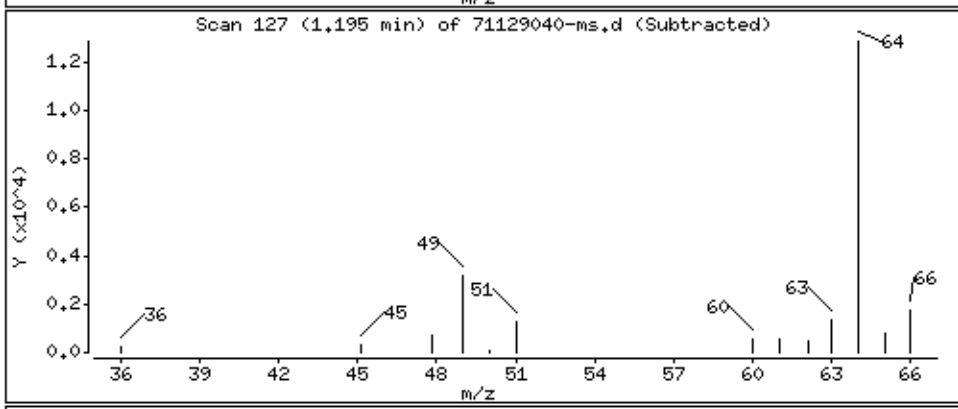
5 Chloroethane

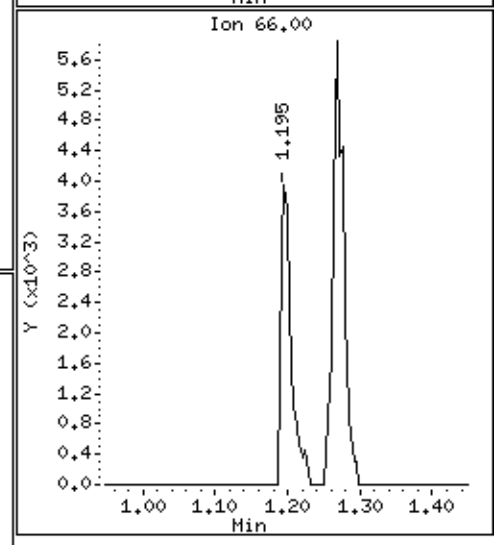
Concentration: 21.7 ug/L

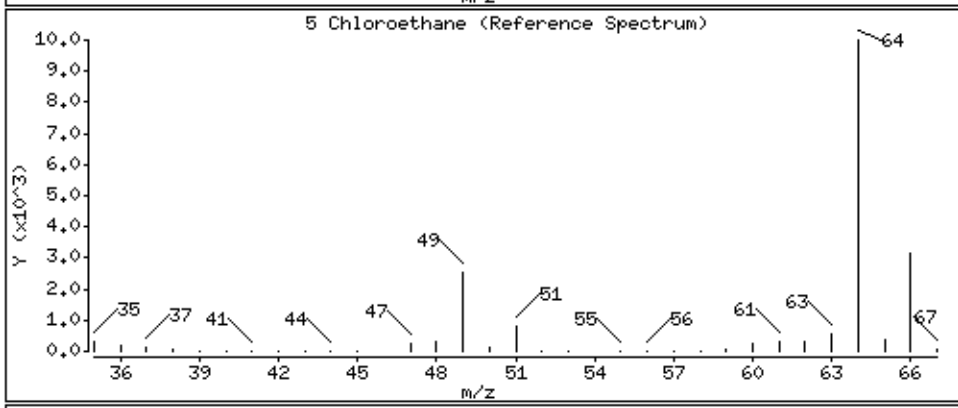
Review Code:

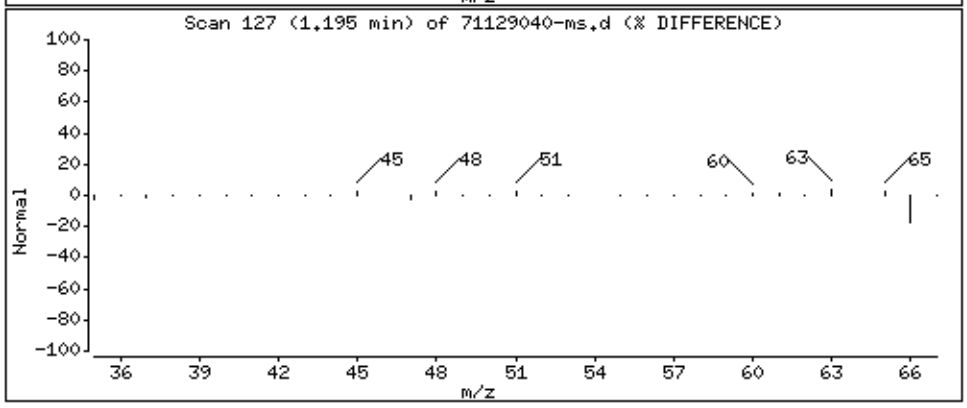












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

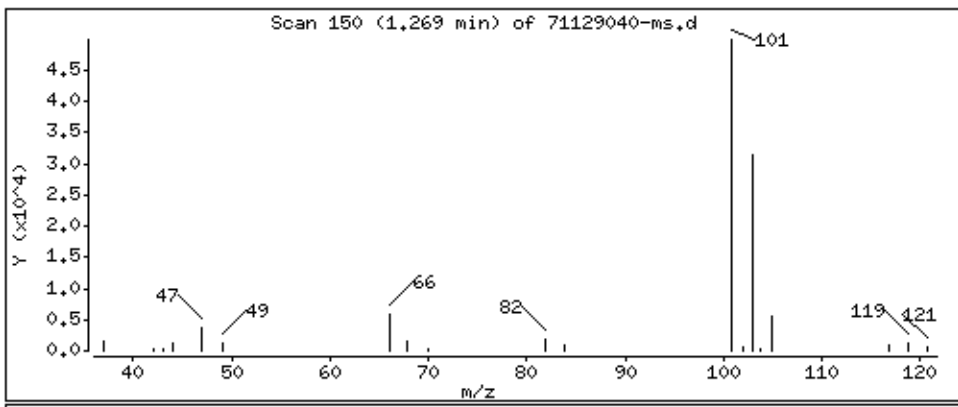
Column phase: RTX-VMS

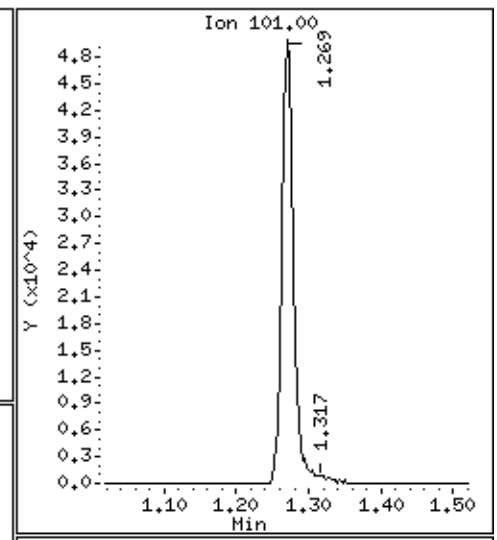
Column diameter: 0.18

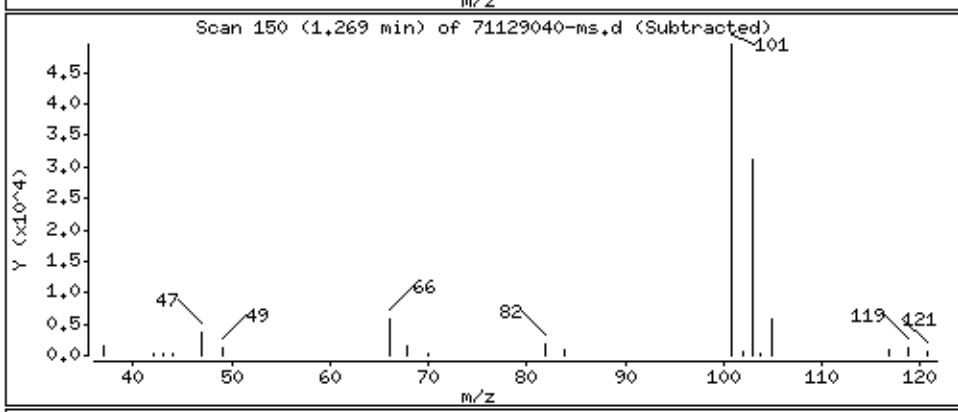
6 Trichlorofluoromethane

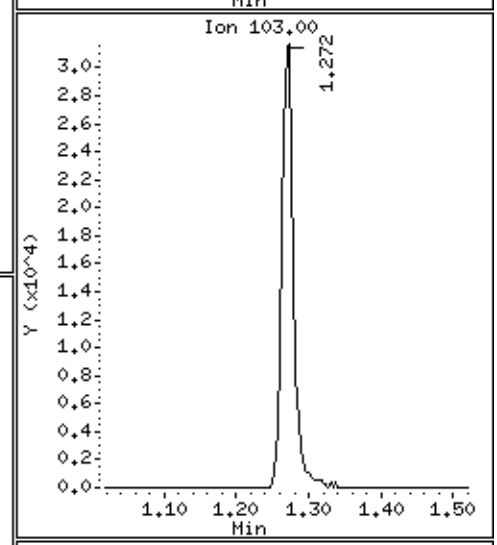
Concentration: 18.7 ug/L

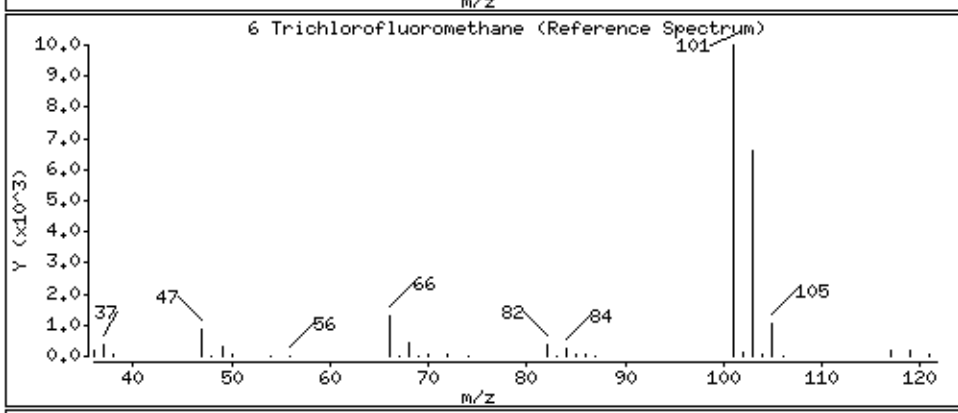
Review Code:

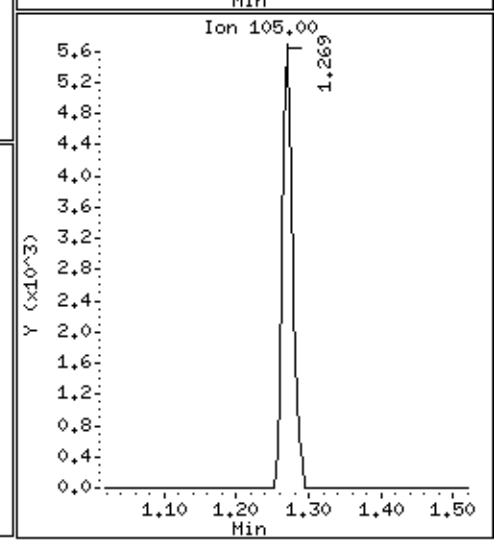


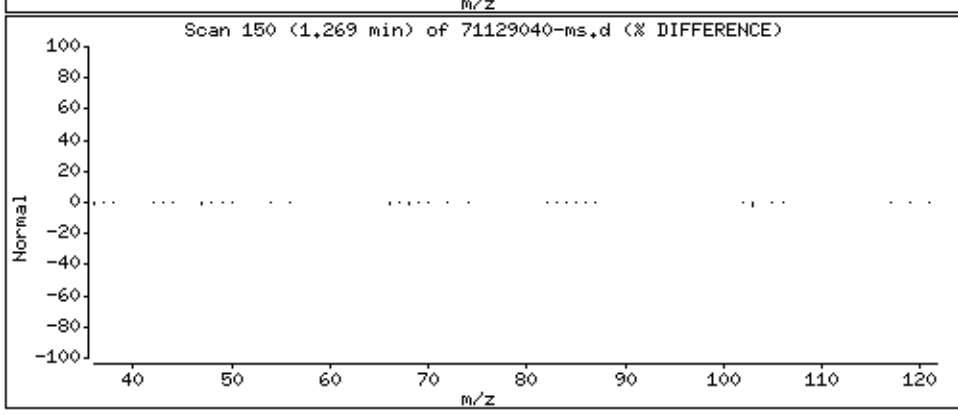












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

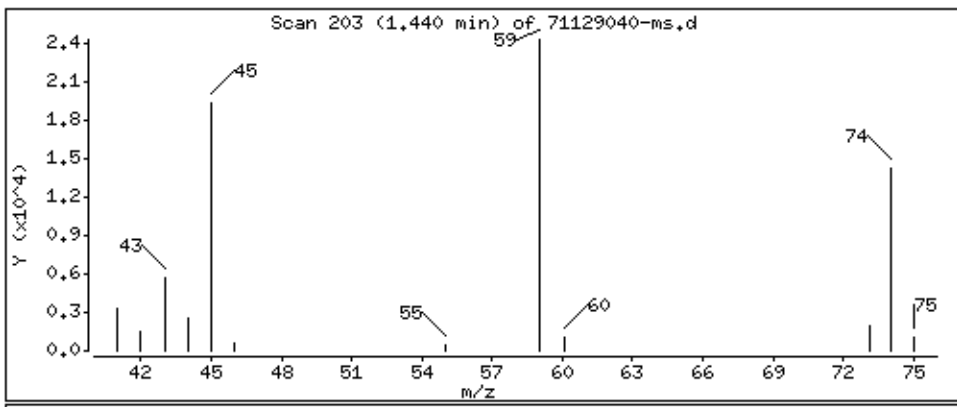
Column phase: RTX-VMS

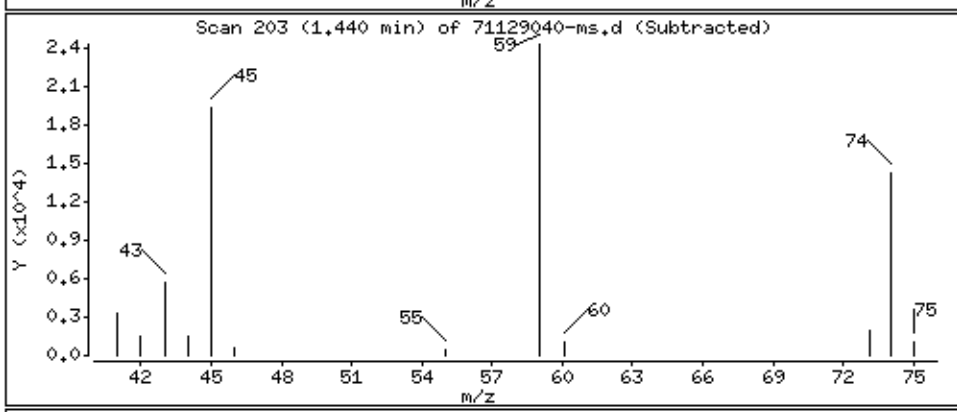
Column diameter: 0.18

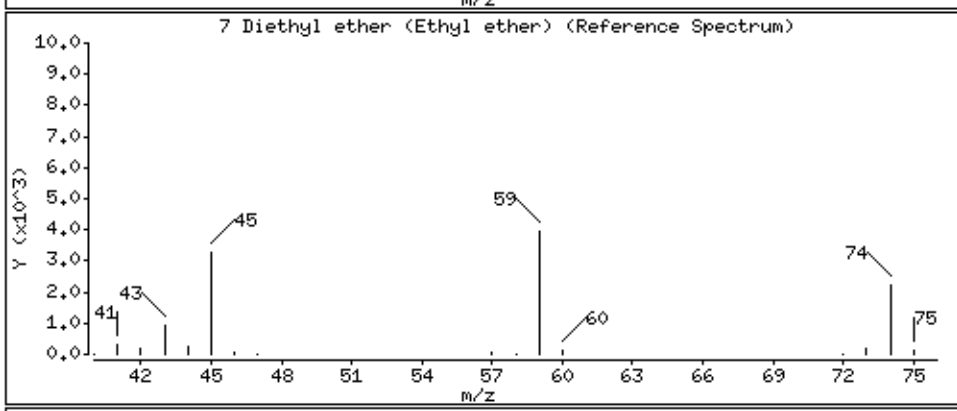
7 Diethyl ether (Ethyl ether)

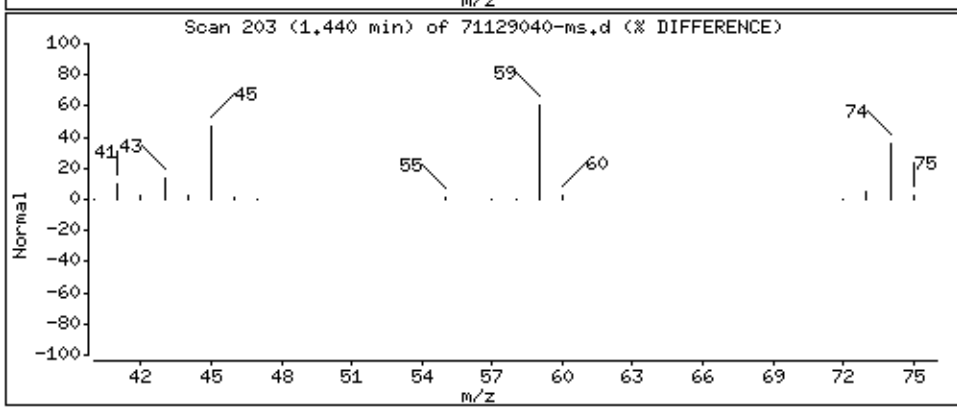
Concentration: 16.2 ug/L

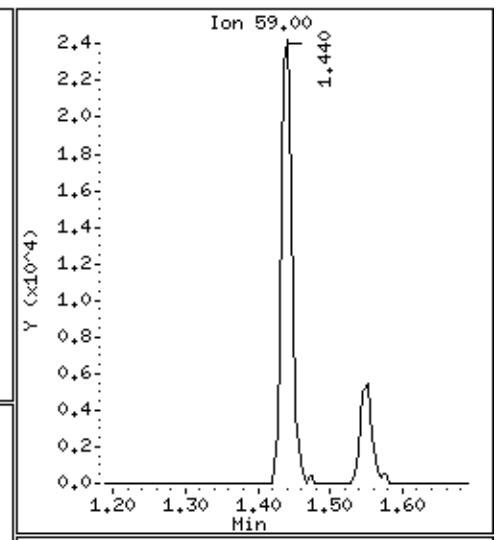
Review Code:

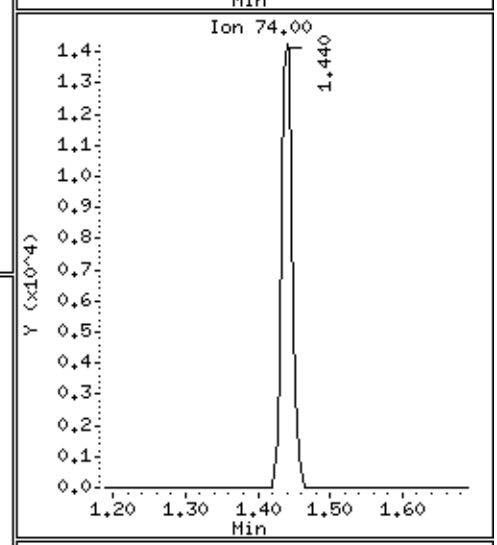


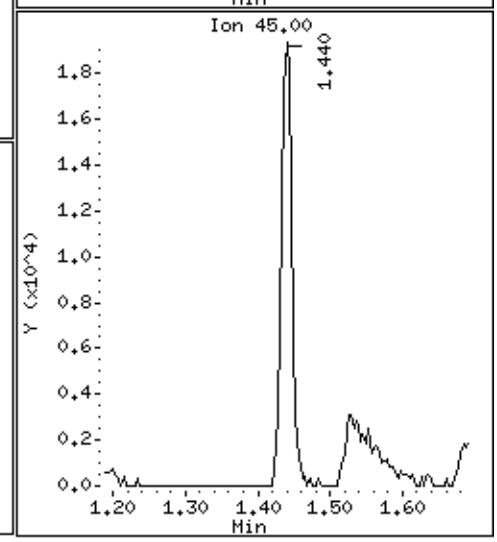












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

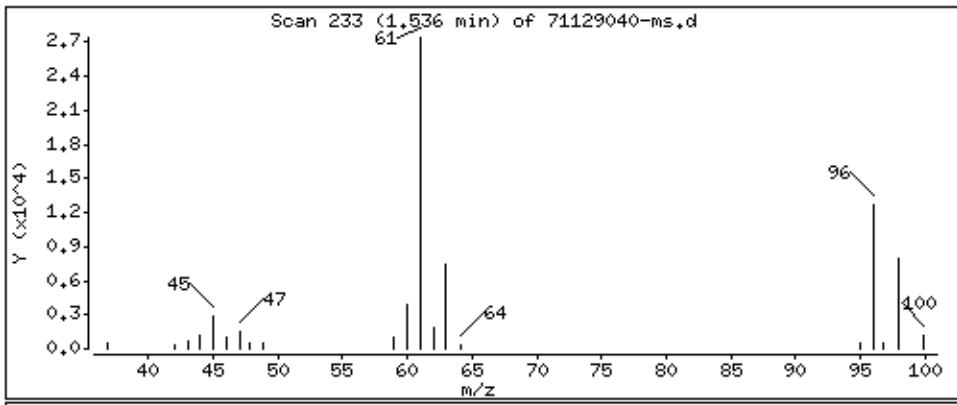
Column phase: RTX-VMS

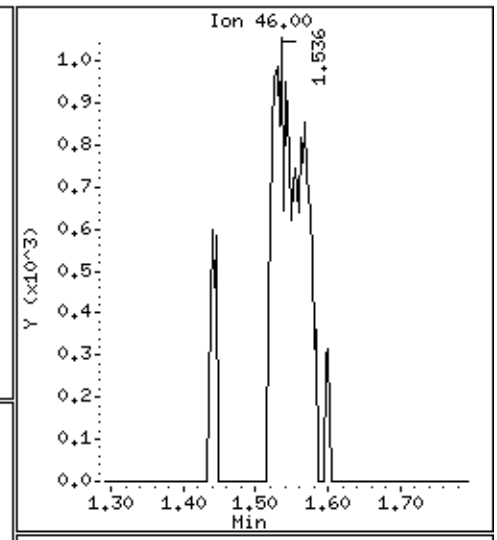
Column diameter: 0.18

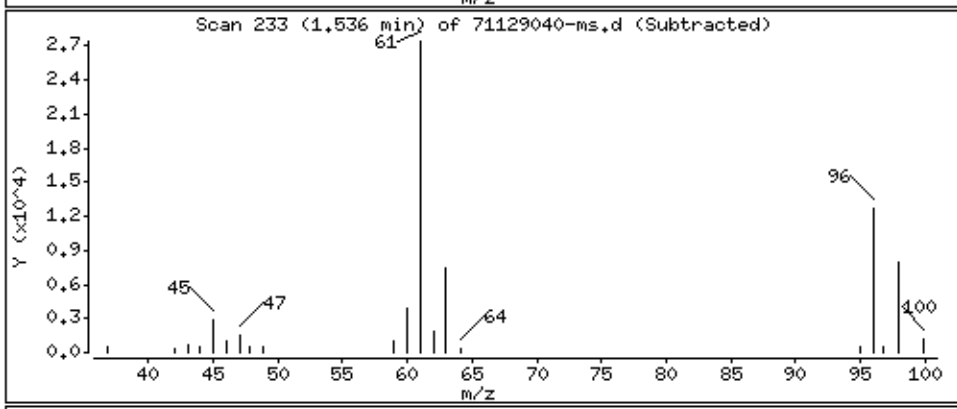
8 Ethanol

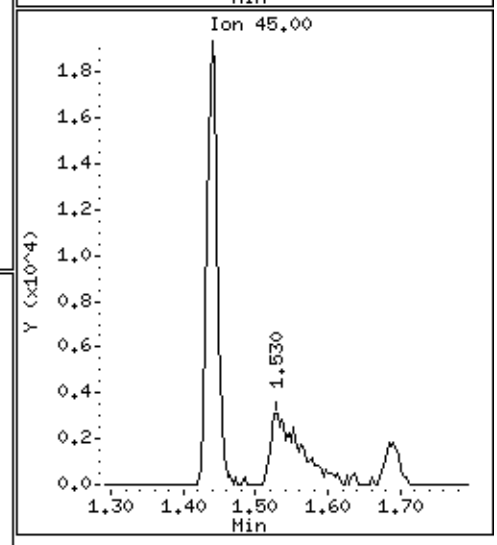
Concentration: 141 ug/L

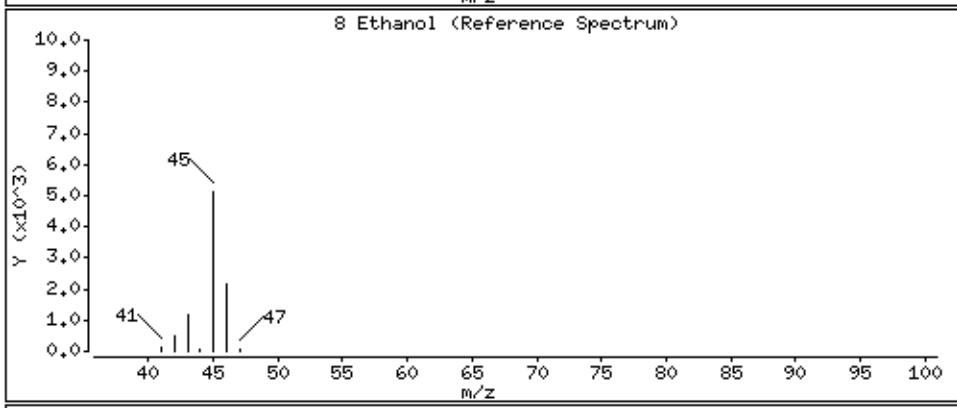
Review Code:

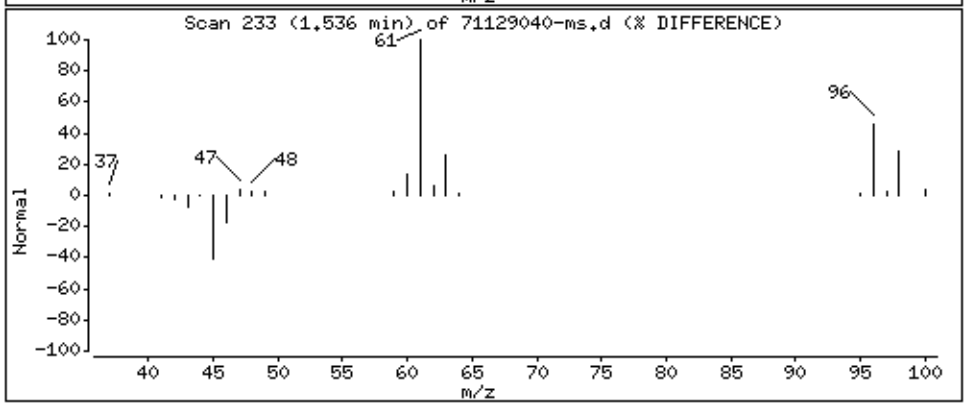












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

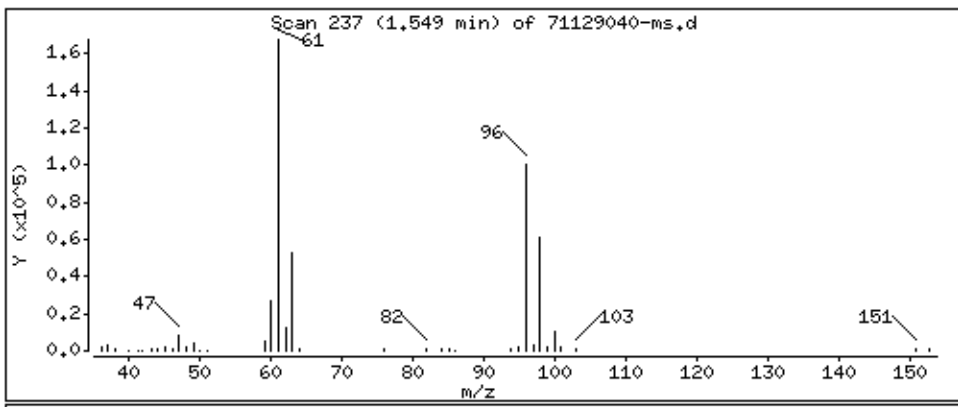
Column phase: RTX-VMS

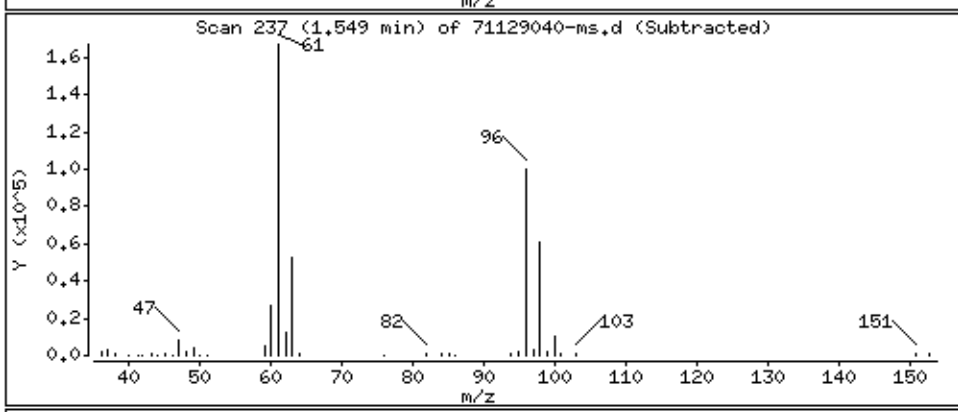
Column diameter: 0.18

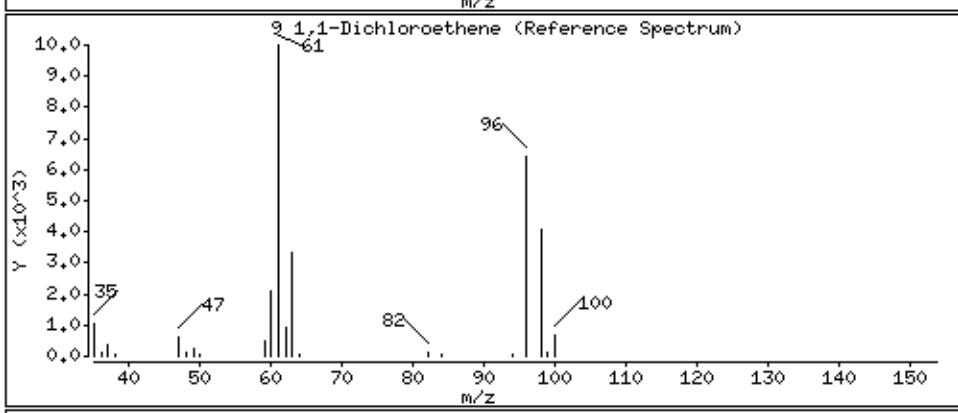
9 1,1-Dichloroethene

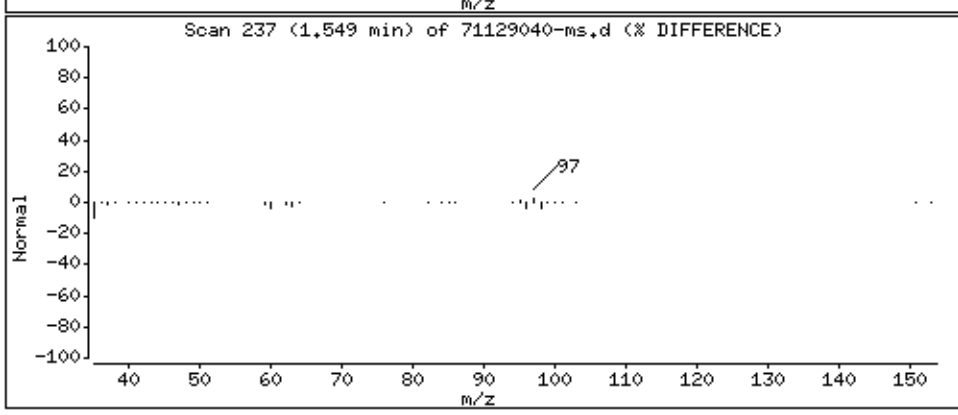
Concentration: 67.9 ug/L

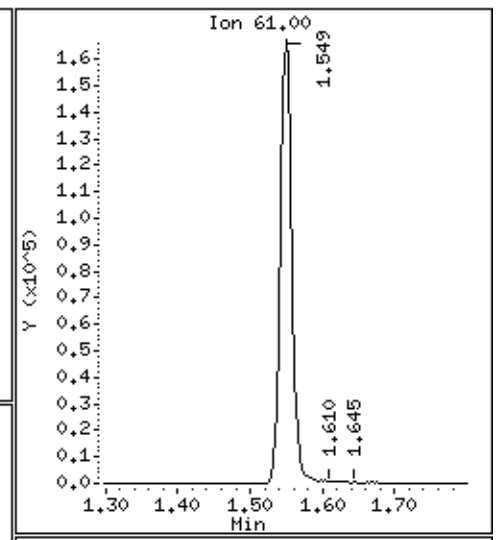
Review Code:

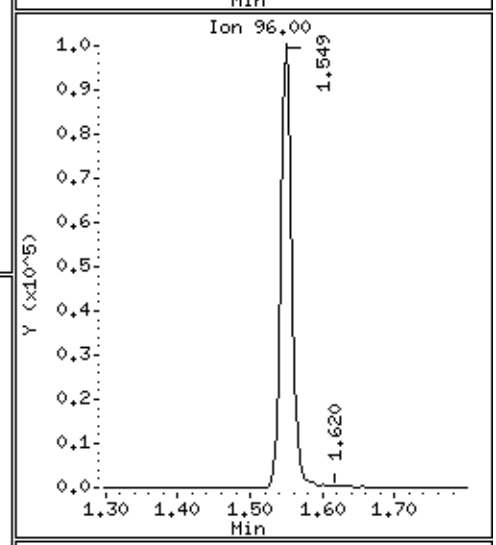


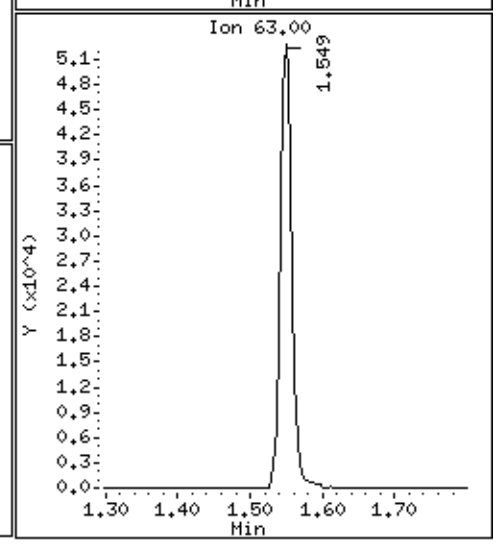












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

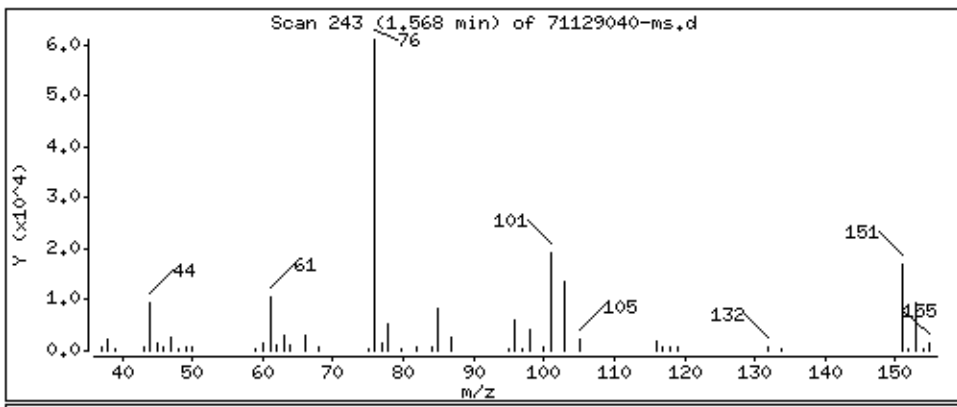
Column phase: RTX-VMS

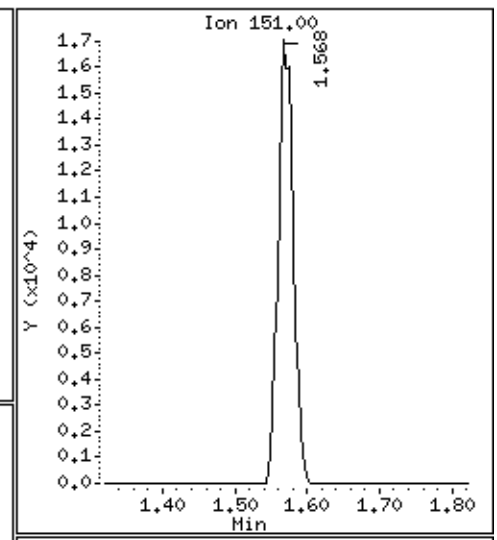
Column diameter: 0.18

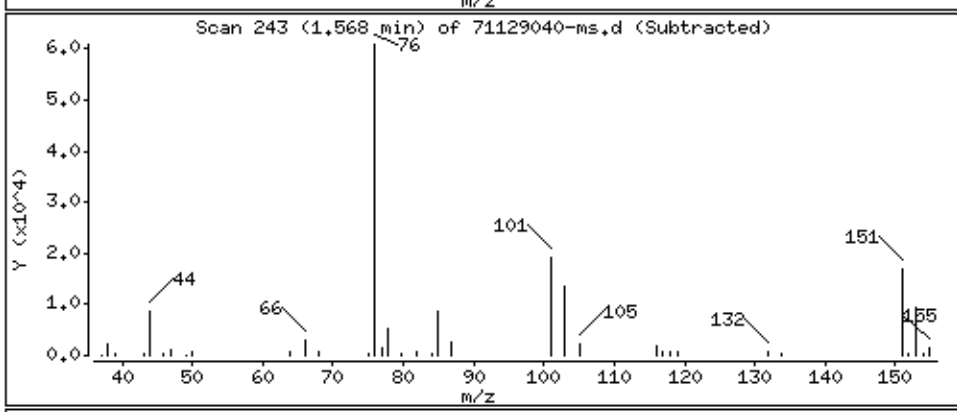
10 1,1,2-Trichlorotrifluoroethane

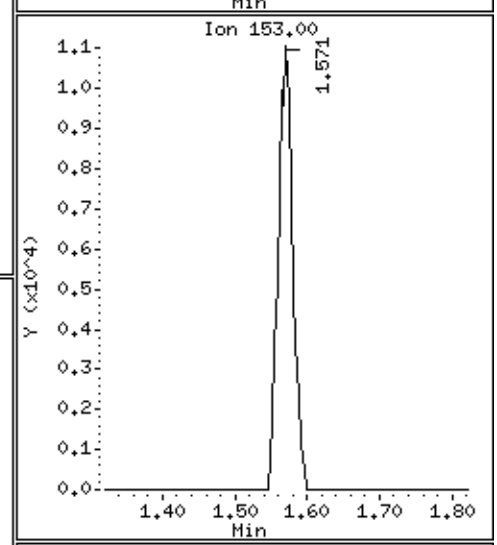
Concentration: 16.8 ug/L

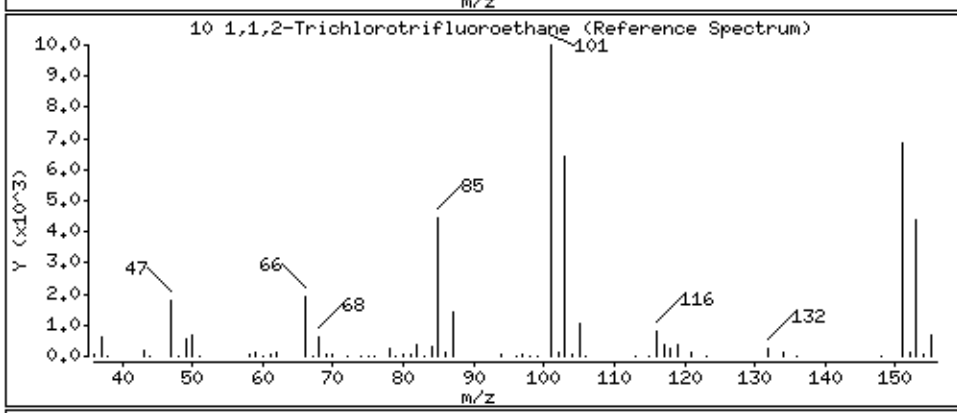
Review Code:

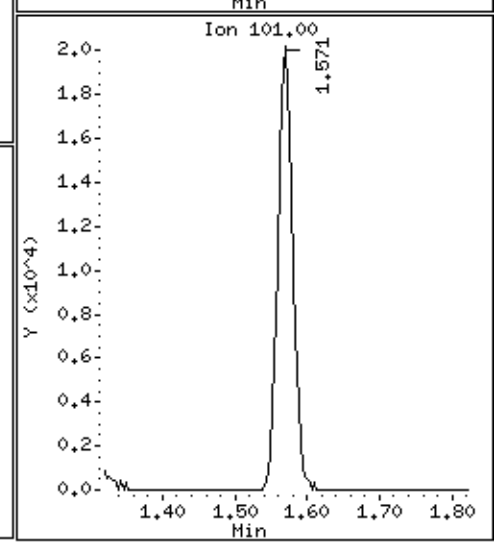


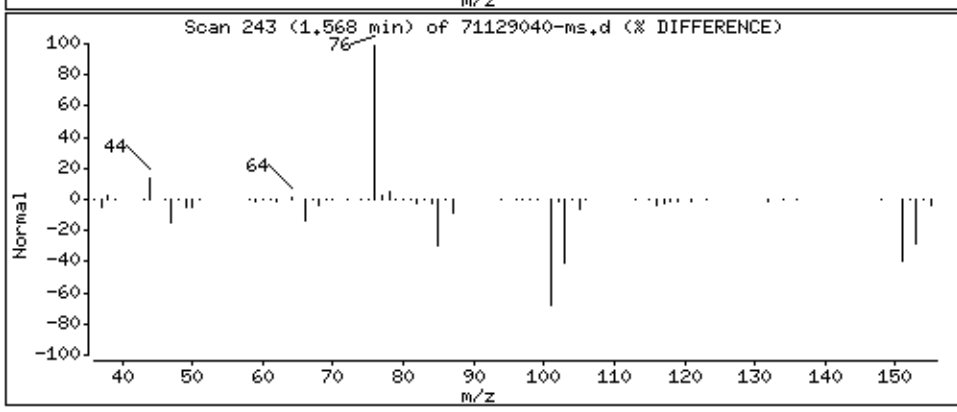












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

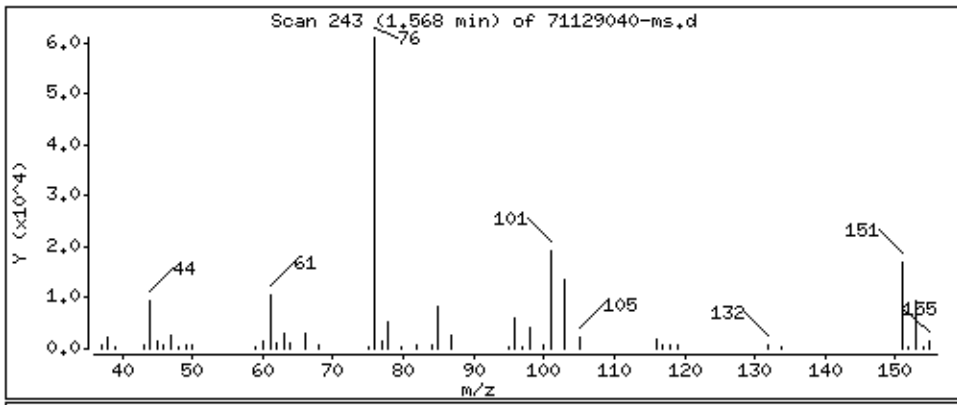
Column phase: RTX-VMS

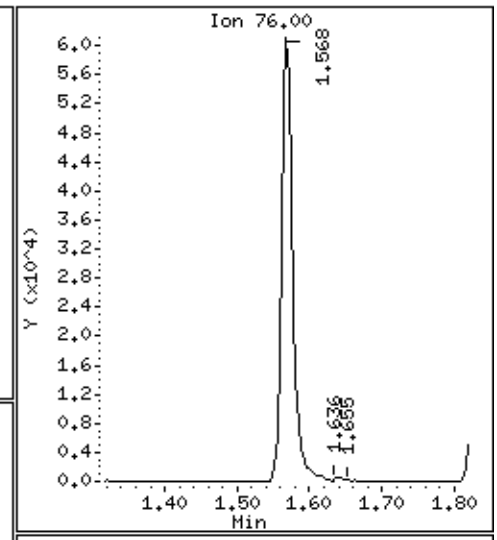
Column diameter: 0.18

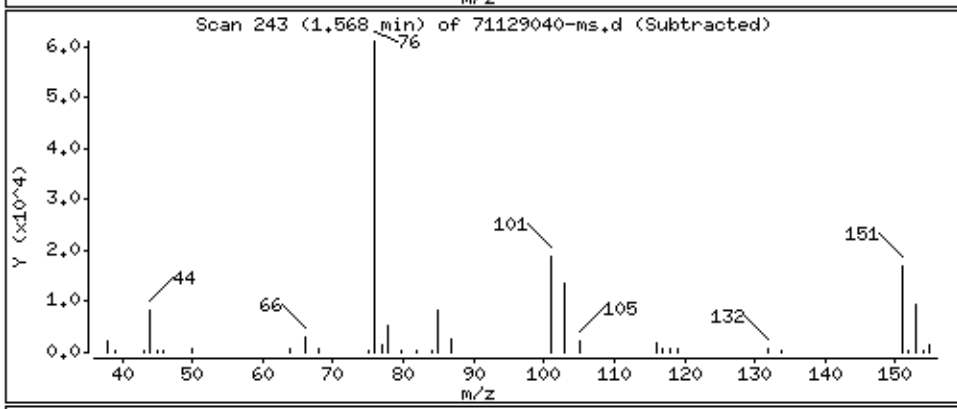
11 Carbon disulfide

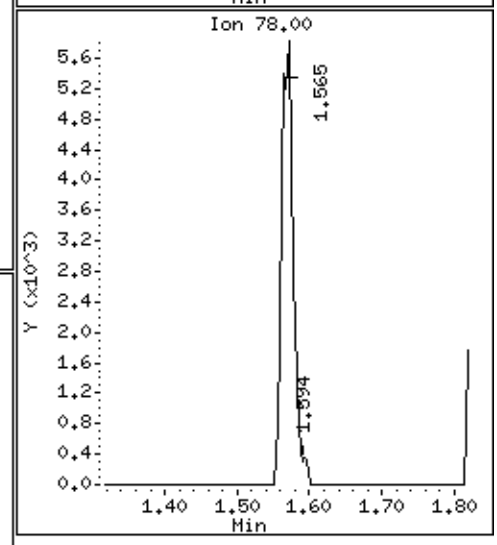
Concentration: 14.0 ug/L

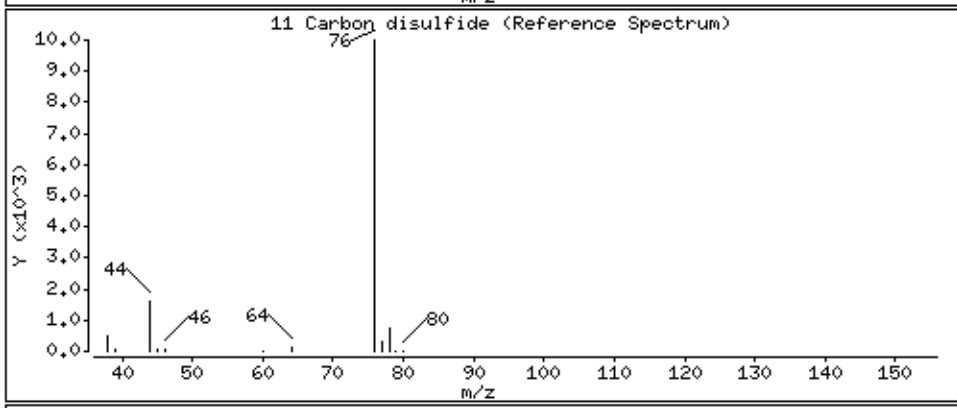
Review Code:

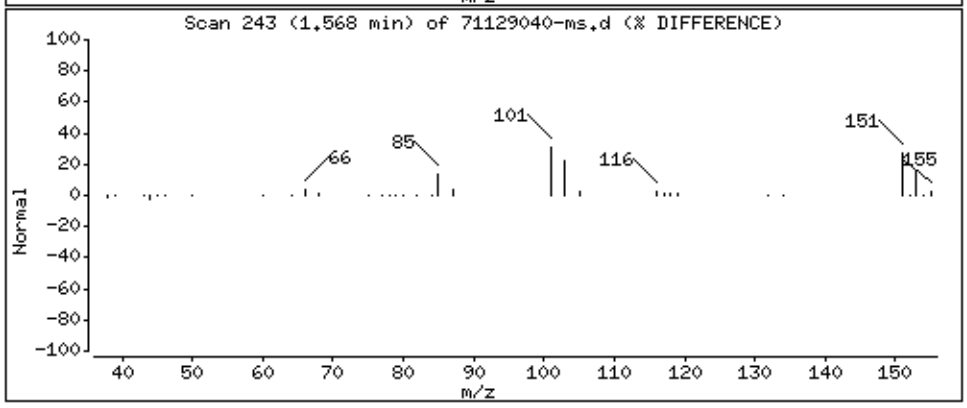












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

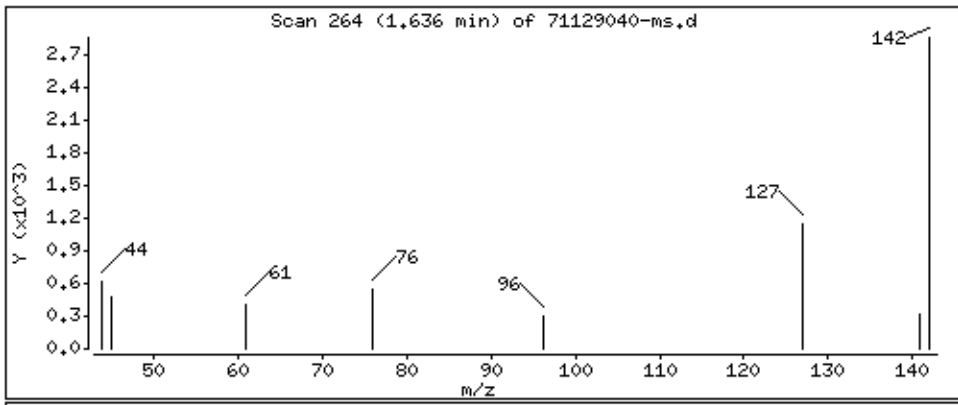
Column phase: RTX-VMS

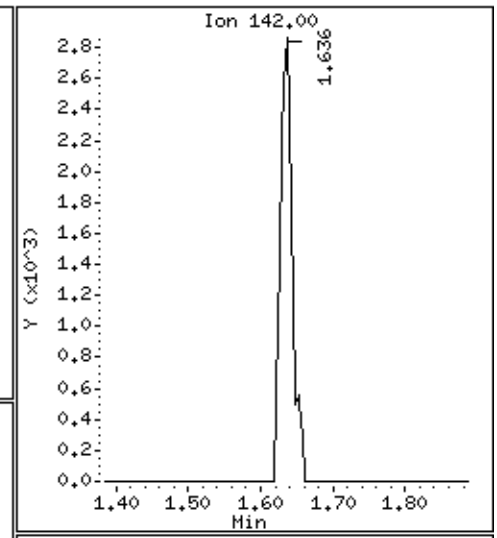
Column diameter: 0.18

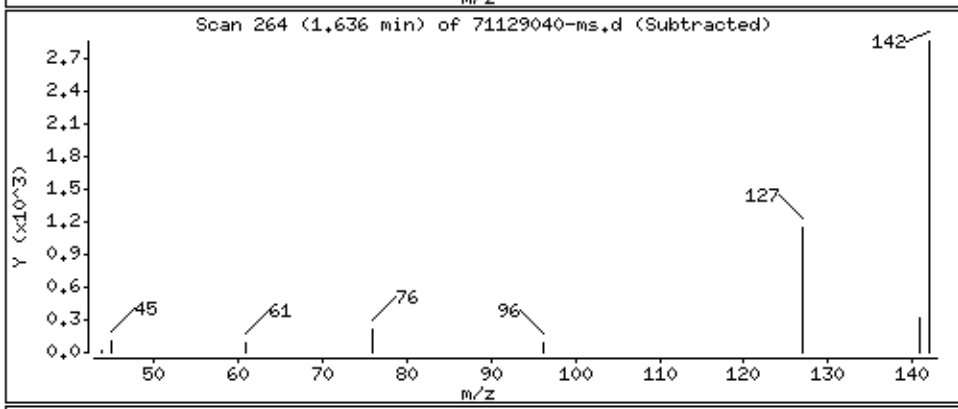
12 Iodomethane

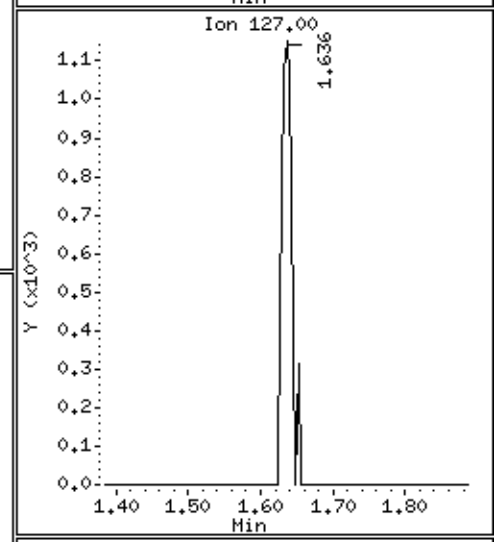
Concentration: 3.87 ug/L

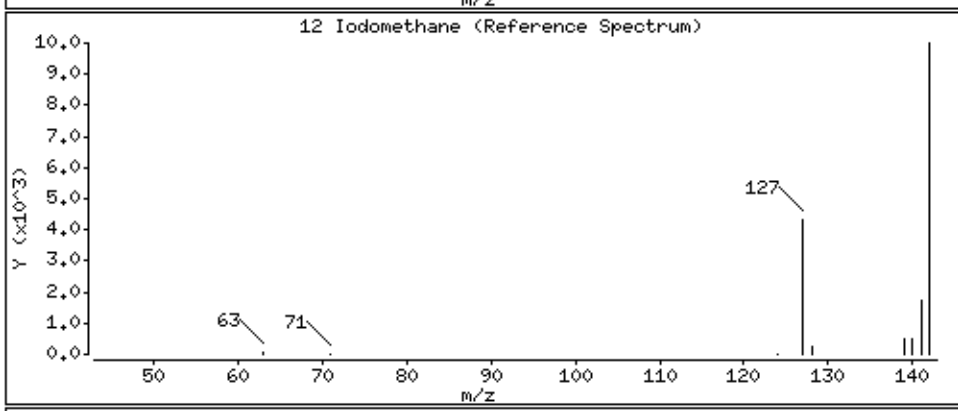
Review Code:

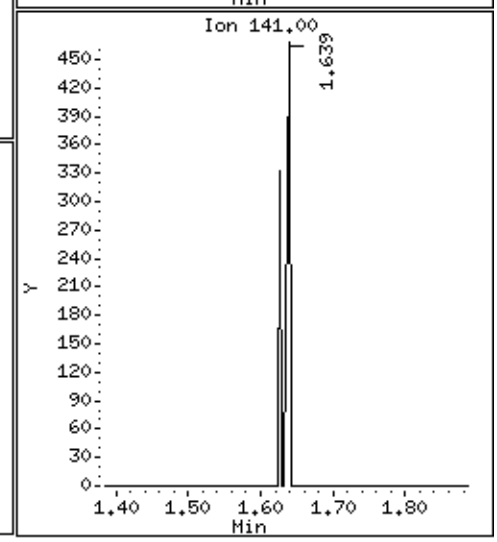


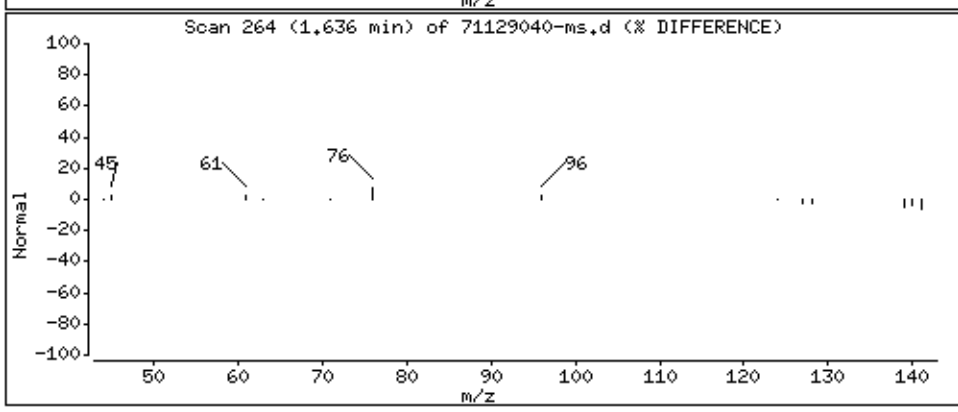












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

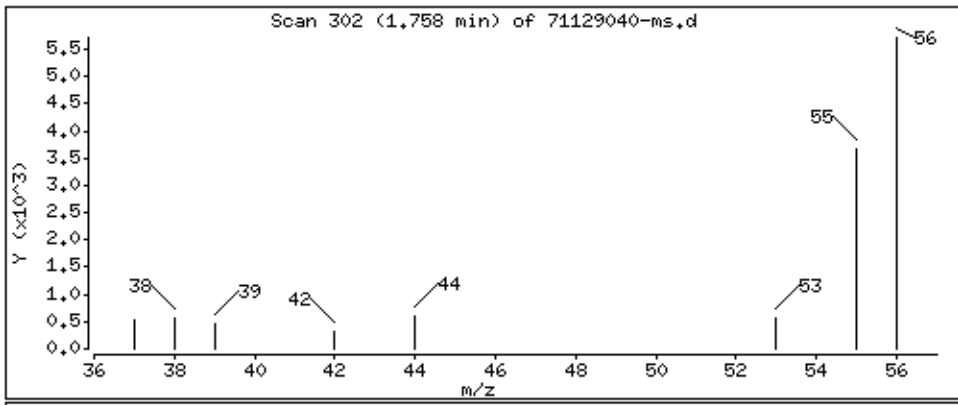
Column phase: RTX-VMS

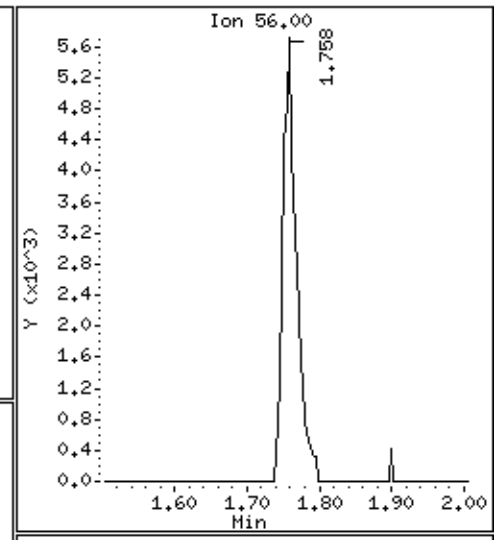
Column diameter: 0.18

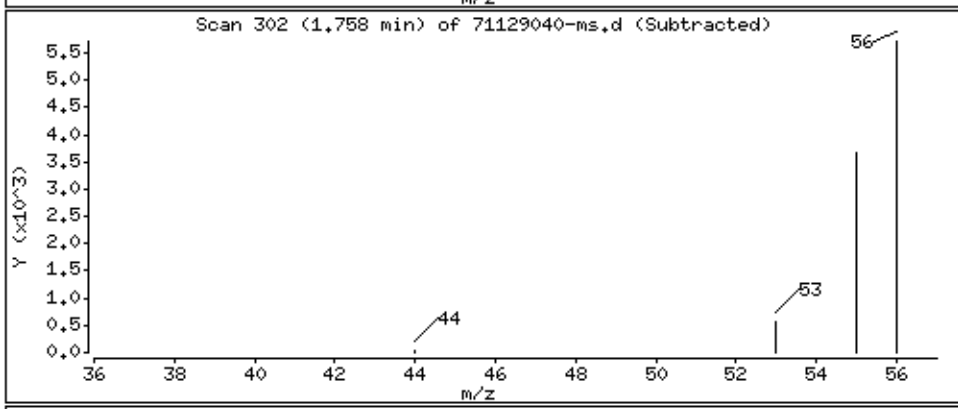
13 Acrolein

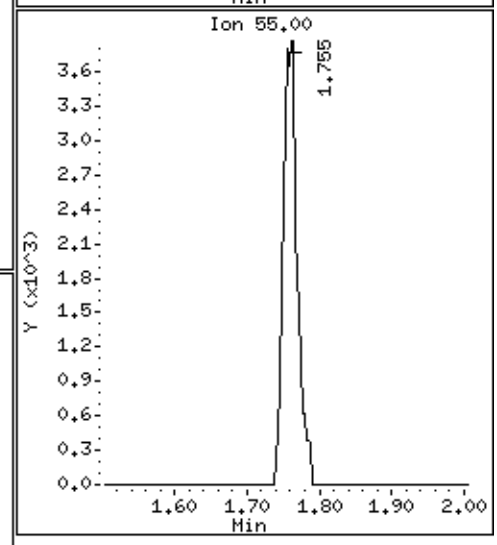
Concentration: 15.6 ug/L

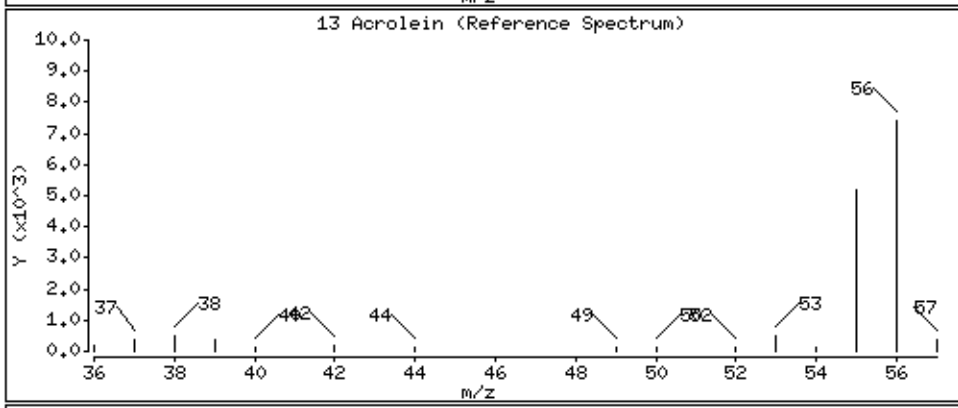
Review Code:

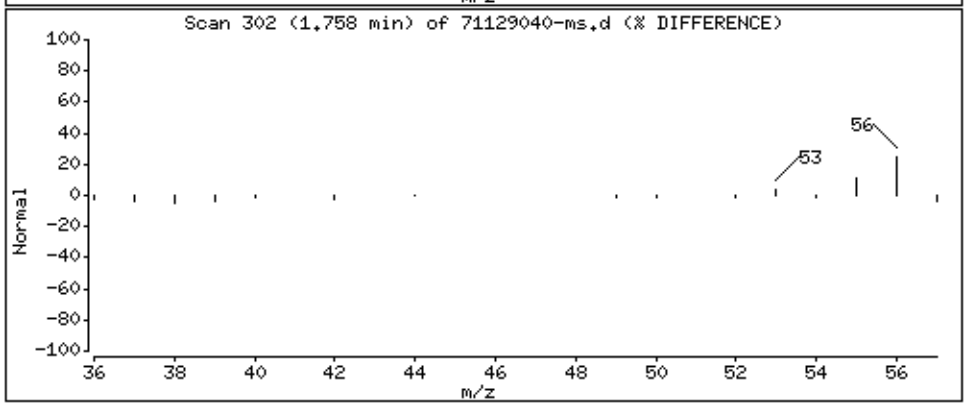












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

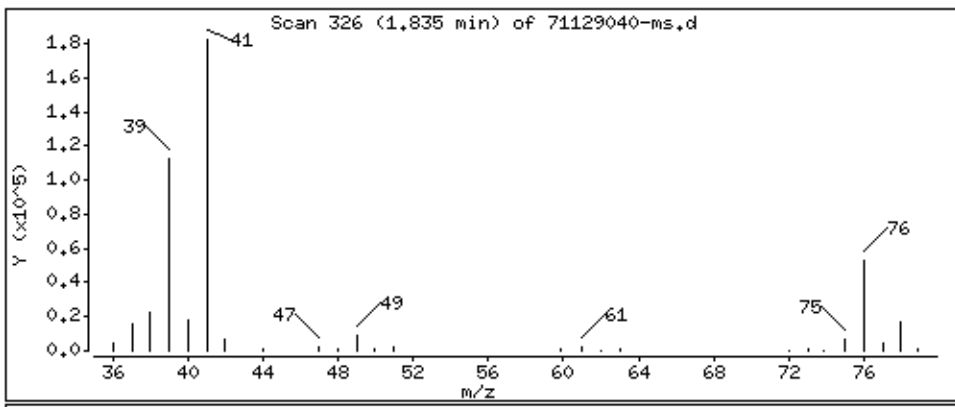
Column phase: RTX-VMS

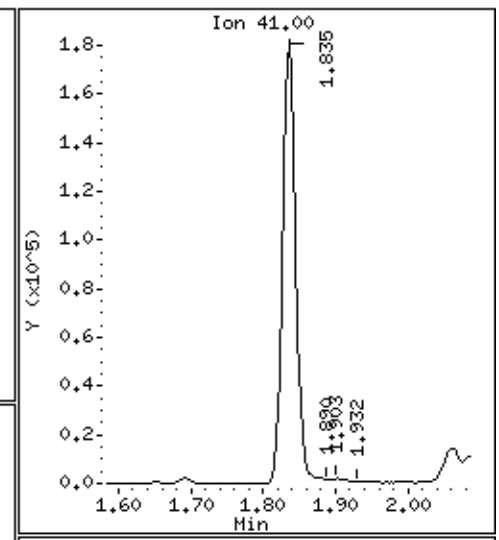
Column diameter: 0.18

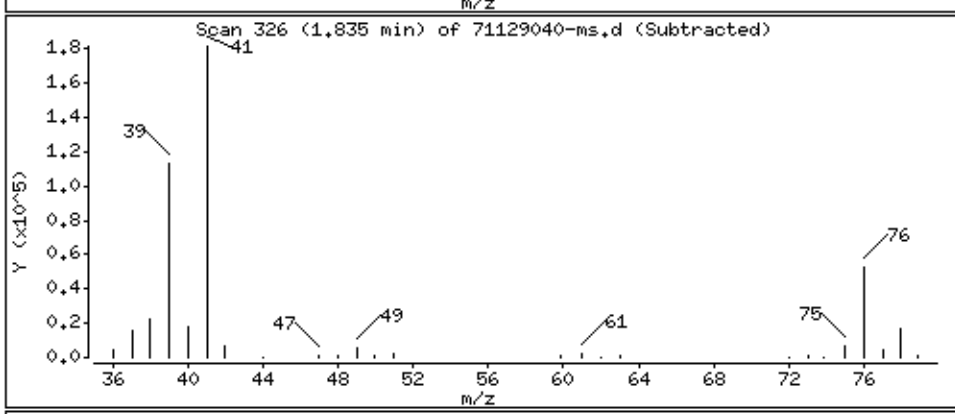
14 Allyl chloride

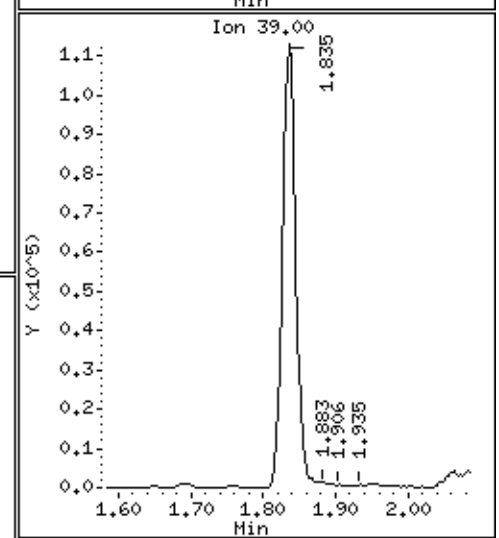
Concentration: 97.4 ug/L

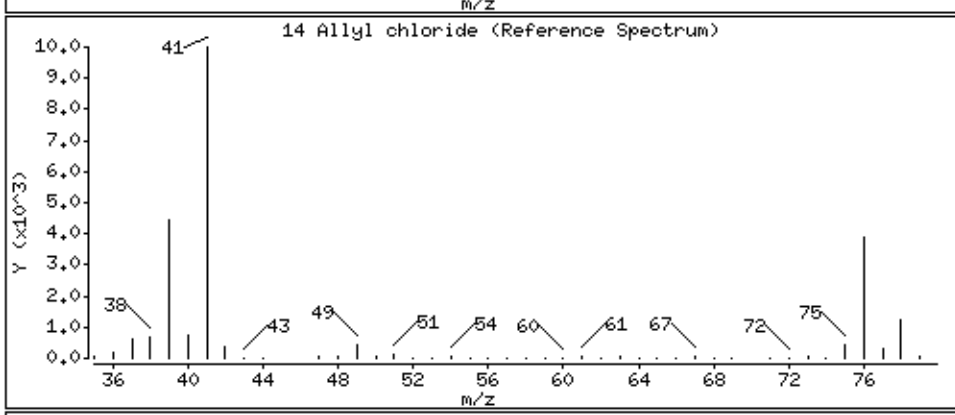
Review Code:

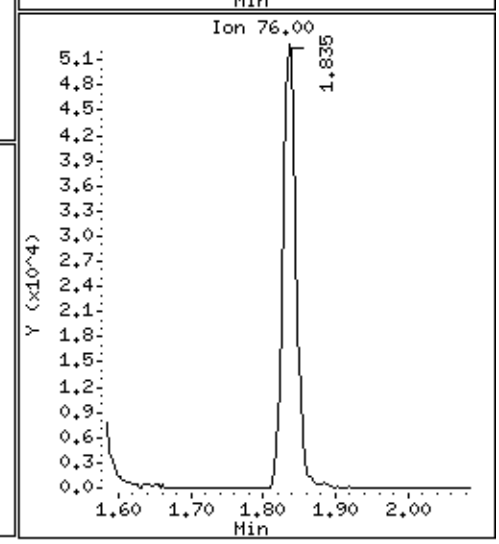


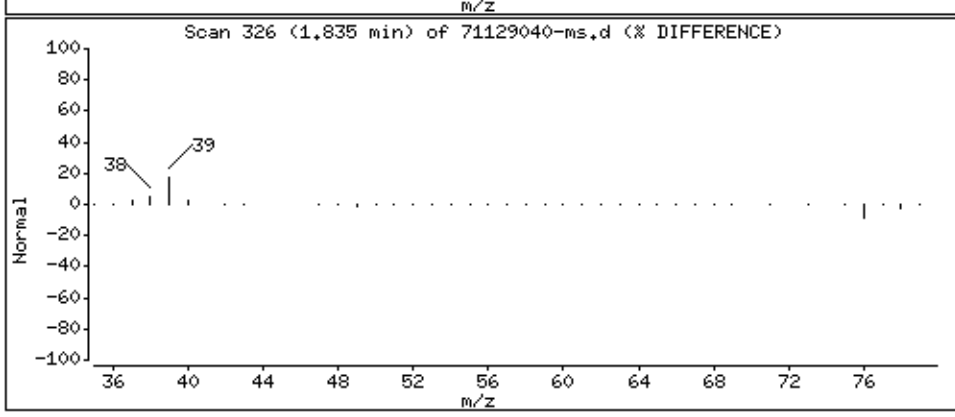












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

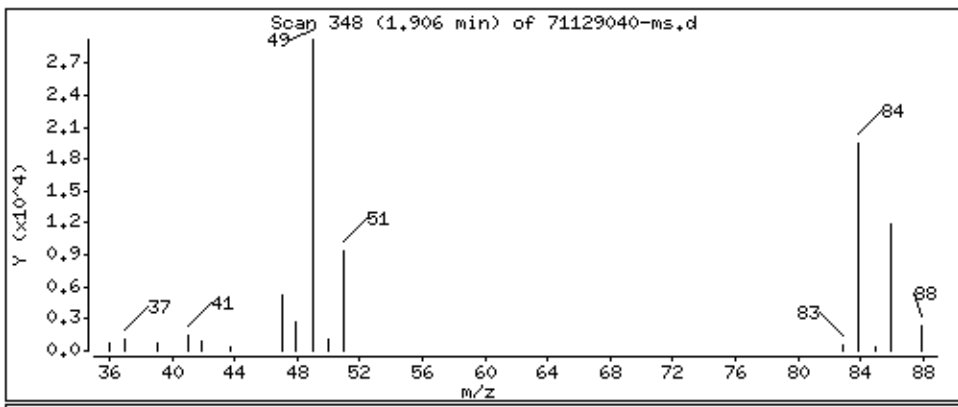
Column phase: RTX-VMS

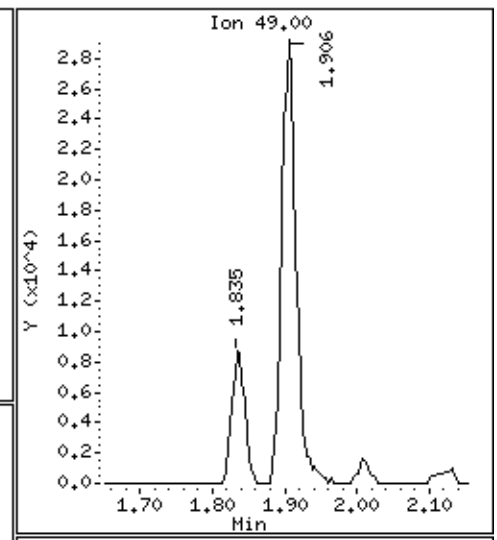
Column diameter: 0.18

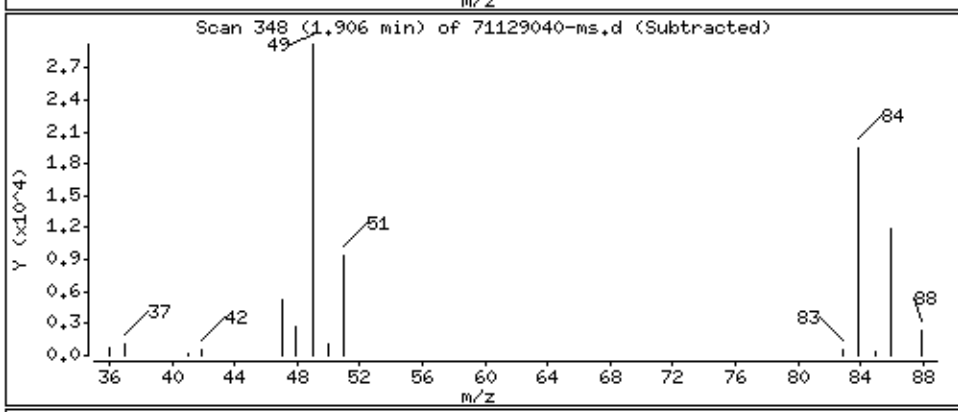
15 Methylene Chloride

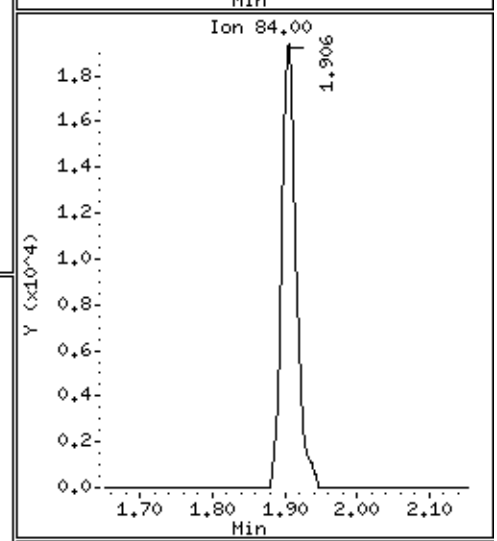
Concentration: 20.8 ug/L

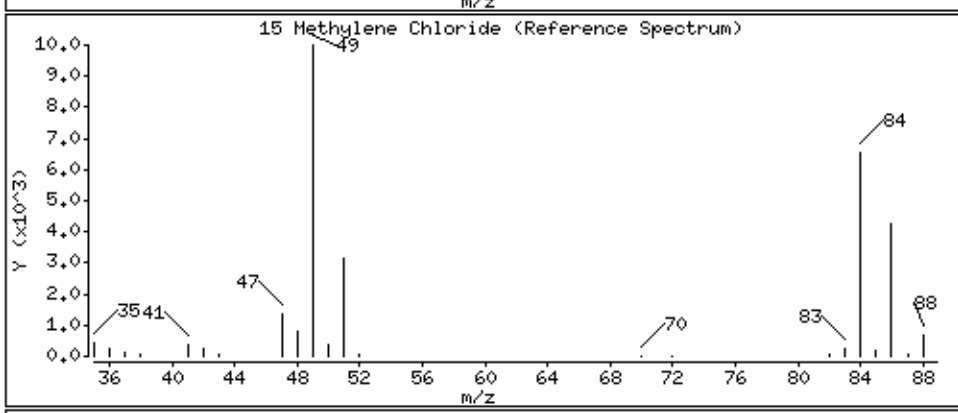
Review Code:

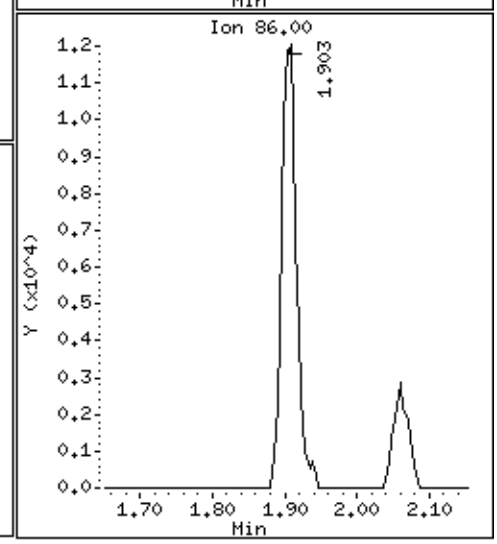


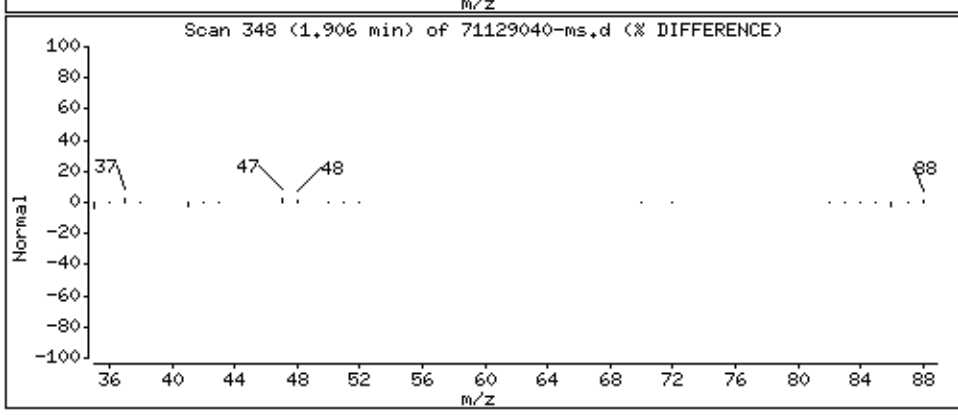












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

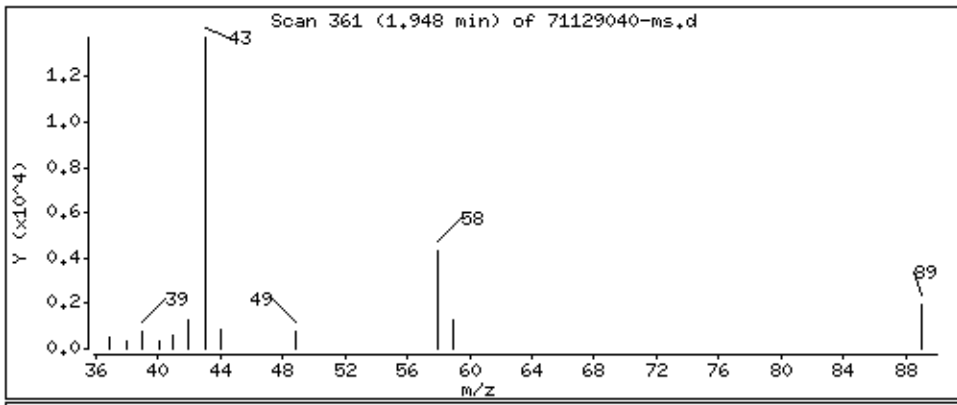
Column phase: RTX-VMS

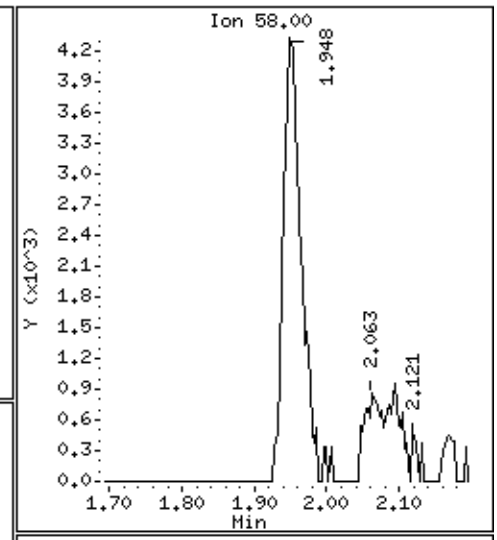
Column diameter: 0.18

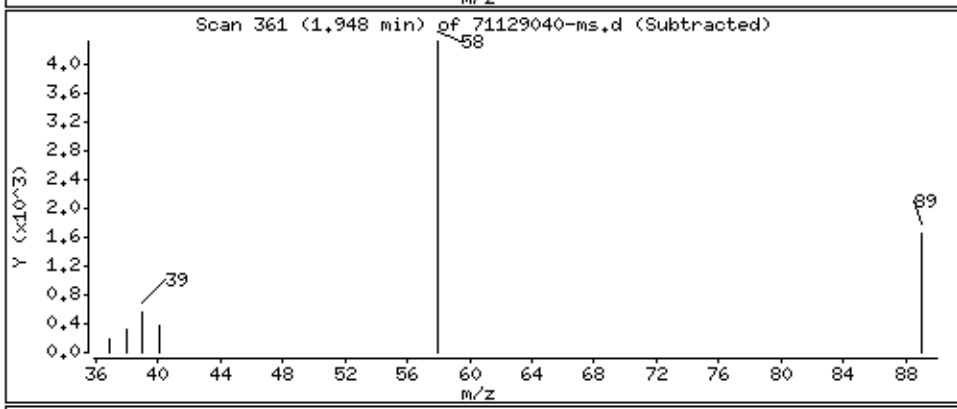
16 Acetone

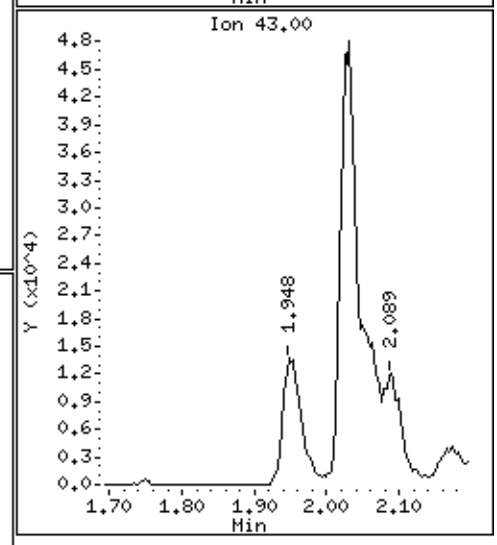
Concentration: 20.4 ug/L

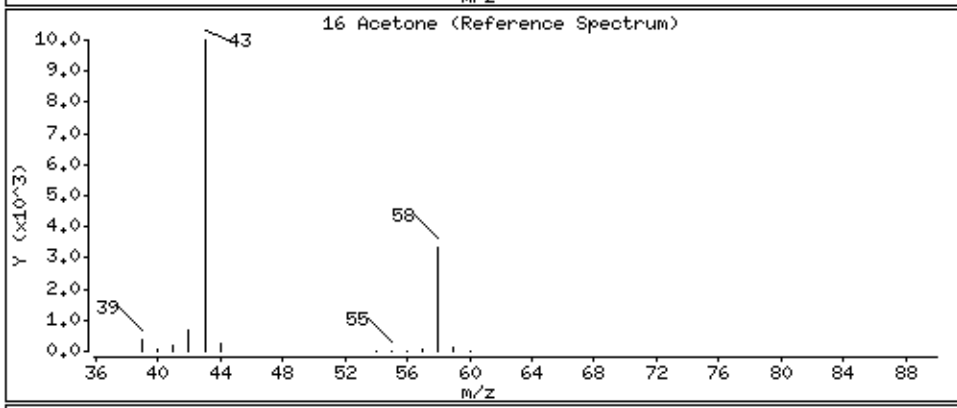
Review Code:

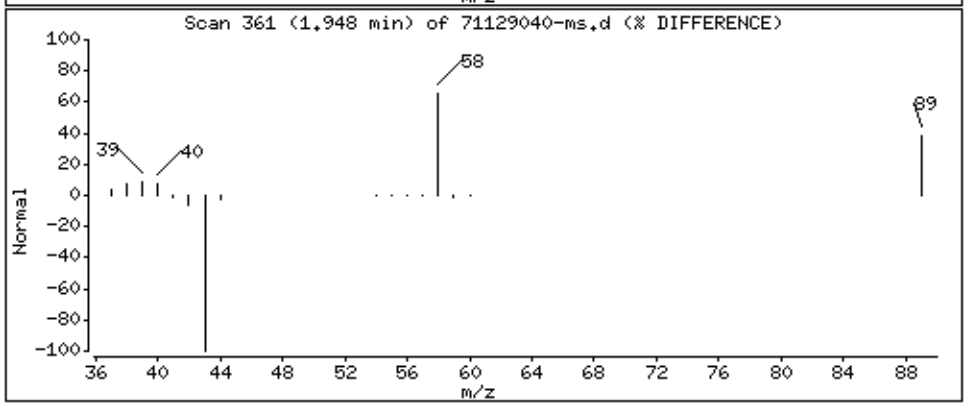












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

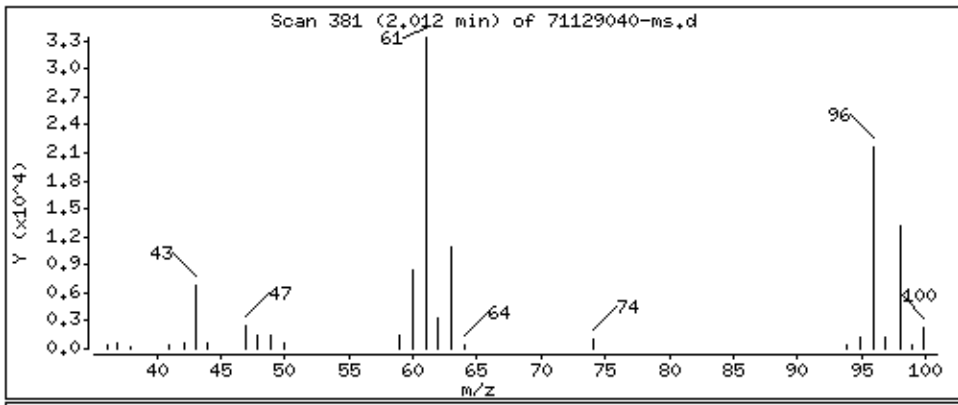
Column phase: RTX-VMS

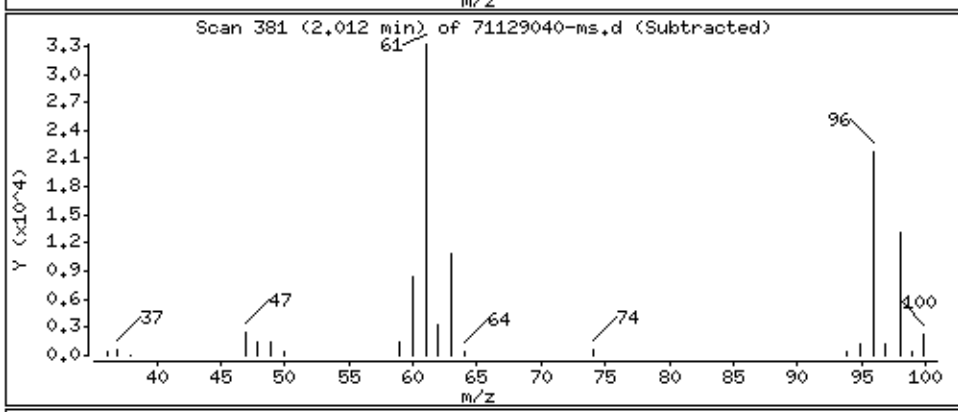
Column diameter: 0.18

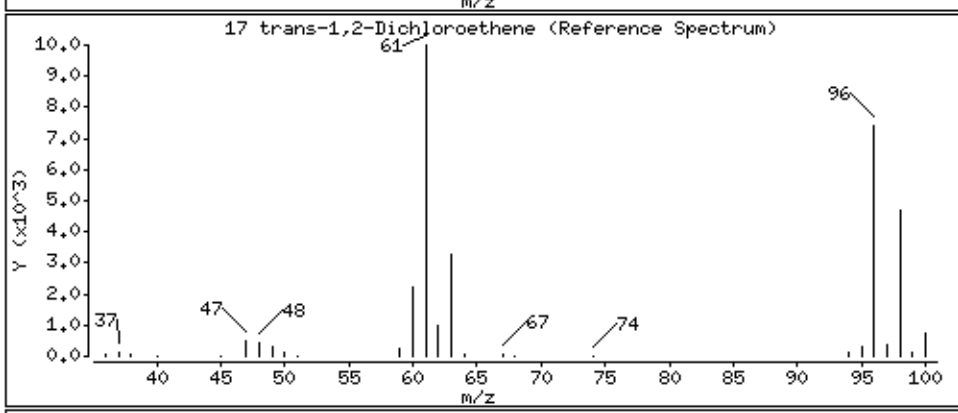
17 trans-1,2-Dichloroethene

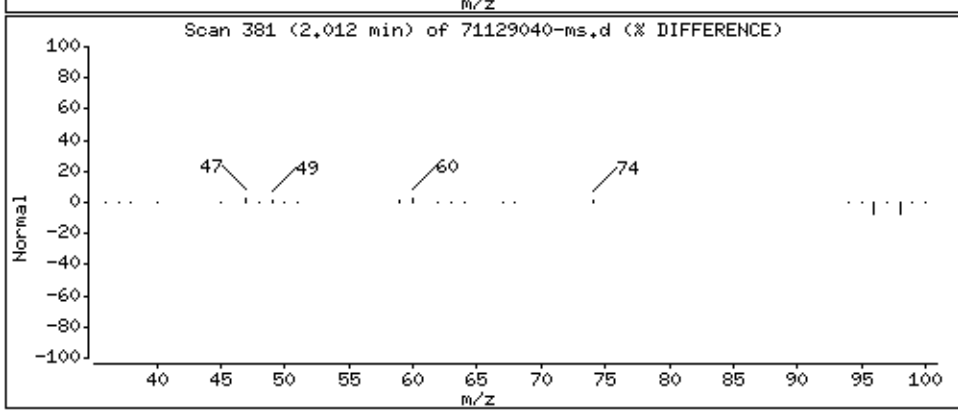
Concentration: 18.5 ug/L

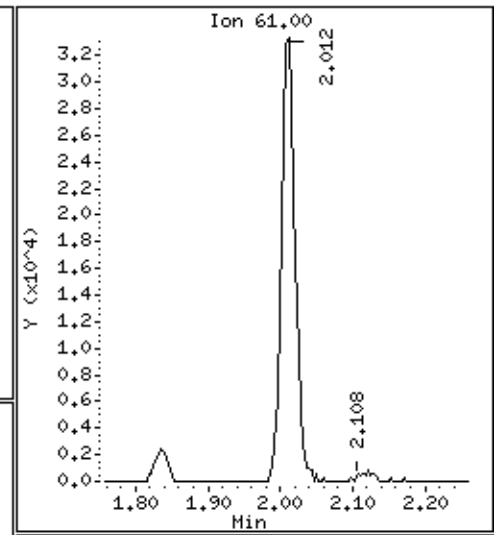
Review Code:

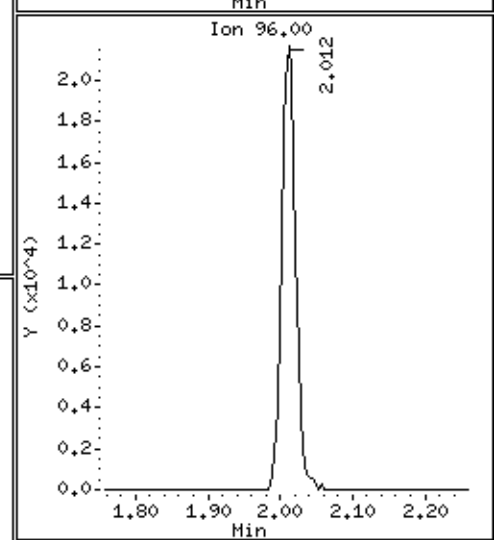


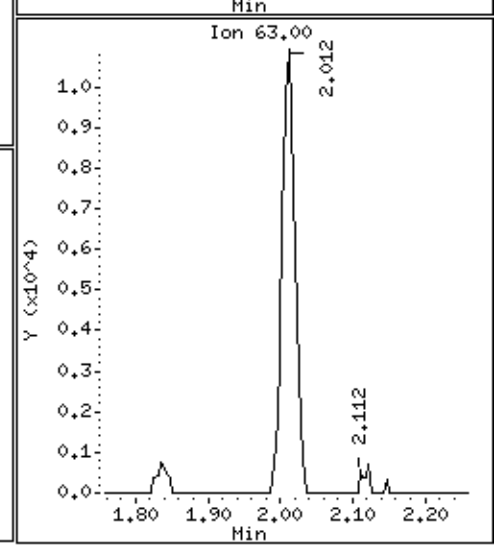












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

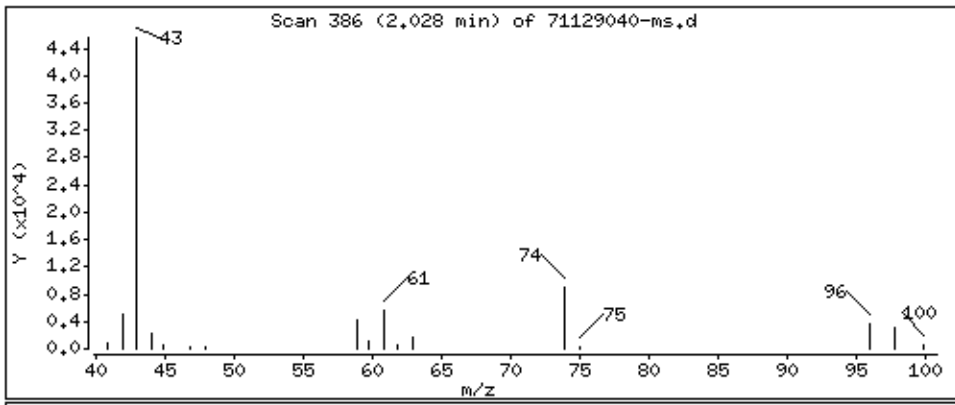
Column phase: RTX-VMS

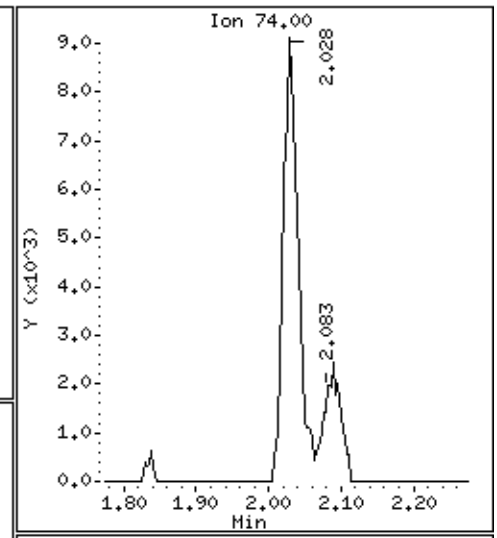
Column diameter: 0.18

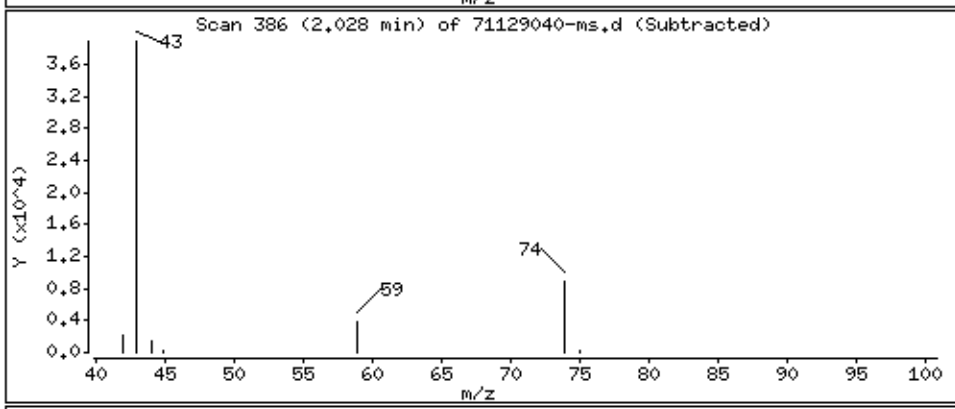
18 Methyl acetate

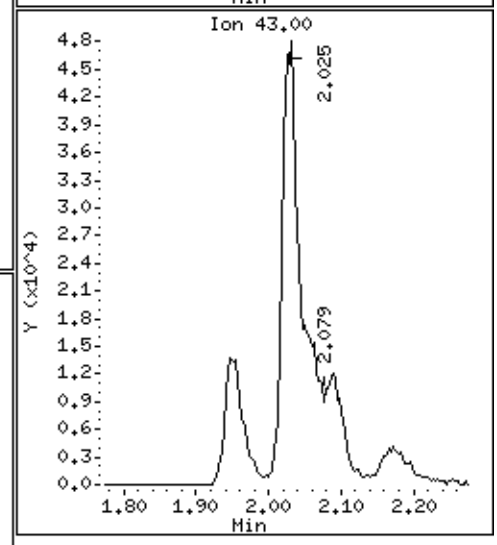
Concentration: 17.5 ug/L

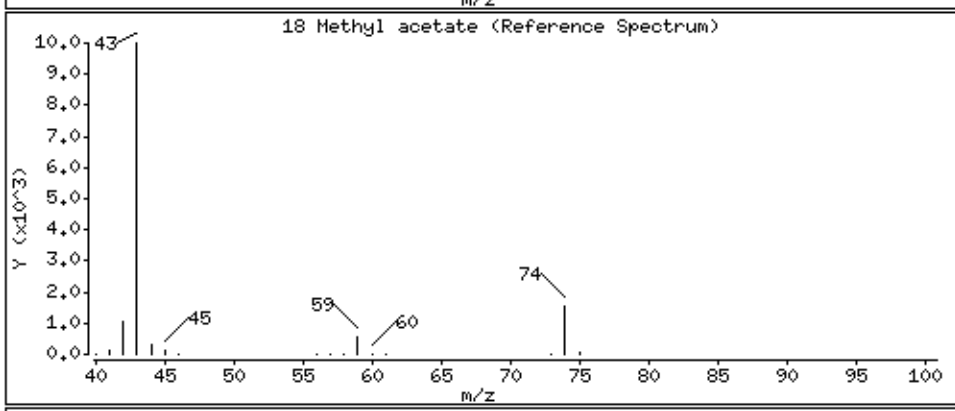
Review Code:

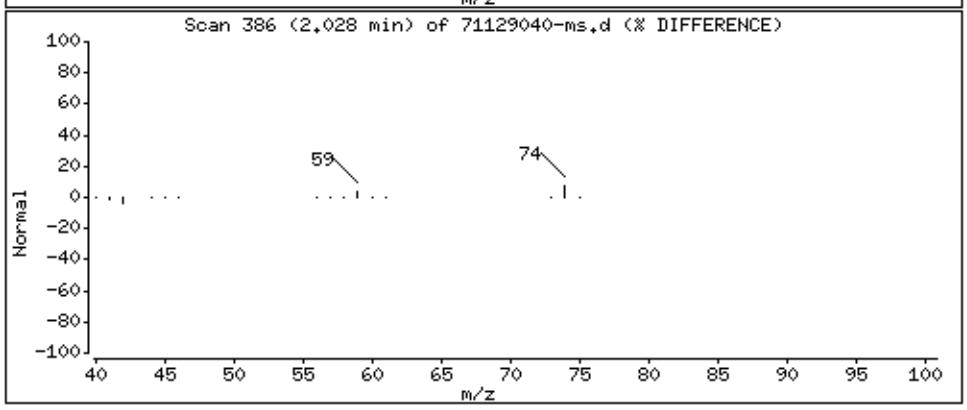












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

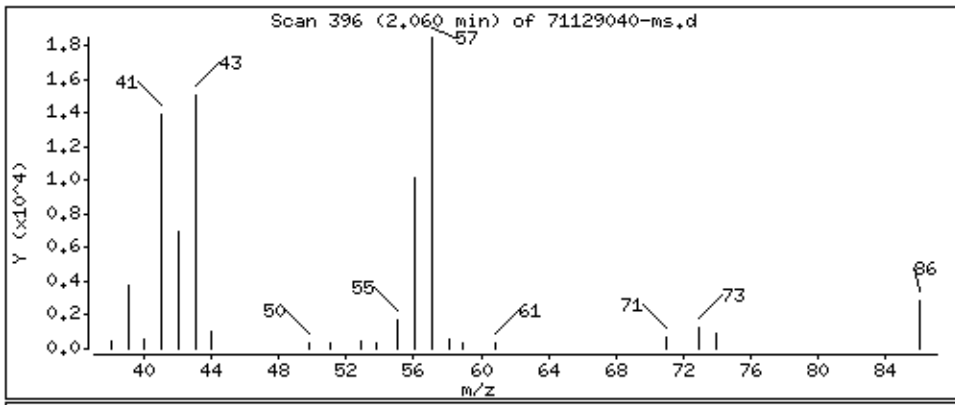
Column phase: RTX-VMS

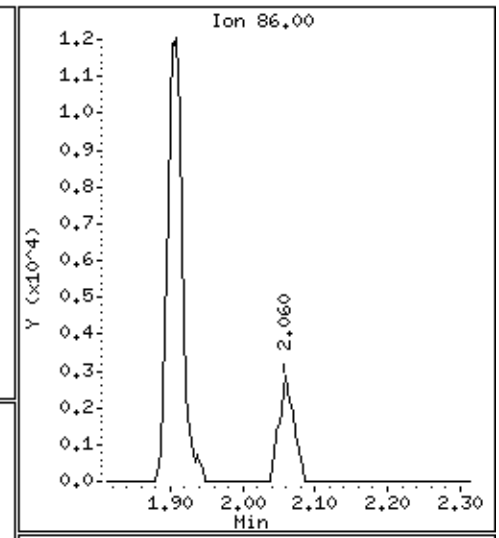
Column diameter: 0.18

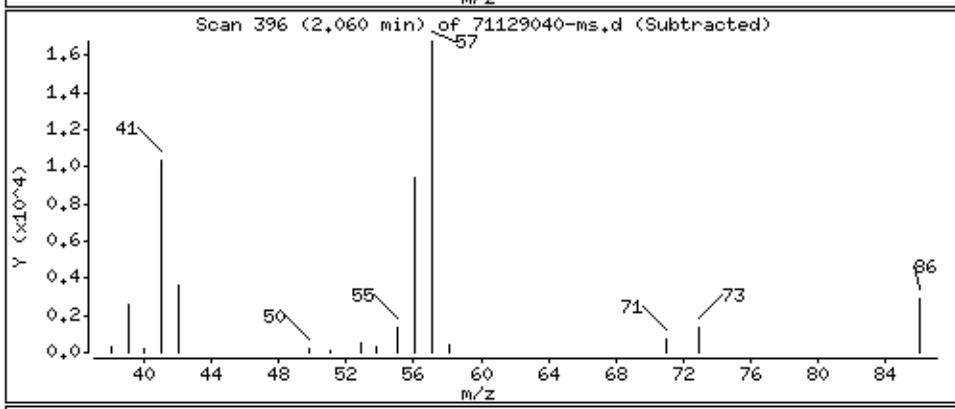
19 n-Hexane

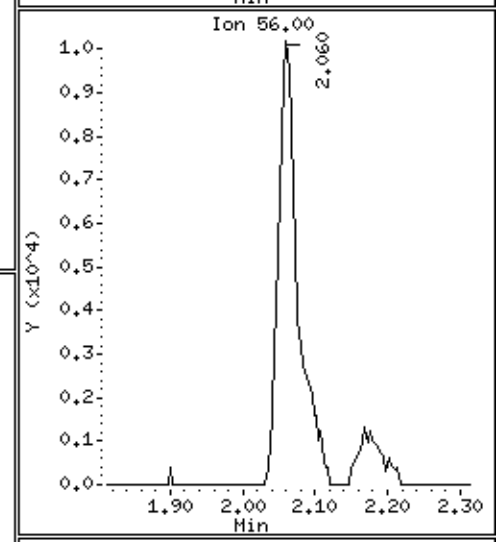
Concentration: 14.4 ug/L

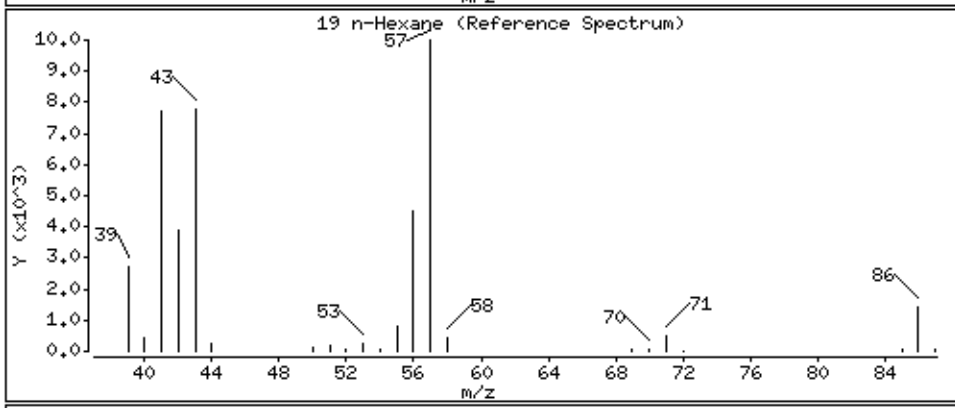
Review Code:

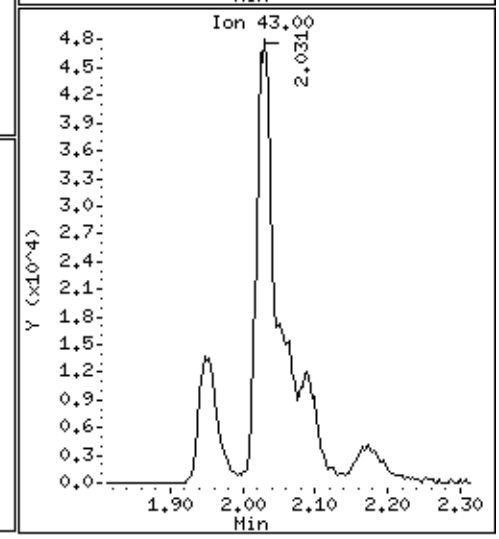


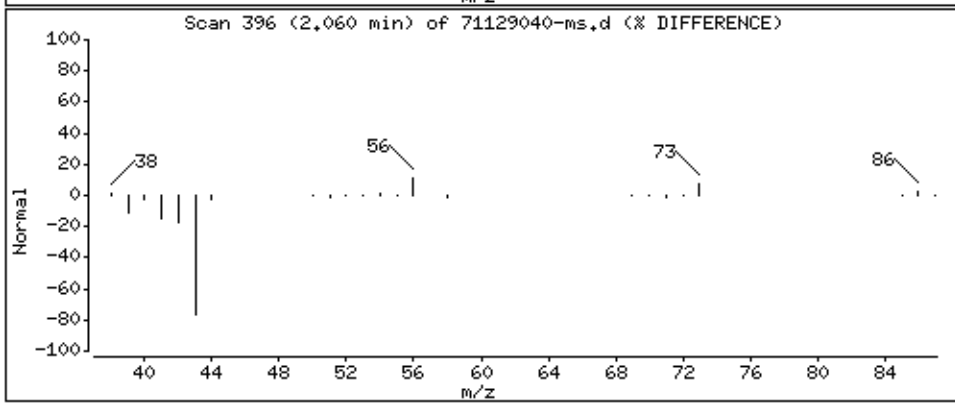












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

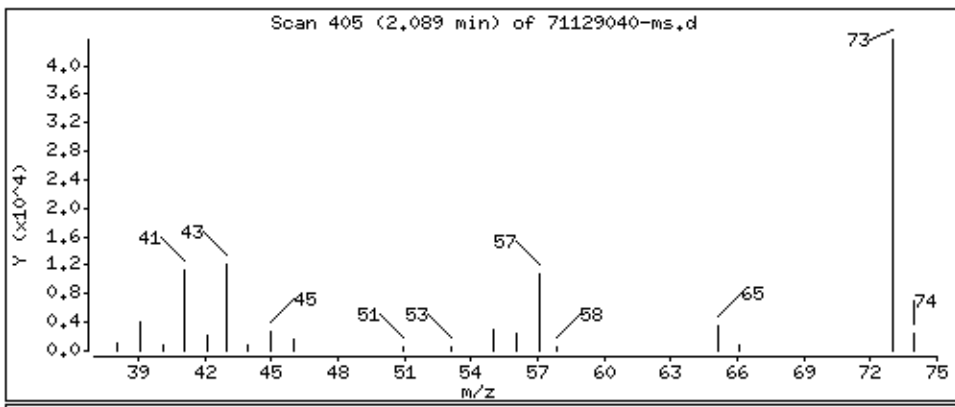
Column phase: RTX-VMS

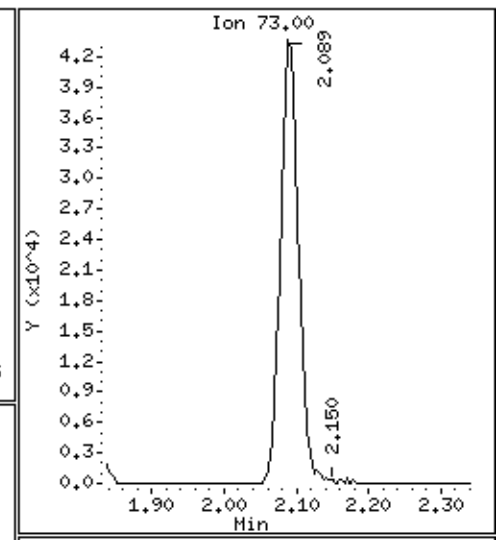
Column diameter: 0.18

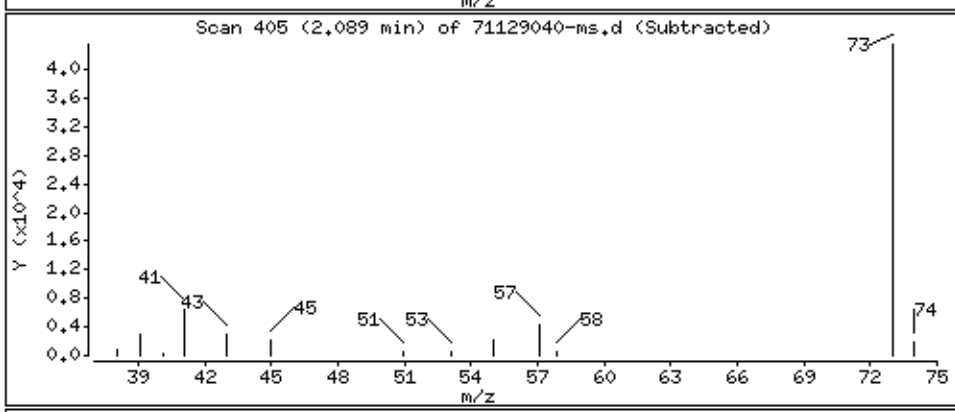
20 Methyl-tert-butyl ether

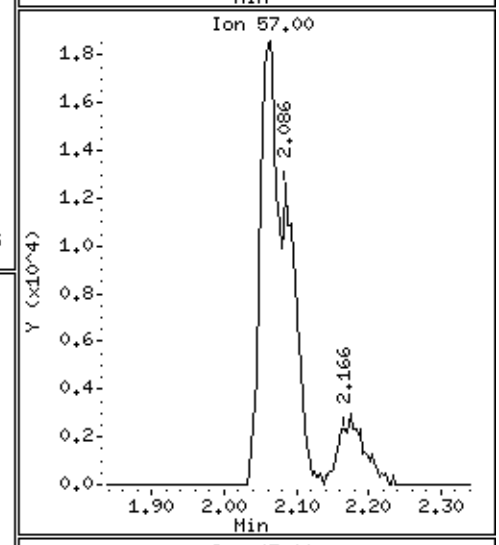
Concentration: 15.8 ug/L

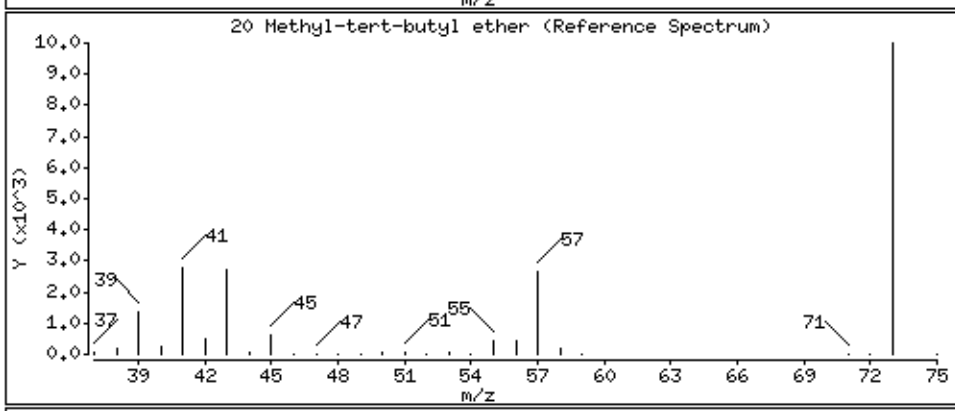
Review Code:

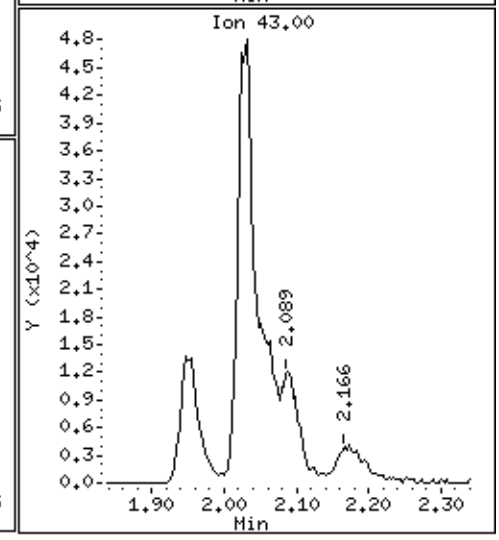


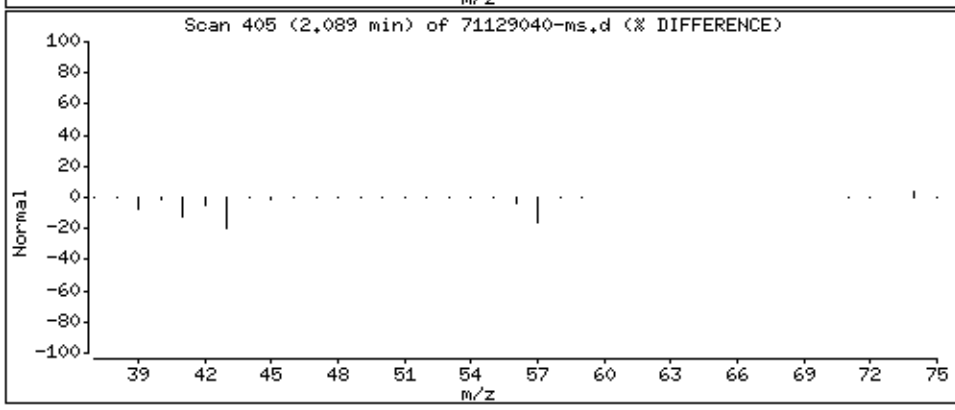












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

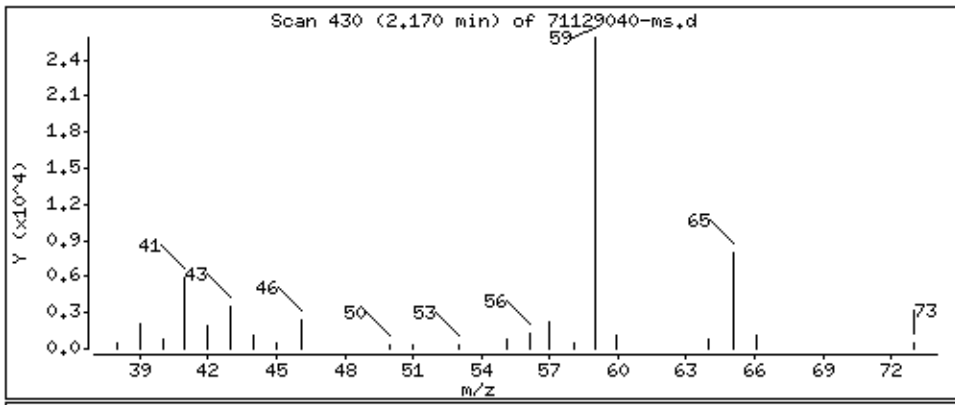
Column phase: RTX-VMS

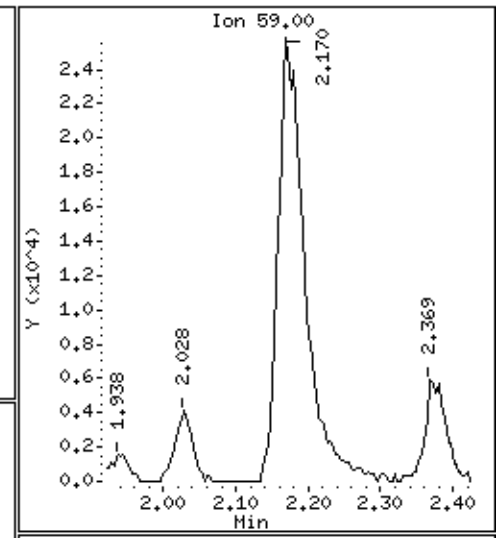
Column diameter: 0.18

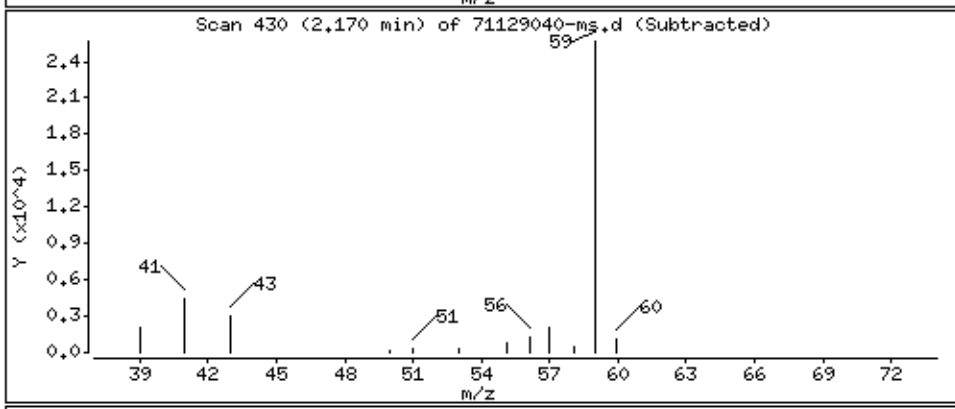
21 tert-Butyl Alcohol

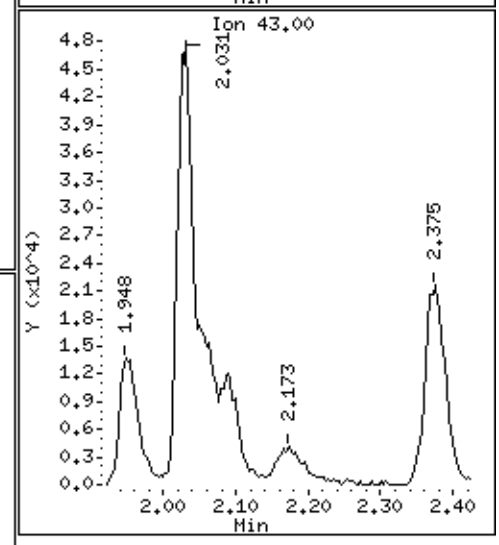
Concentration: 94.7 ug/L

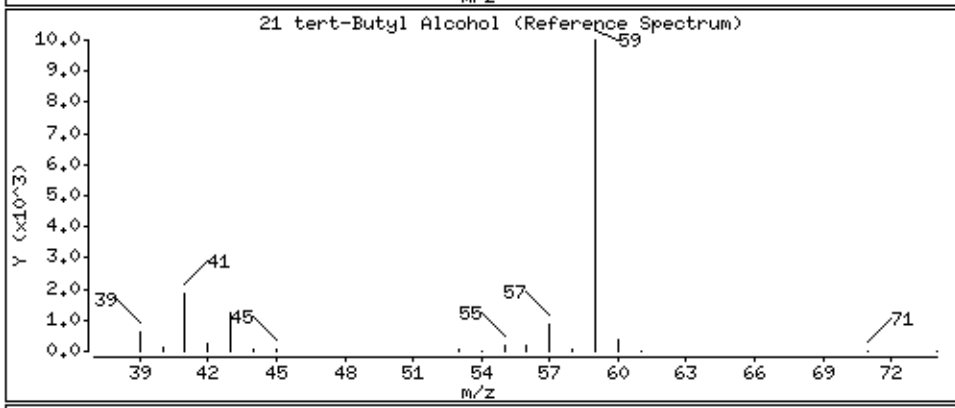
Review Code:

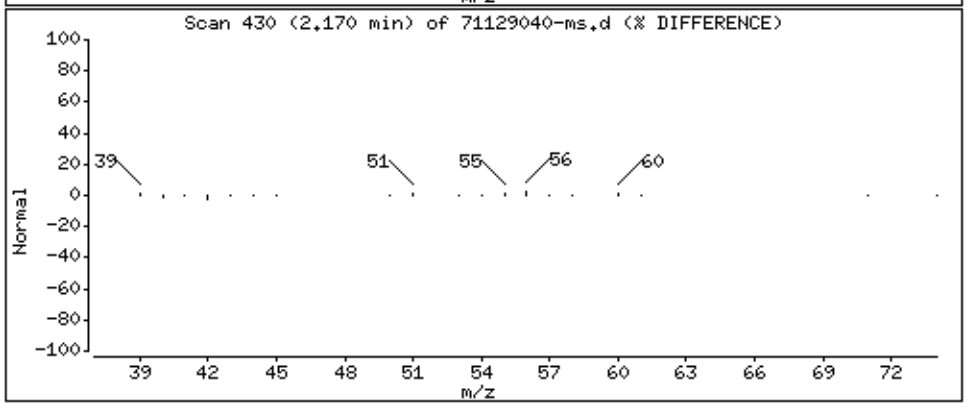












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

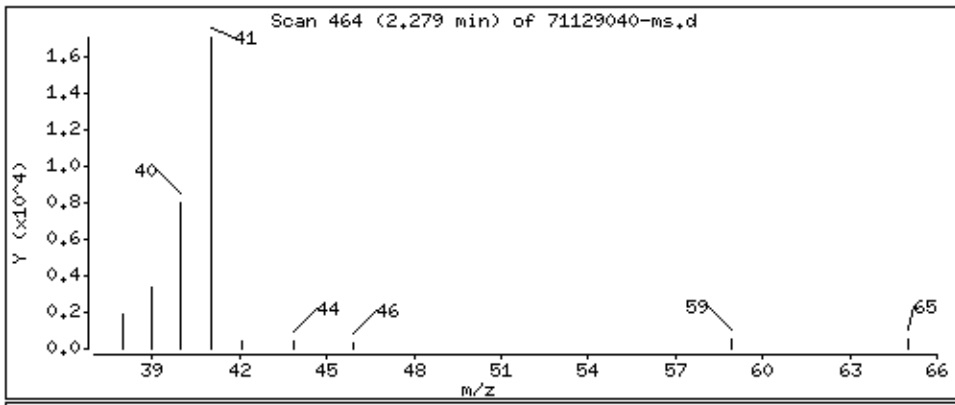
Column phase: RTX-VMS

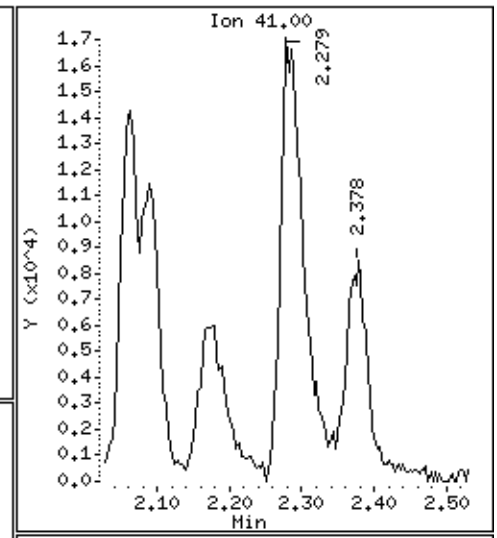
Column diameter: 0.18

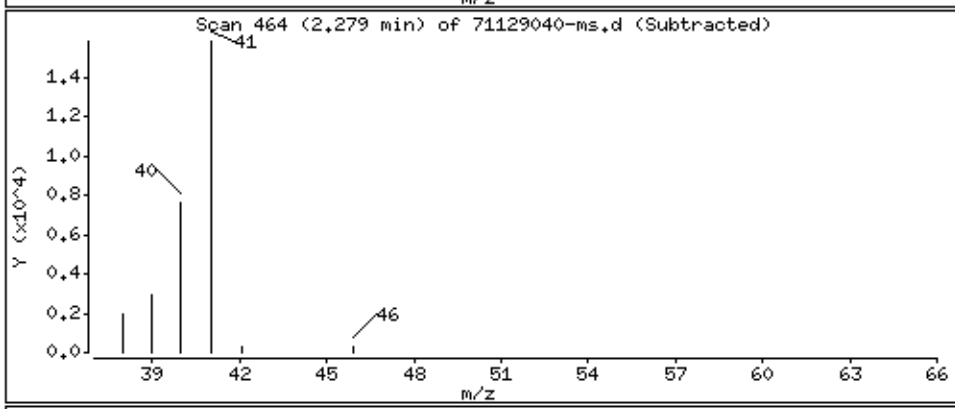
22 Acetonitrile

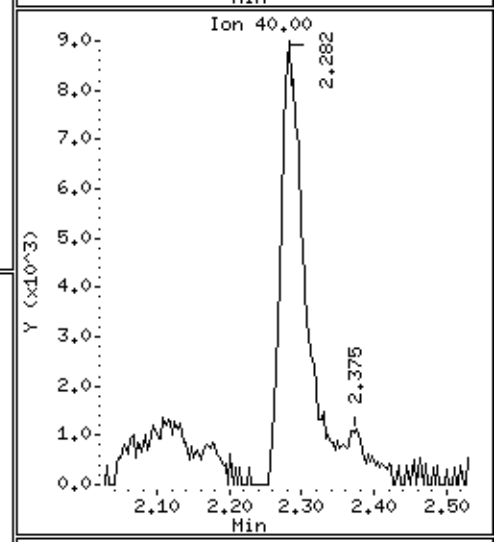
Concentration: 98.8 ug/L

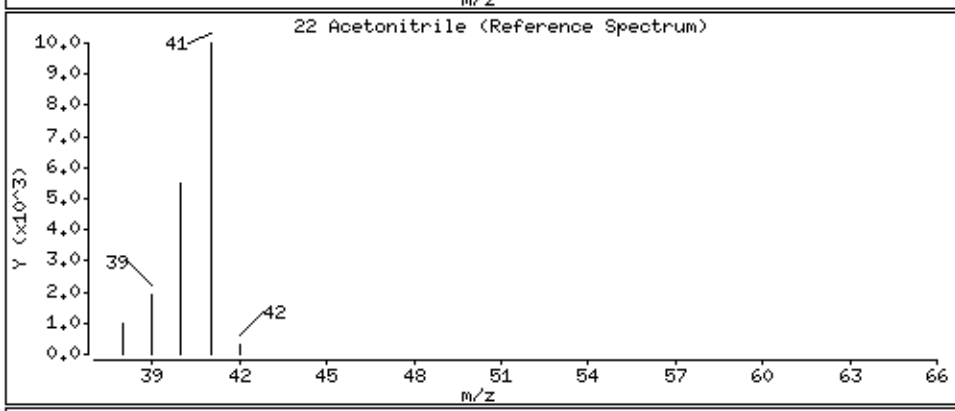
Review Code:

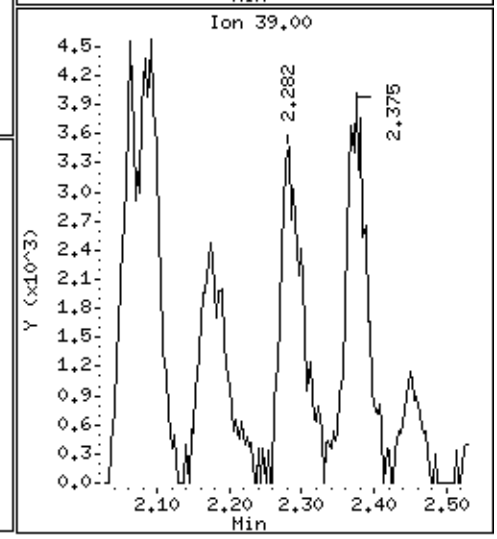


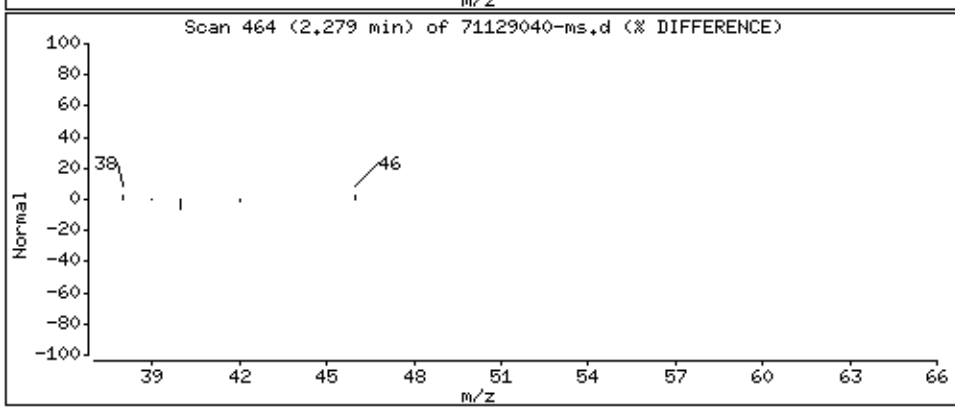












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

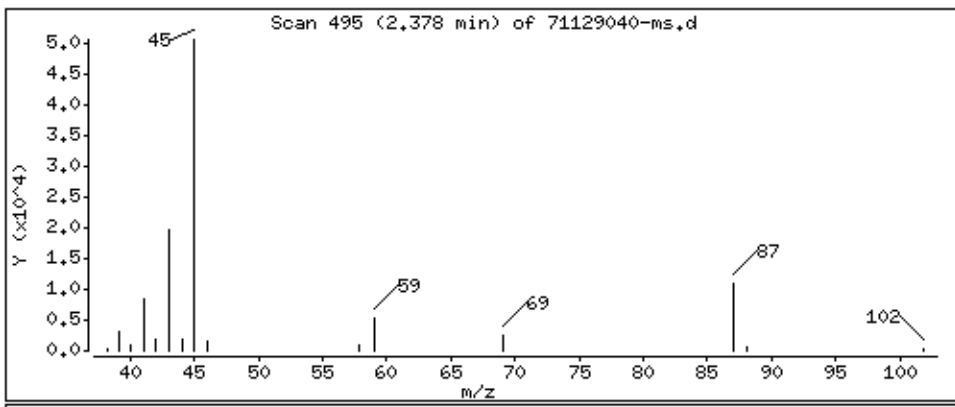
Column phase: RTX-VMS

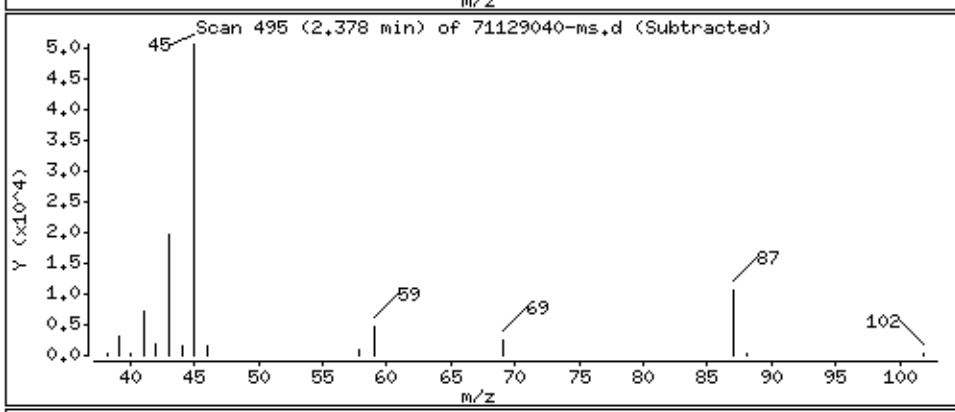
Column diameter: 0.18

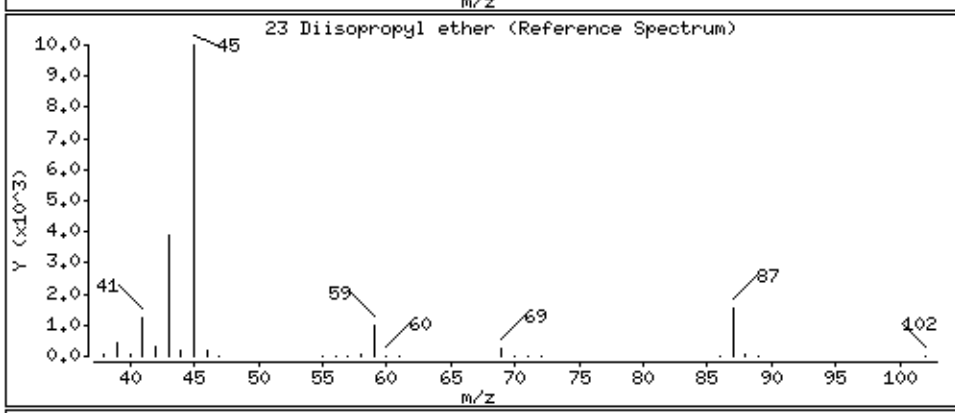
23 Diisopropyl ether

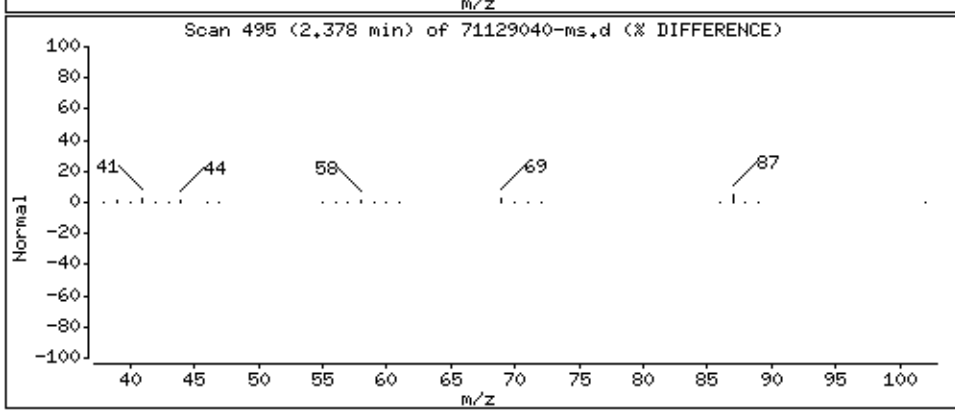
Concentration: 19.3 ug/L

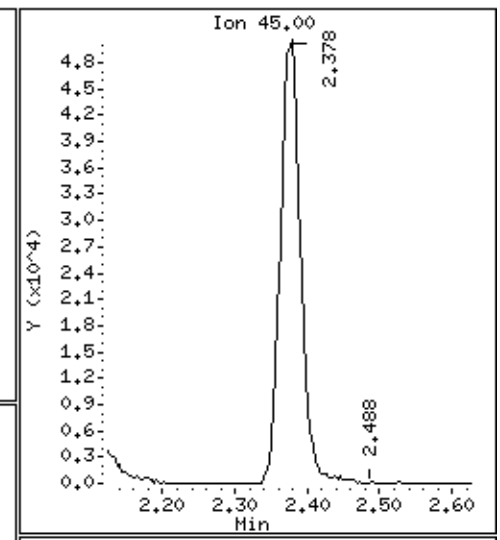
Review Code:

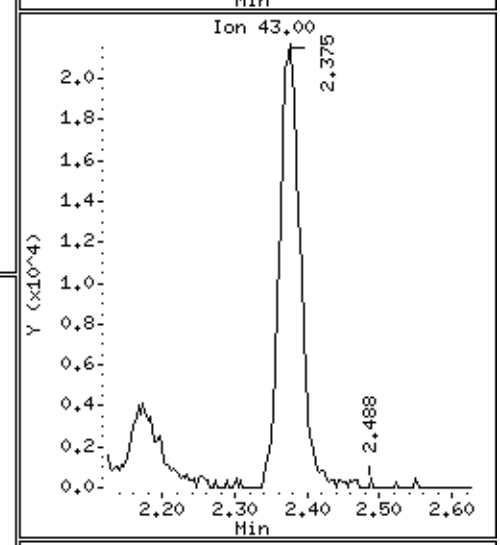


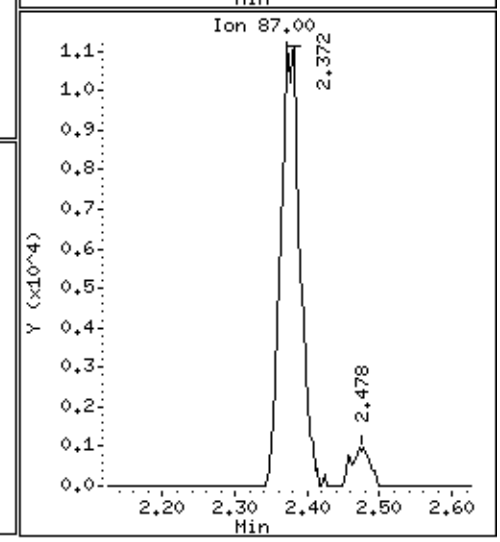












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

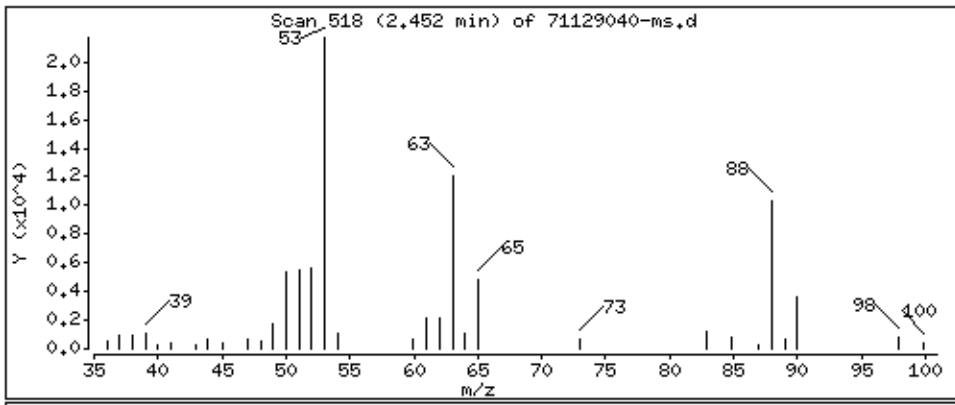
Column phase: RTX-VMS

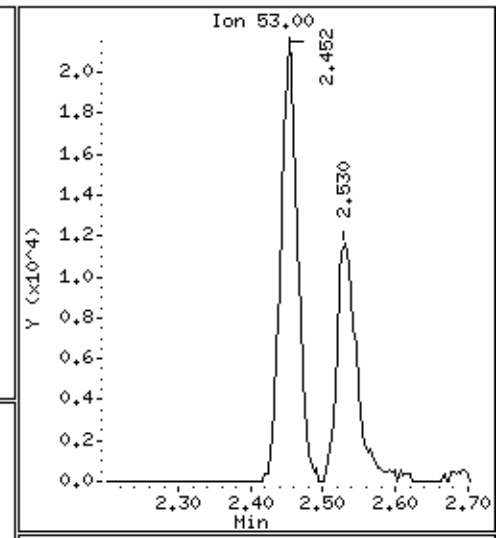
Column diameter: 0.18

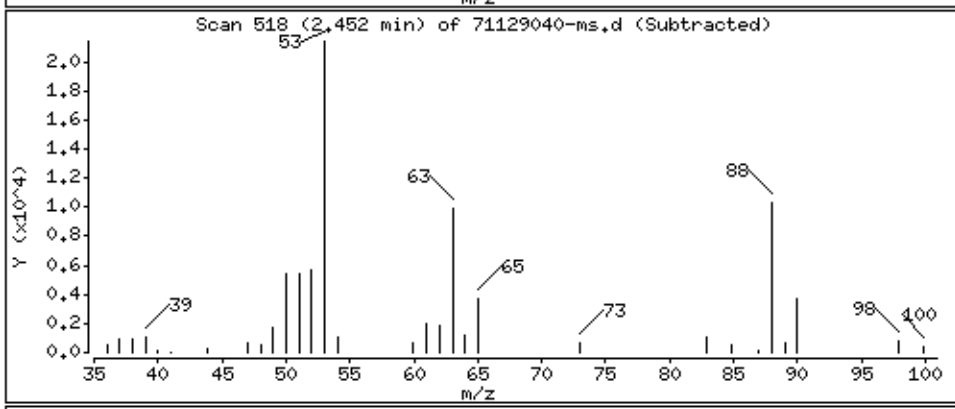
24 Chloroprene

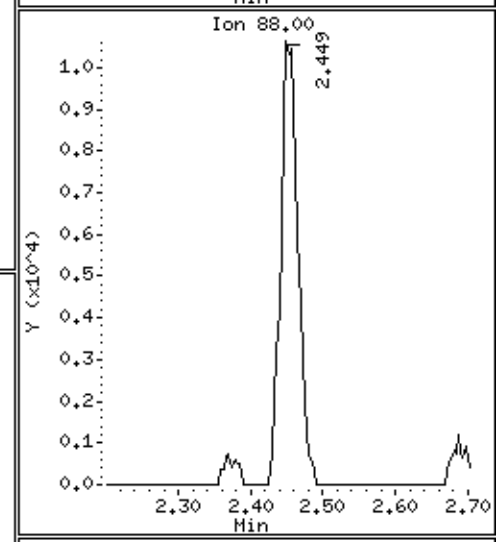
Concentration: 19.6 ug/L

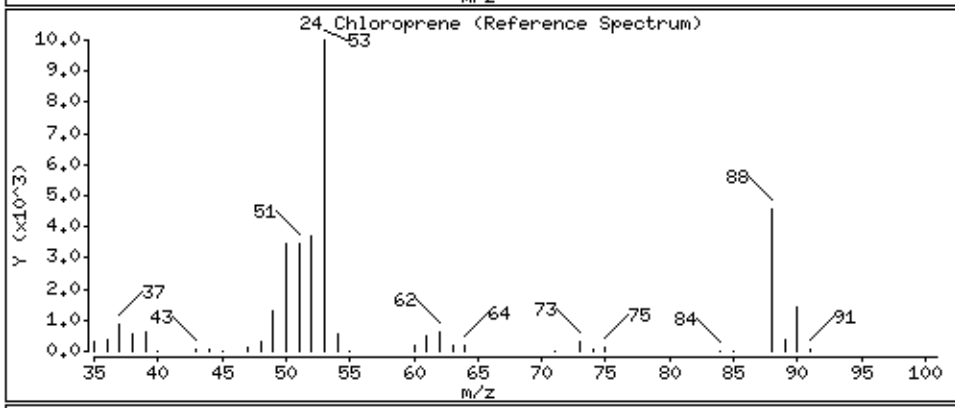
Review Code:

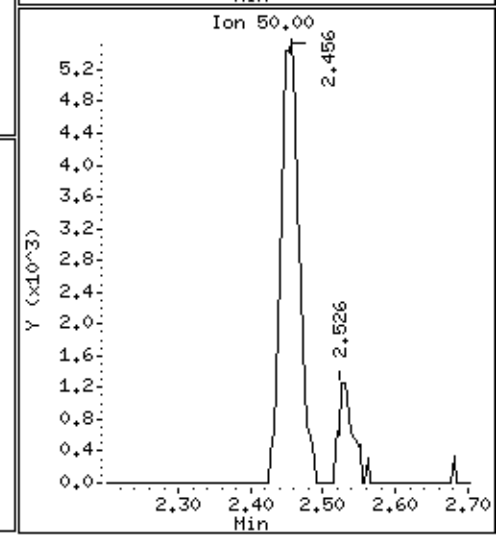


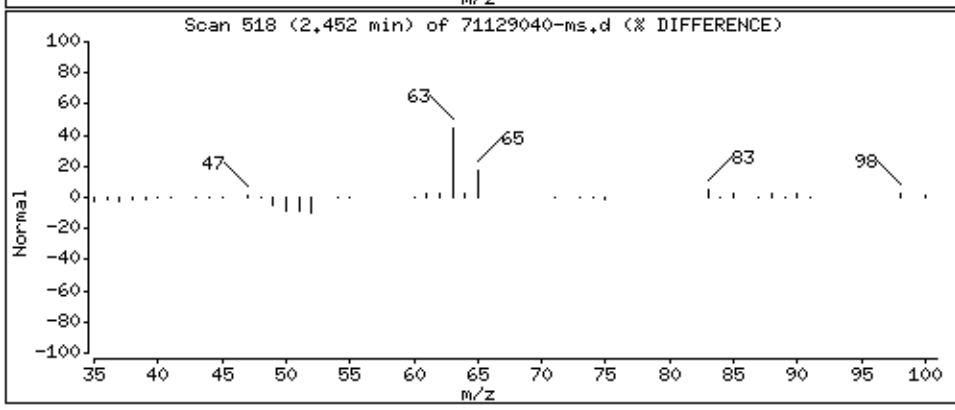












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

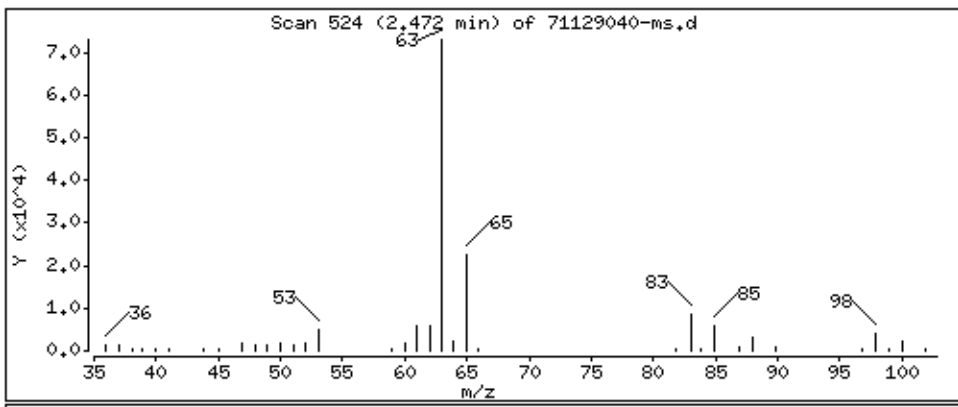
Column phase: RTX-VMS

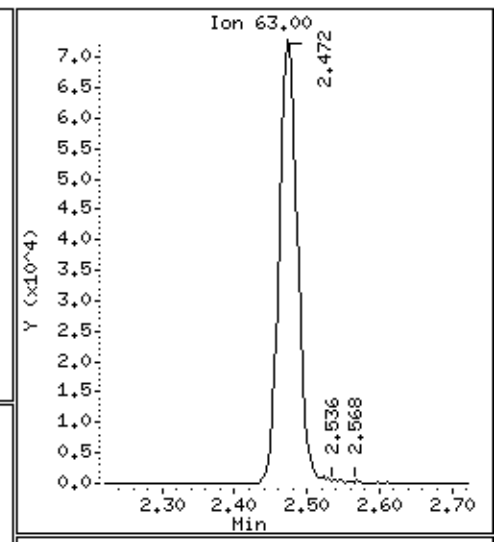
Column diameter: 0.18

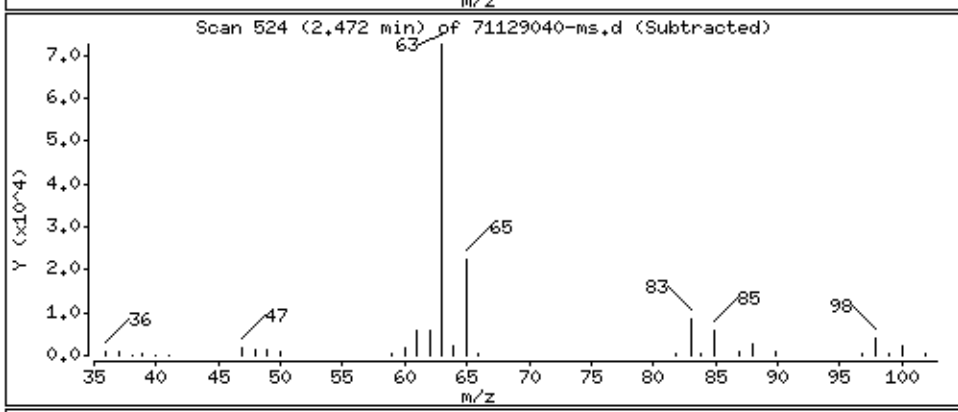
25 1,1-Dichloroethane

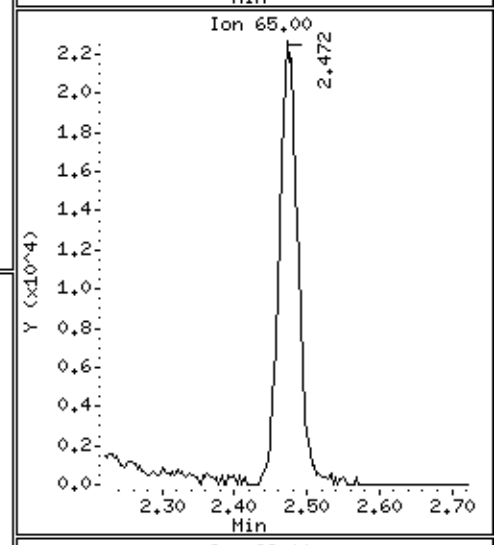
Concentration: 44.5 ug/L

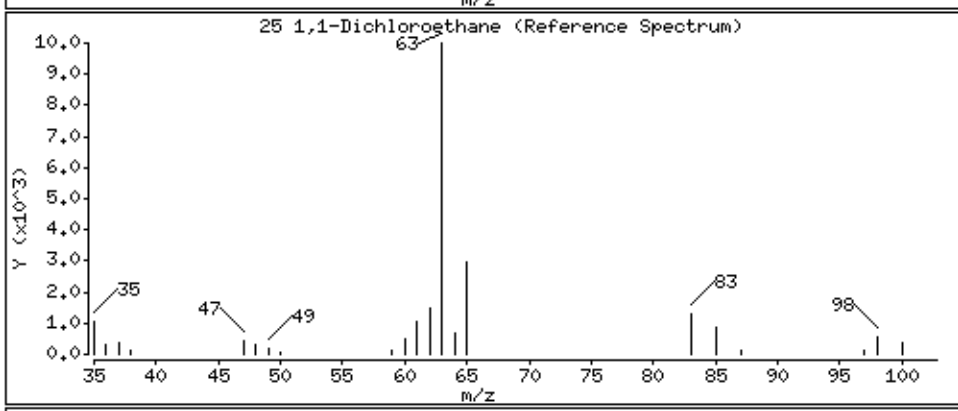
Review Code:

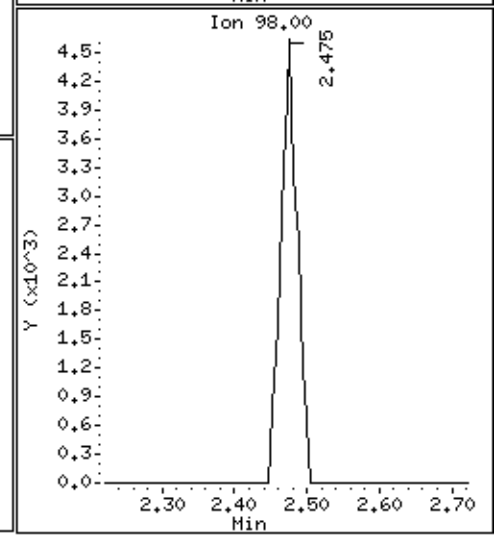


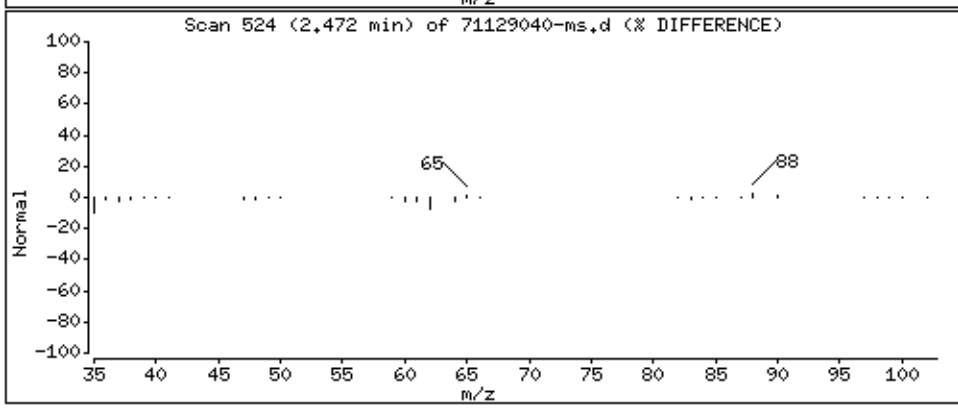












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

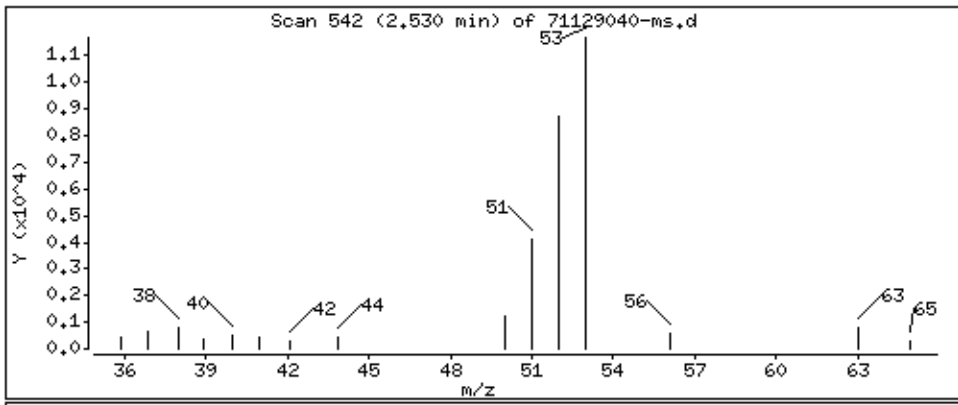
Column phase: RTX-VMS

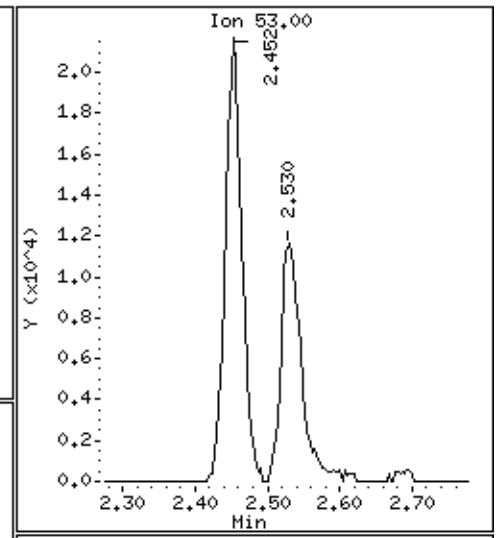
Column diameter: 0.18

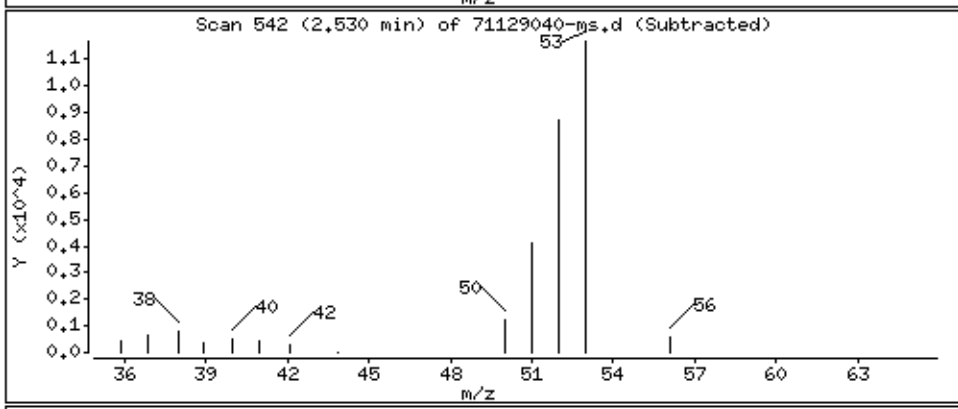
26 Acrylonitrile

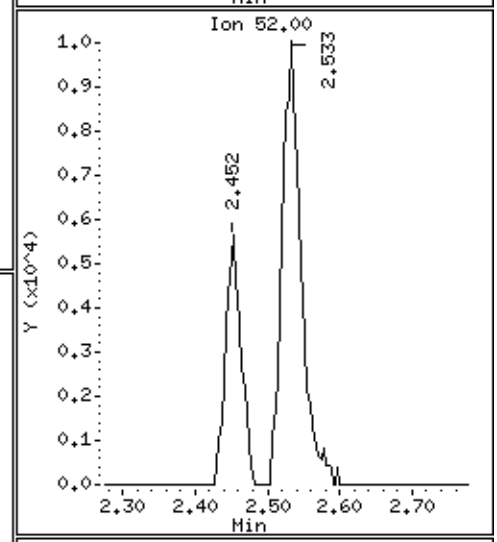
Concentration: 19.0 ug/L

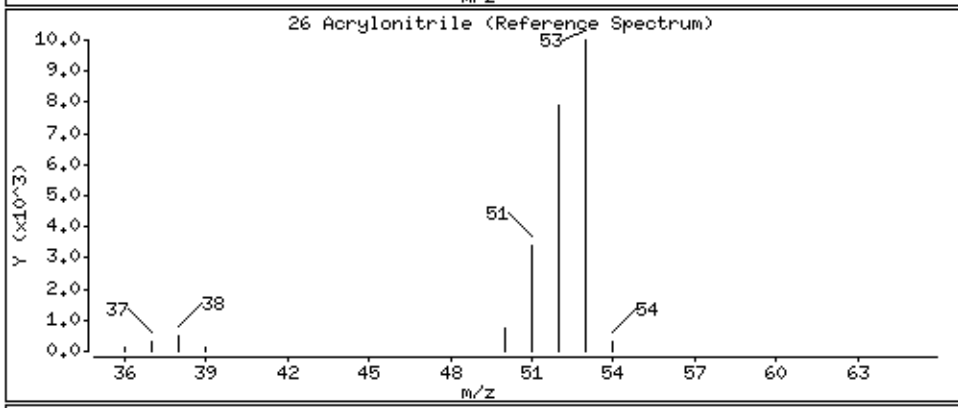
Review Code:

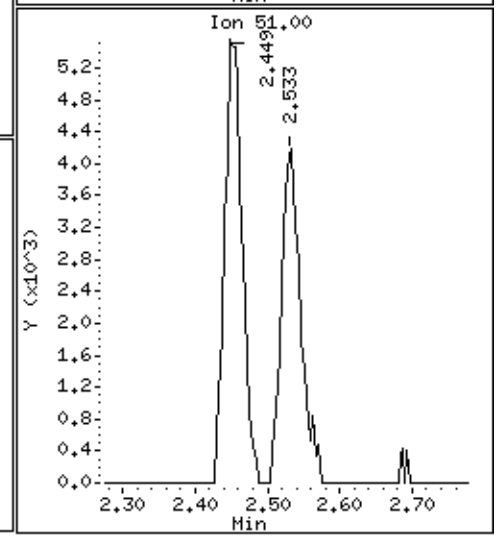


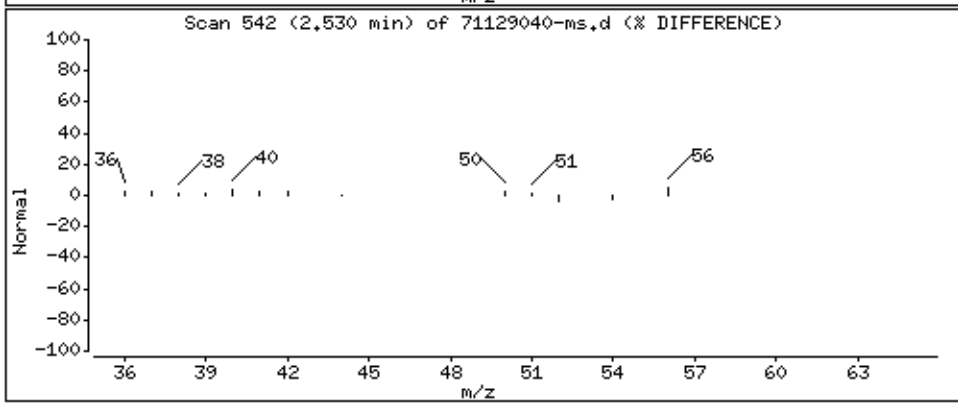












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

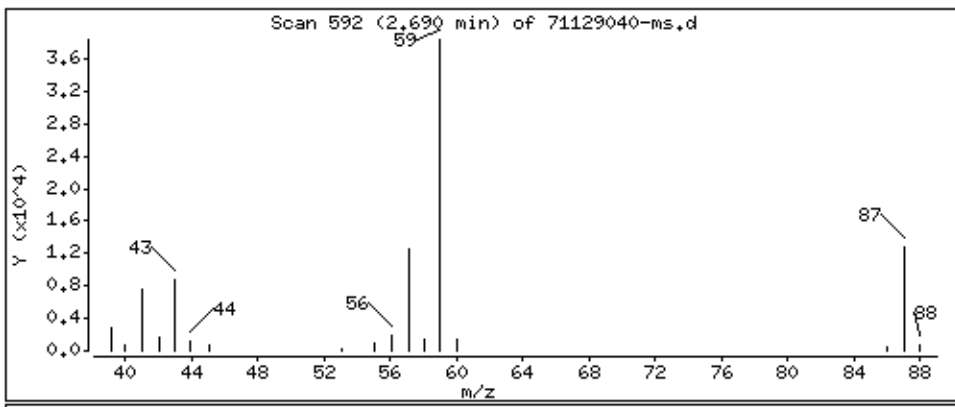
Column phase: RTX-VMS

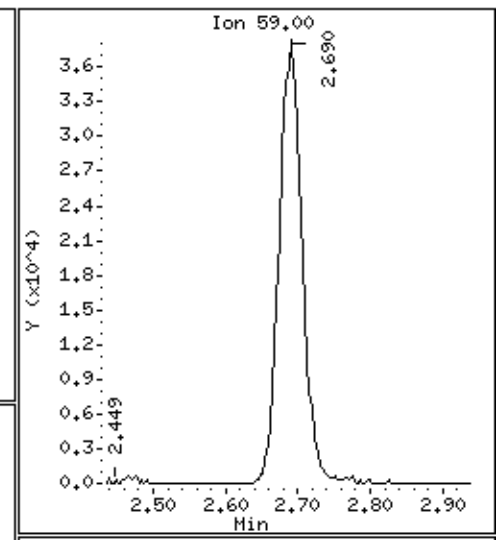
Column diameter: 0.18

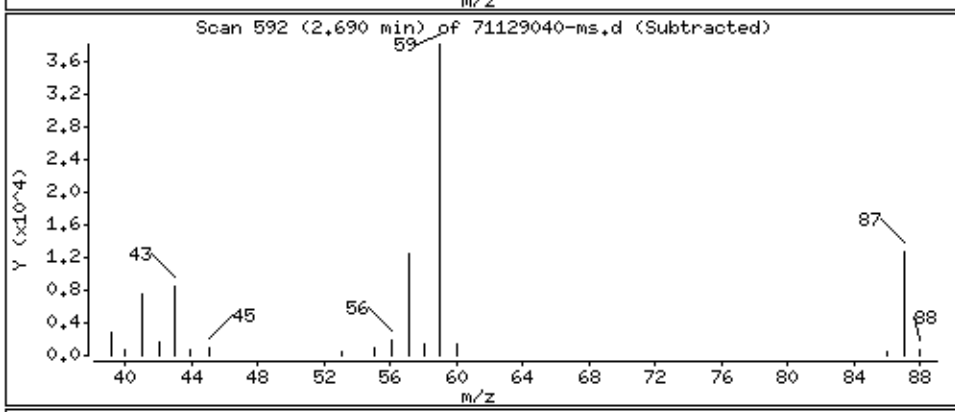
27 Ethyl-tert-butyl ether

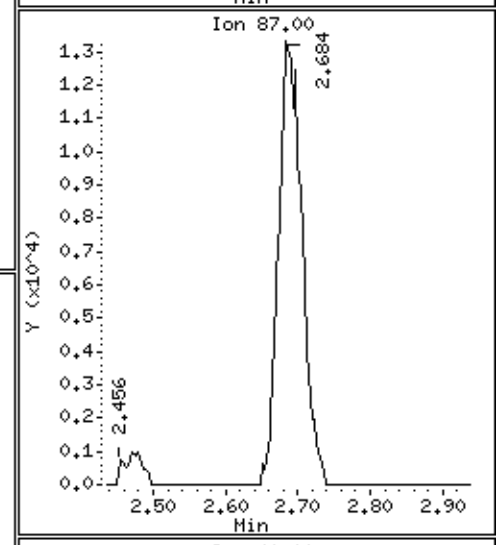
Concentration: 17.4 ug/L

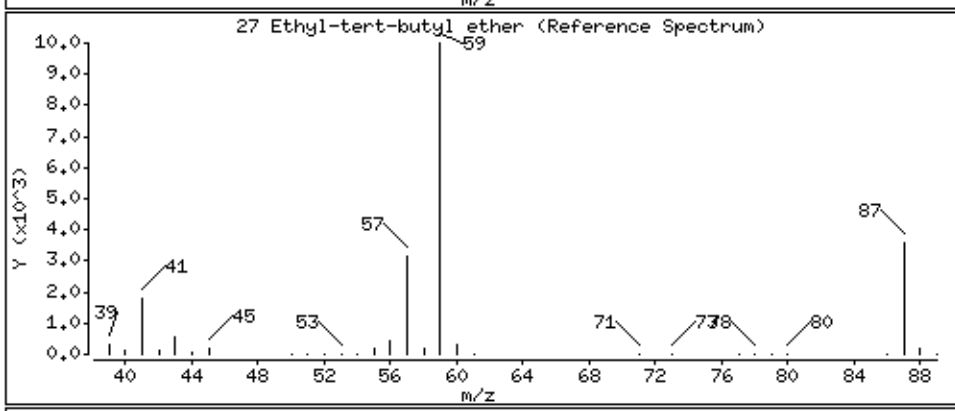
Review Code:

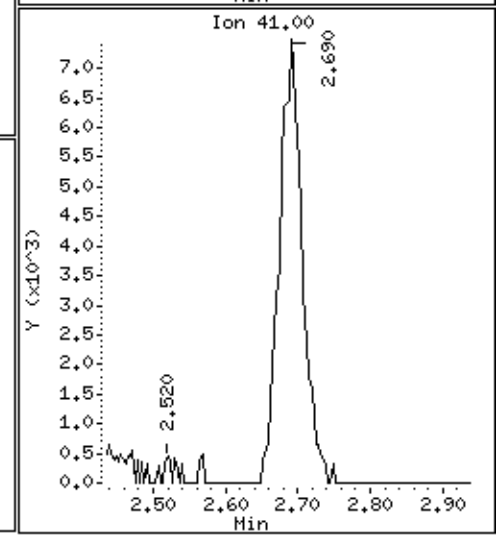


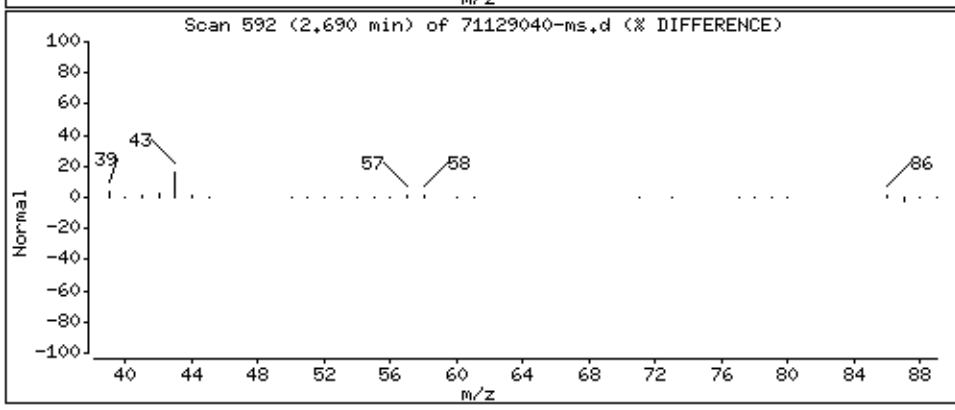












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

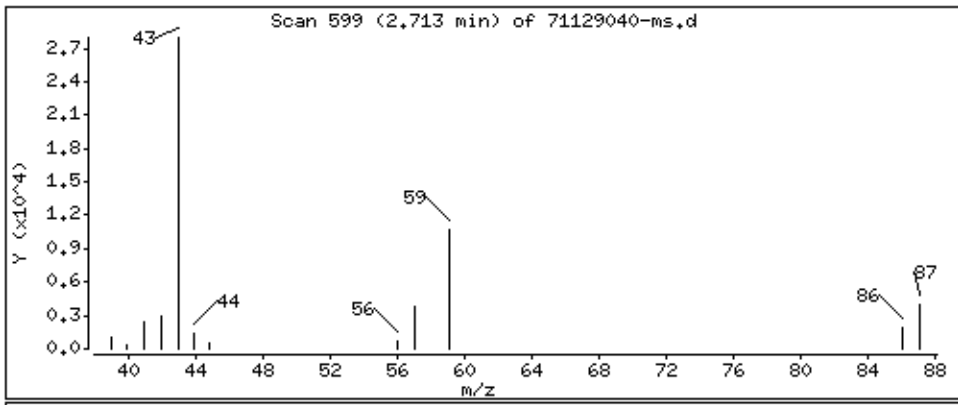
Column phase: RTX-VMS

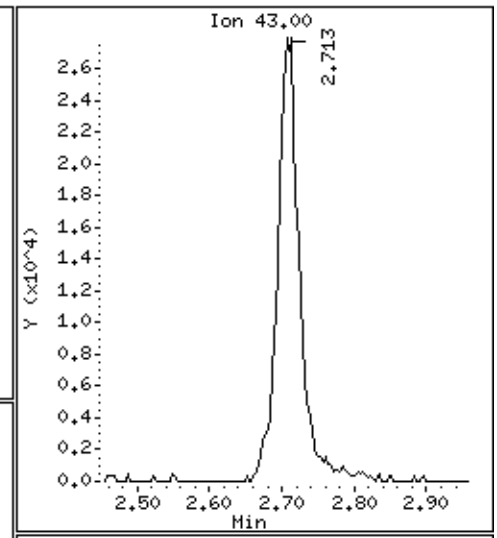
Column diameter: 0.18

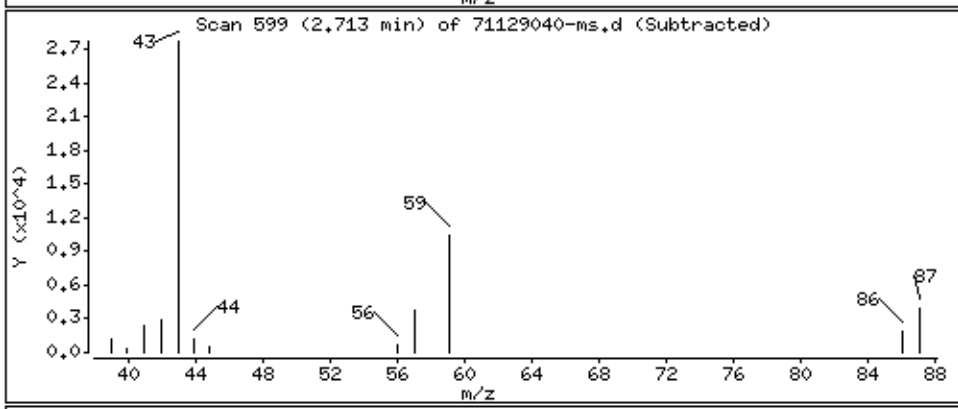
28 Vinyl acetate

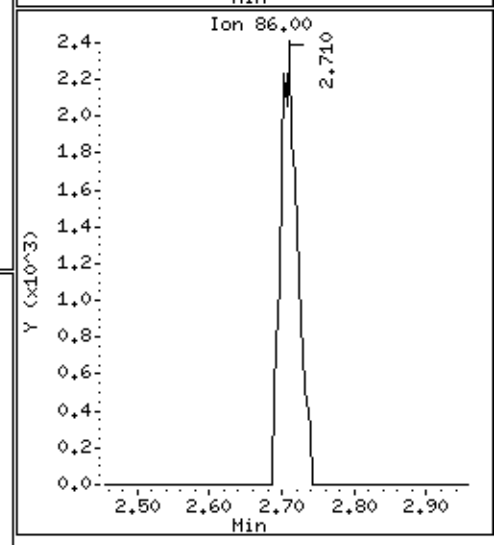
Concentration: 13.4 ug/L

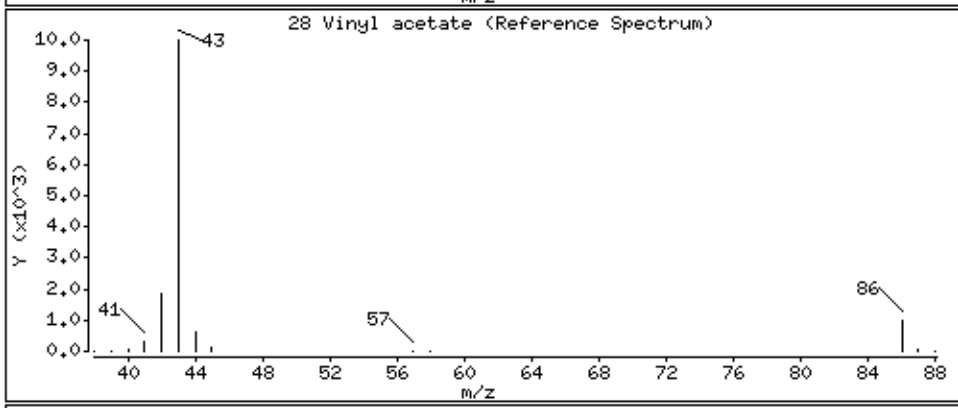
Review Code:

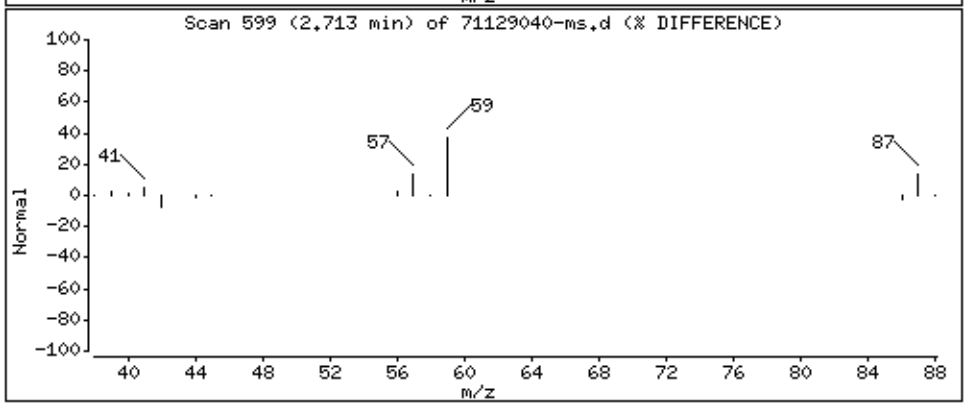












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

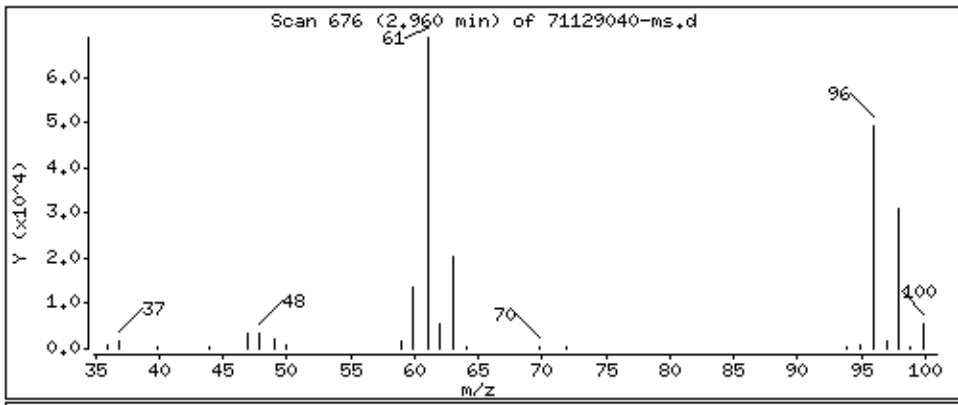
Column phase: RTX-VMS

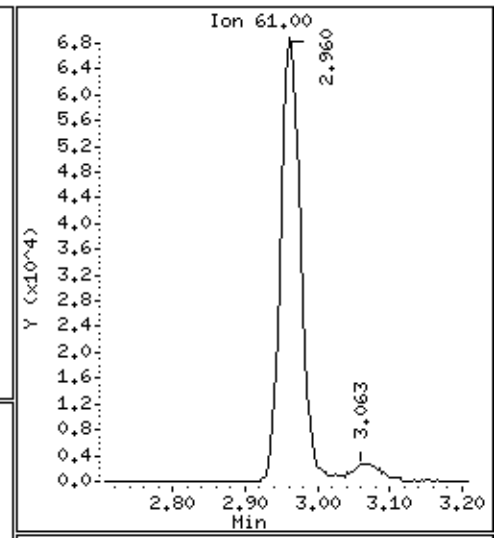
Column diameter: 0.18

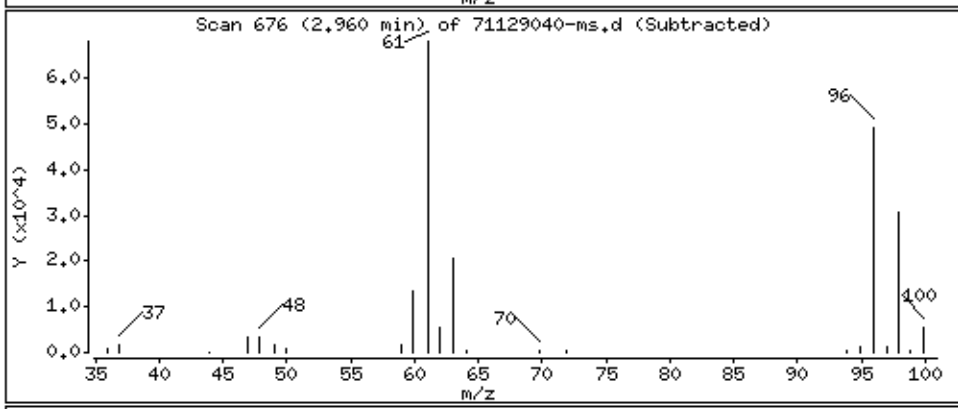
29 cis-1,2-Dichloroethene

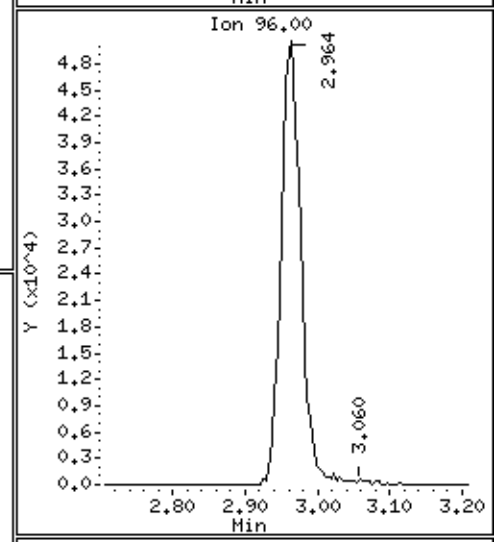
Concentration: 59.9 ug/L

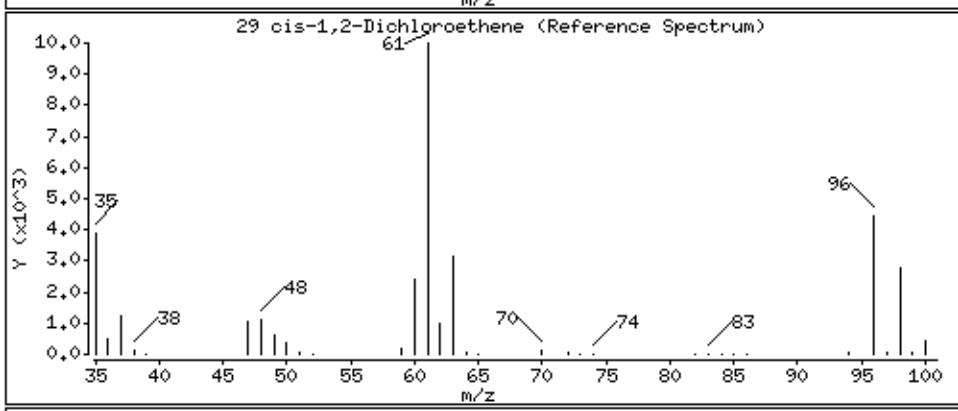
Review Code:

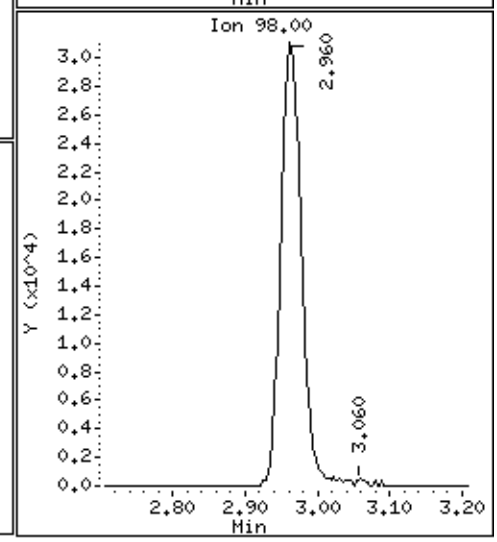


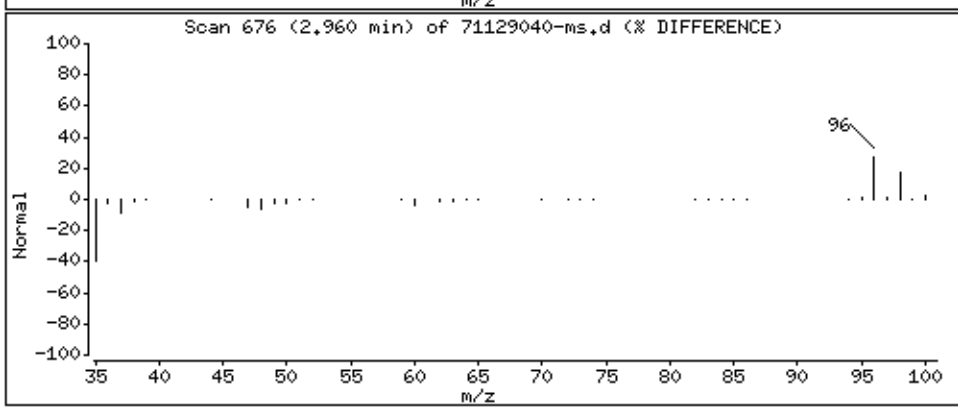












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

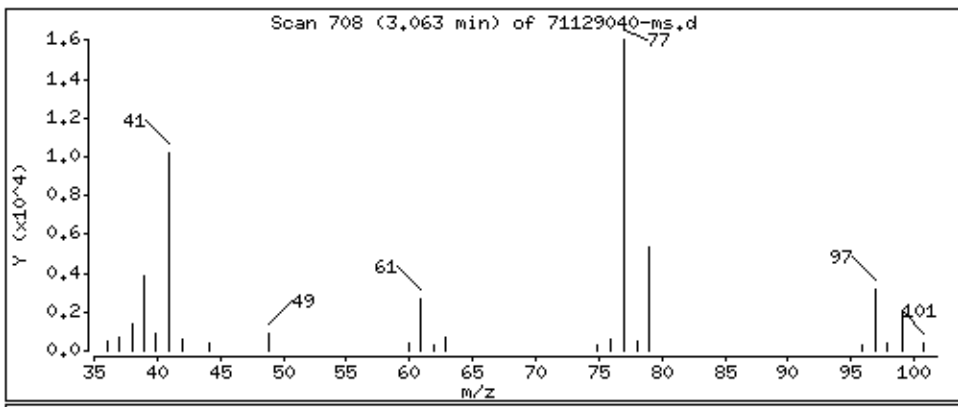
Column phase: RTX-VMS

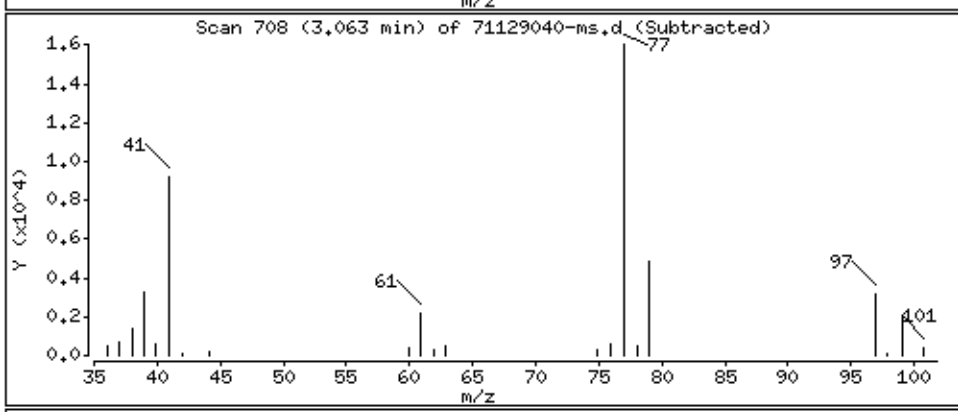
Column diameter: 0.18

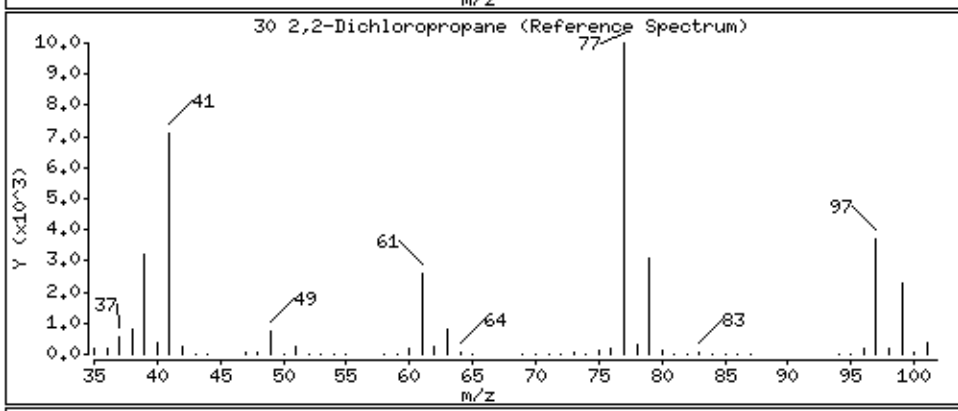
30 2,2-Dichloropropane

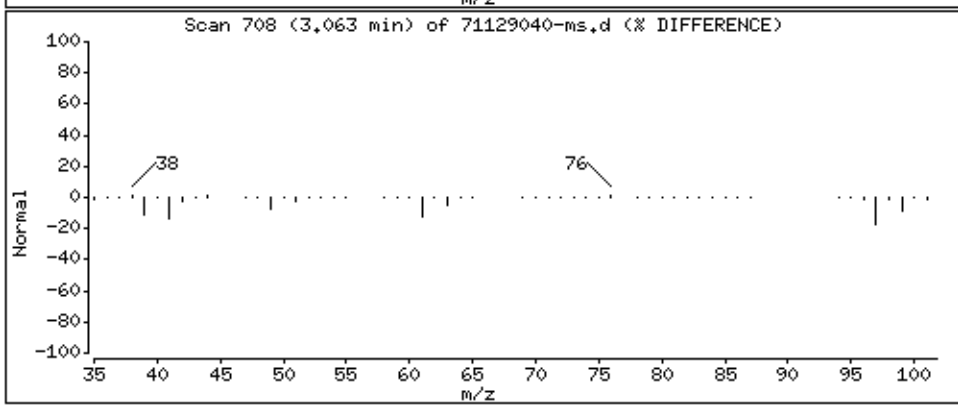
Concentration: 17.2 ug/L

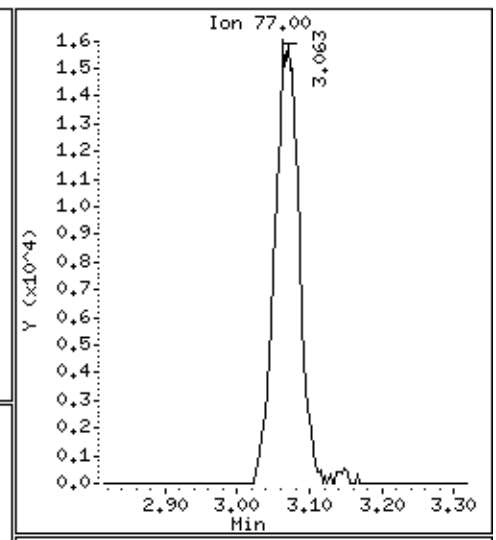
Review Code:

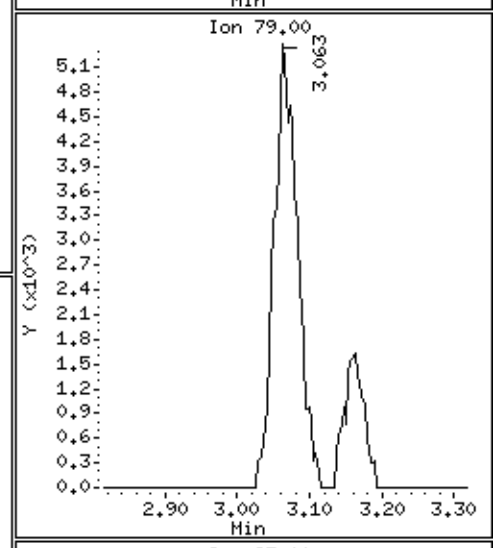


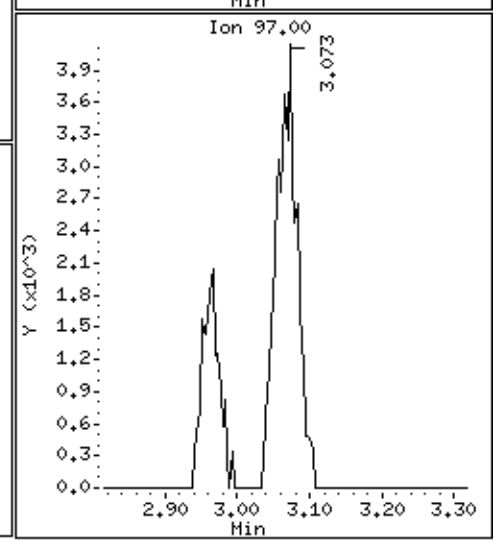












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

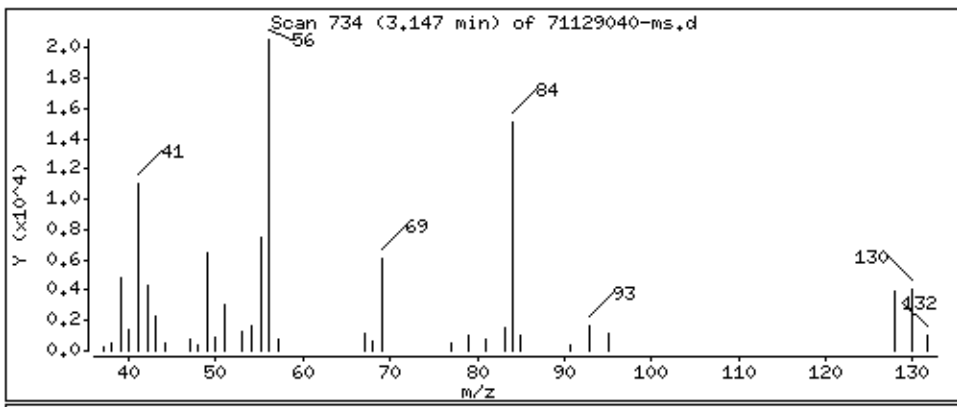
Column phase: RTX-VMS

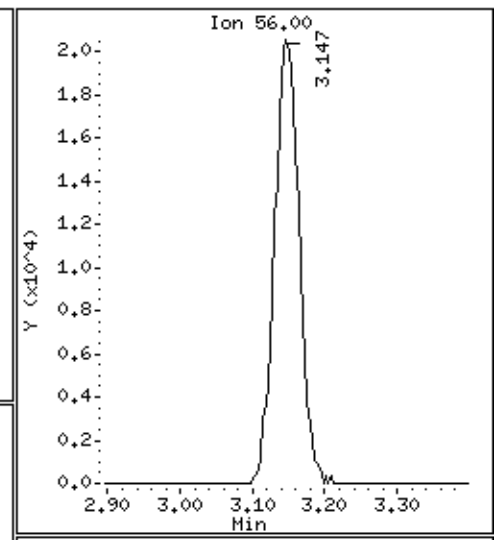
Column diameter: 0.18

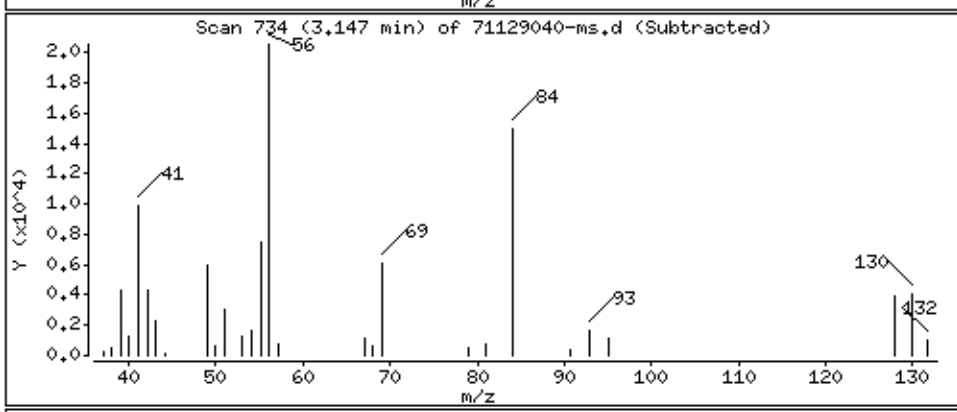
31 Cyclohexane

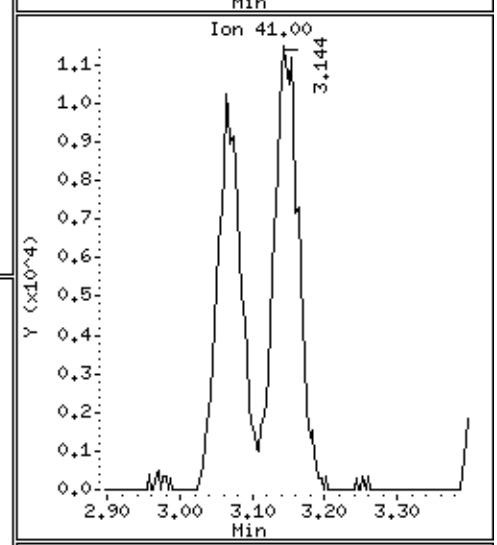
Concentration: 18.5 ug/L

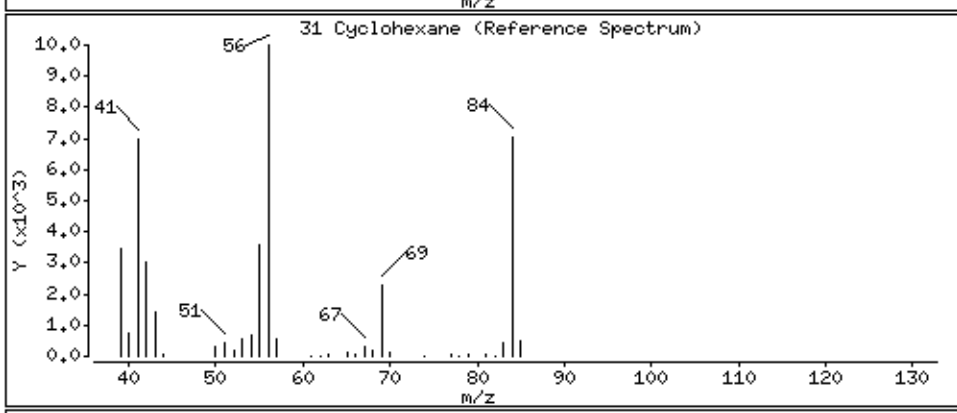
Review Code:

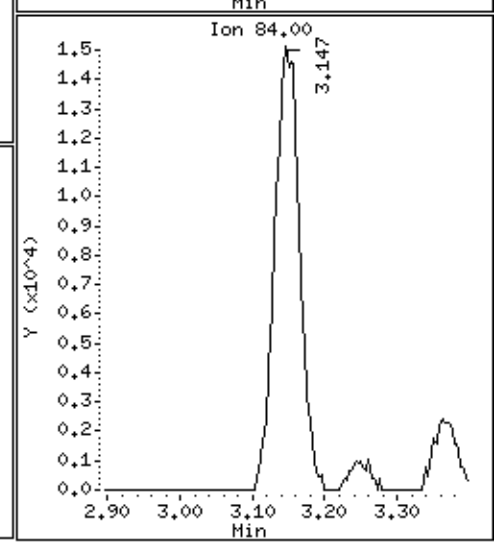


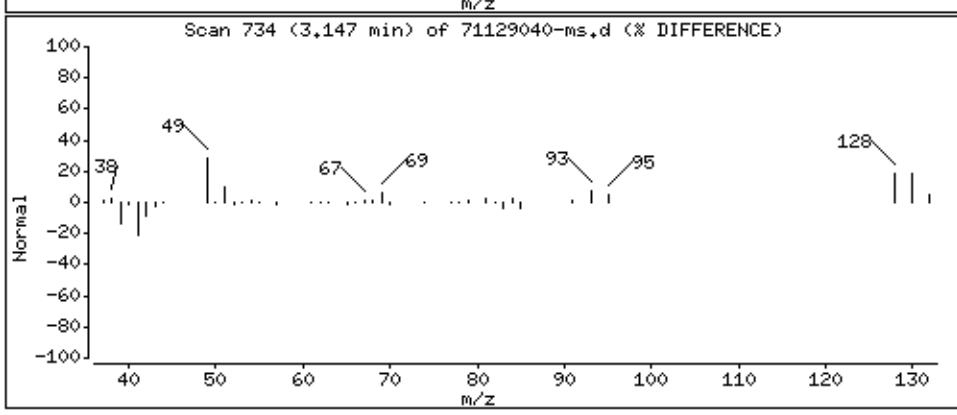












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

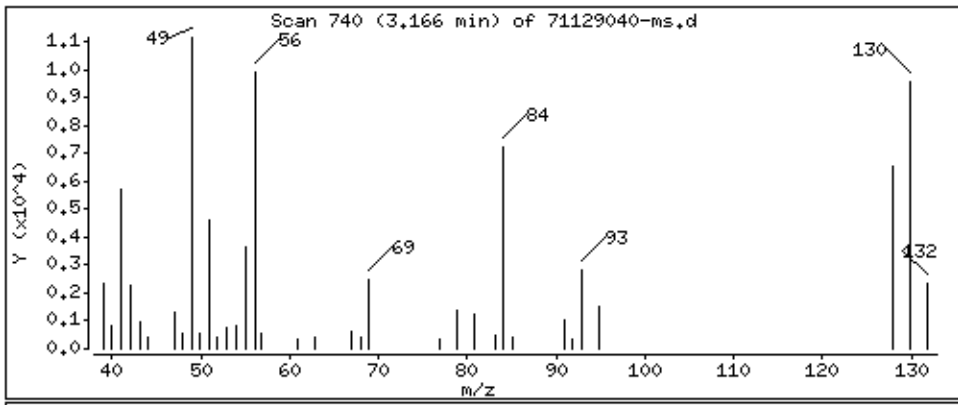
Column phase: RTX-VMS

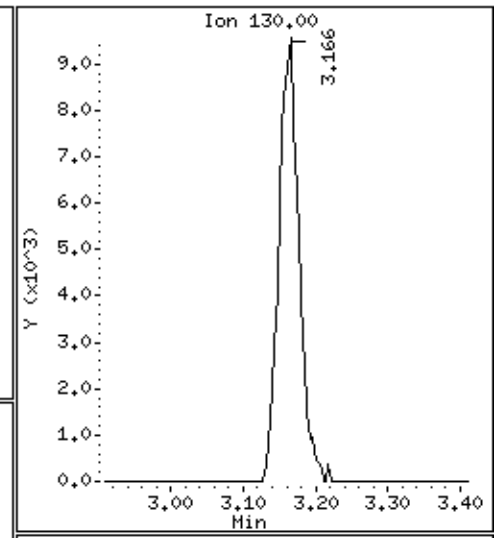
Column diameter: 0.18

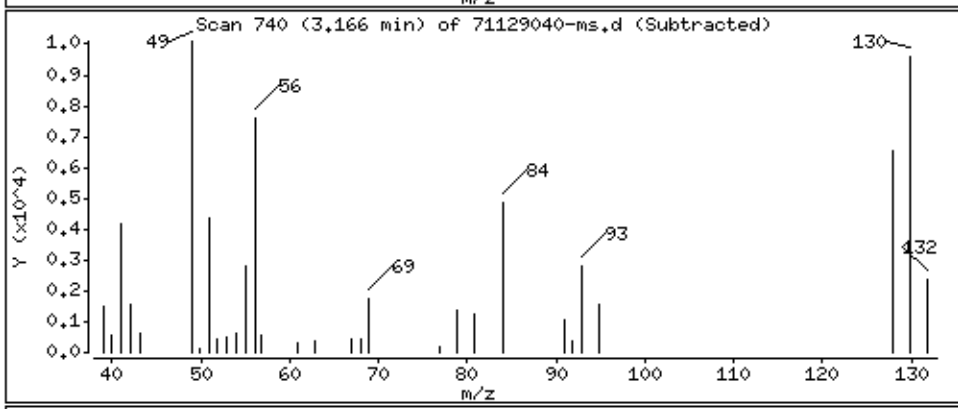
32 Bromochloromethane

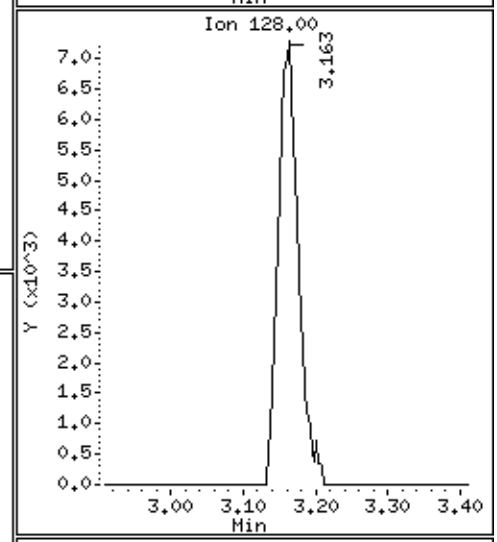
Concentration: 16.9 ug/L

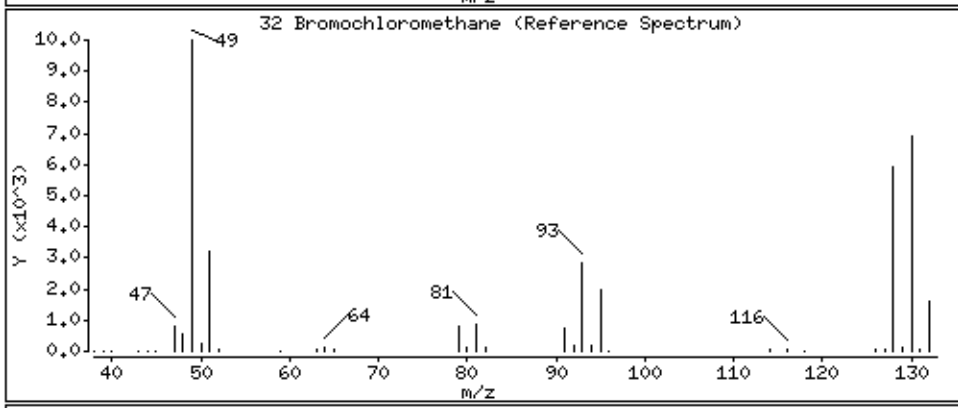
Review Code:

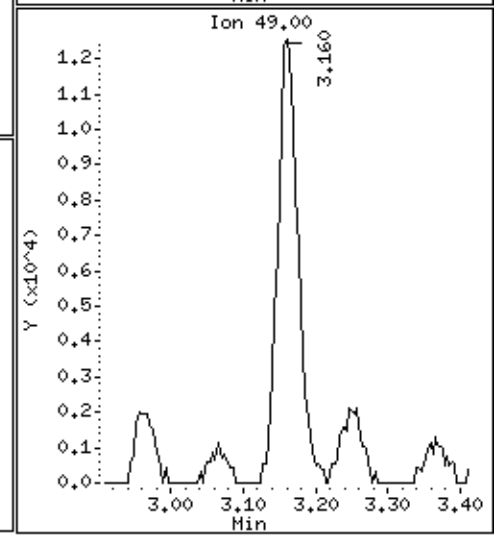


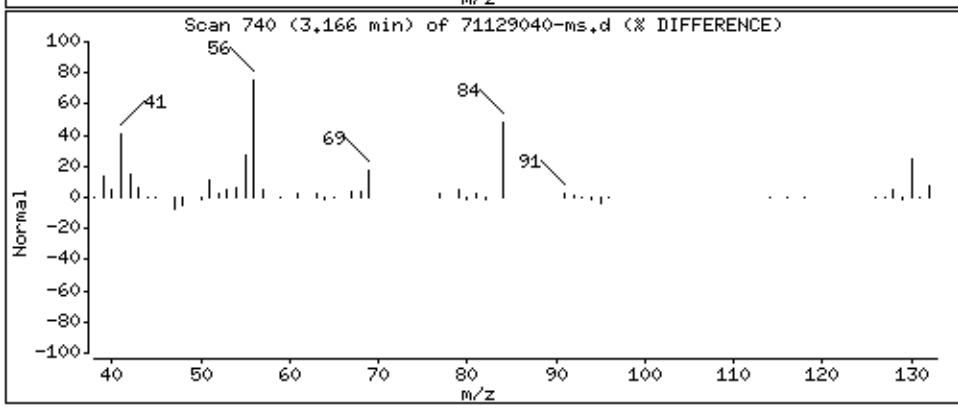












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

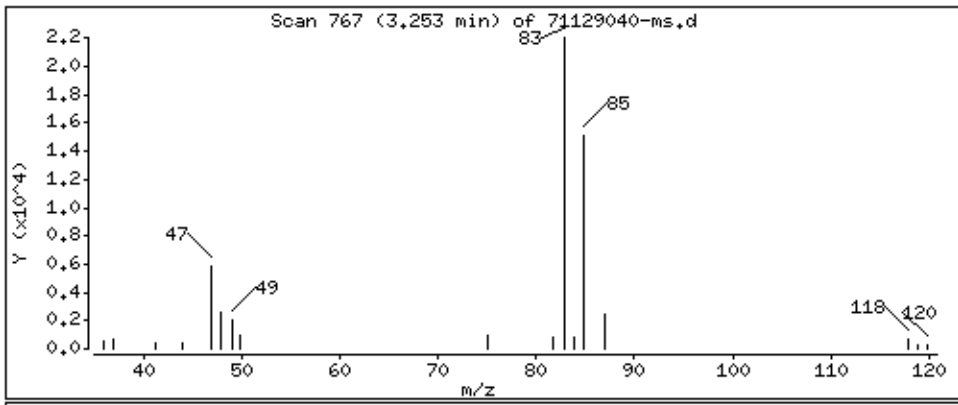
Column phase: RTX-VMS

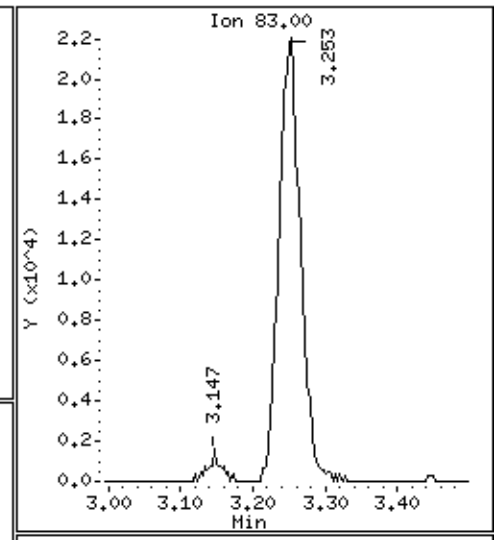
Column diameter: 0.18

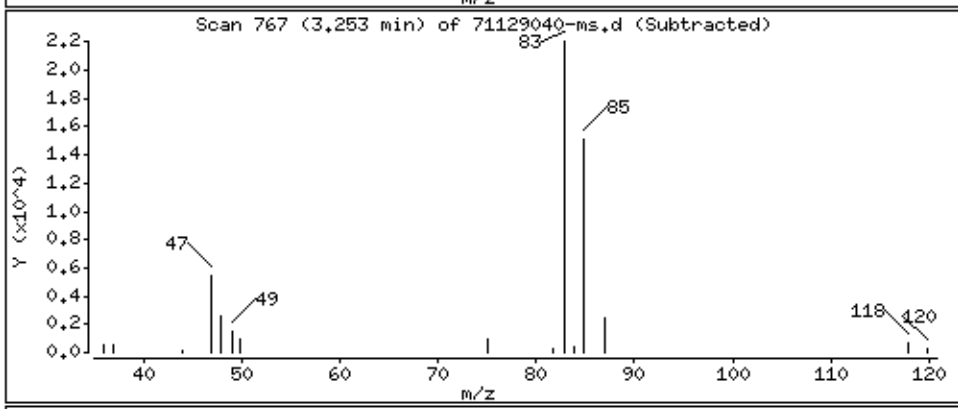
33 Chloroform

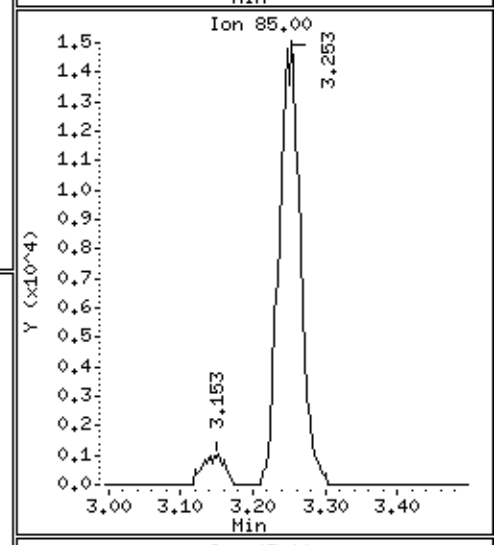
Concentration: 16.5 ug/L

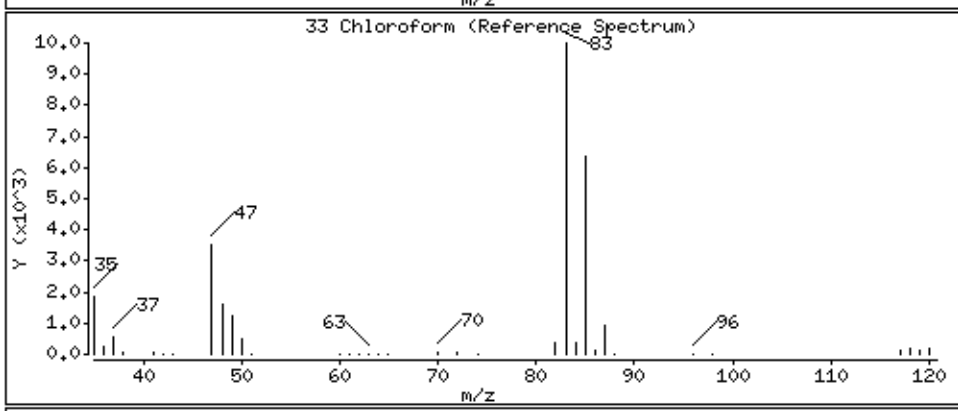
Review Code:

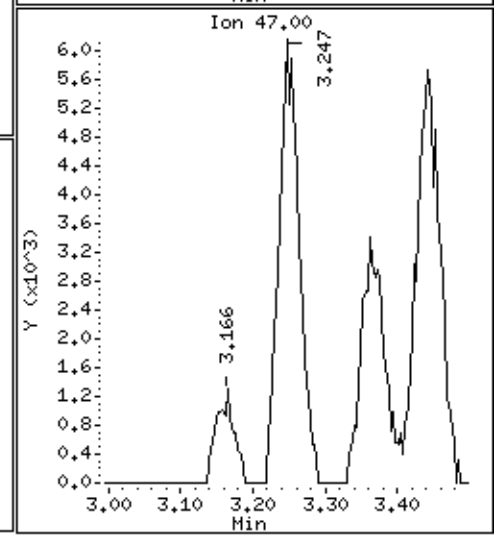


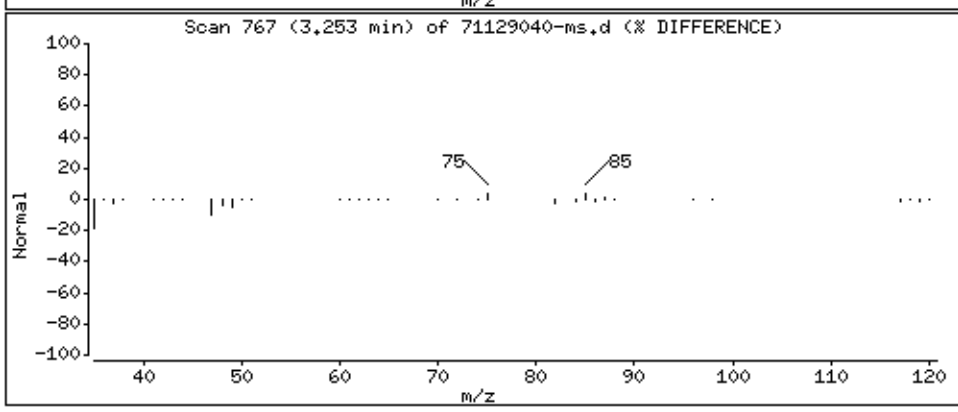












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

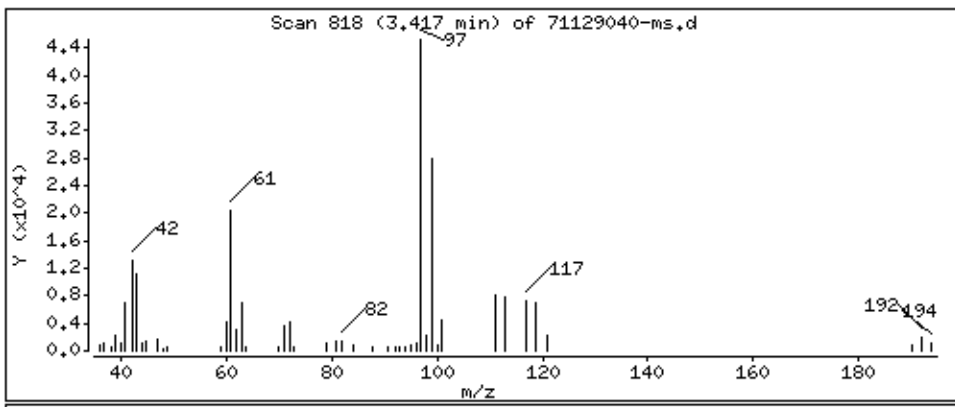
Column phase: RTX-VMS

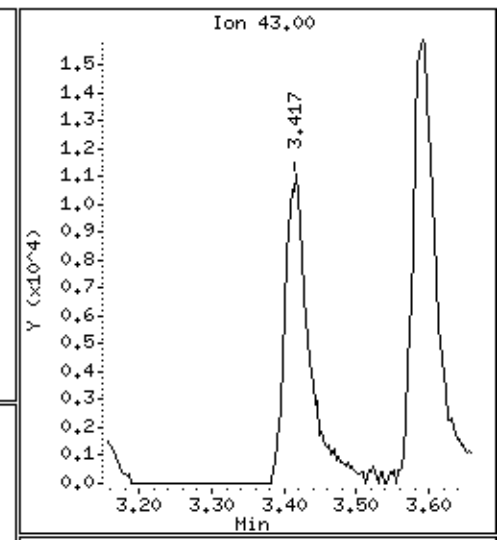
Column diameter: 0.18

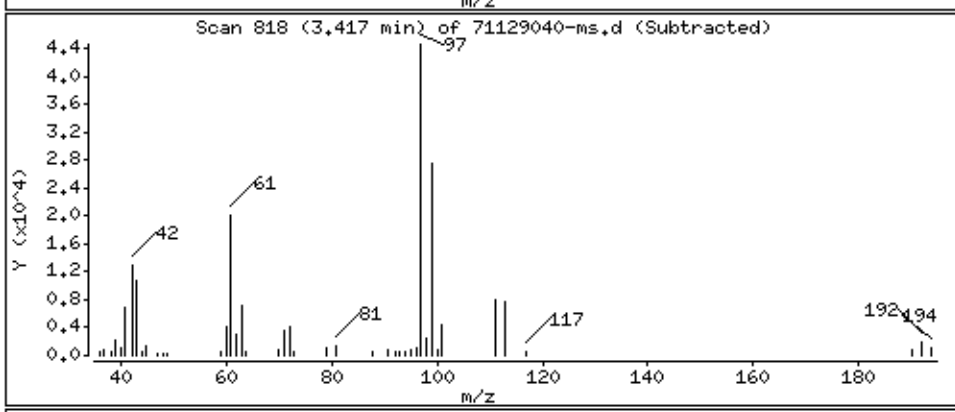
34 Ethyl acetate

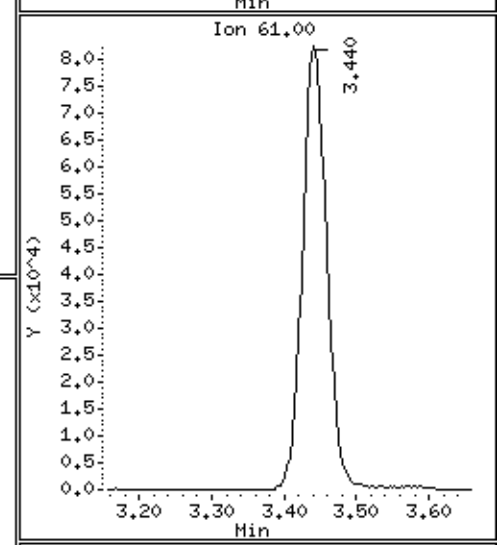
Concentration: 17.2 ug/L

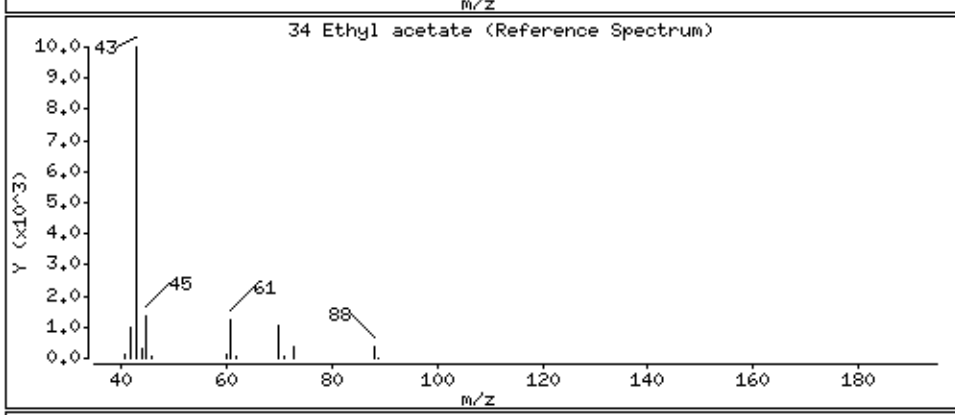
Review Code:

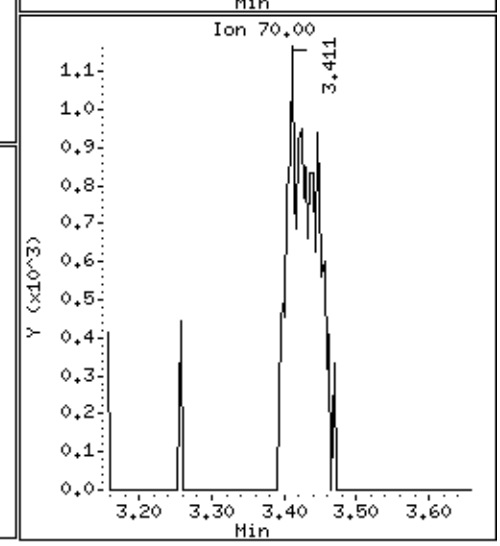


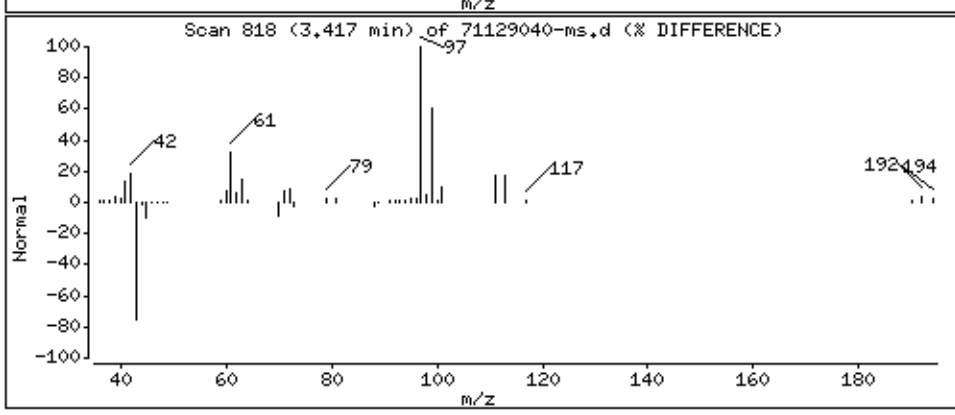












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

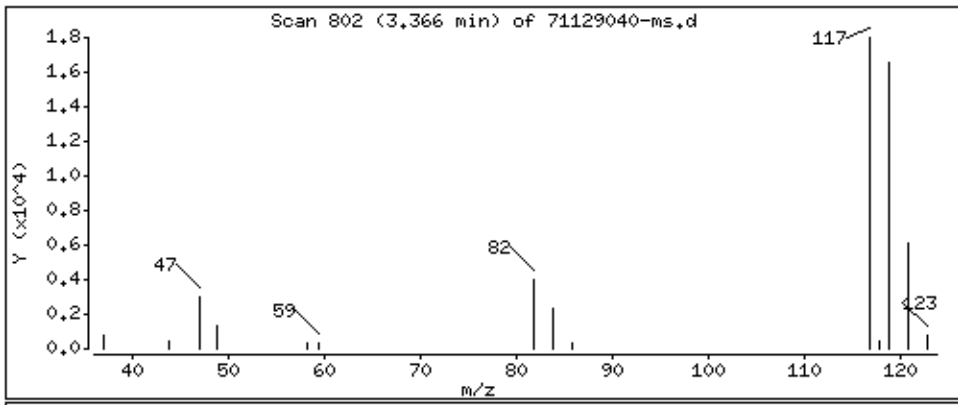
Column phase: RTX-VMS

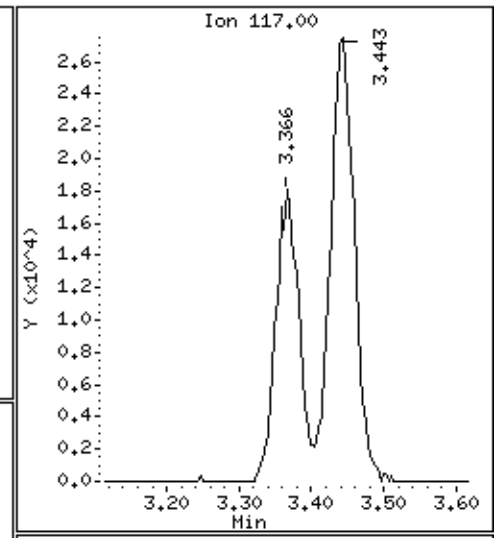
Column diameter: 0.18

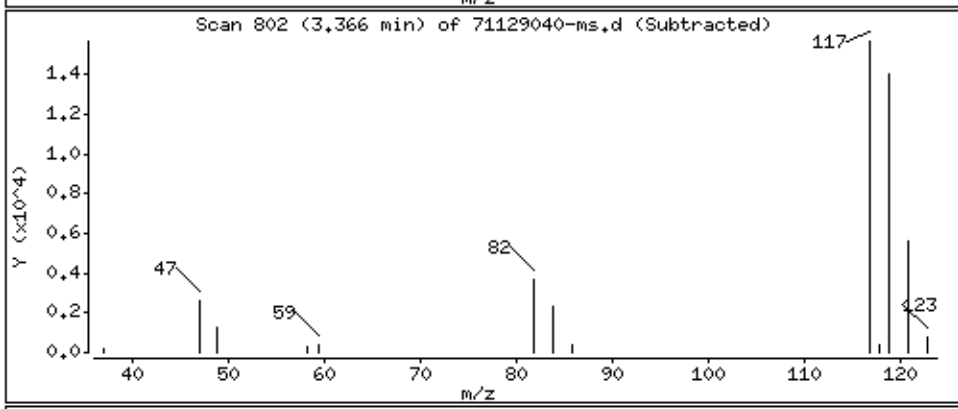
35 Carbon tetrachloride

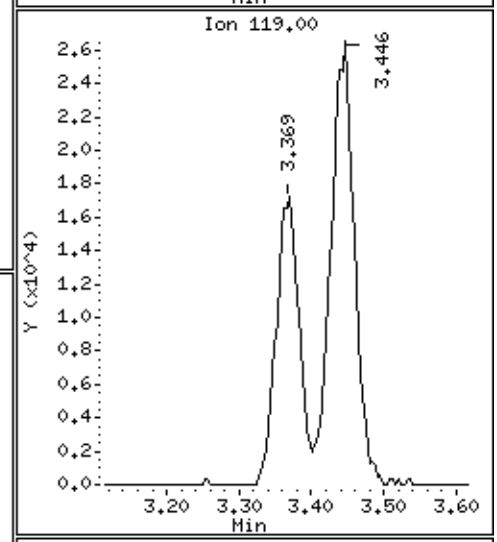
Concentration: 17.7 ug/L

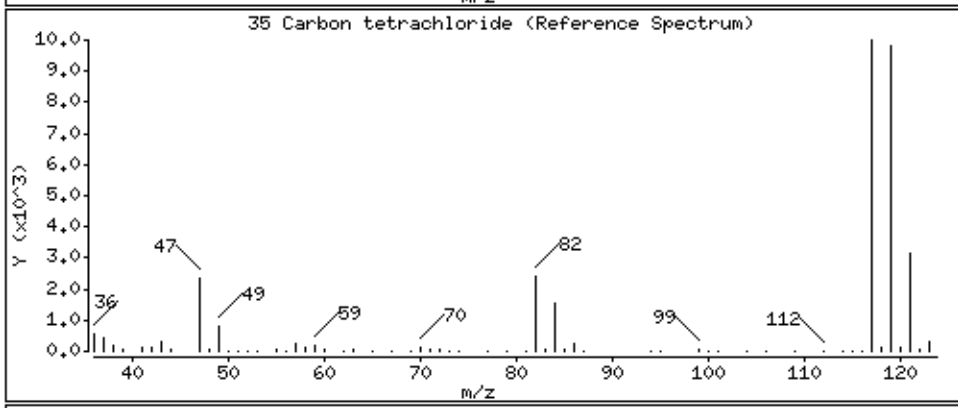
Review Code:

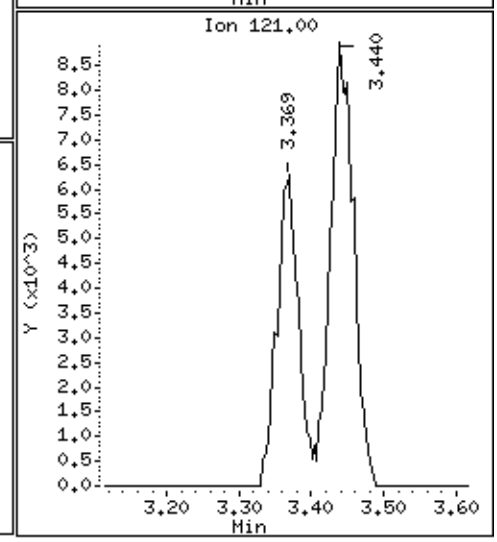


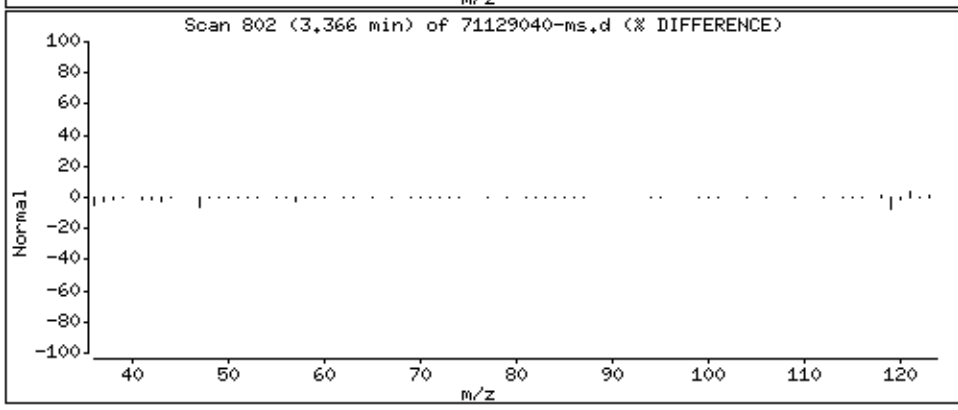












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

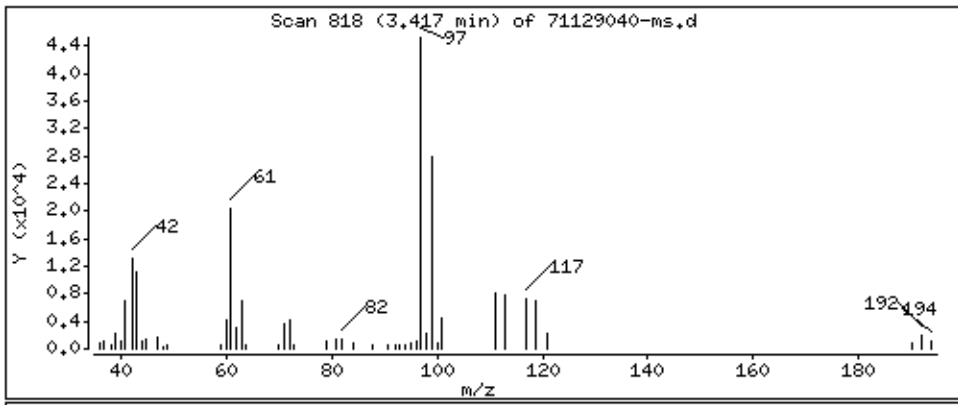
Column phase: RTX-VMS

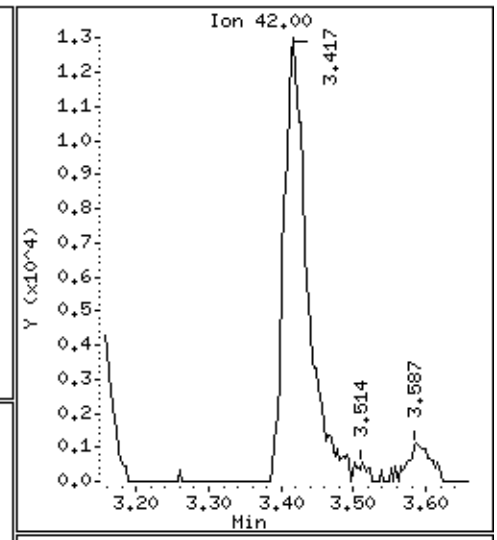
Column diameter: 0.18

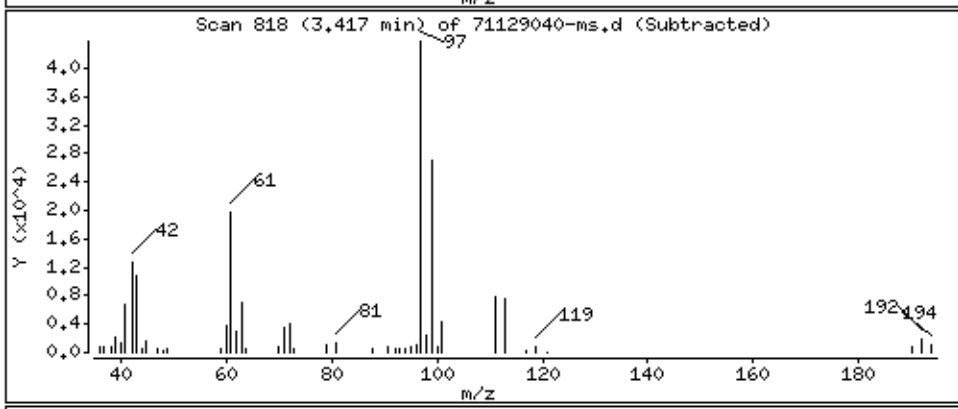
36 Tetrahydrofuran

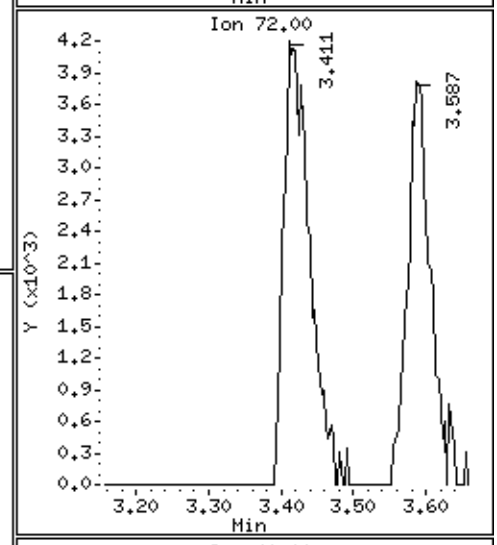
Concentration: 22.8 ug/L

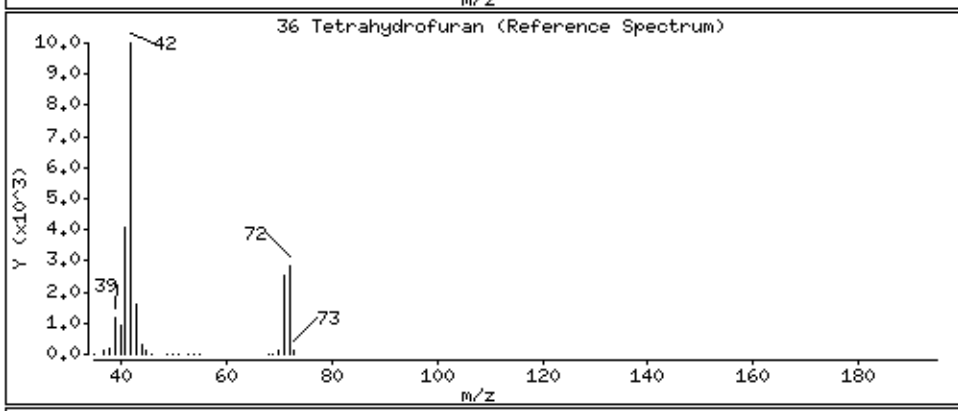
Review Code:

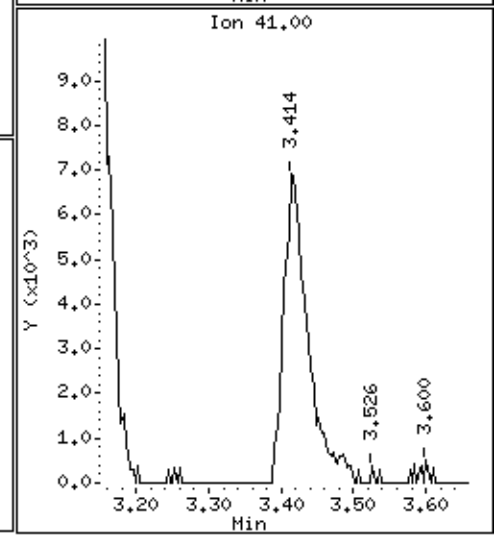


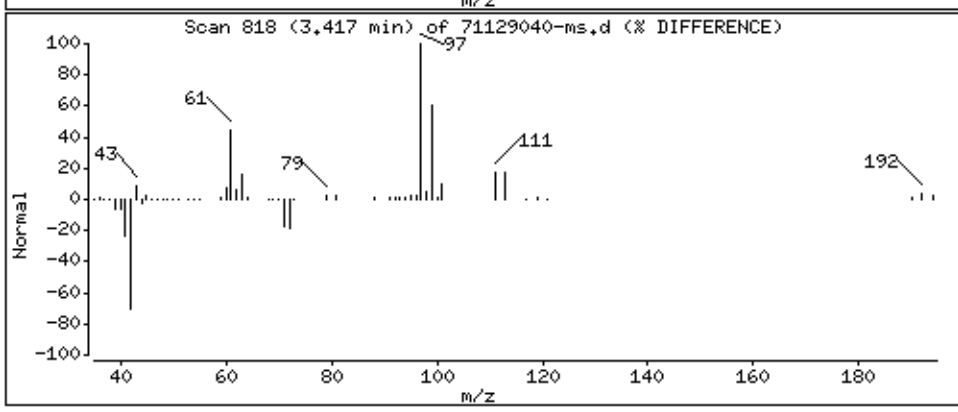












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

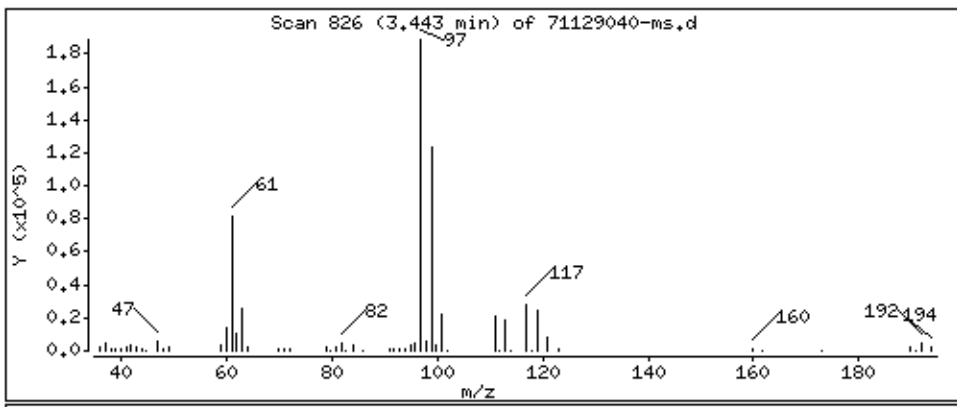
Column phase: RTX-VMS

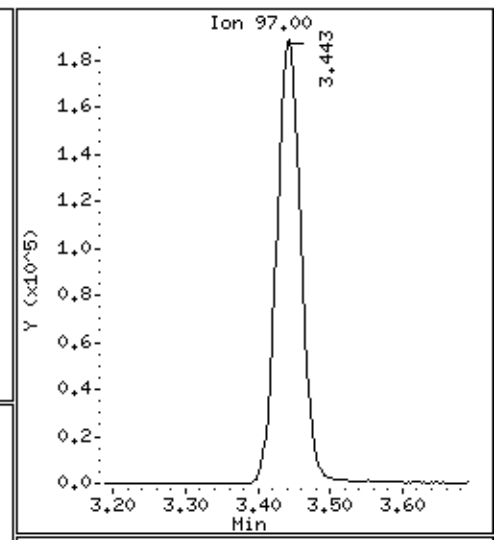
Column diameter: 0.18

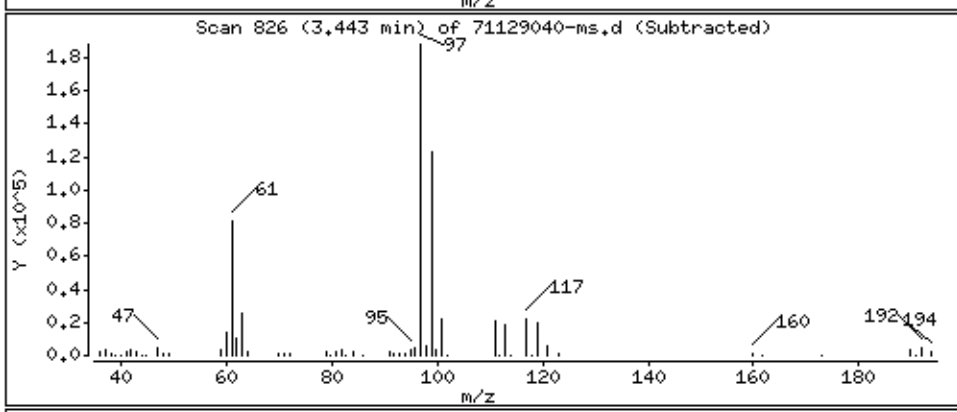
38 1,1,1-Trichloroethane

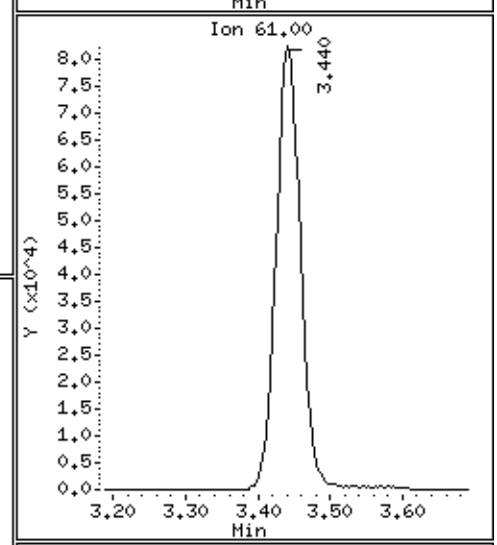
Concentration: 183 ug/L

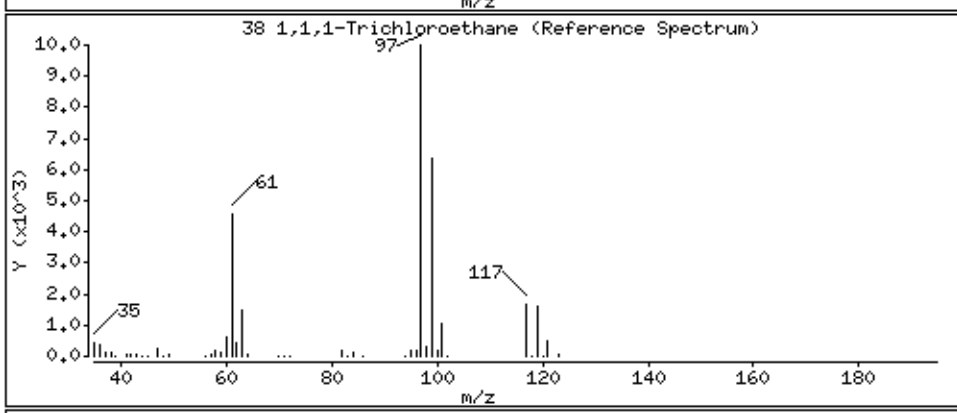
Review Code:

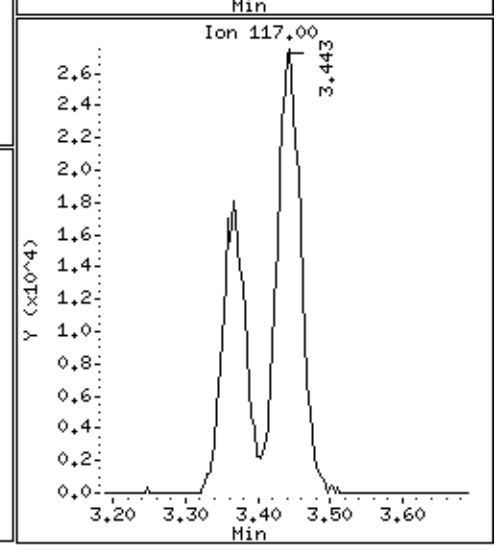


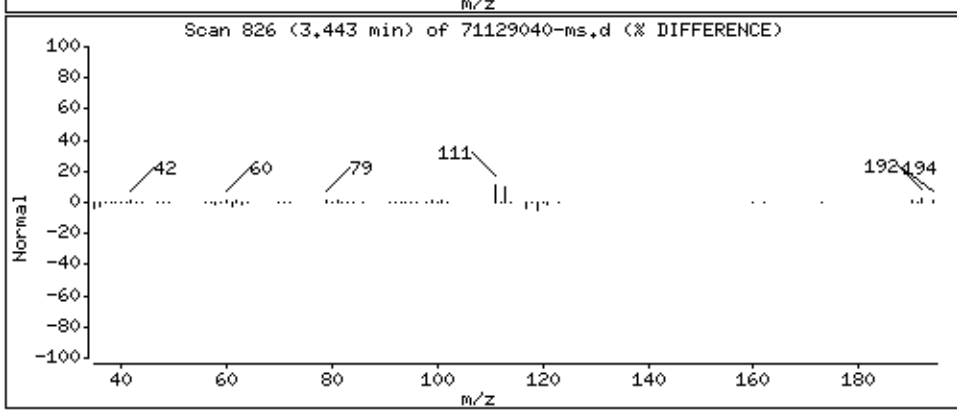












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

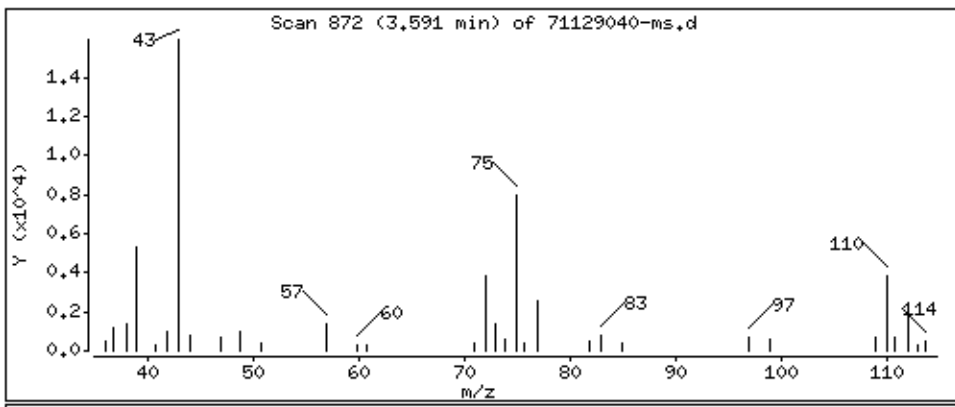
Column phase: RTX-VMS

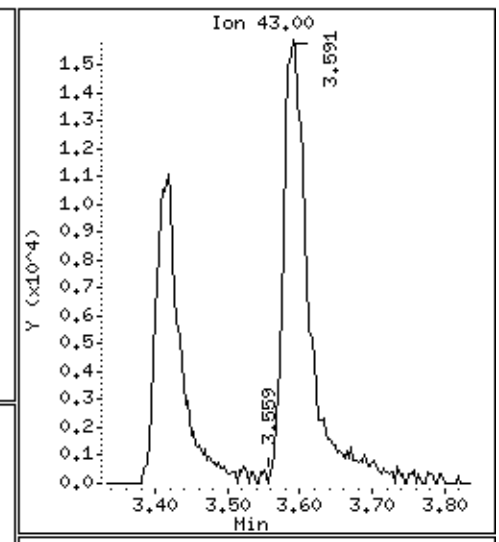
Column diameter: 0.18

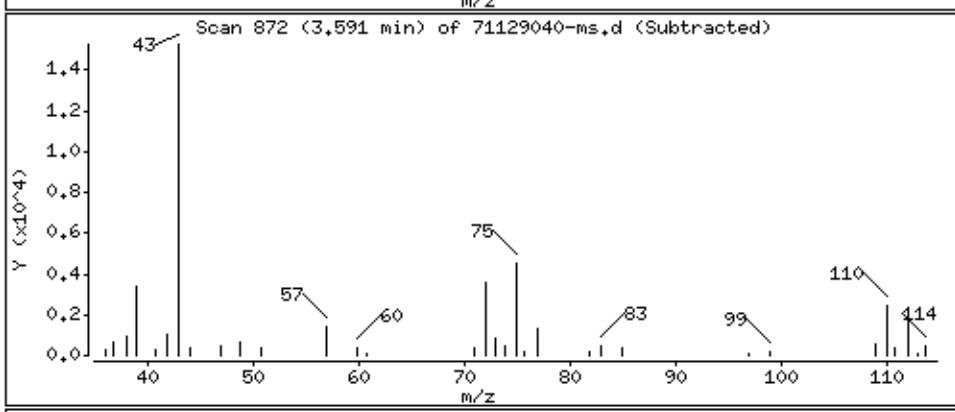
39 2-Butanone (MEK)

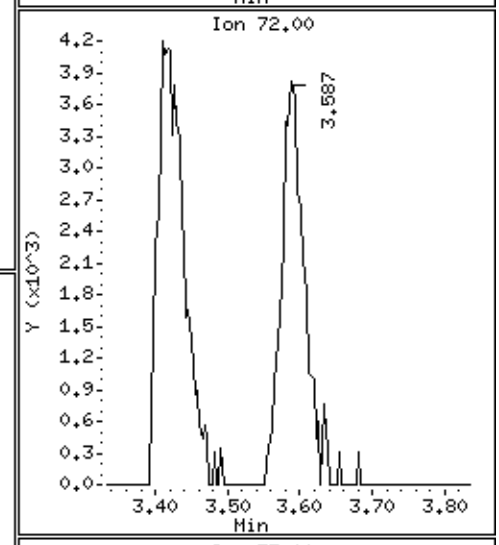
Concentration: 17.2 ug/L

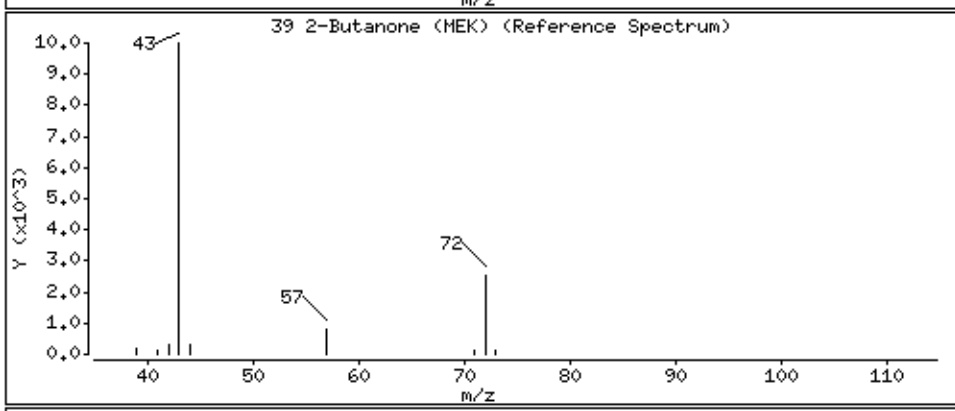
Review Code:

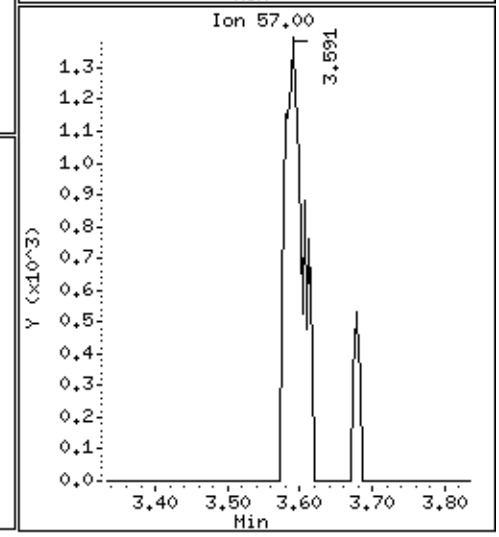


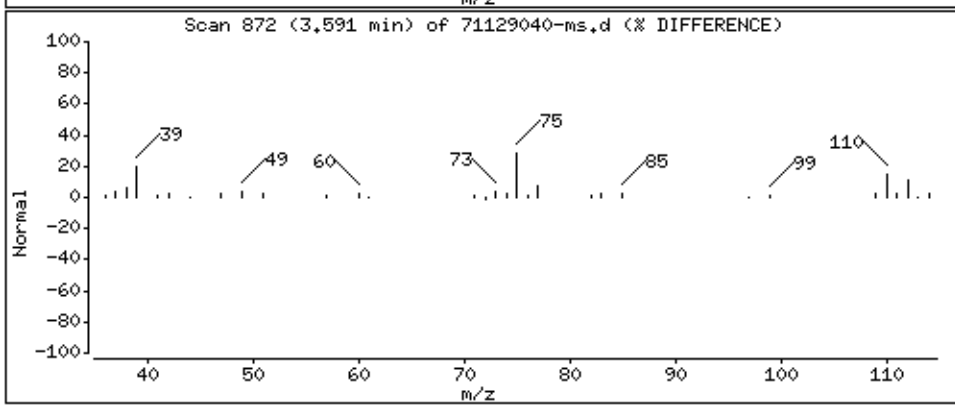












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

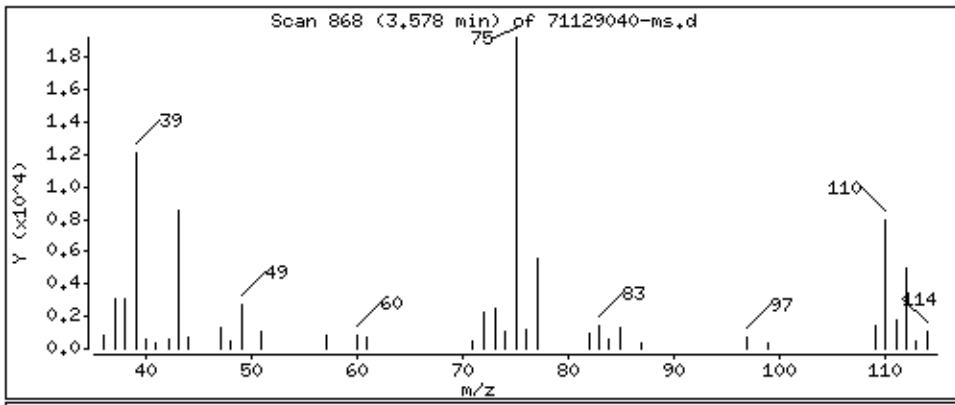
Column phase: RTX-VMS

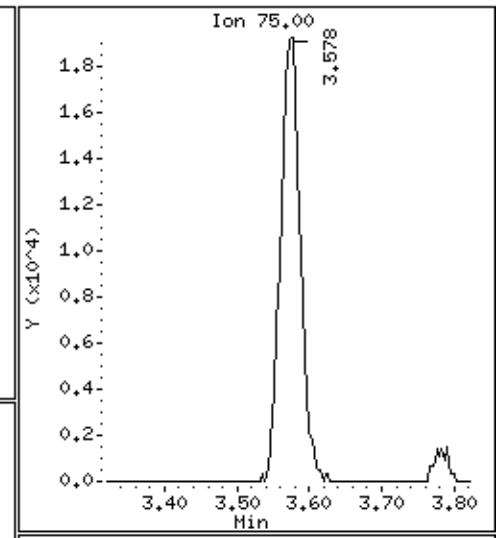
Column diameter: 0.18

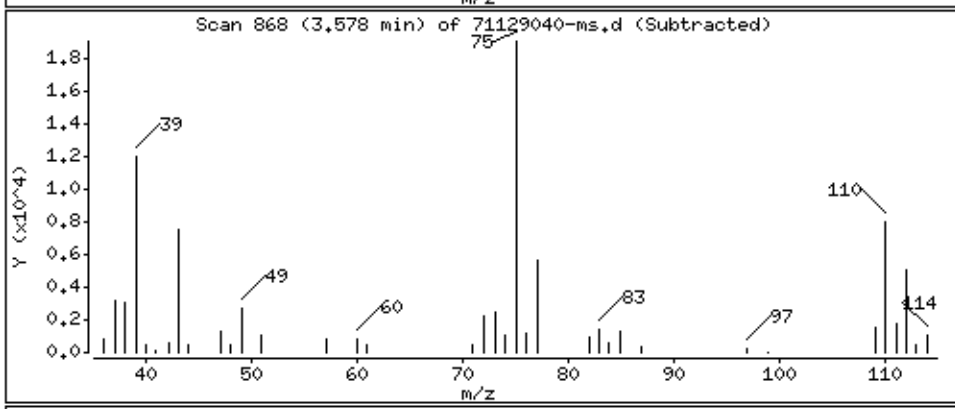
40 1,1-Dichloropropene

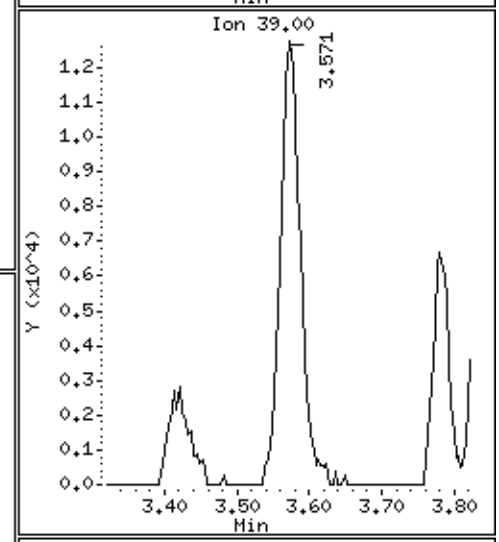
Concentration: 16.8 ug/L

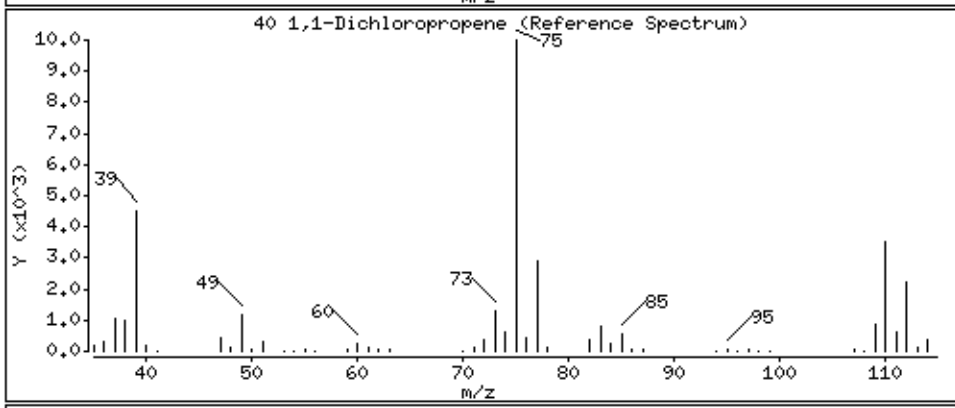
Review Code:

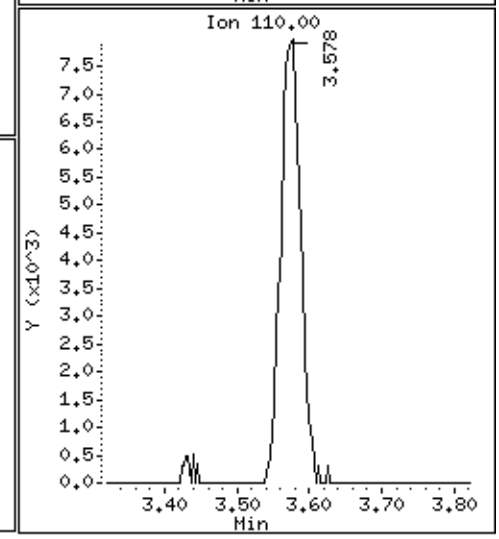


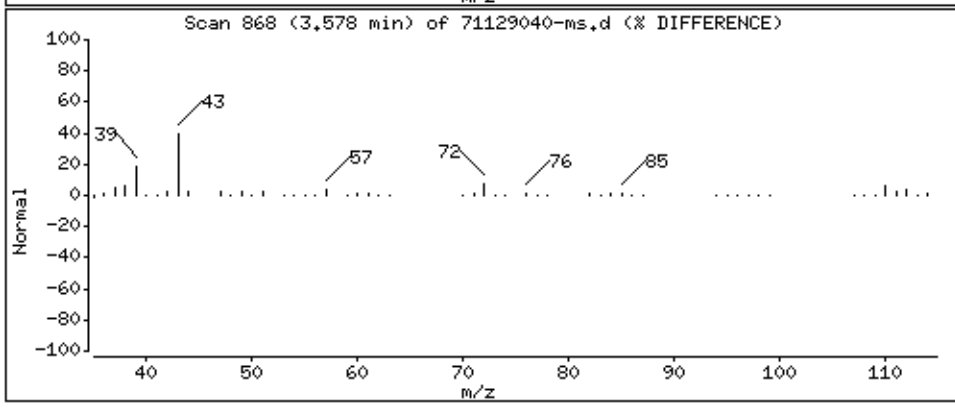












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

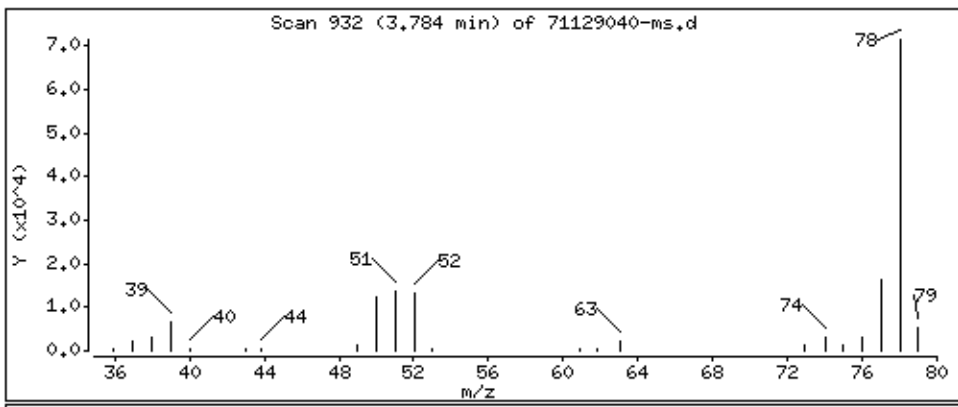
Column phase: RTX-VMS

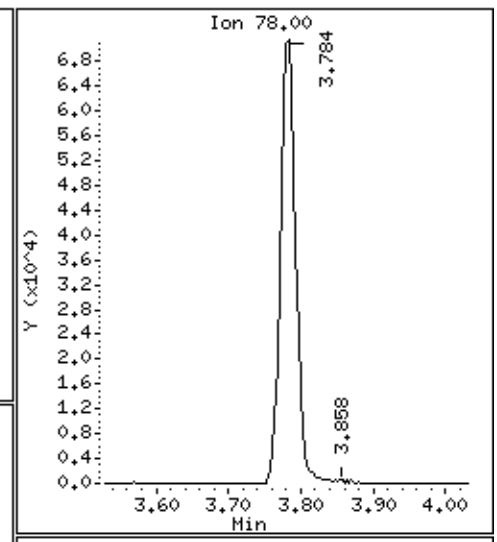
Column diameter: 0.18

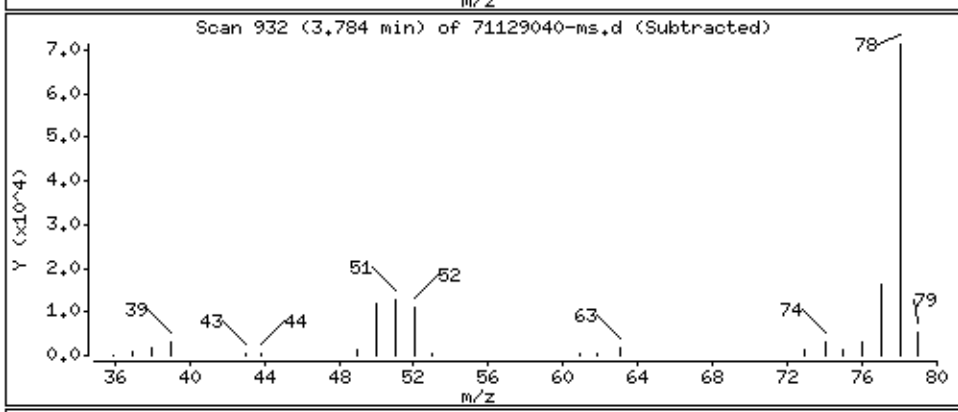
41 Benzene

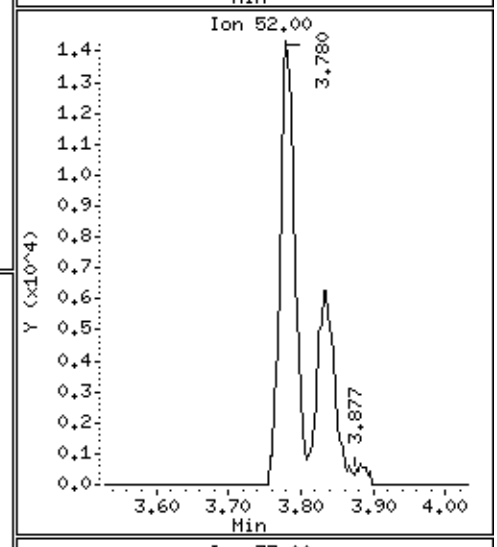
Concentration: 16.2 ug/L

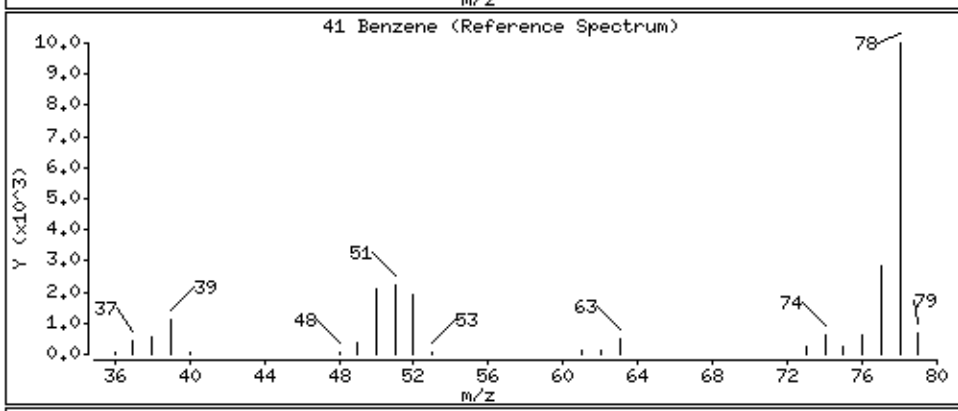
Review Code:

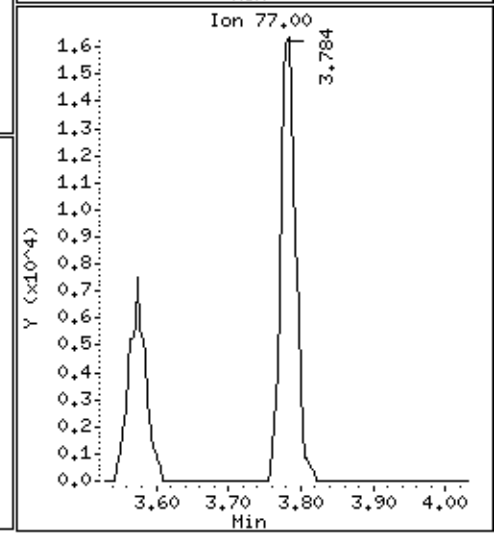


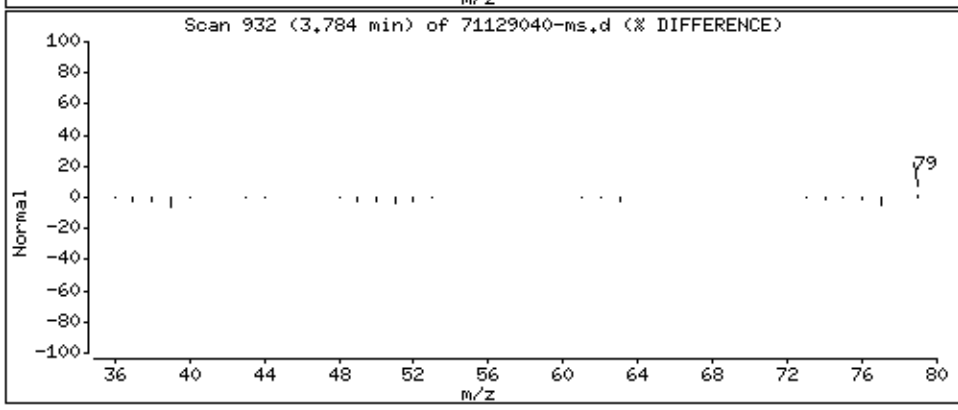












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

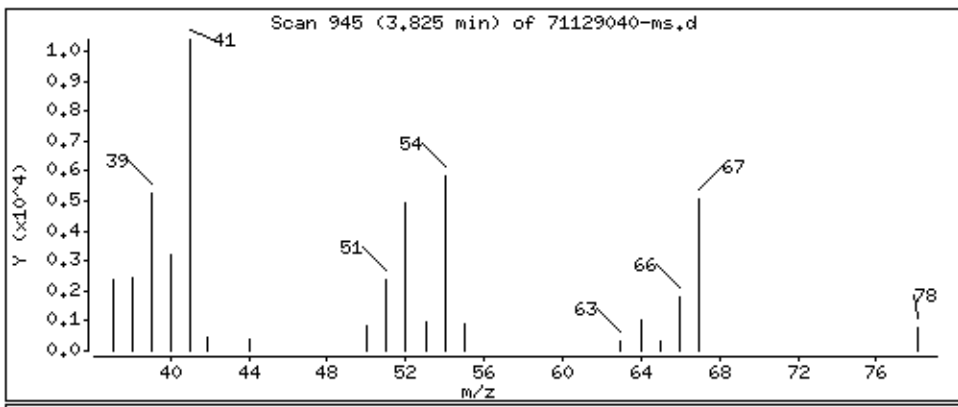
Column phase: RTX-VMS

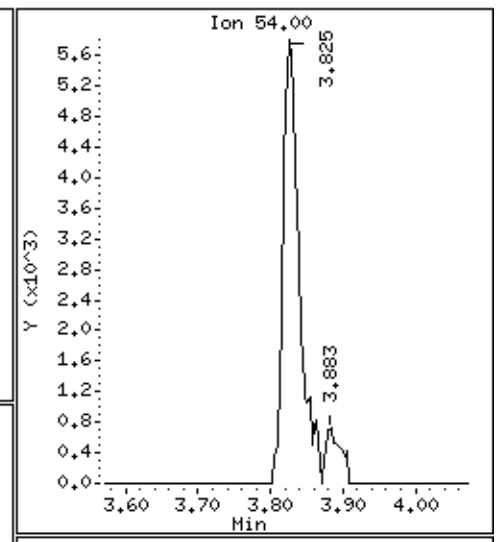
Column diameter: 0.18

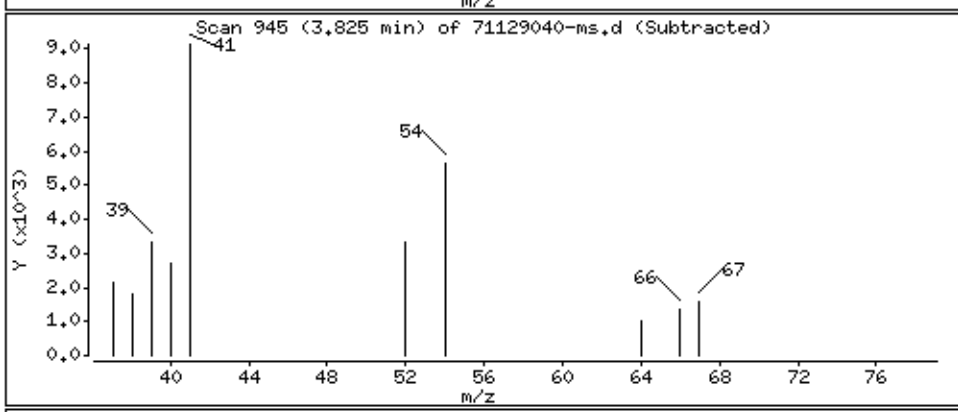
42 Propionitrile

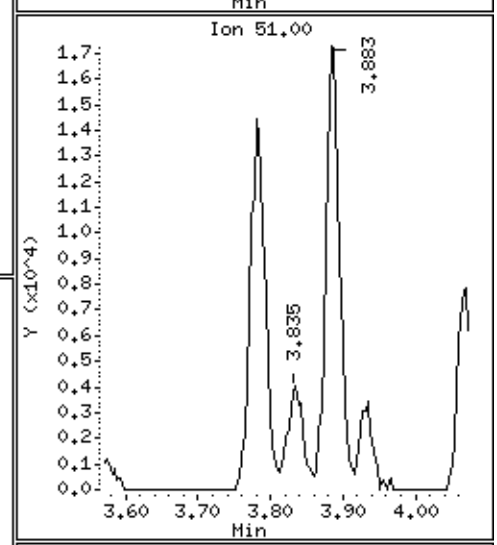
Concentration: 19.2 ug/L

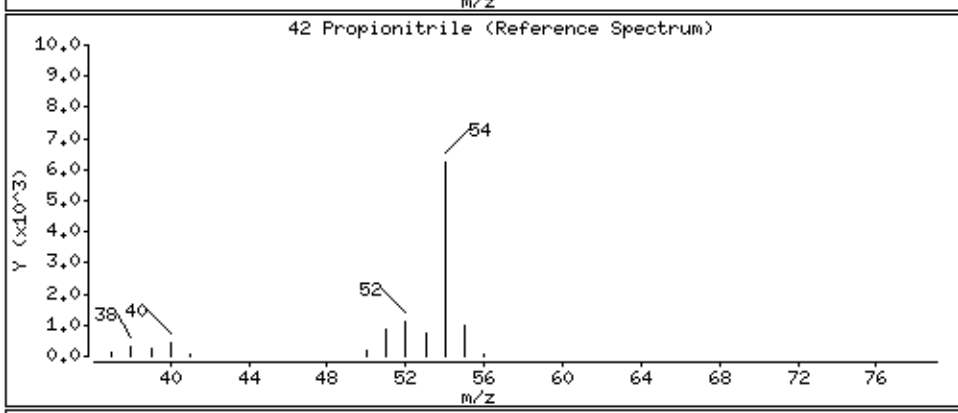
Review Code:

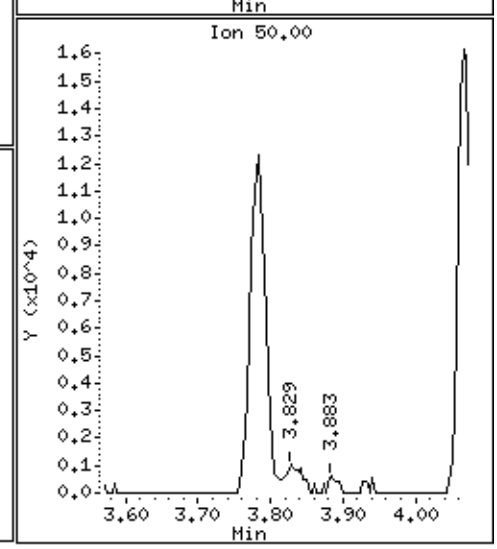


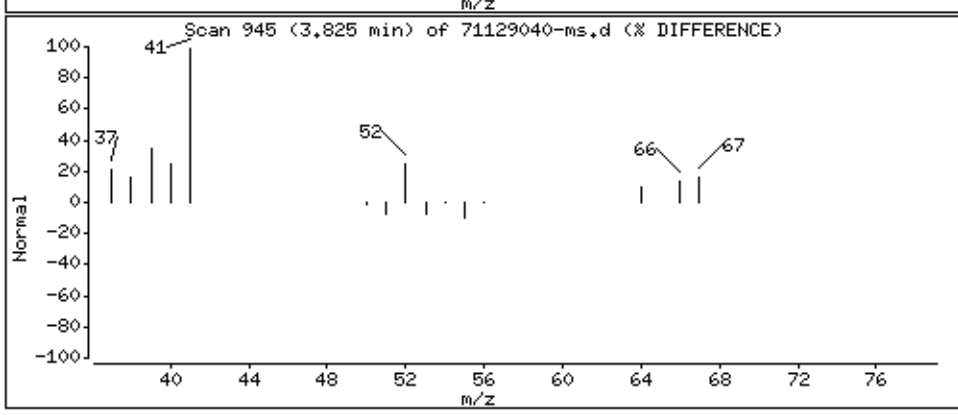












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

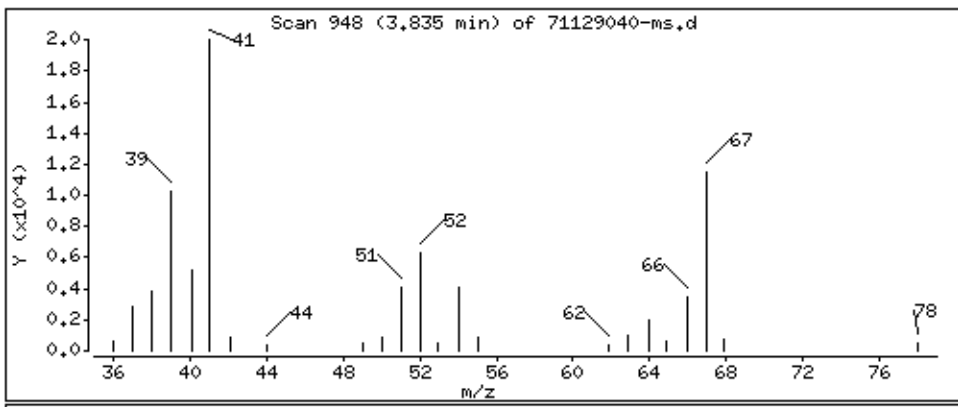
Column phase: RTX-VMS

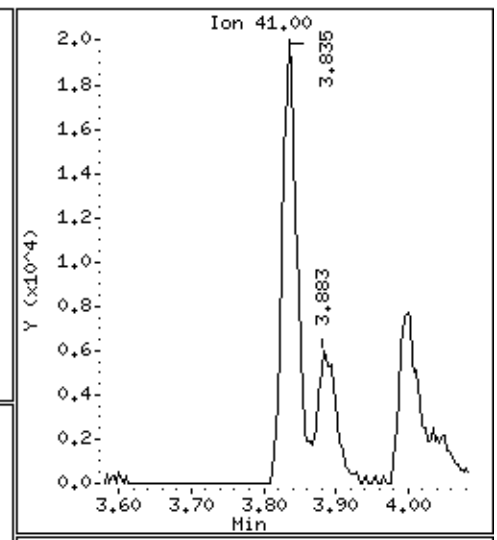
Column diameter: 0.18

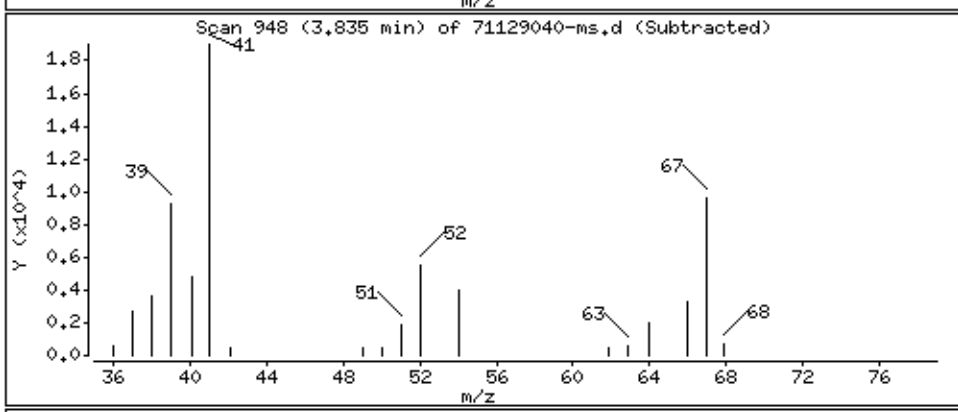
43 Methacrylonitrile

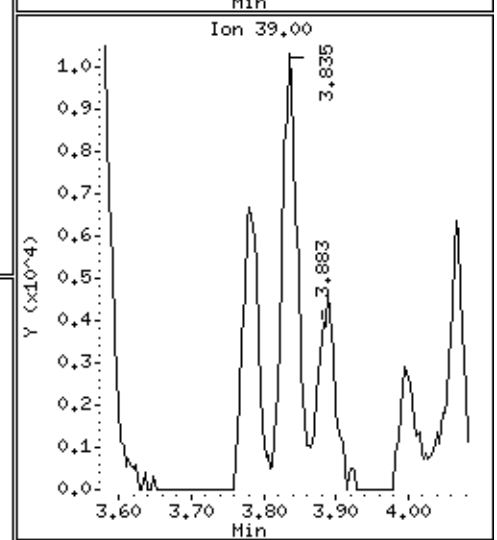
Concentration: 17.6 ug/L

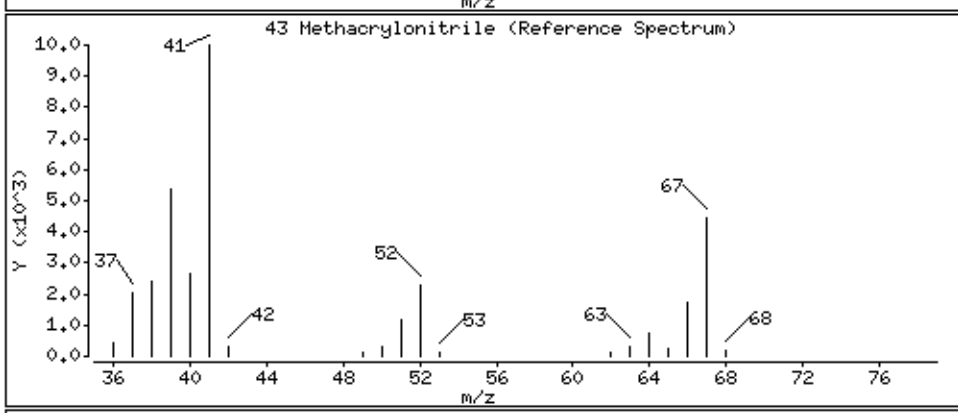
Review Code:

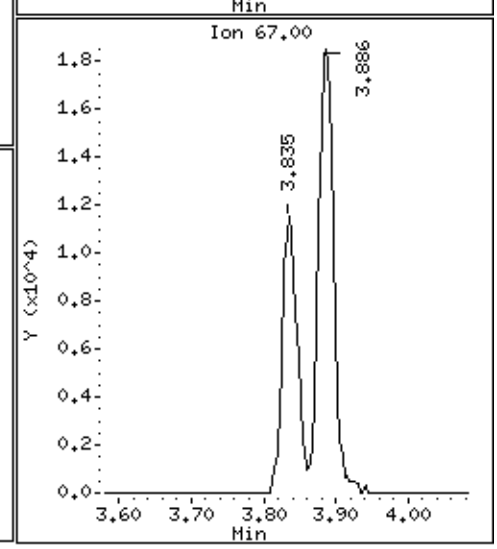


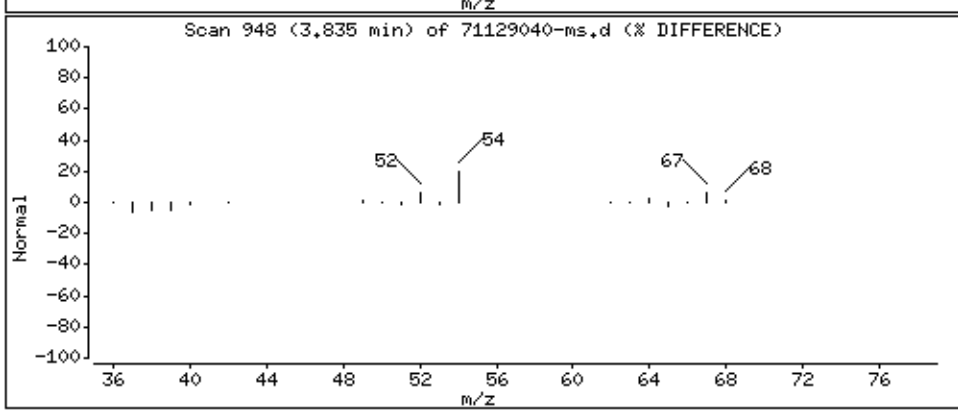












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

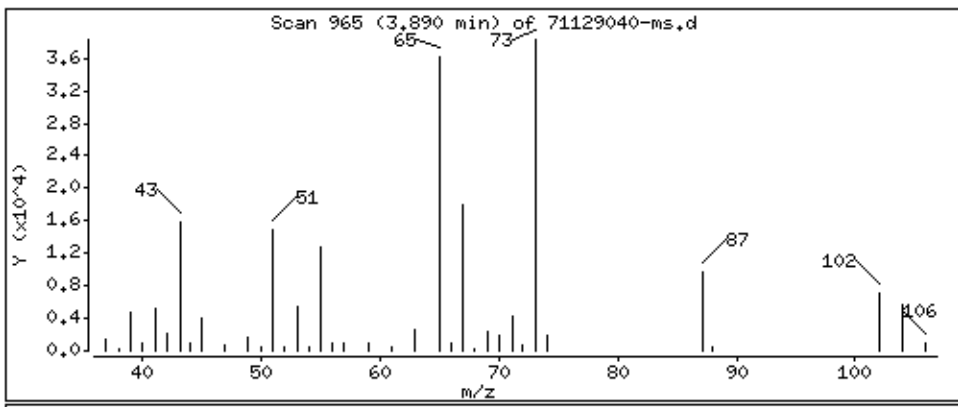
Column phase: RTX-VMS

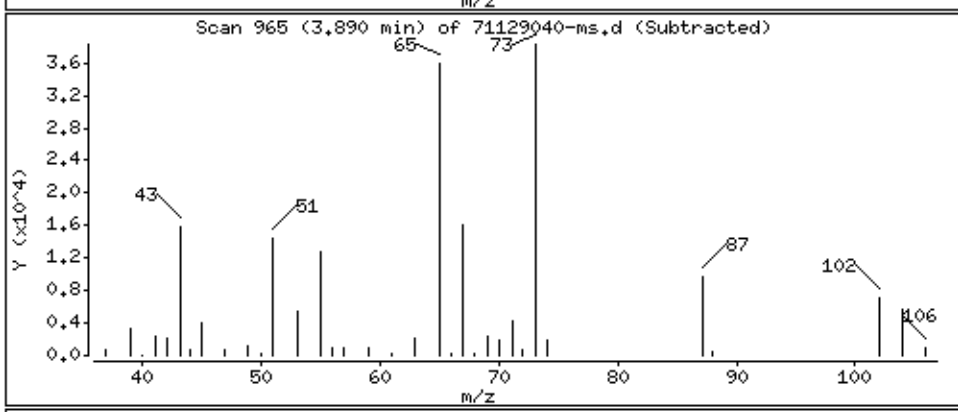
Column diameter: 0.18

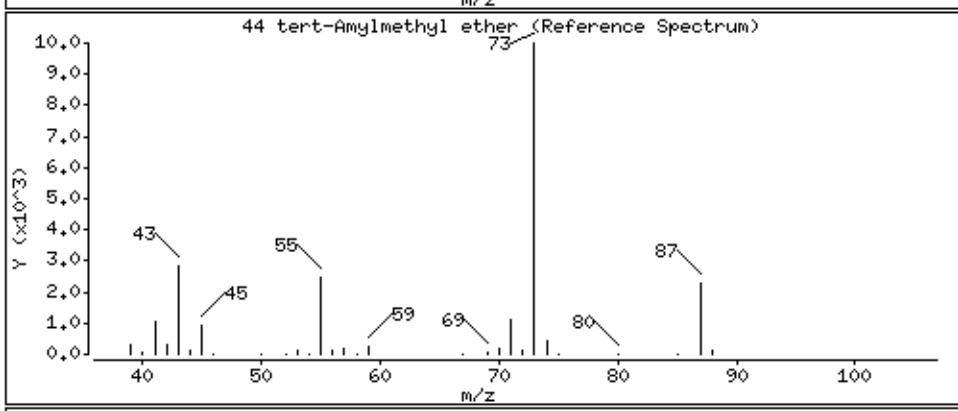
44 tert-Amylmethyl ether

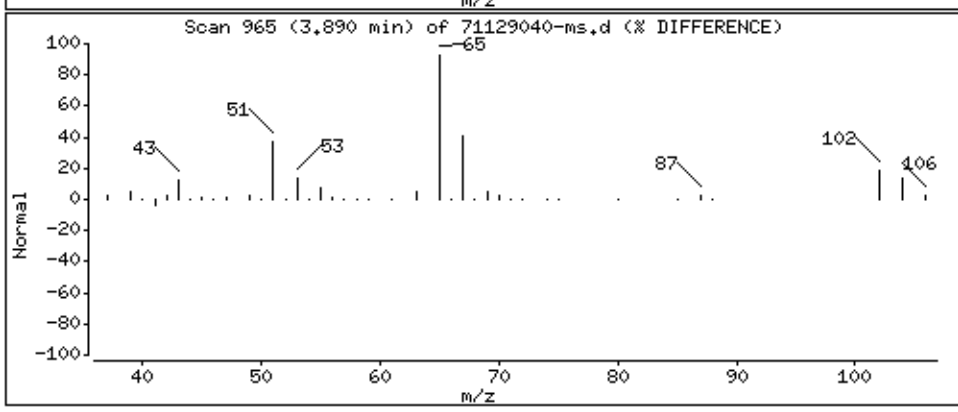
Concentration: 15.5 ug/L

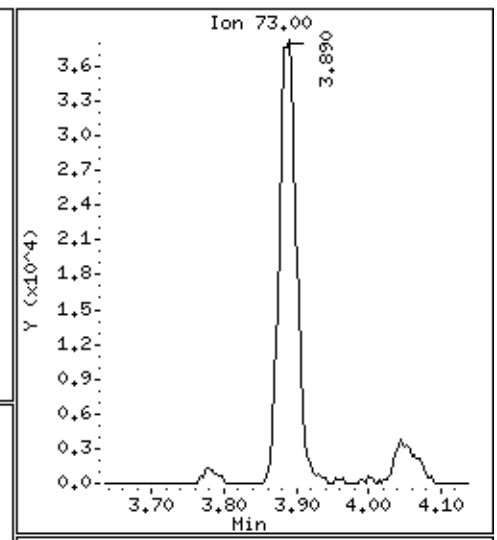
Review Code:

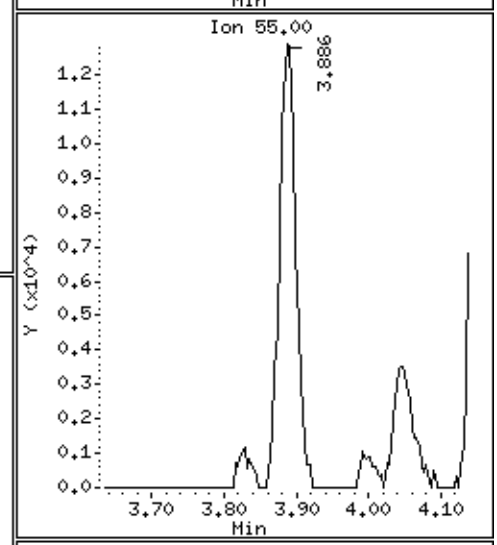


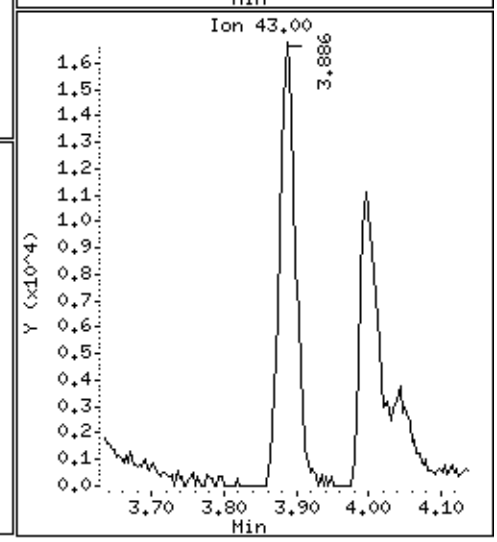












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

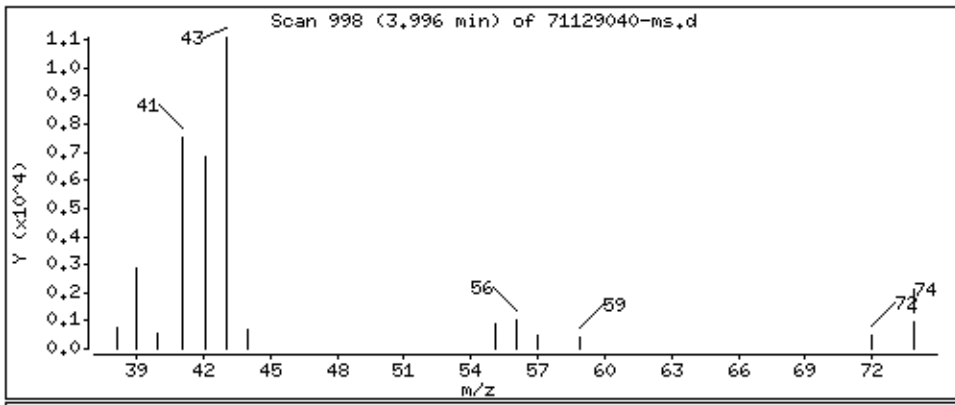
Column phase: RTX-VMS

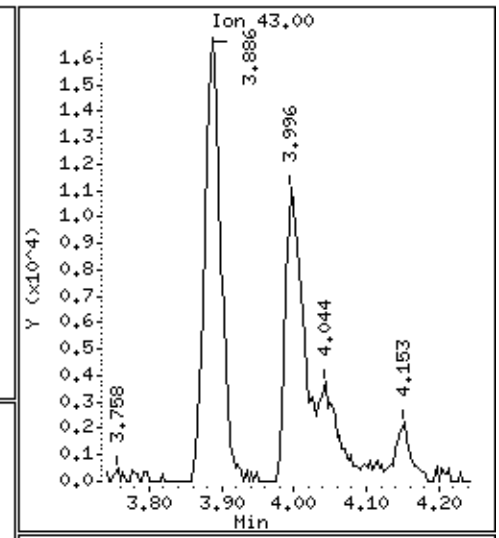
Column diameter: 0.18

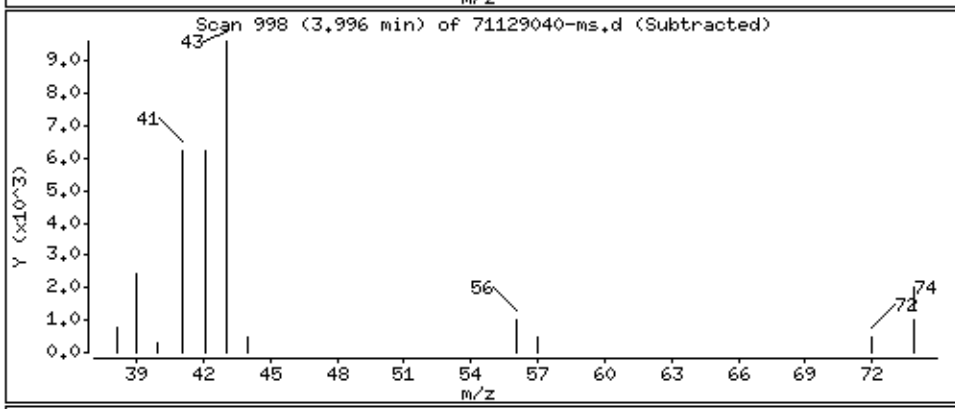
45 Isobutanol

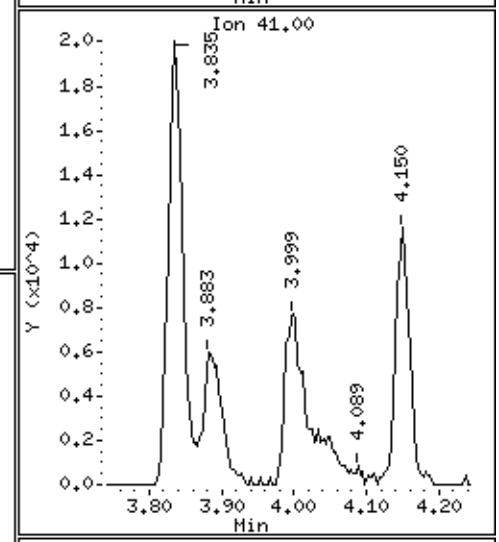
Concentration: 94.3 ug/L

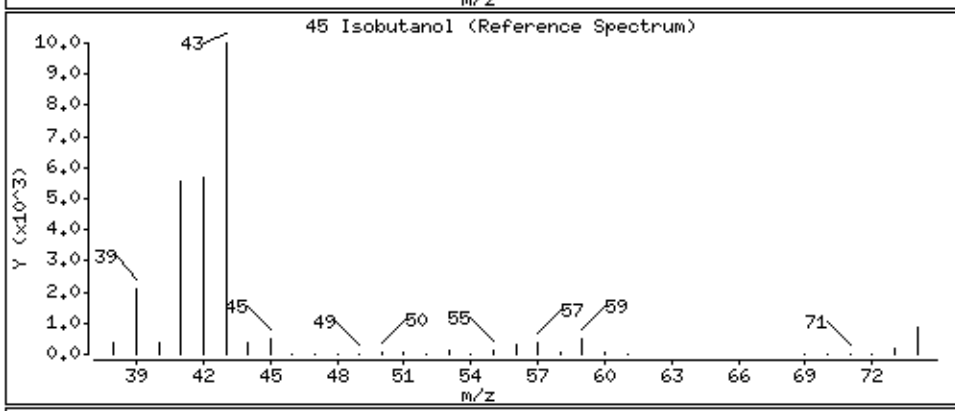
Review Code:

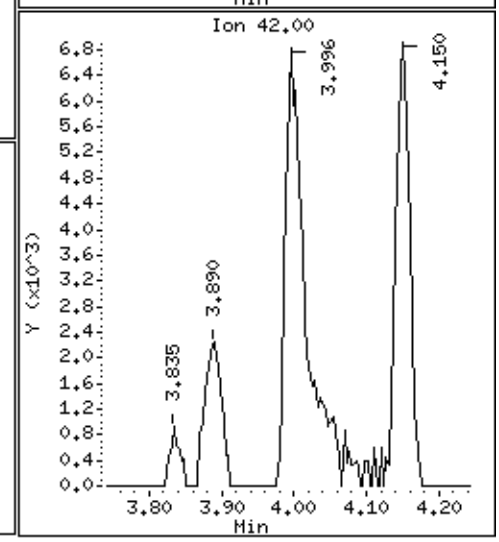


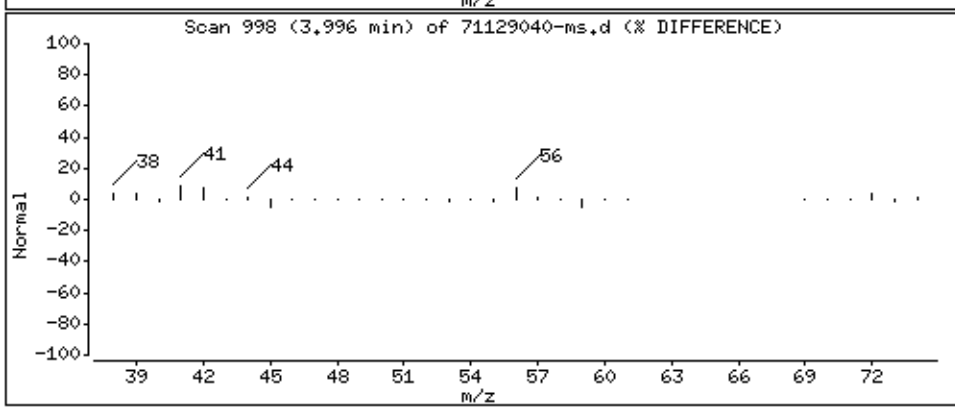












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

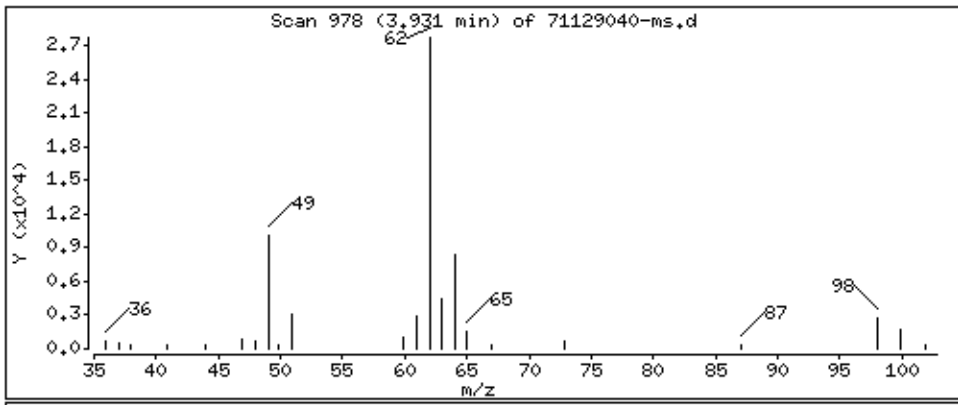
Column phase: RTX-VMS

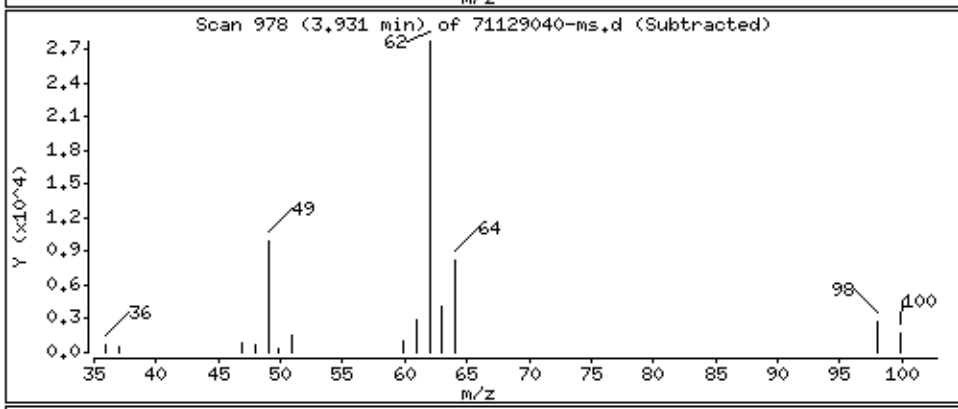
Column diameter: 0.18

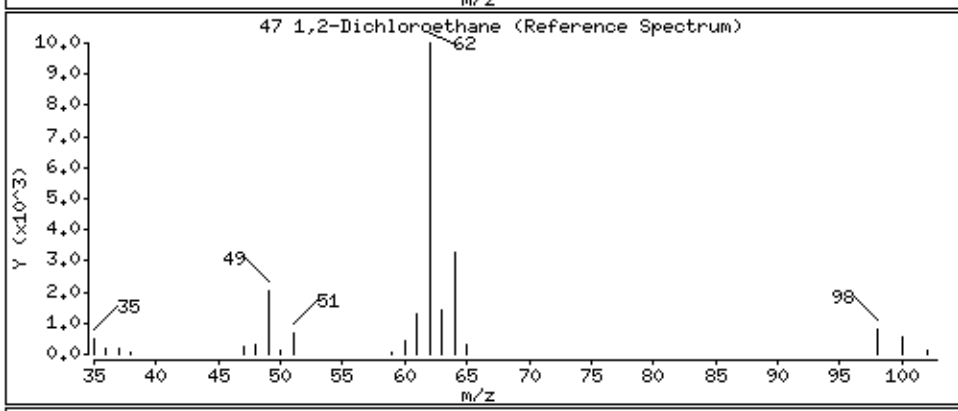
47 1,2-Dichloroethane

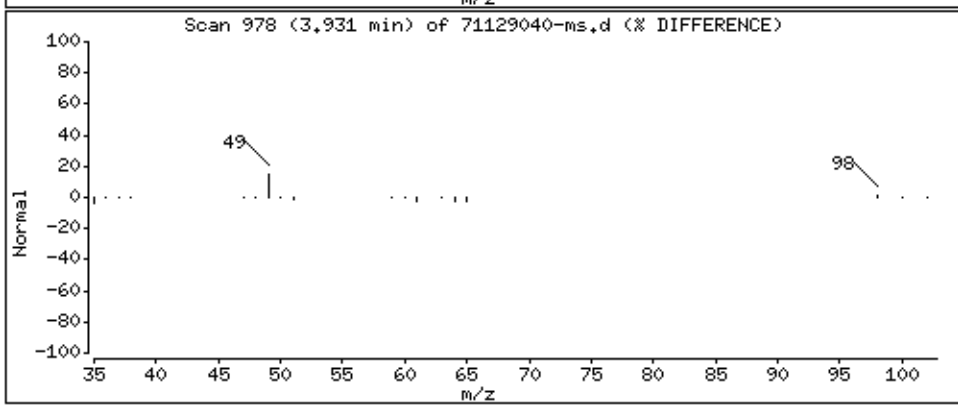
Concentration: 18.1 ug/L

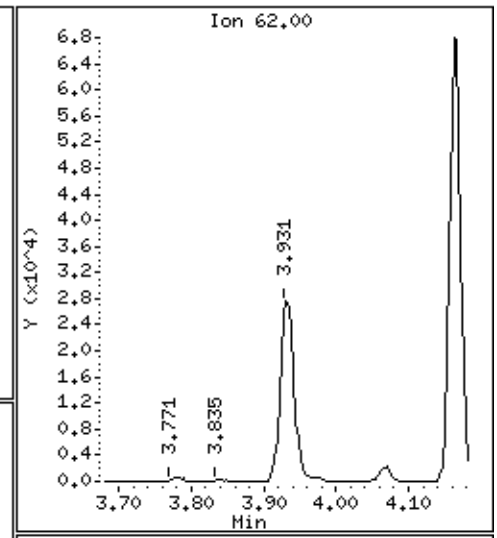
Review Code:

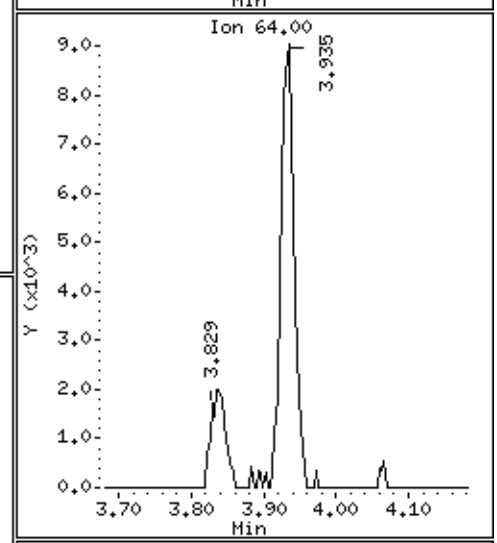


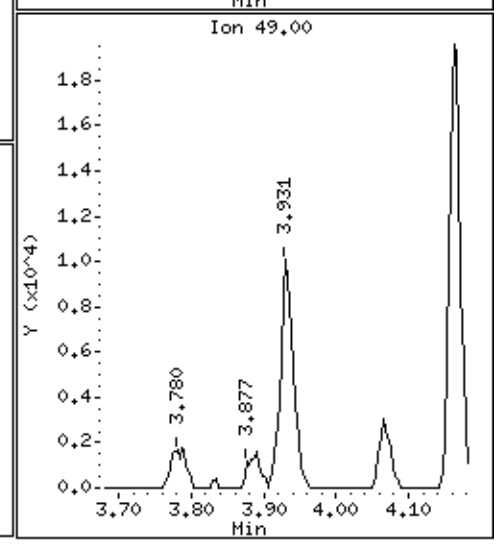












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

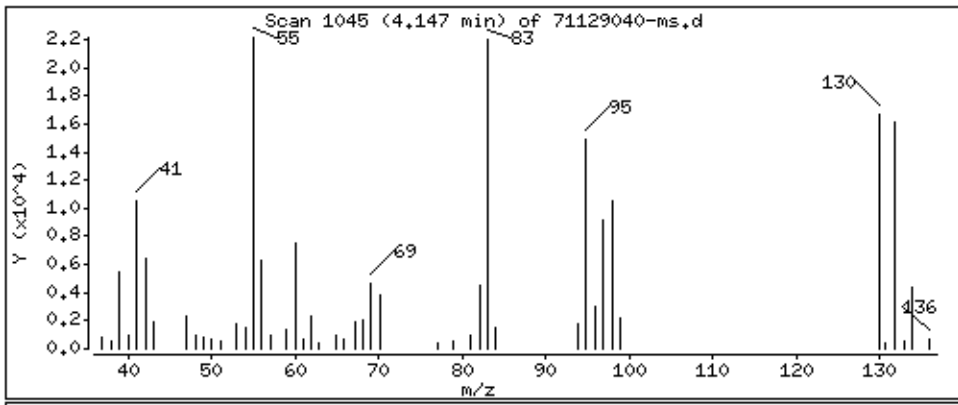
Column phase: RTX-VMS

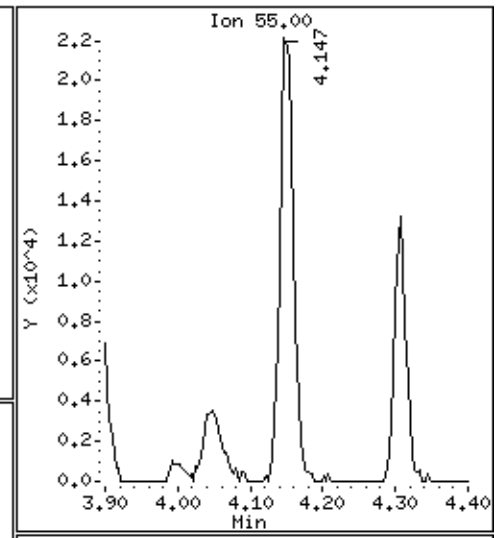
Column diameter: 0.18

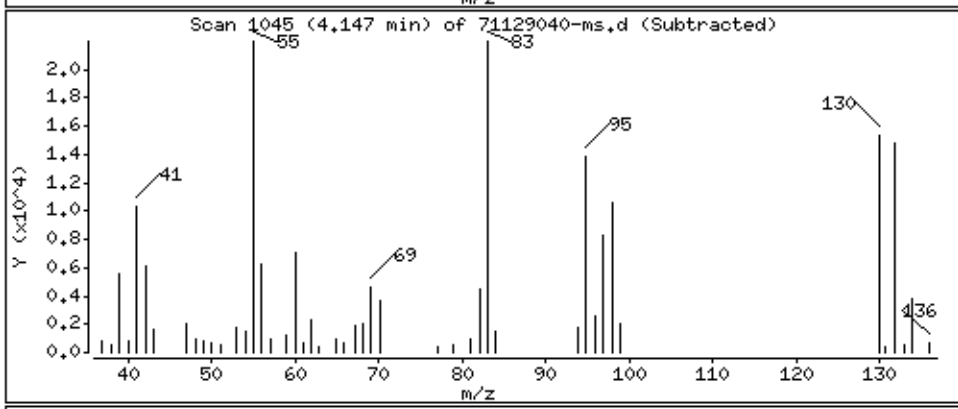
49 Methylcyclohexane

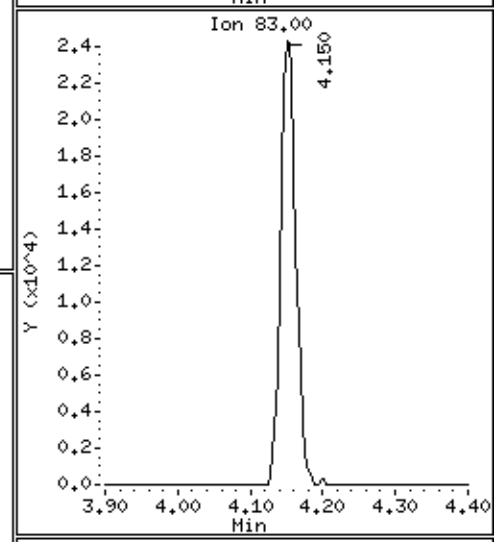
Concentration: 18.8 ug/L

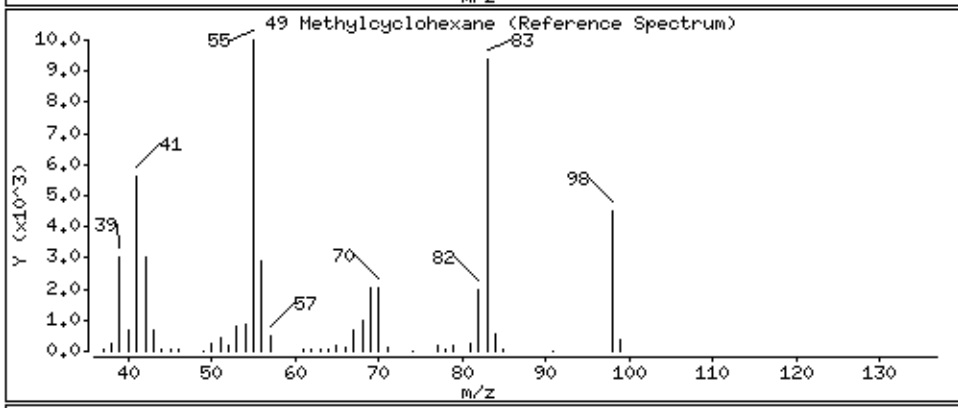
Review Code:

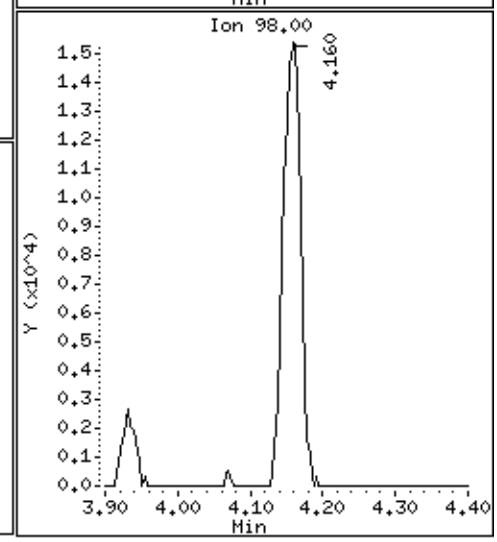


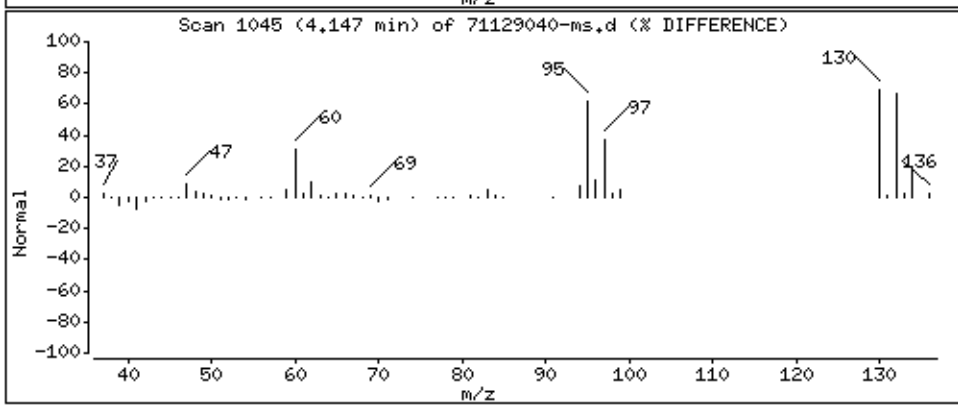












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

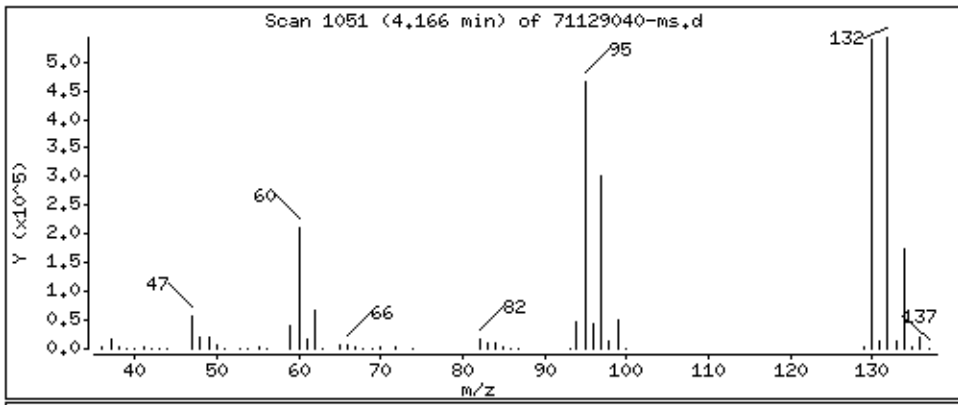
Column phase: RTX-VMS

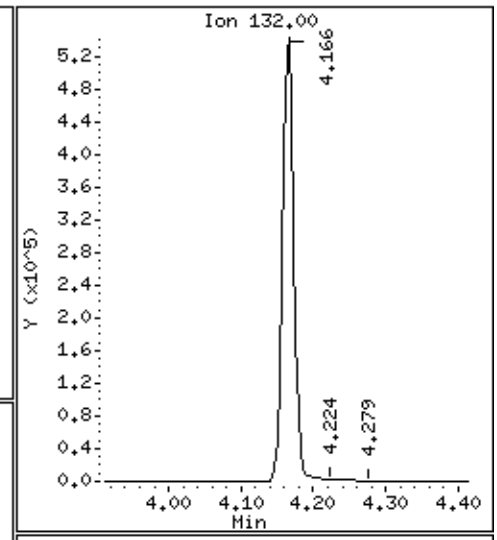
Column diameter: 0.18

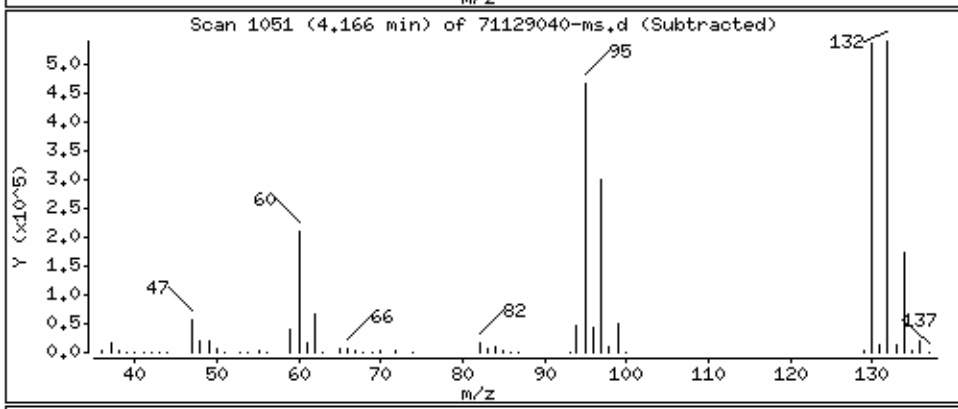
50 Trichloroethene

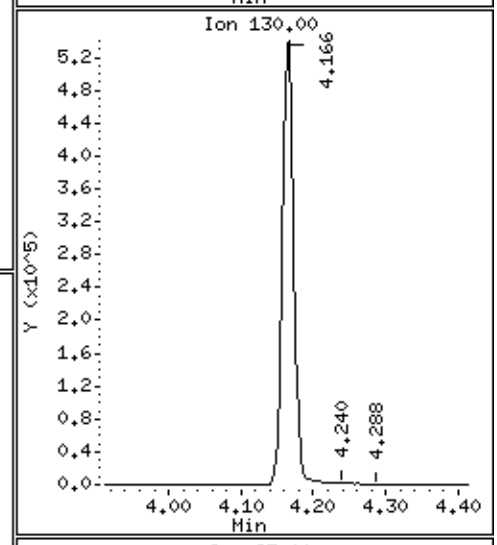
Concentration: 317 ug/L

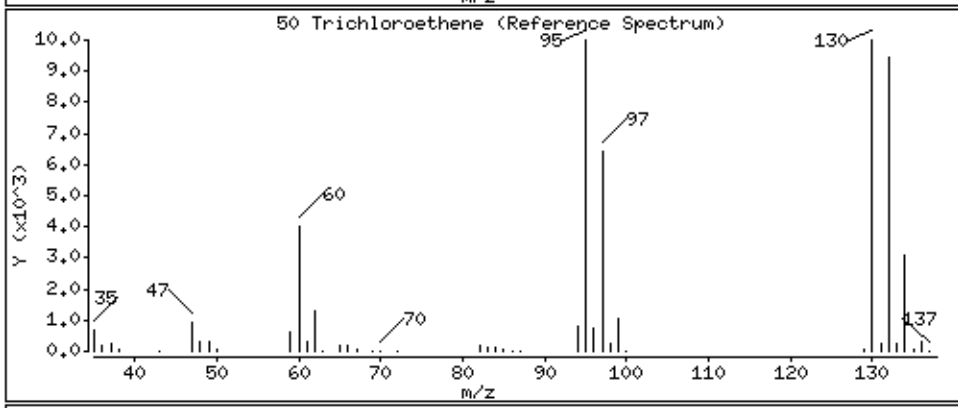
Review Code:

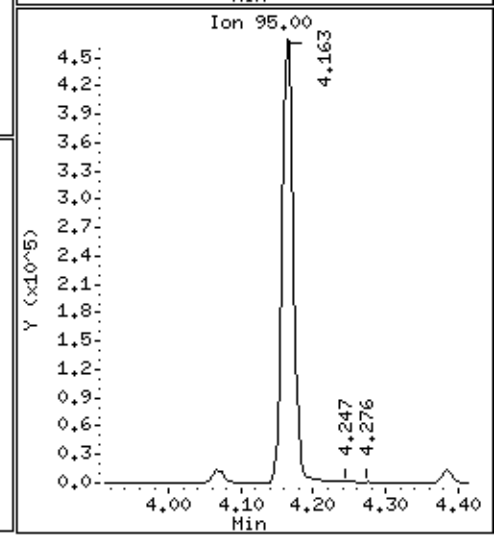


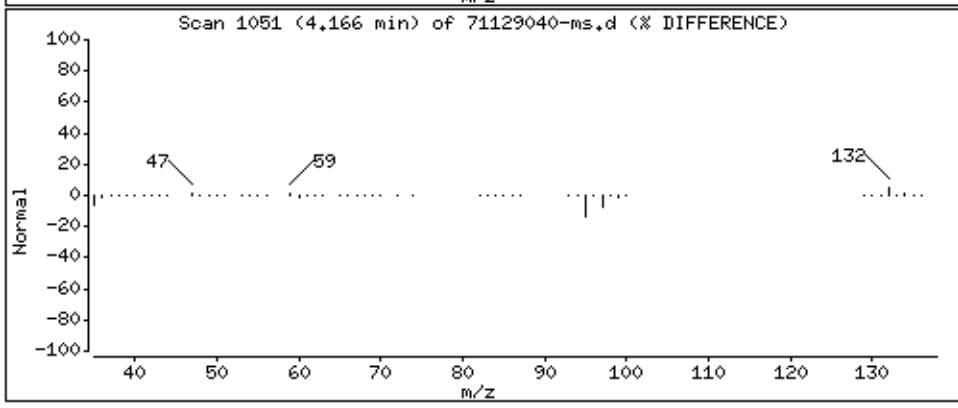












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

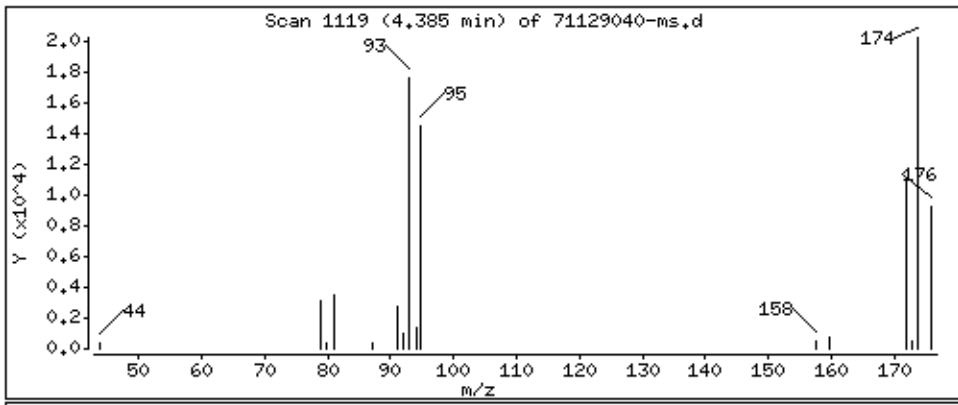
Column phase: RTX-VMS

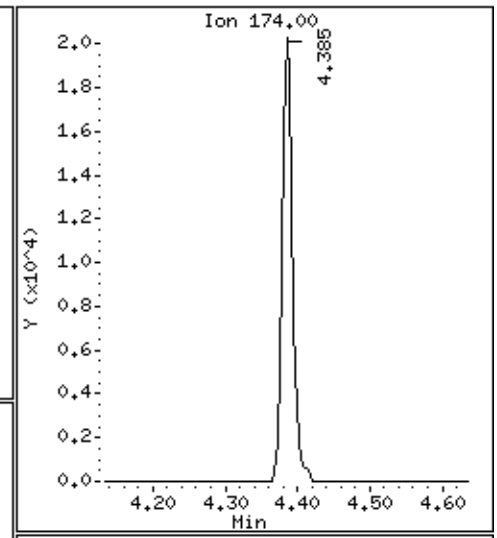
Column diameter: 0.18

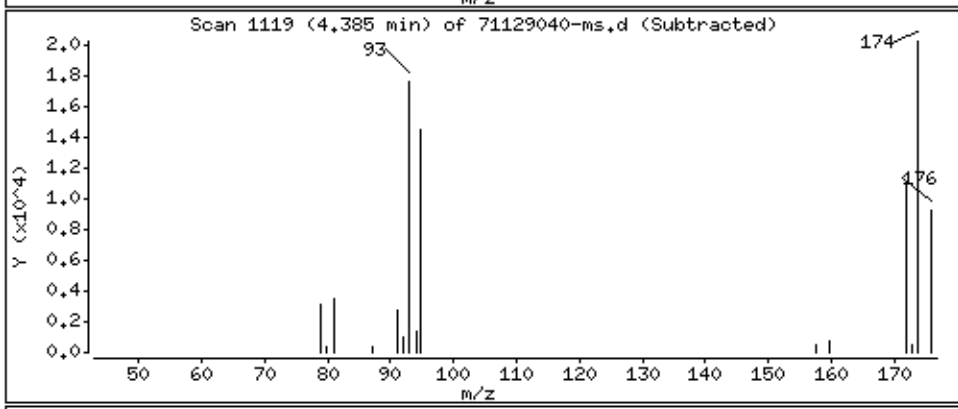
51 Dibromomethane

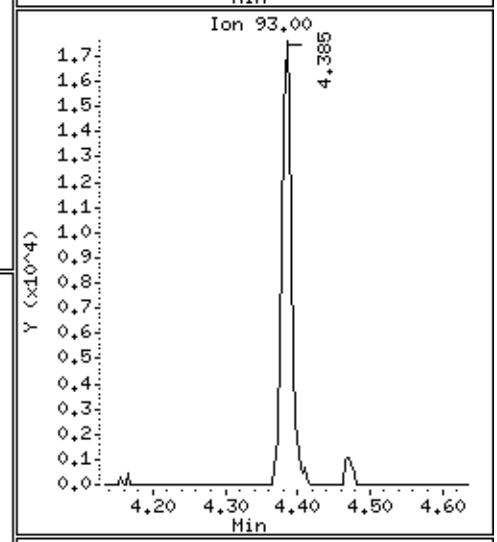
Concentration: 15.5 ug/L

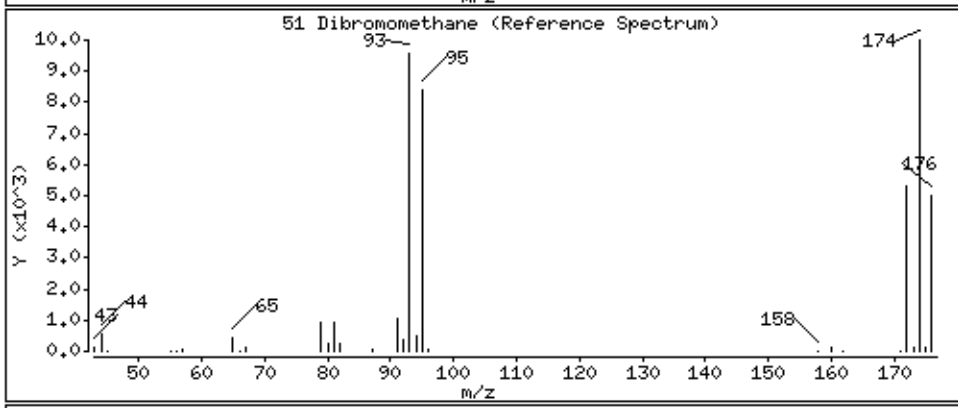
Review Code:

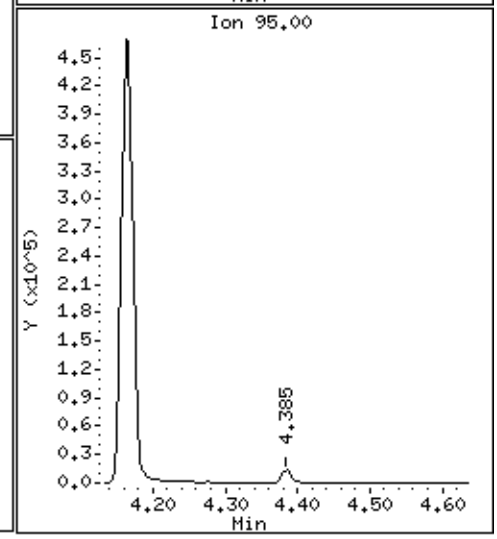


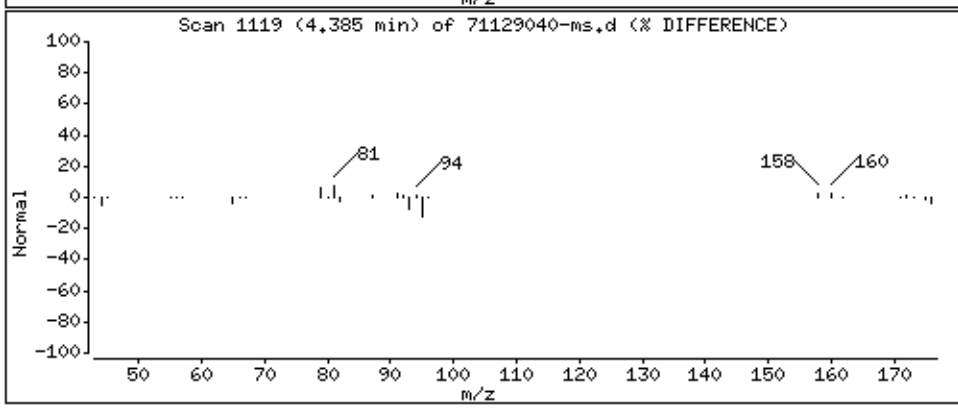












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

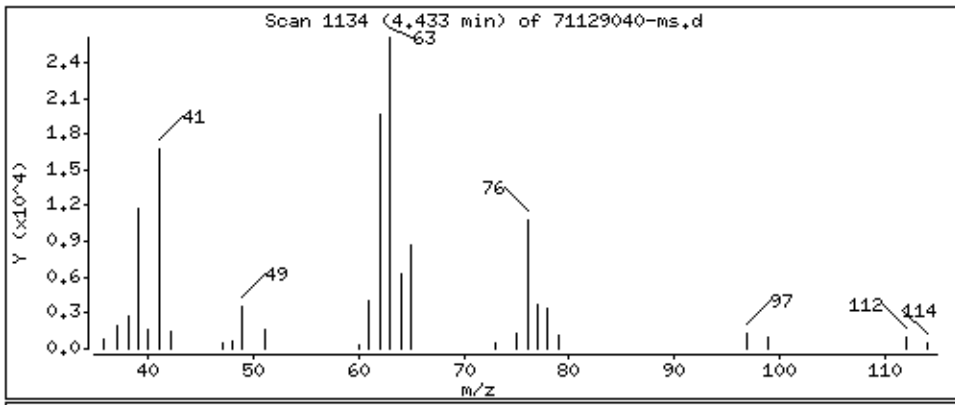
Column phase: RTX-VMS

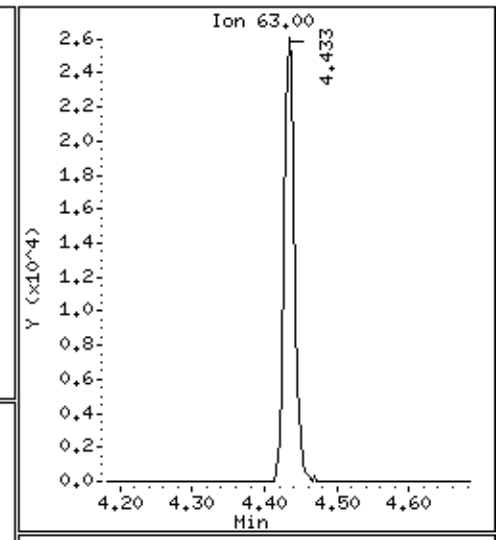
Column diameter: 0.18

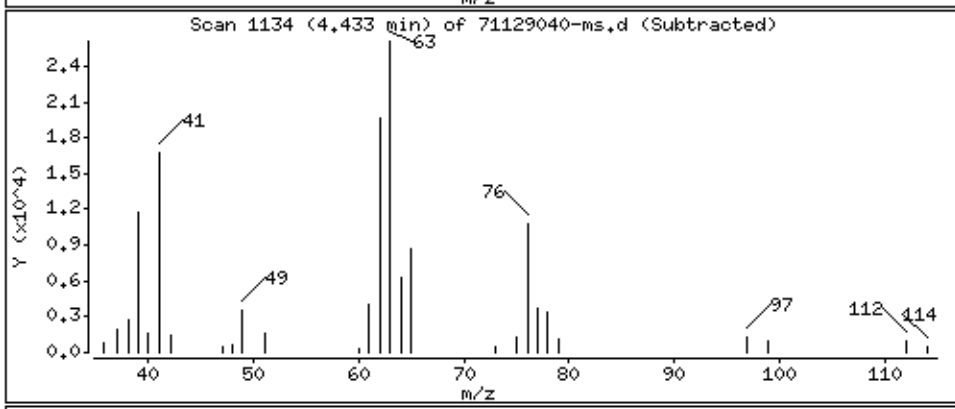
52 1,2-Dichloropropane

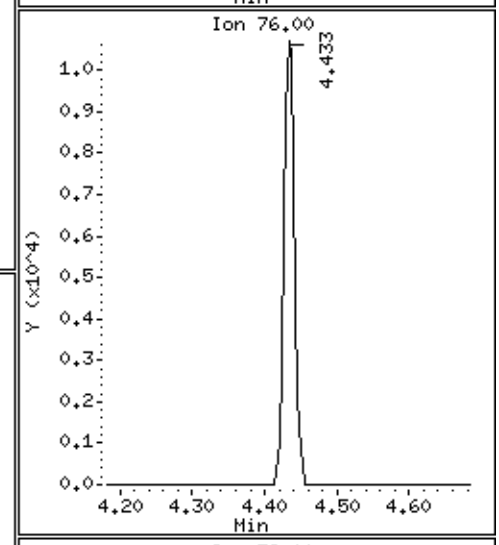
Concentration: 17.1 ug/L

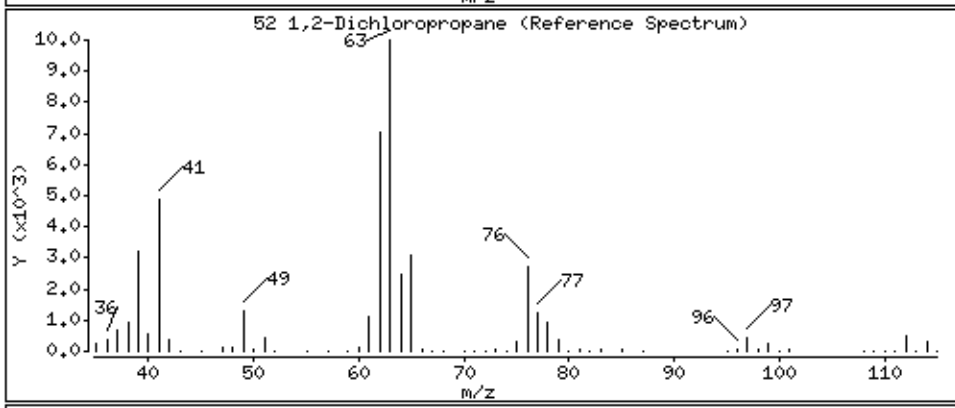
Review Code:

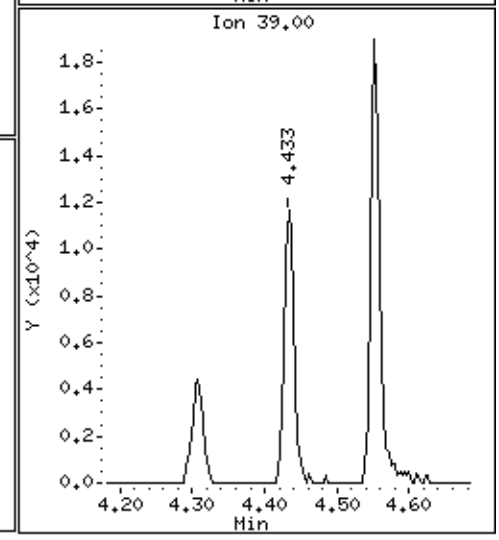


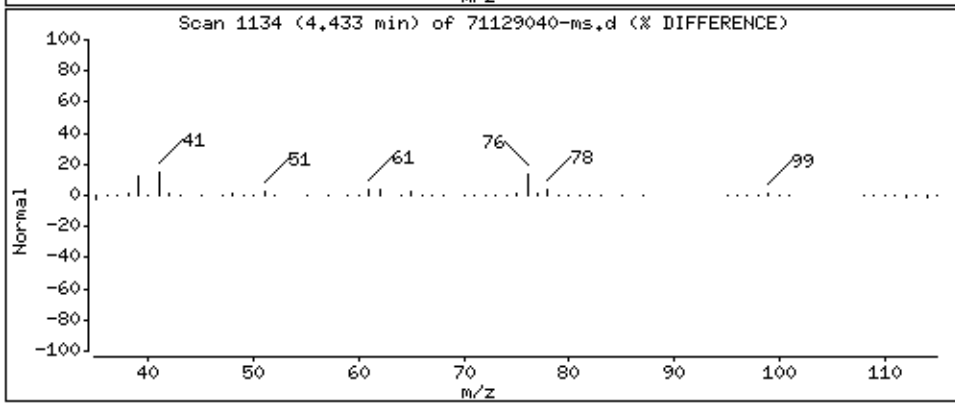












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

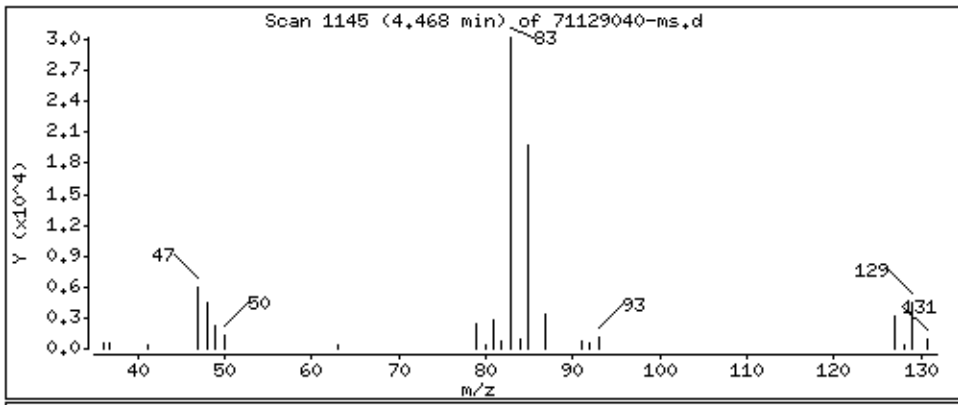
Column phase: RTX-VMS

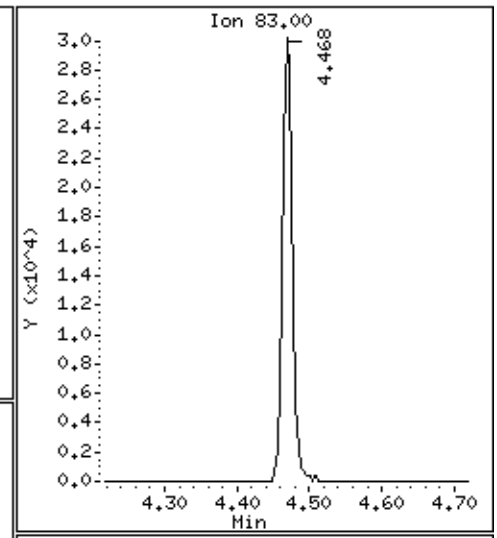
Column diameter: 0.18

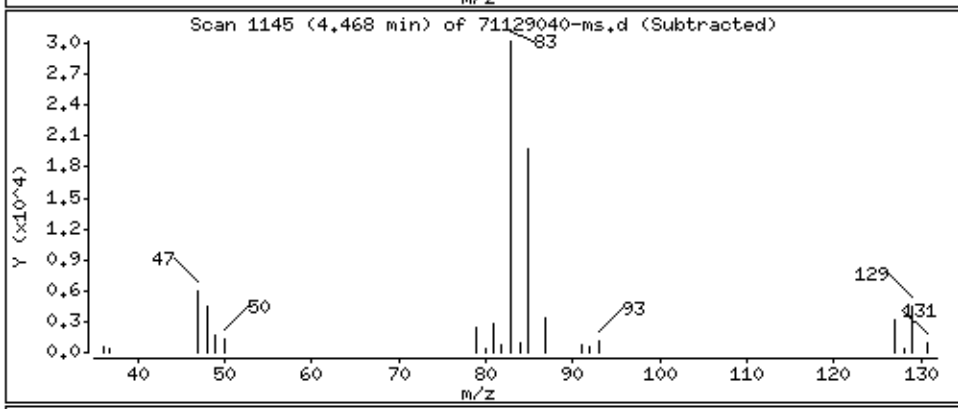
53 Bromodichloromethane

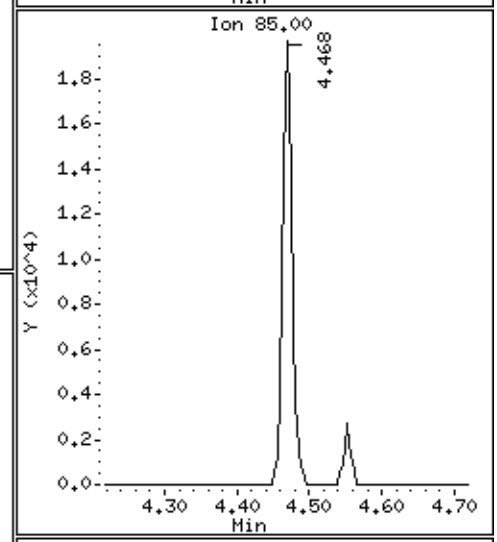
Concentration: 16.3 ug/L

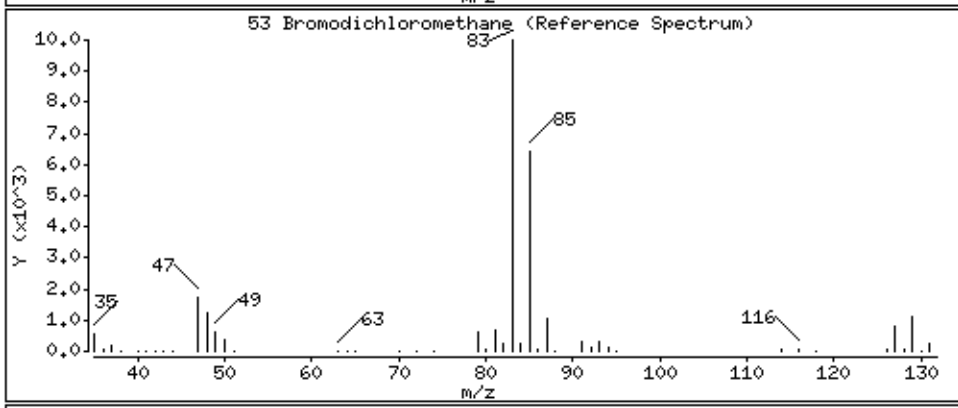
Review Code:

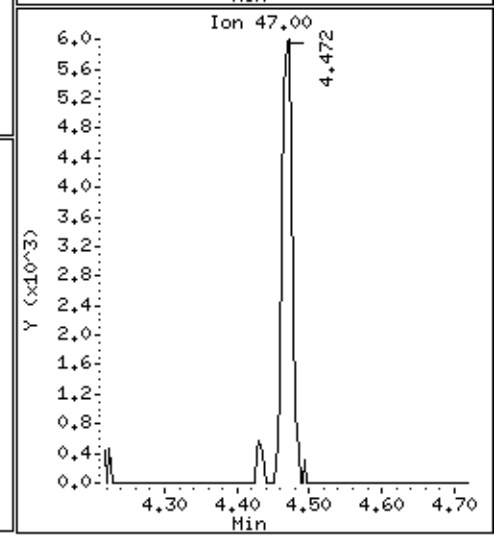


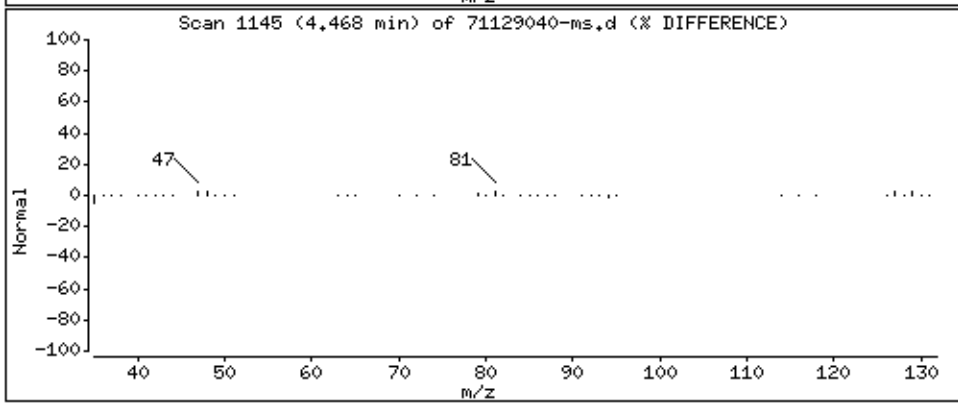












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

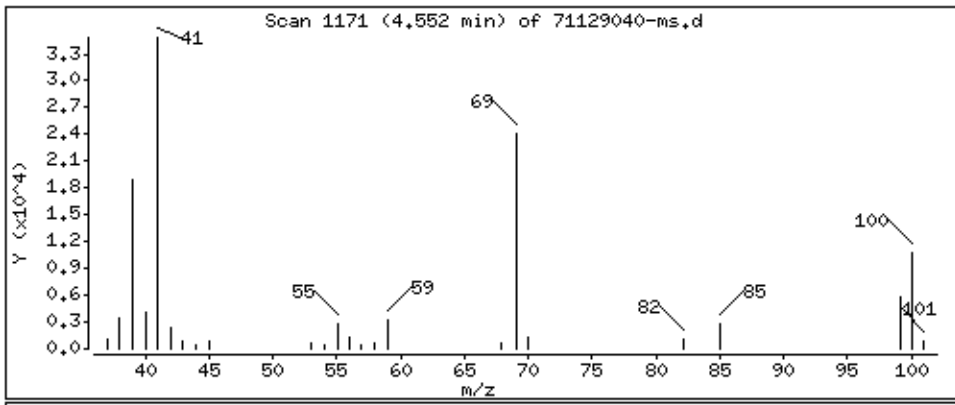
Column phase: RTX-VMS

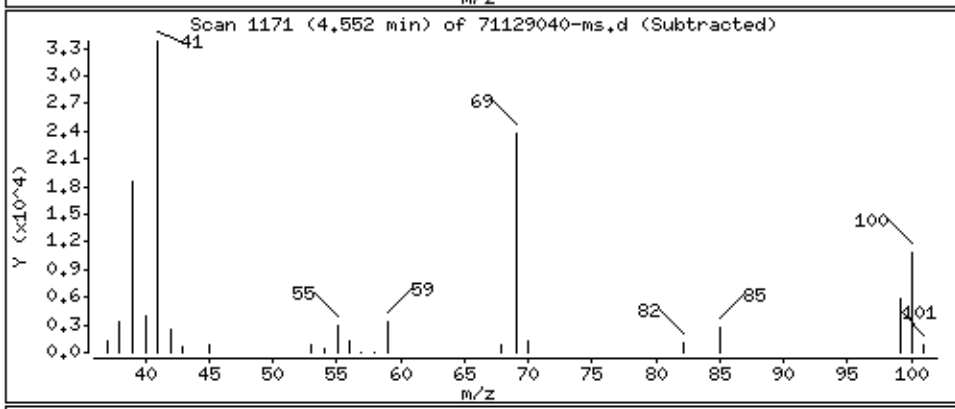
Column diameter: 0.18

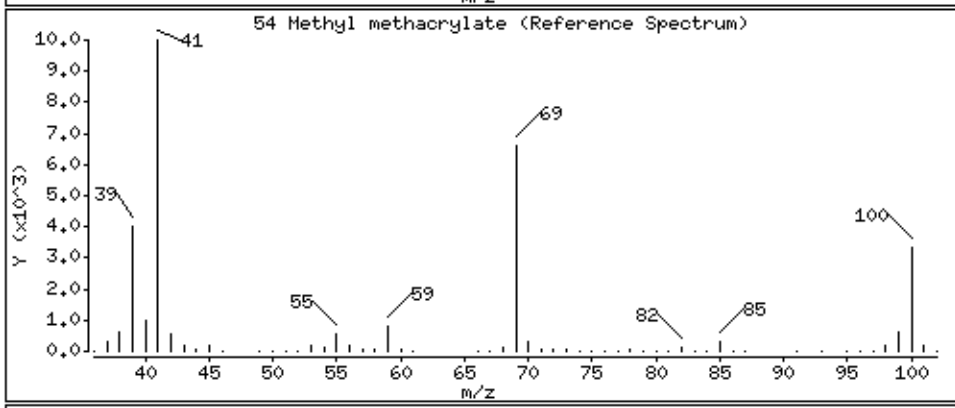
54 Methyl methacrylate

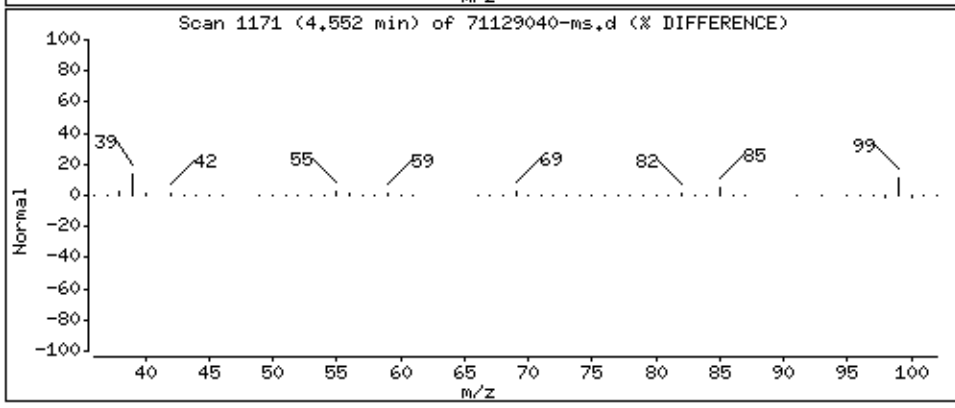
Concentration: 15.5 ug/L

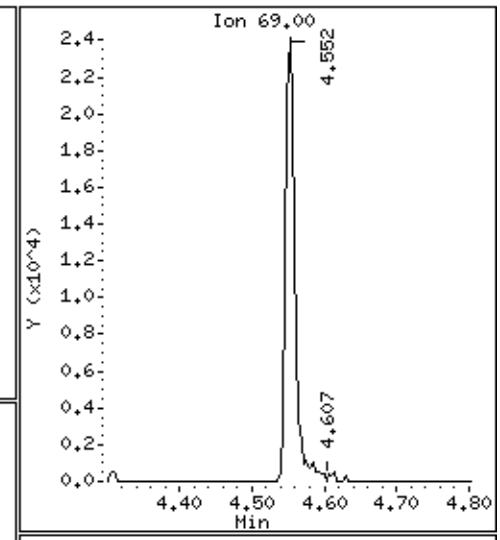
Review Code:

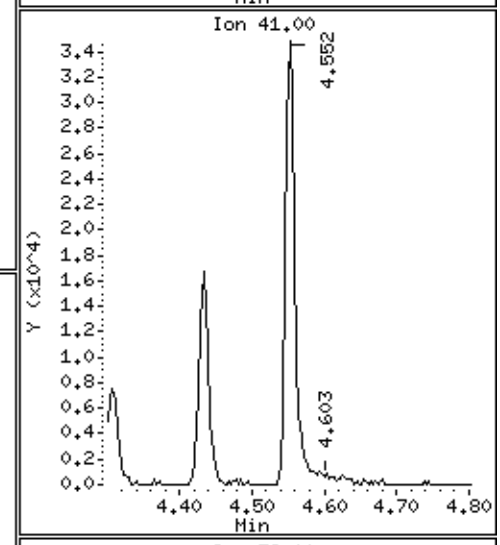


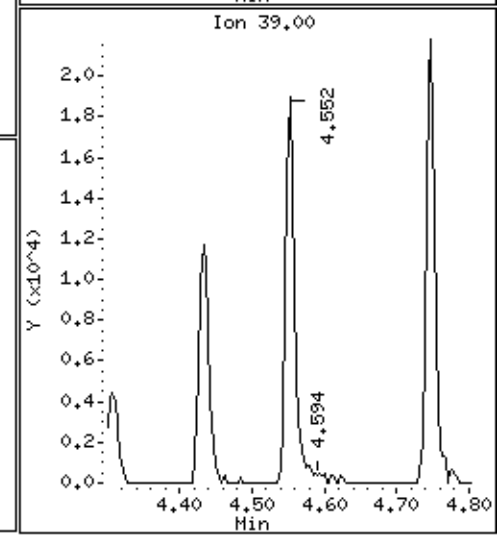












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

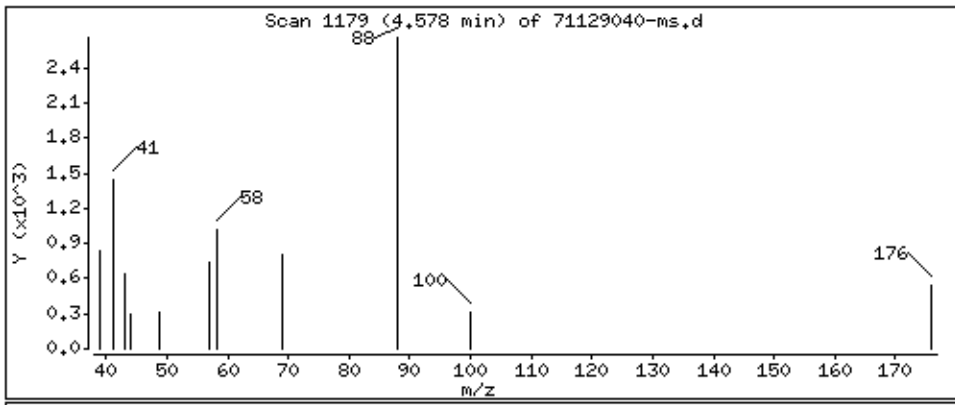
Column phase: RTX-VMS

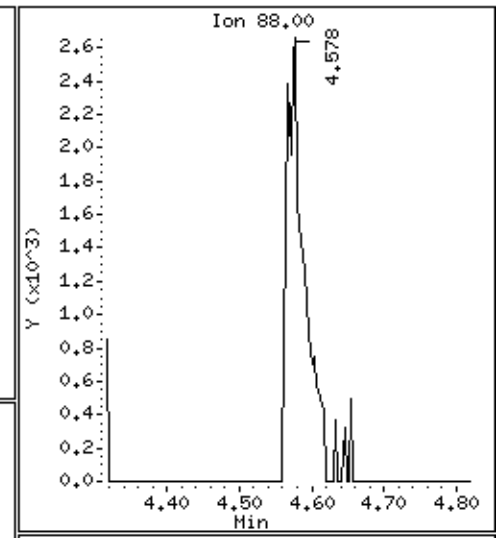
Column diameter: 0.18

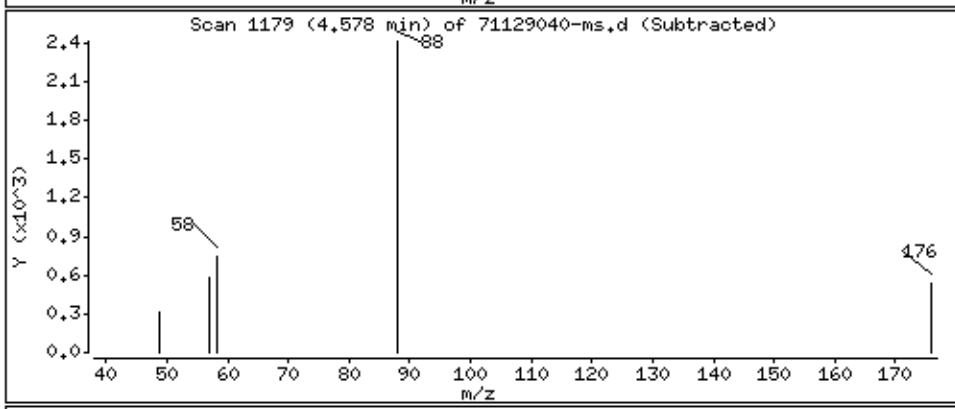
55 1,4-Dioxane (p-Dioxane)

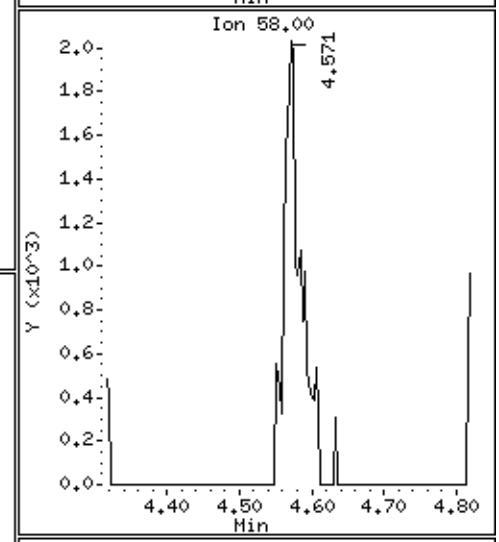
Concentration: 159 ug/L

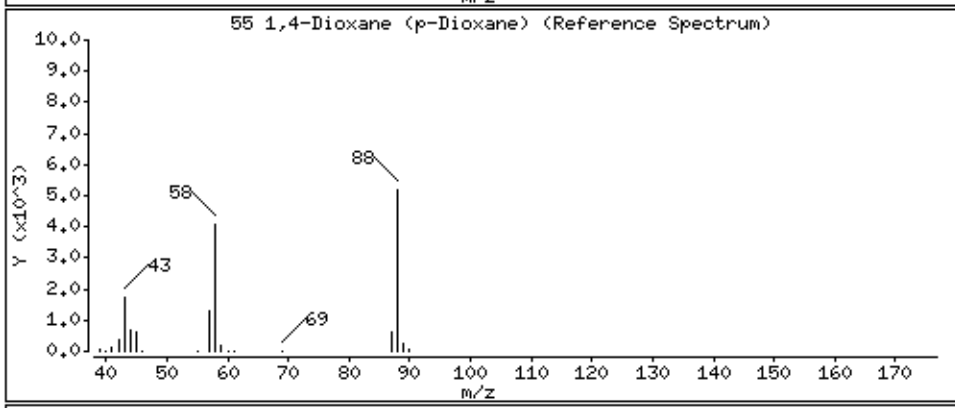
Review Code:

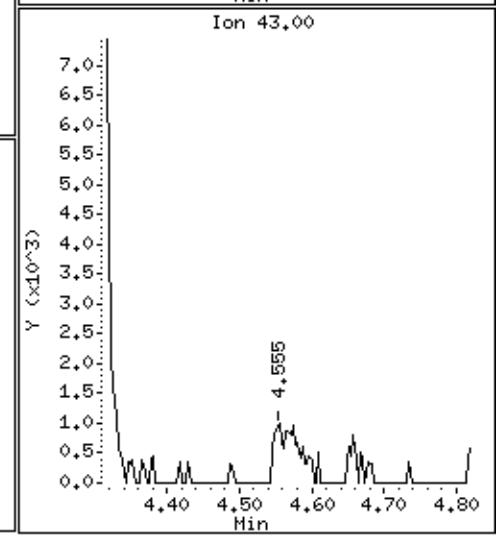


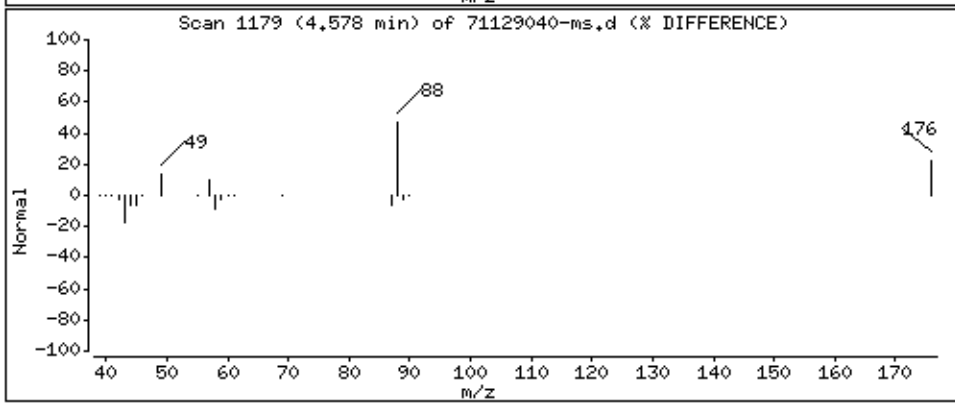












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

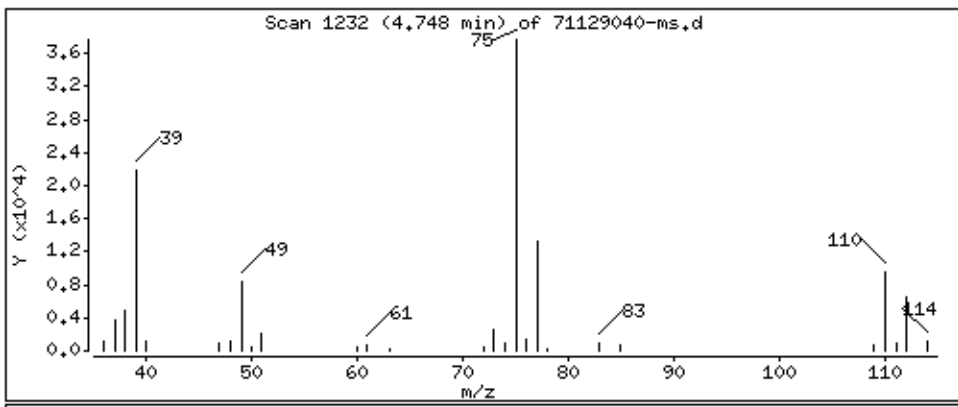
Column phase: RTX-VMS

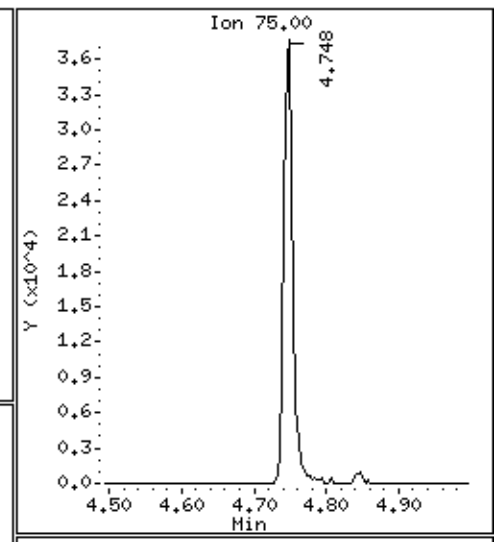
Column diameter: 0.18

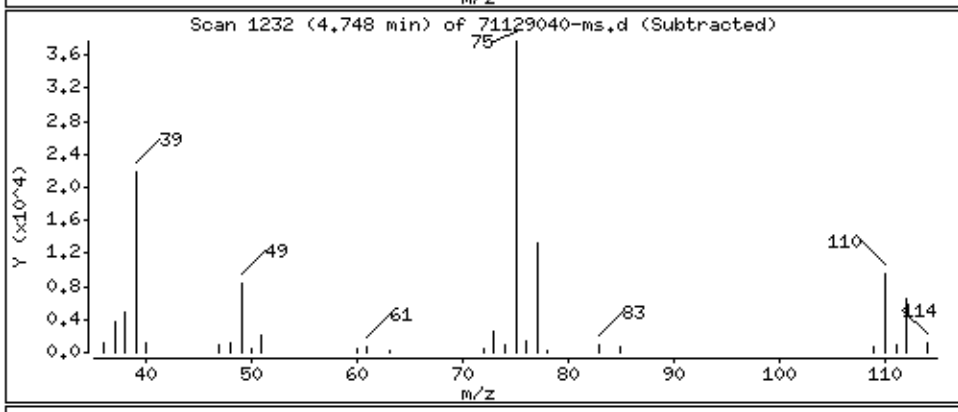
57 cis-1,3-Dichloropropene

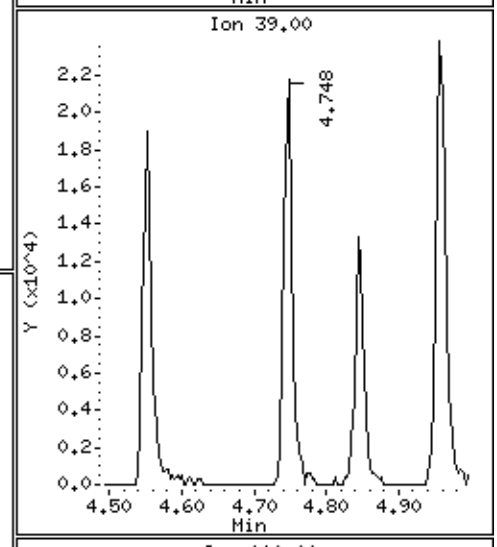
Concentration: 15.2 ug/L

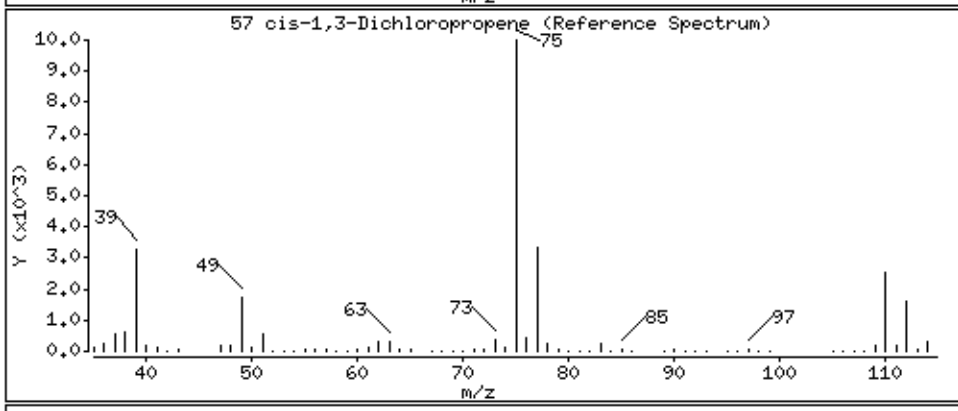
Review Code:

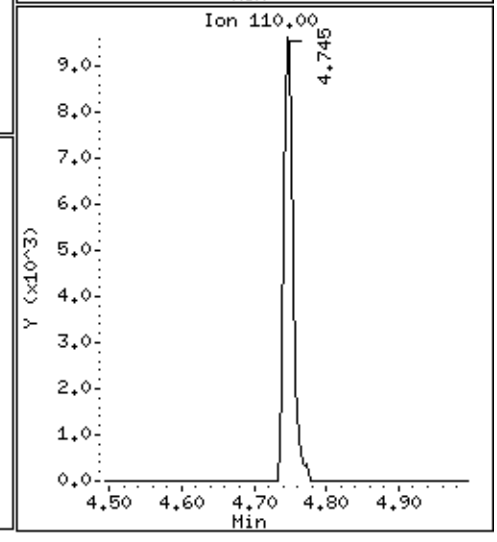


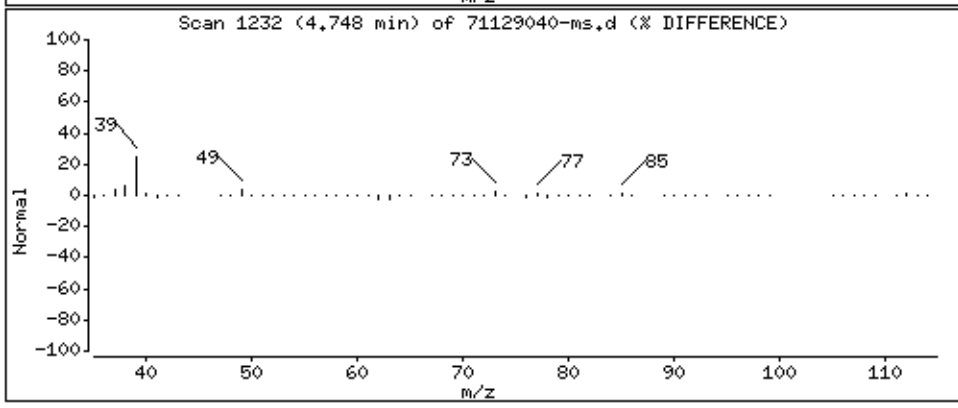












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

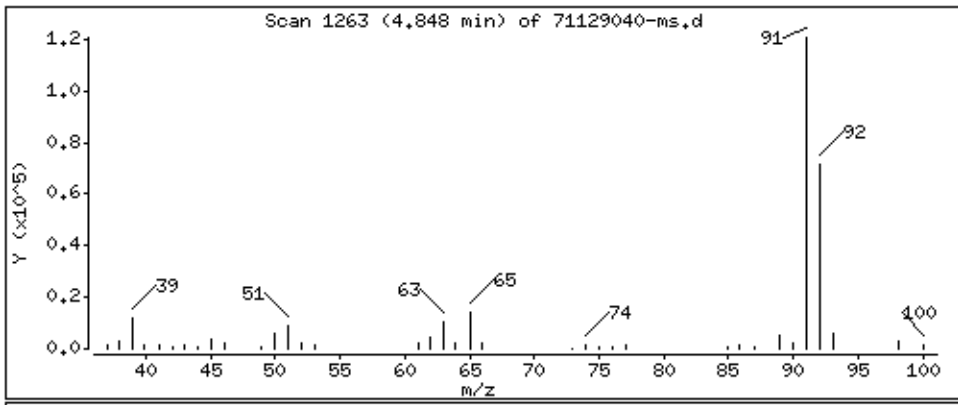
Column phase: RTX-VMS

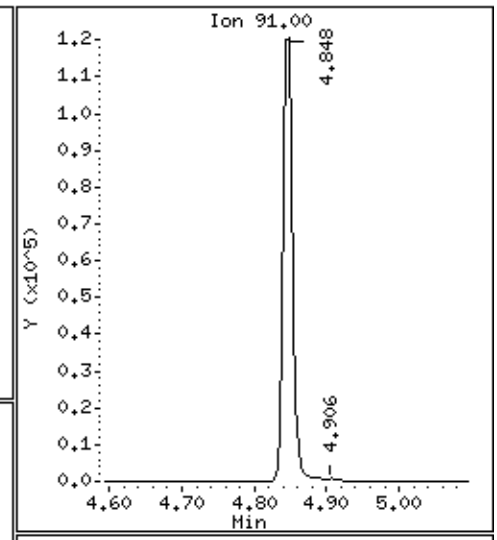
Column diameter: 0.18

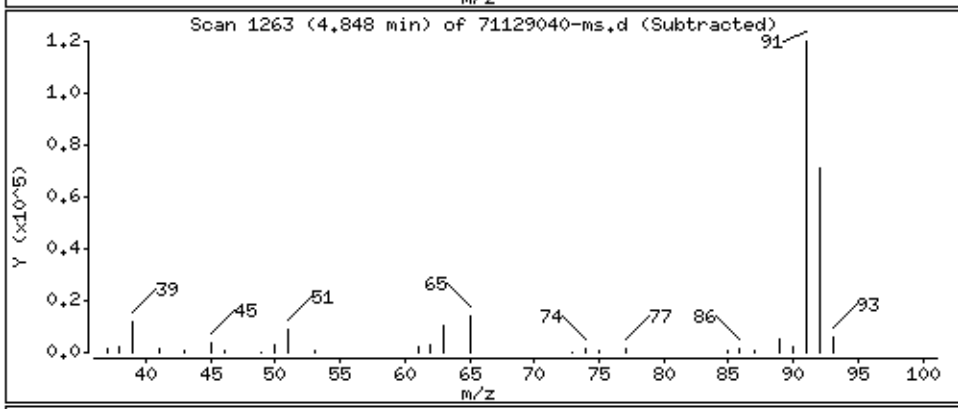
59 Toluene

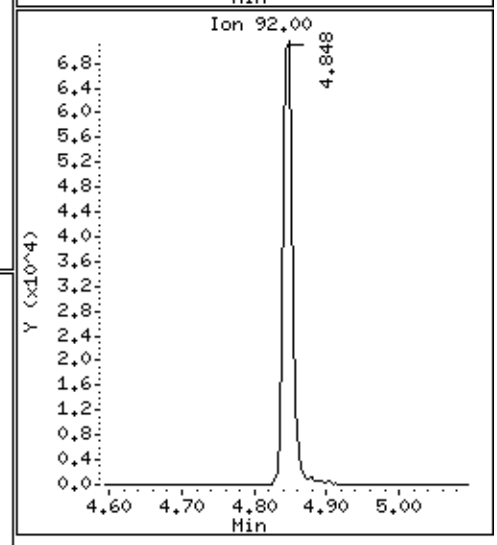
Concentration: 16.0 ug/L

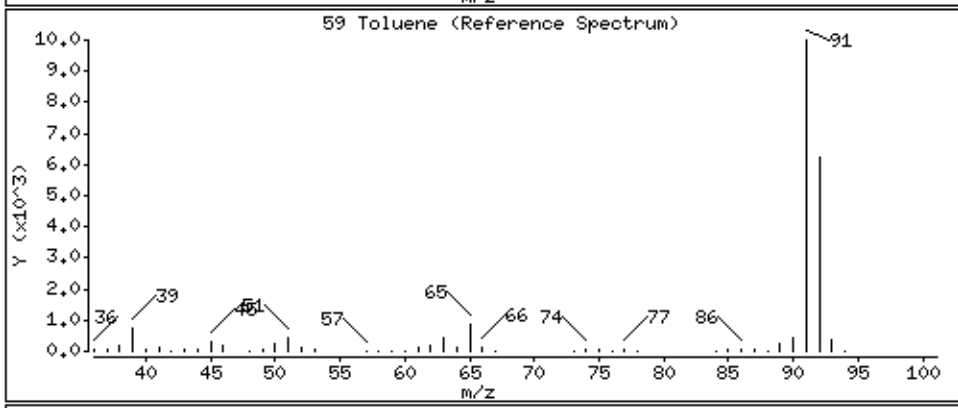
Review Code:

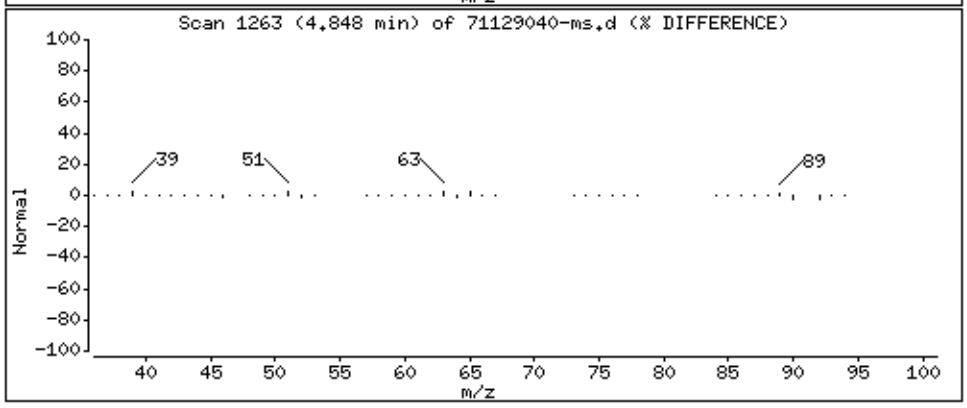












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

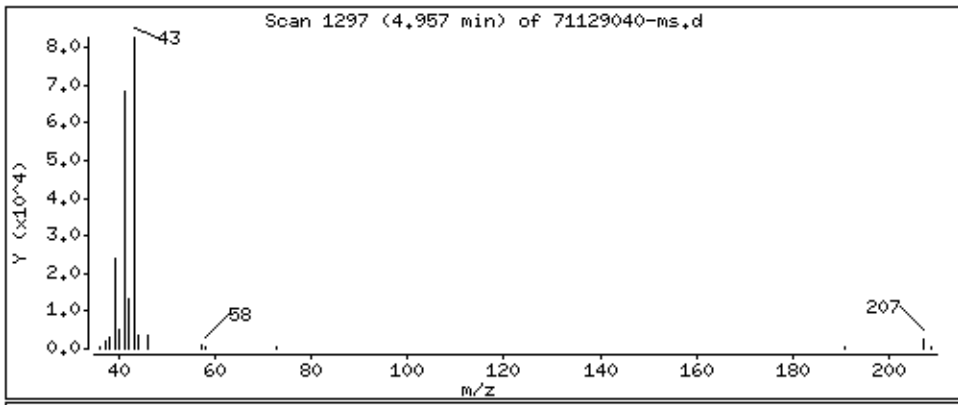
Column phase: RTX-VMS

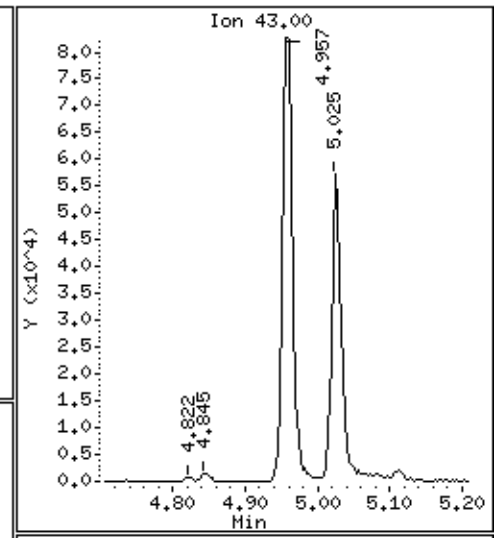
Column diameter: 0.18

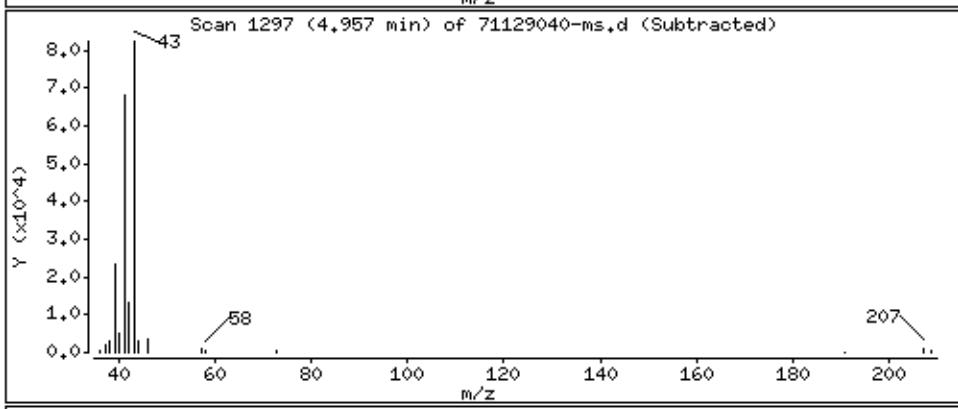
60 2-Nitropropane

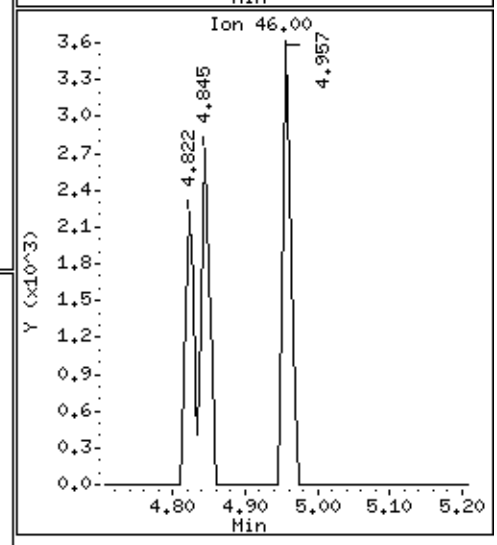
Concentration: 94.4 ug/L

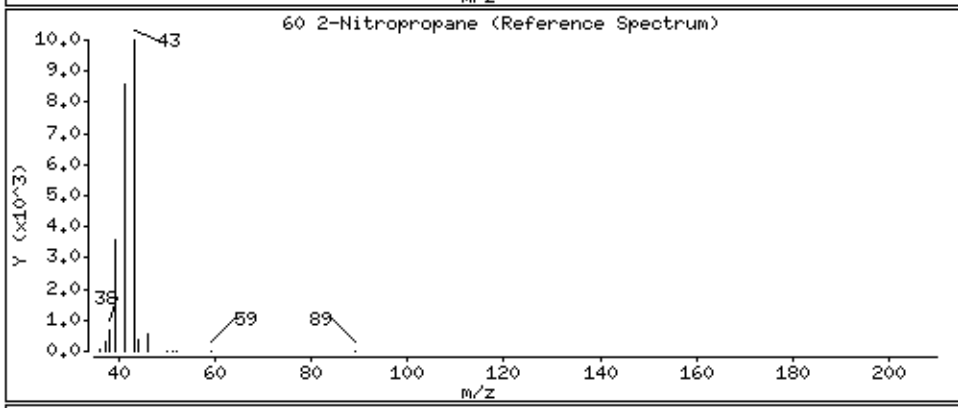
Review Code:

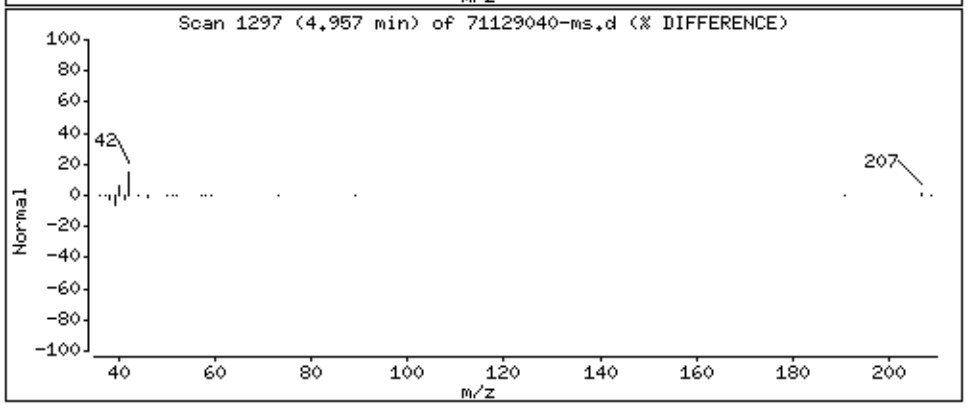












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

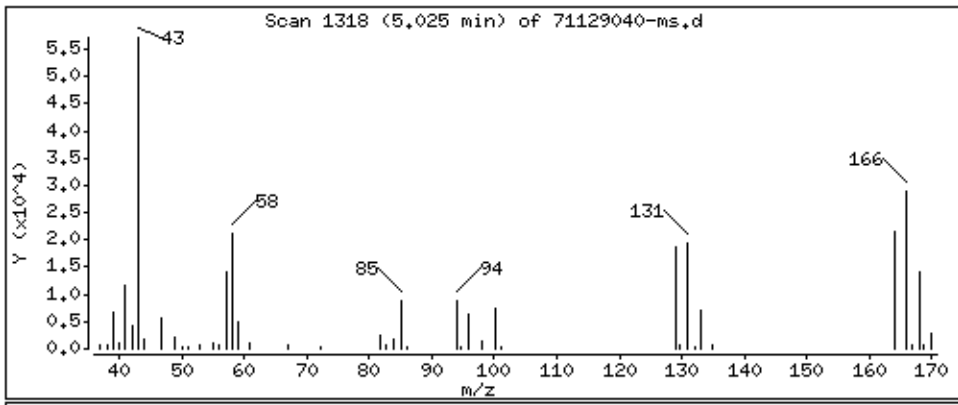
Column phase: RTX-VMS

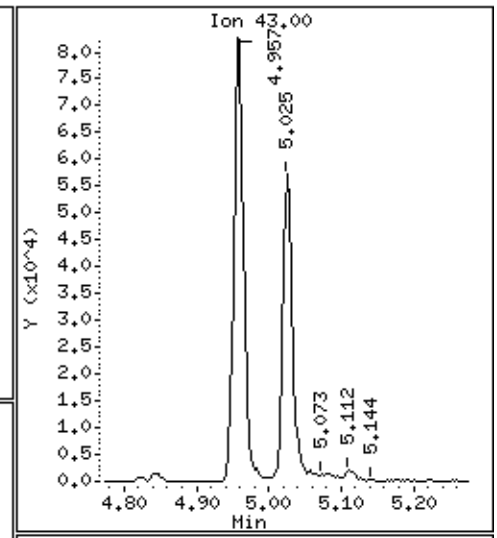
Column diameter: 0.18

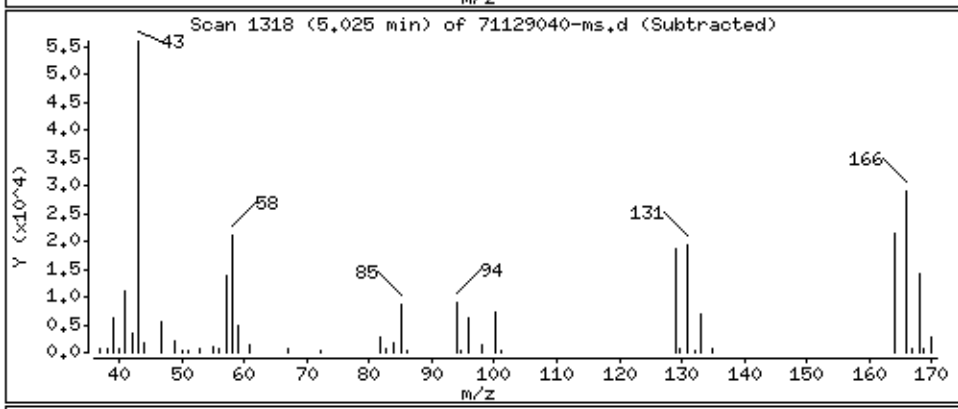
61 4-Methyl-2-pentanone (MIBK)

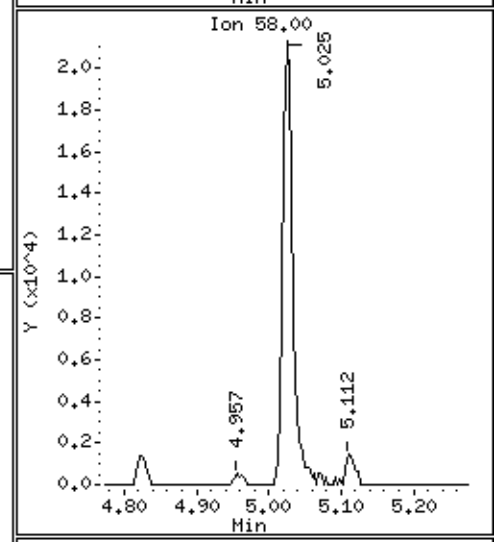
Concentration: 19.2 ug/L

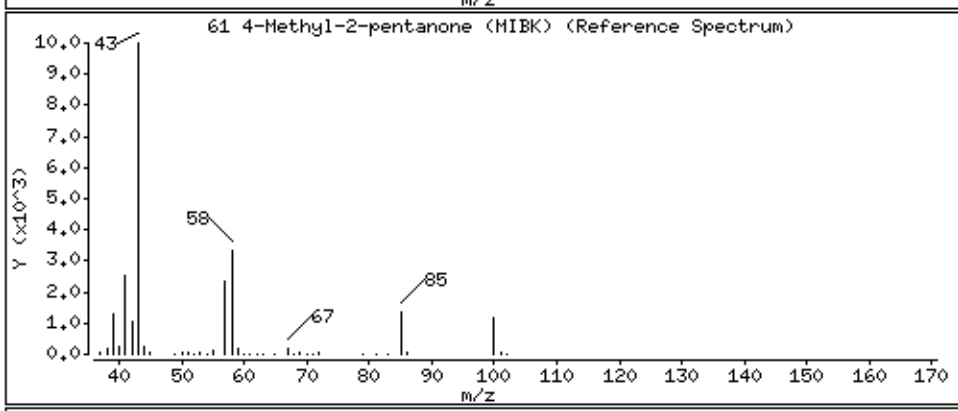
Review Code:

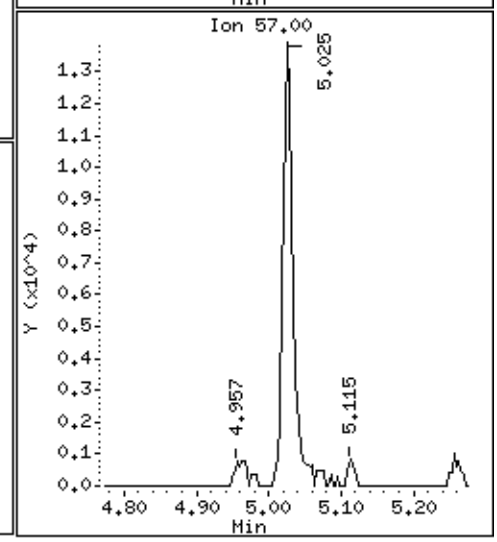


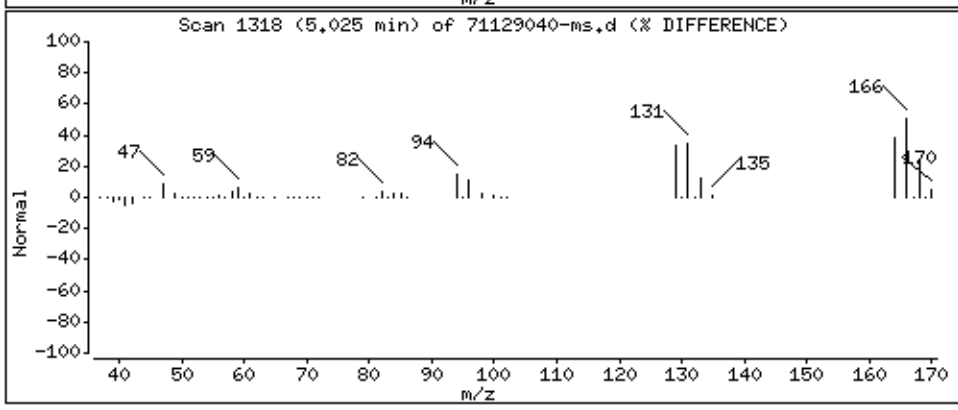












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

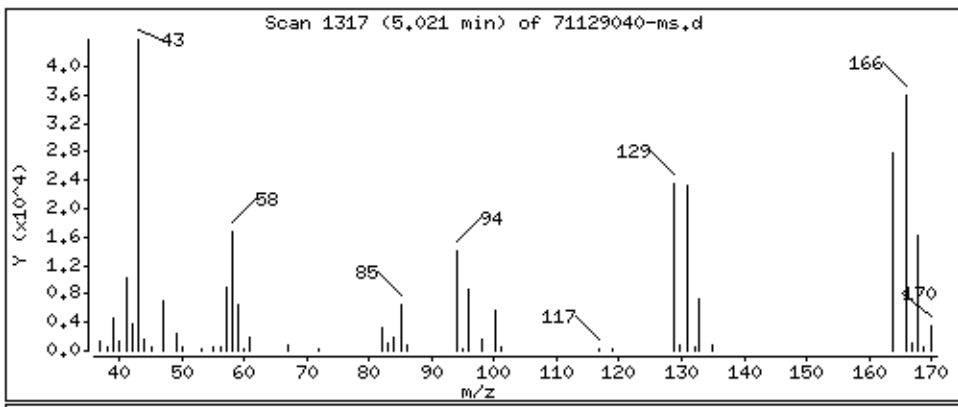
Column phase: RTX-VMS

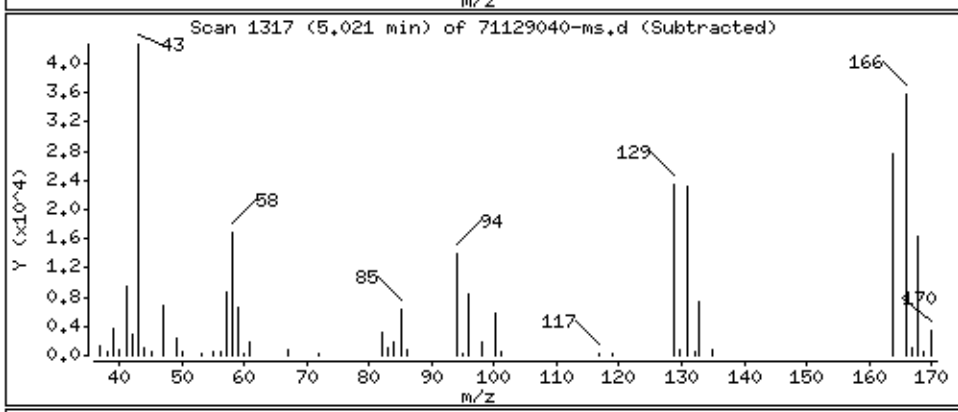
Column diameter: 0.18

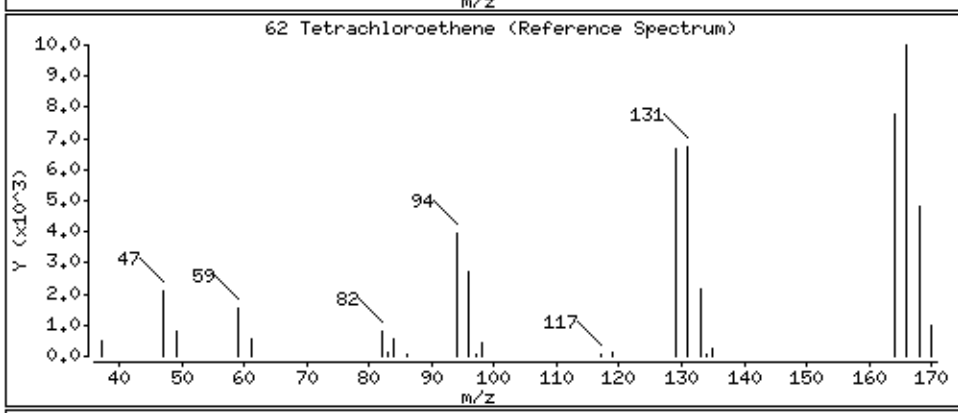
62 Tetrachloroethene

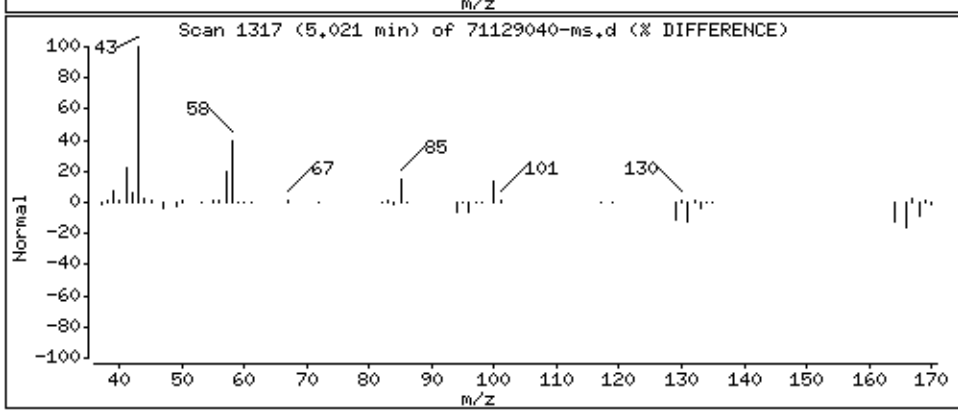
Concentration: 17.2 ug/L

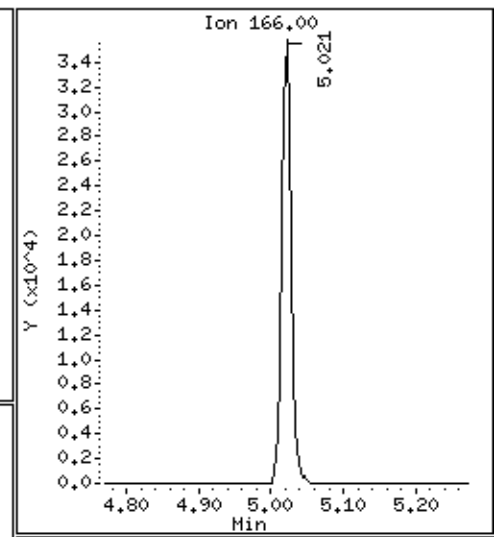
Review Code:

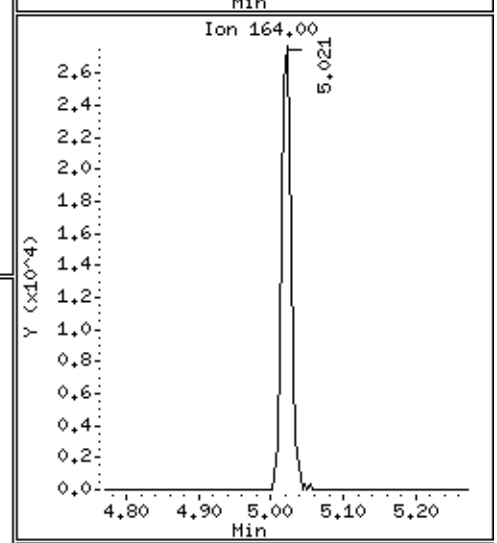


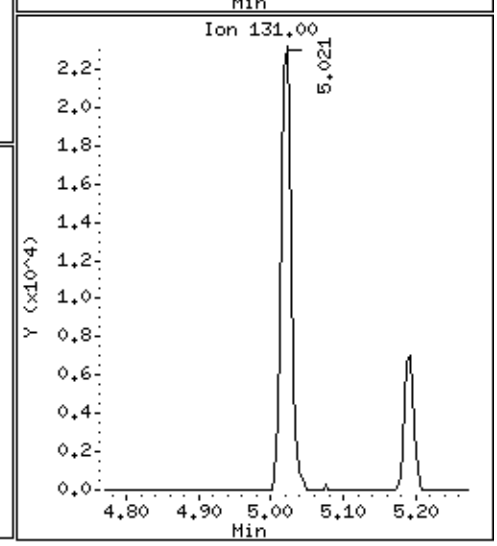












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

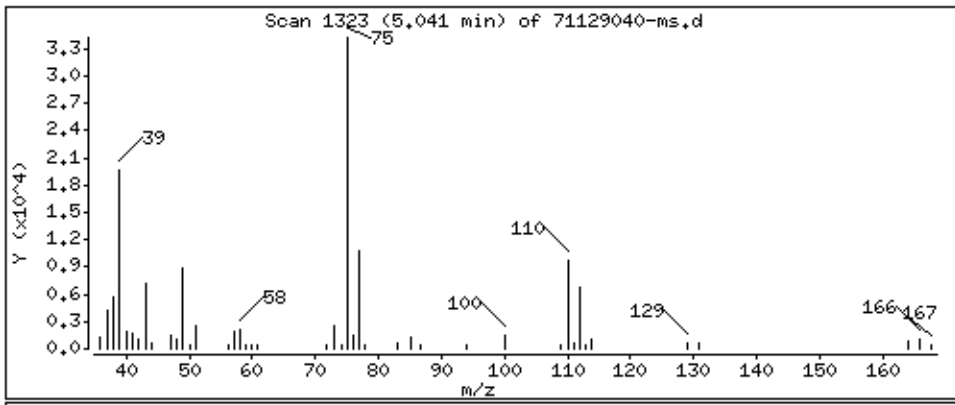
Column phase: RTX-VMS

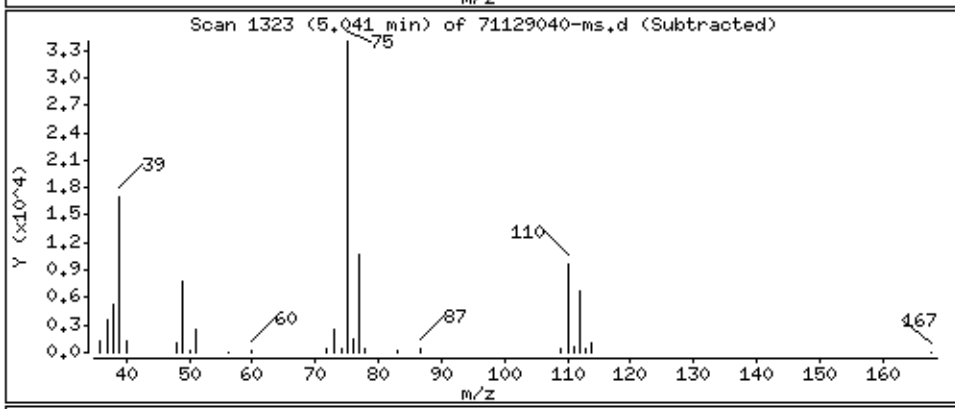
Column diameter: 0.18

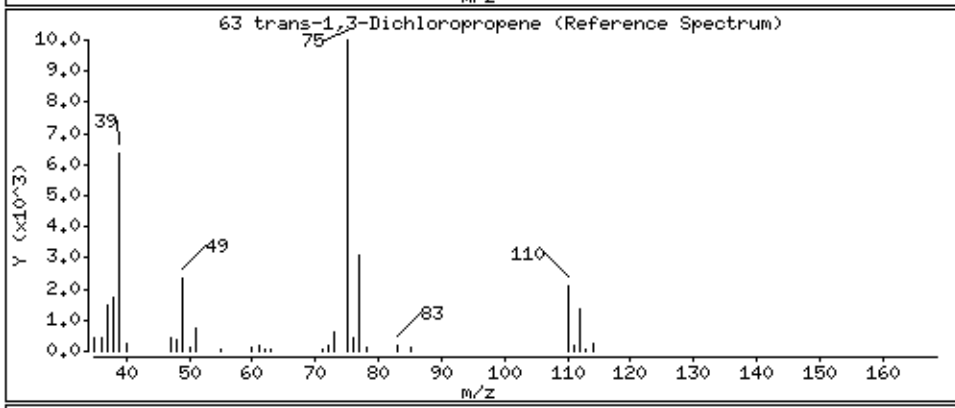
63 trans-1,3-Dichloropropene

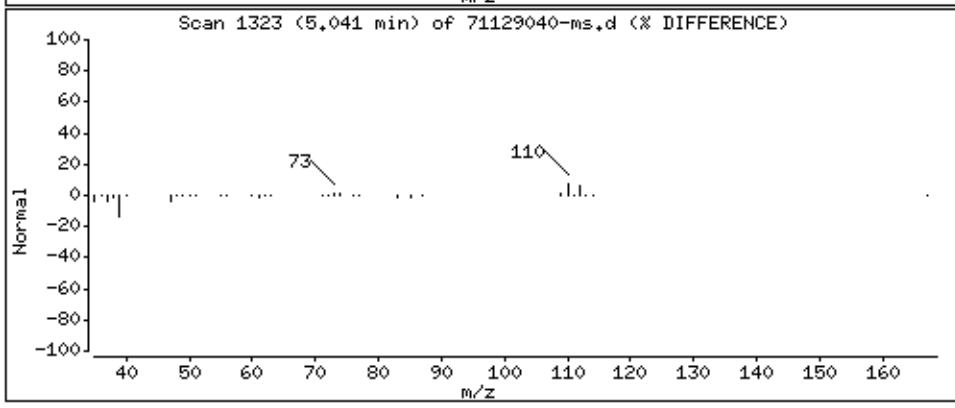
Concentration: 15.5 ug/L

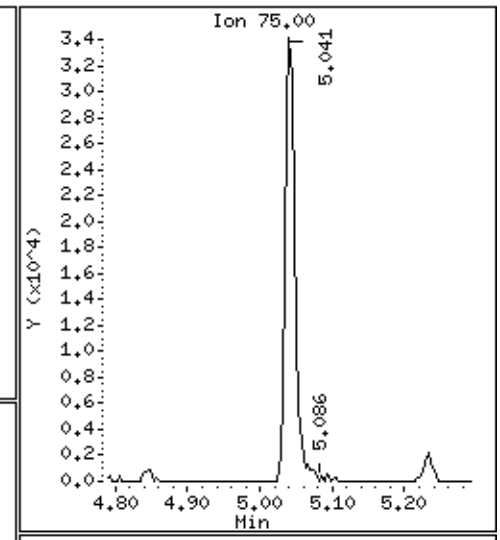
Review Code:

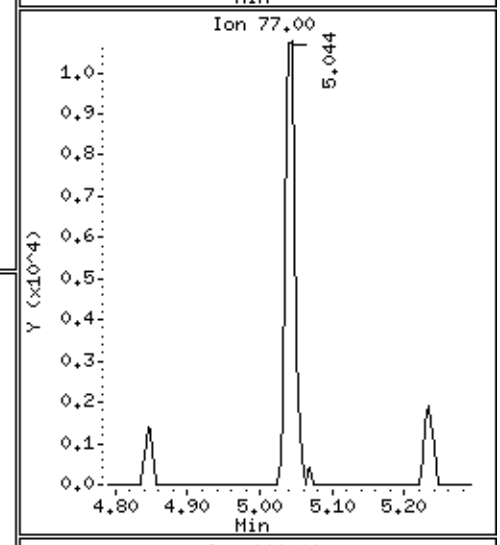


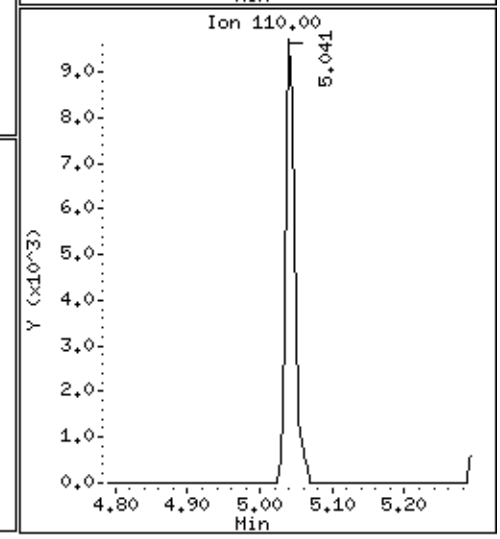












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

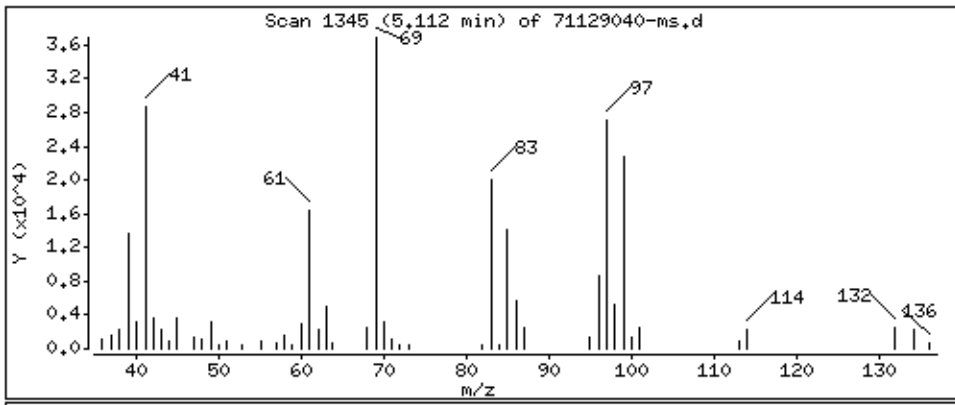
Column phase: RTX-VMS

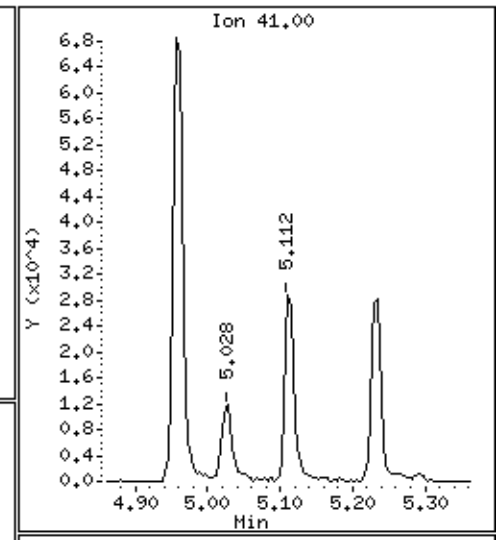
Column diameter: 0.18

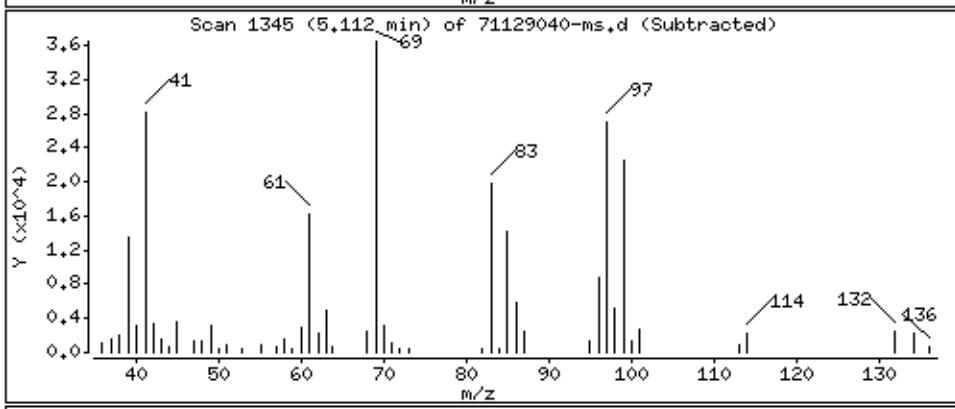
64 Ethyl methacrylate

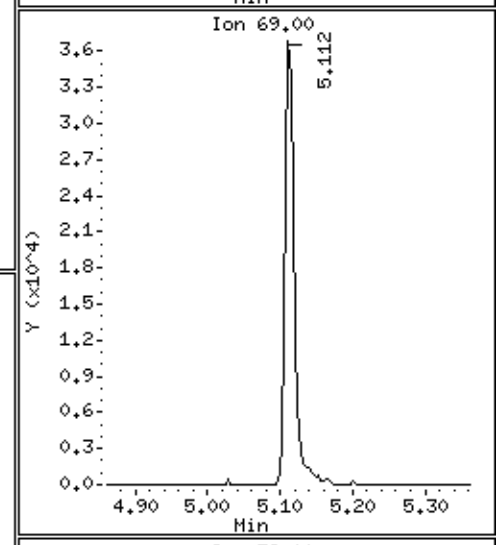
Concentration: 17.6 ug/L

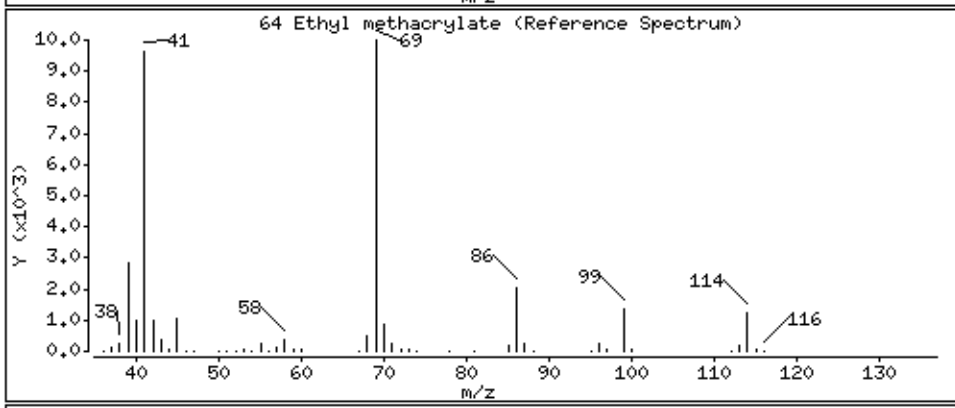
Review Code:

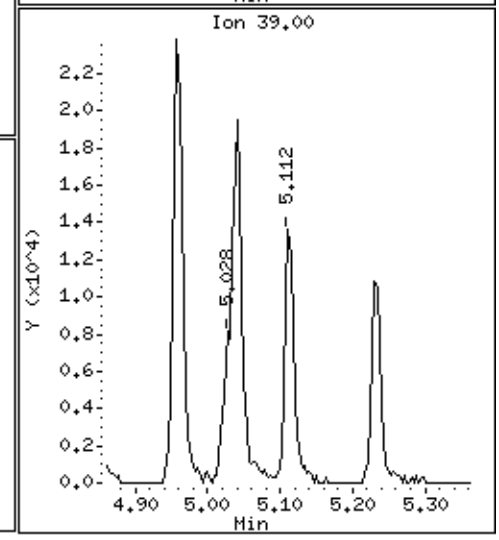


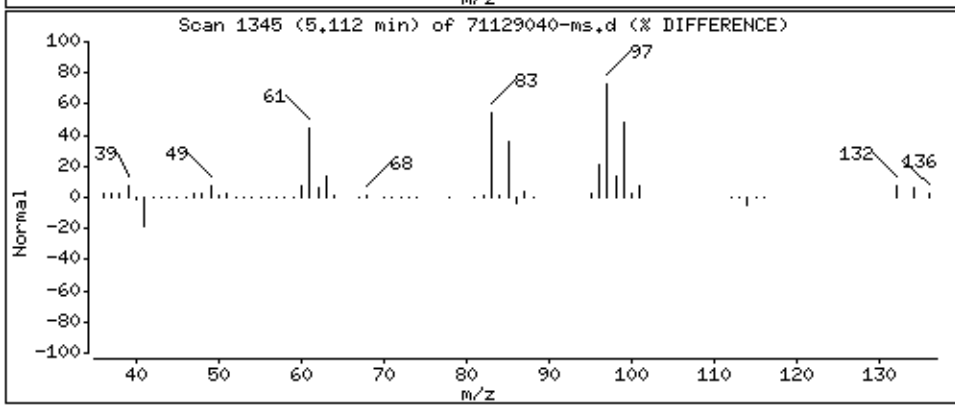












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

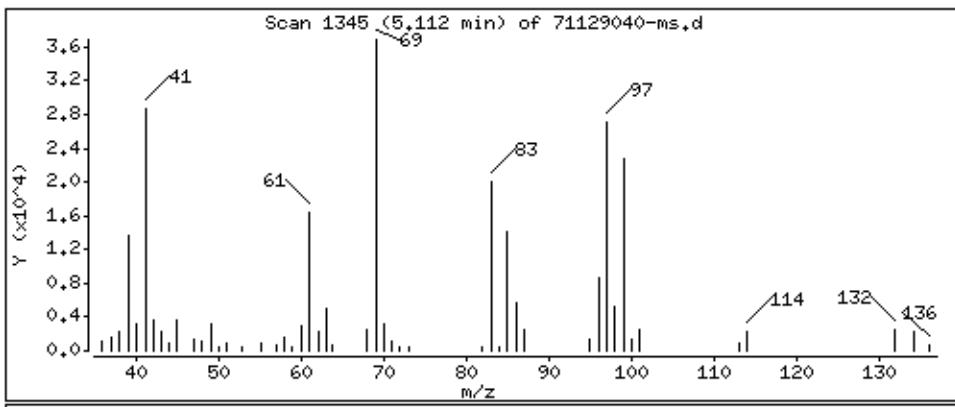
Column phase: RTX-VMS

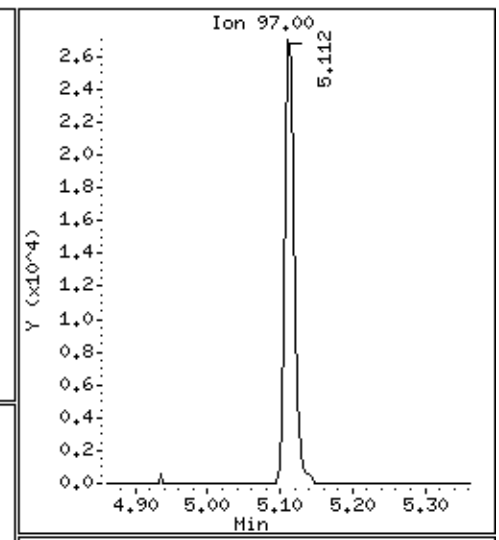
Column diameter: 0.18

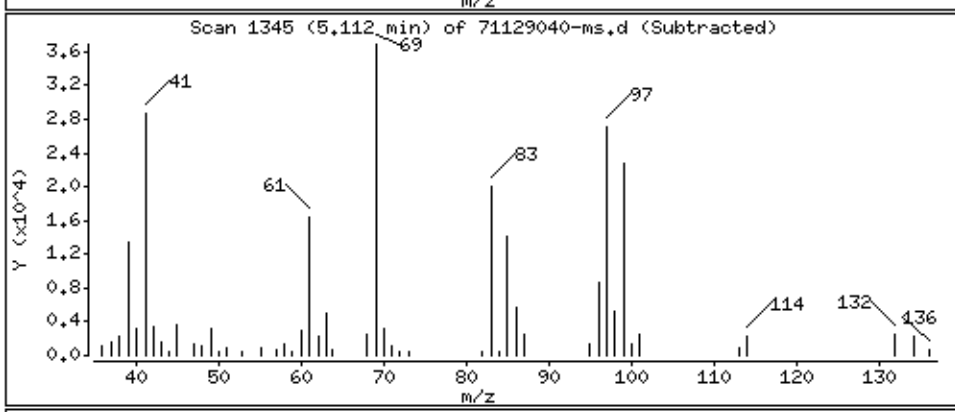
65 1,1,2-Trichloroethane

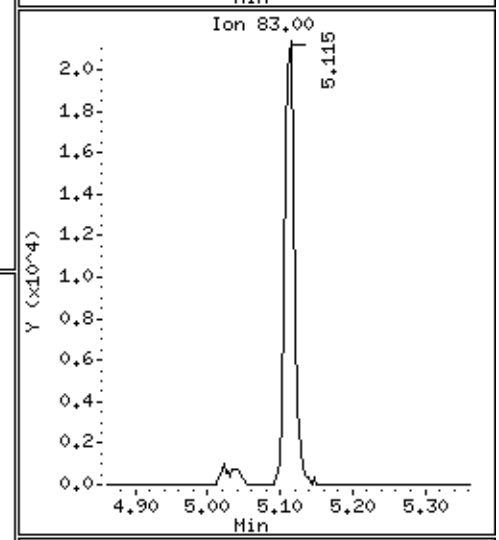
Concentration: 16.0 ug/L

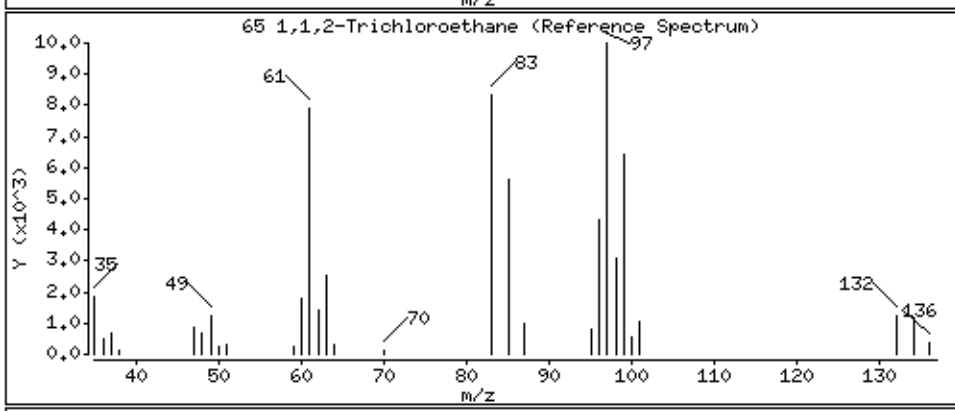
Review Code:

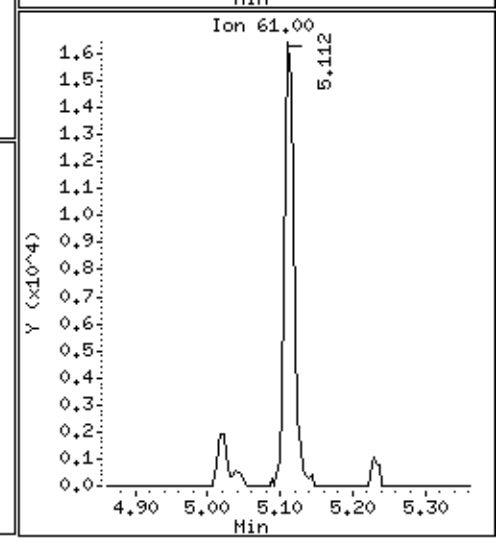


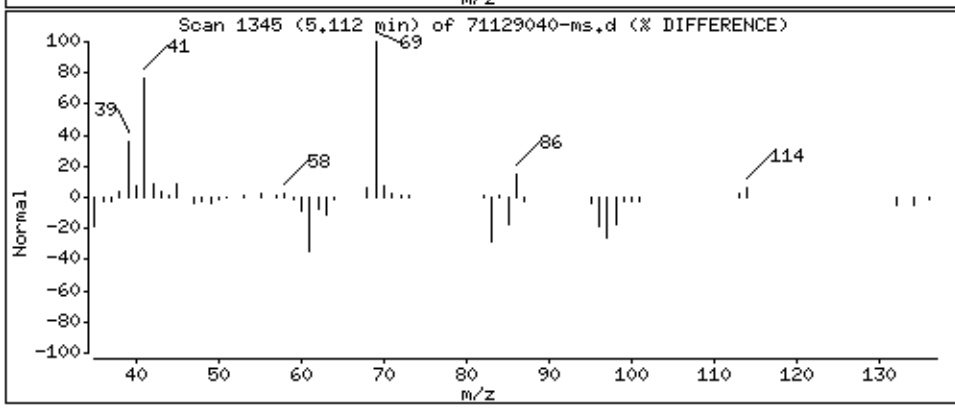












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

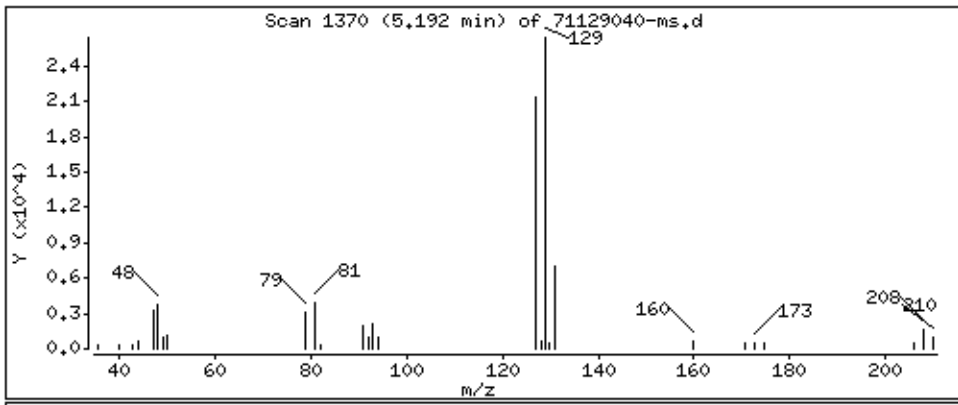
Column phase: RTX-VMS

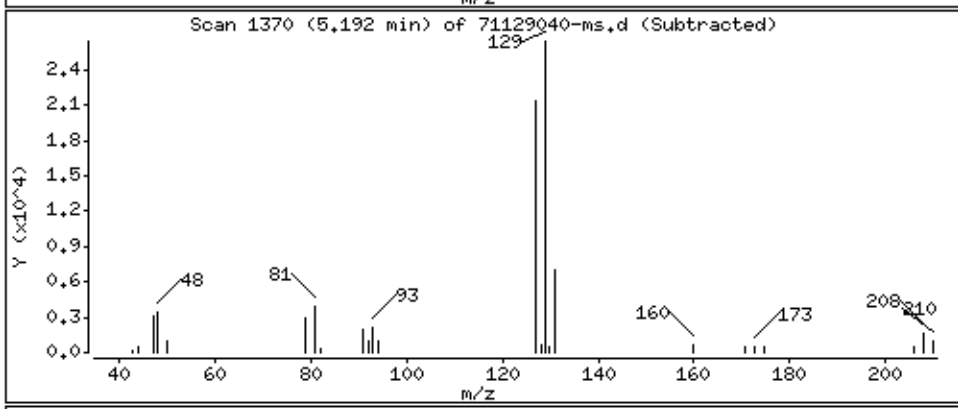
Column diameter: 0.18

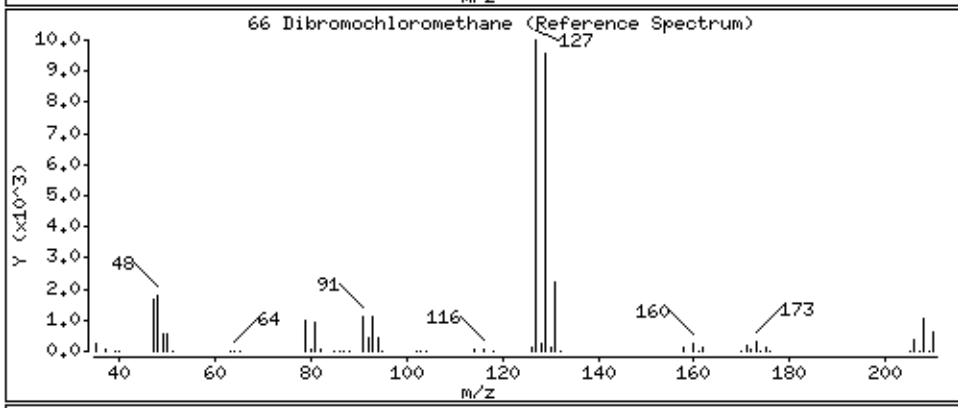
66 Dibromochloromethane

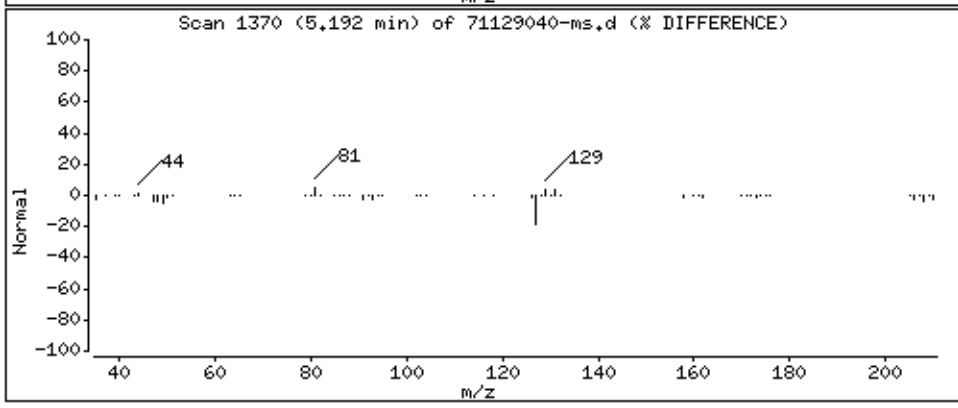
Concentration: 14.6 ug/L

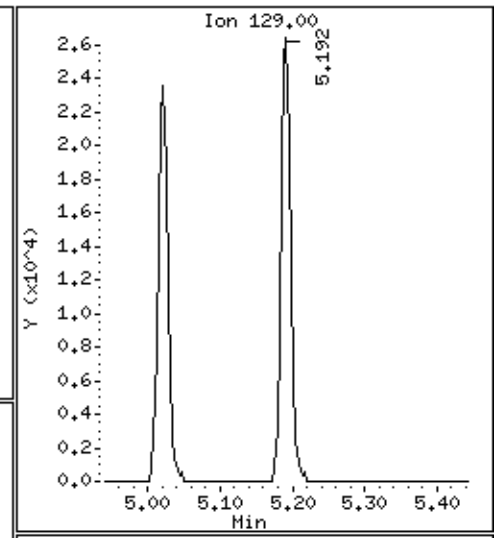
Review Code:

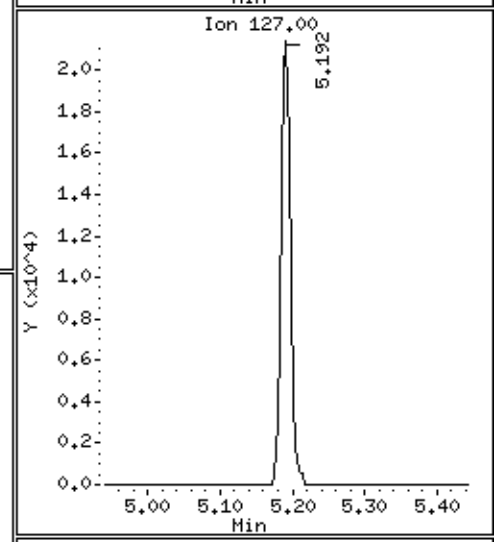


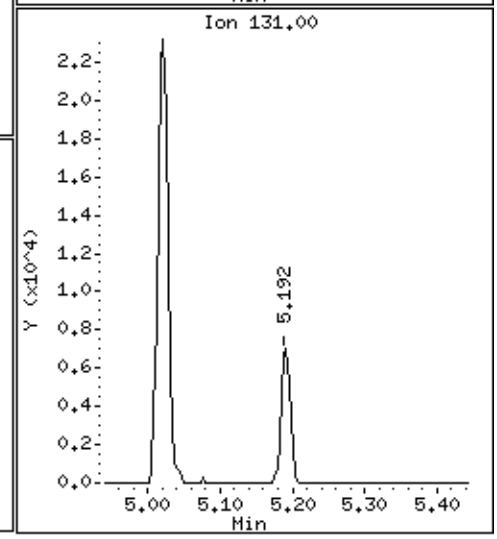












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

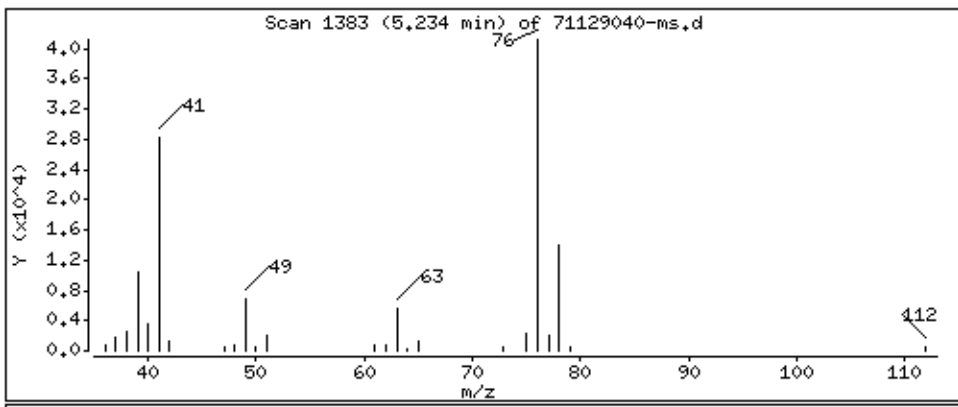
Column phase: RTX-VMS

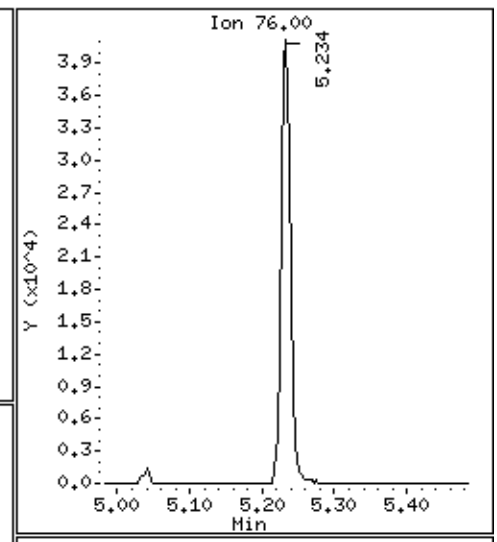
Column diameter: 0.18

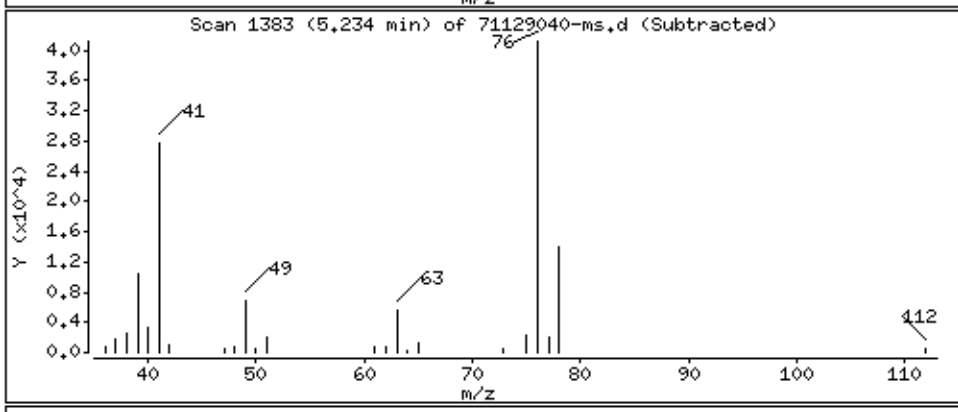
67 1,3-Dichloropropane

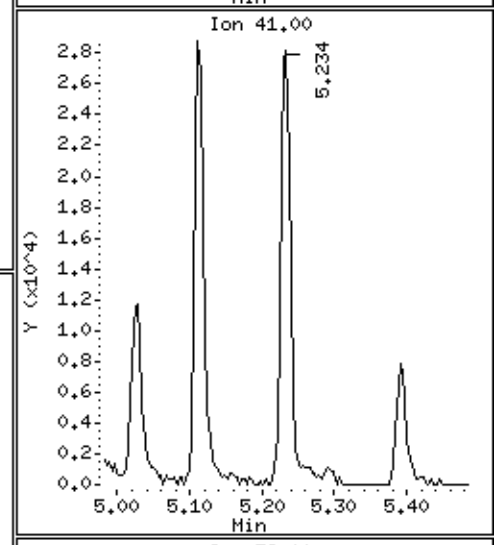
Concentration: 14.5 ug/L

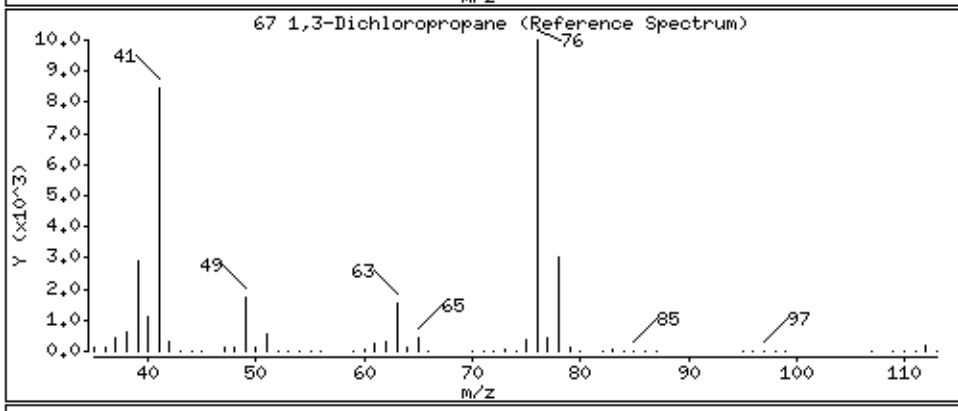
Review Code:

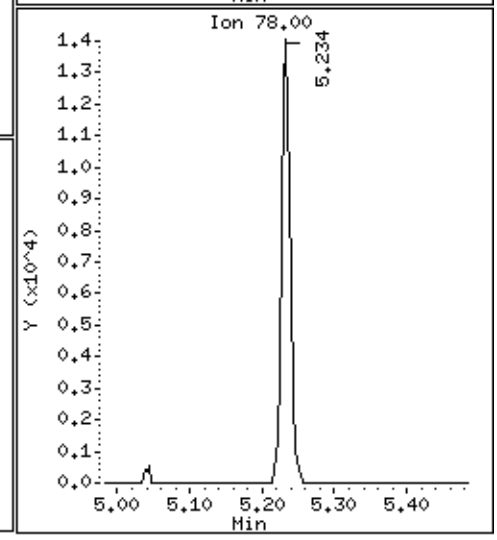


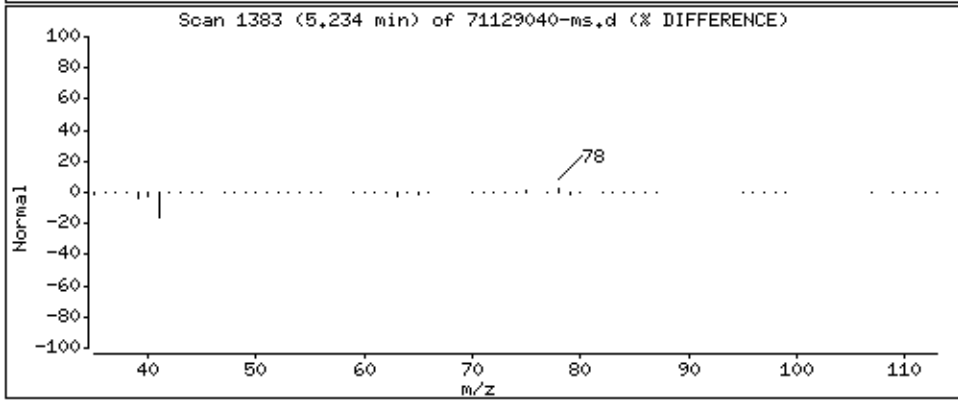












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

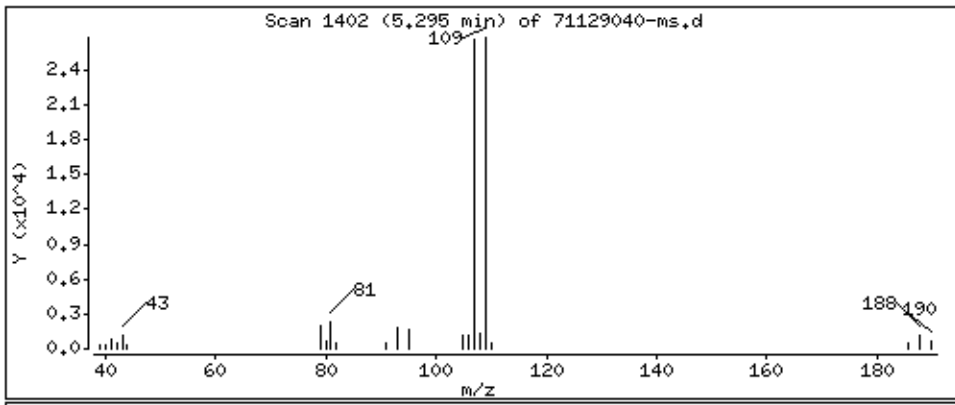
Column phase: RTX-VMS

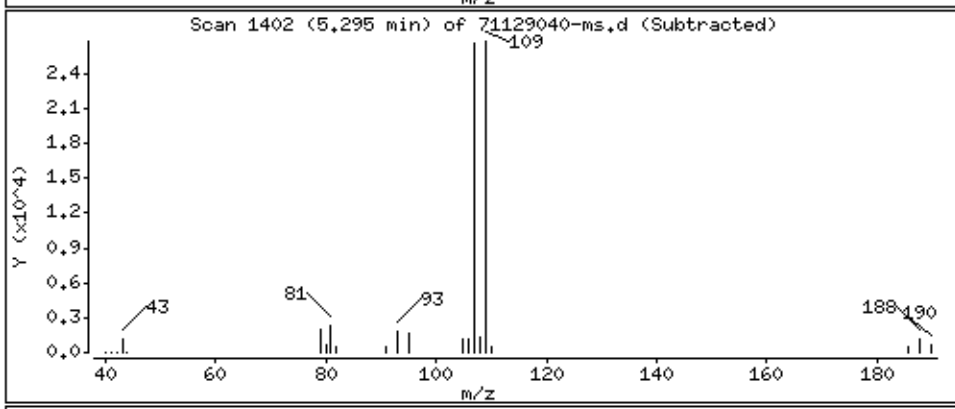
Column diameter: 0.18

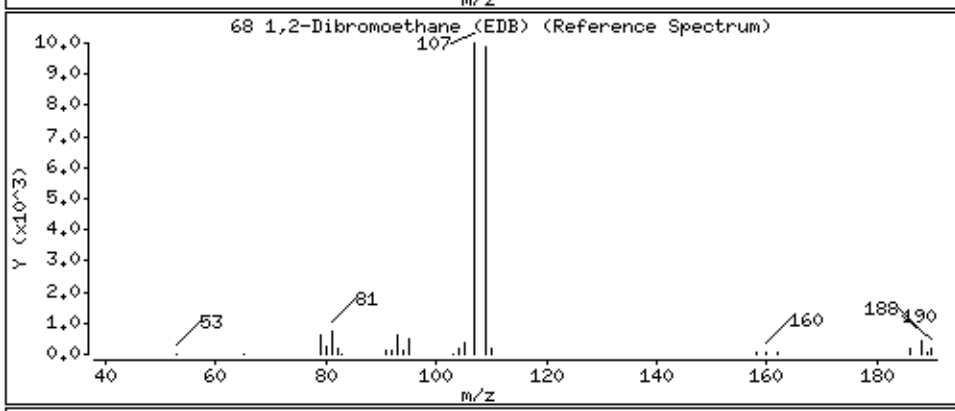
68 1,2-Dibromoethane (EDB)

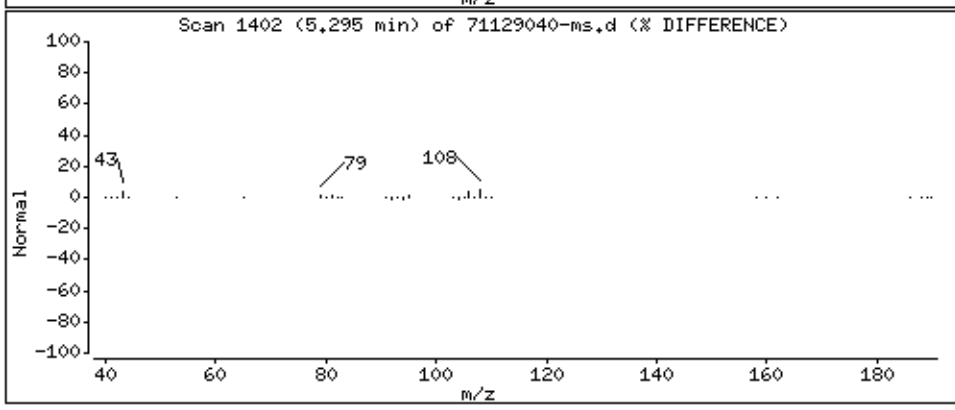
Concentration: 15.0 ug/L

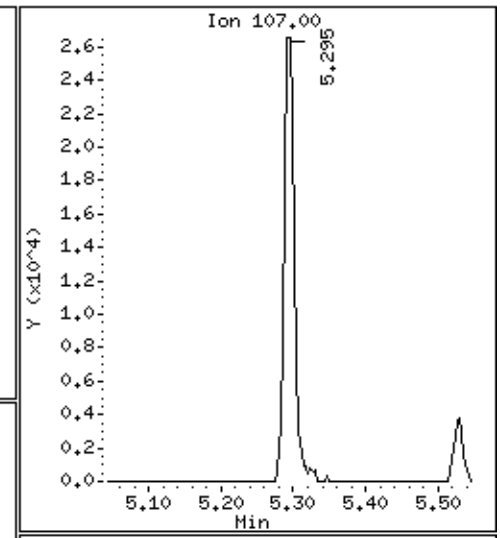
Review Code:

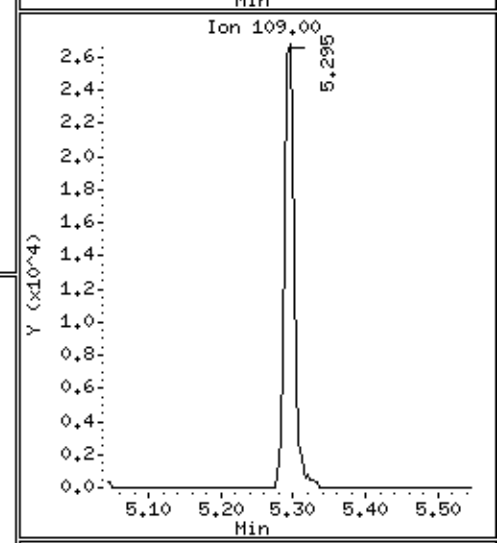


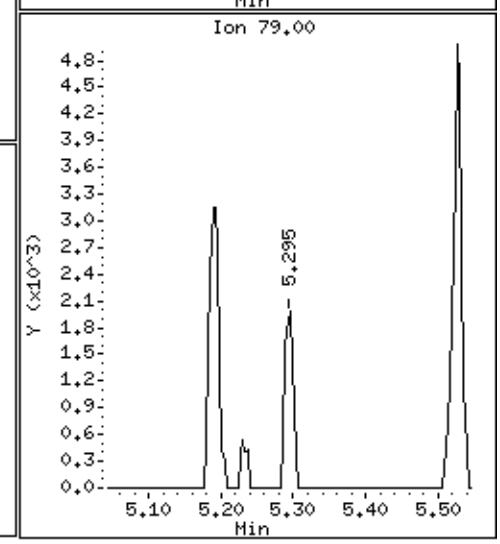












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

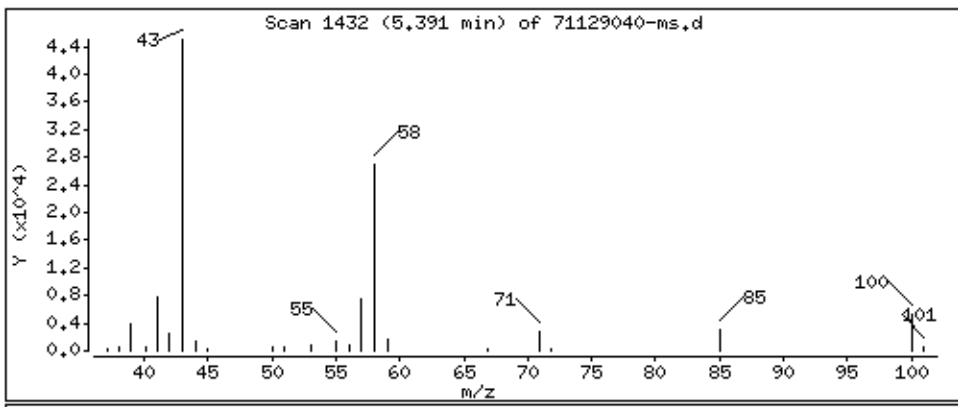
Column phase: RTX-VMS

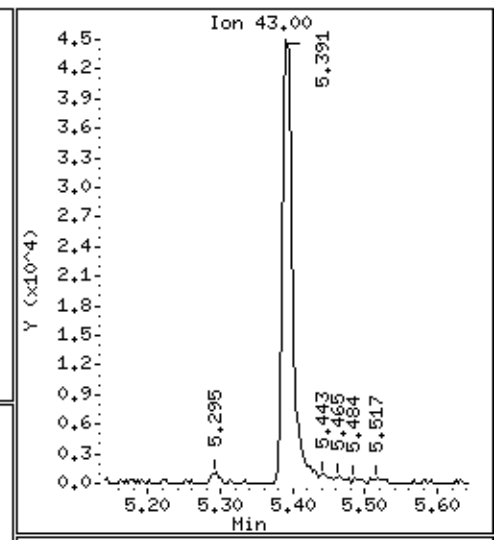
Column diameter: 0.18

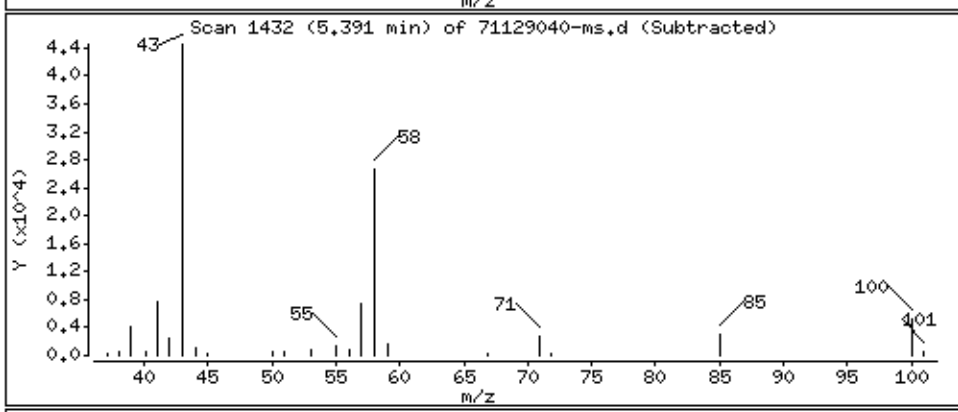
69 2-Hexanone

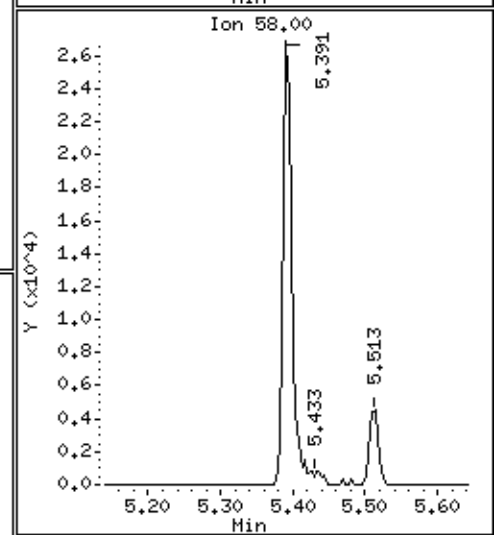
Concentration: 18.0 ug/L

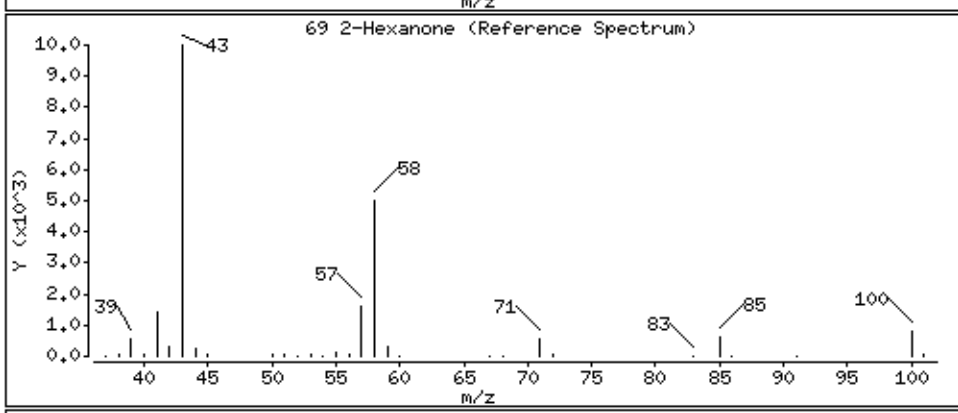
Review Code:

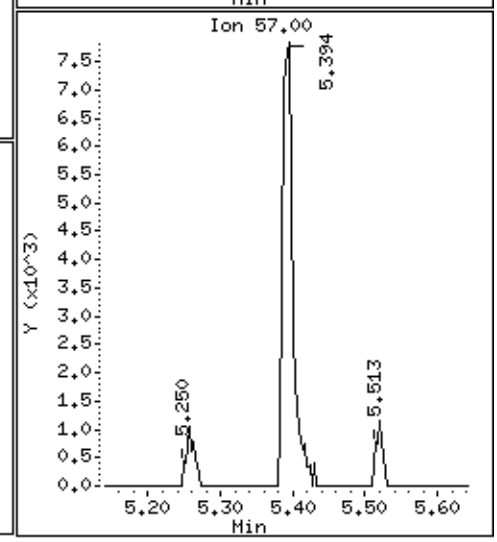


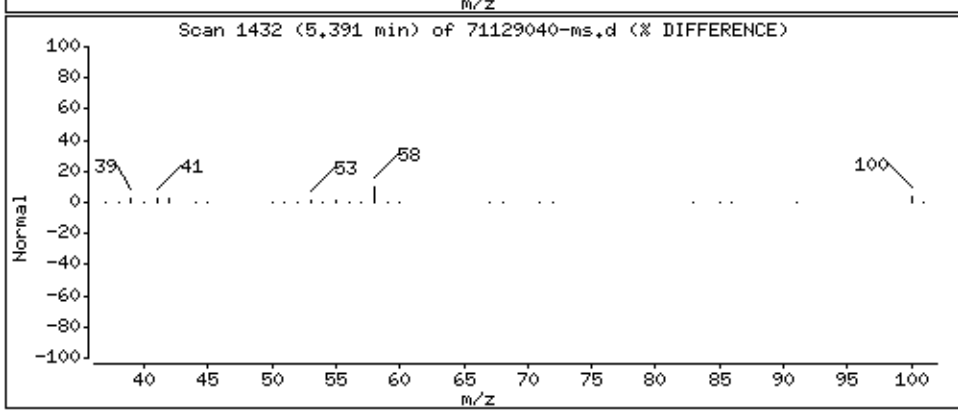












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

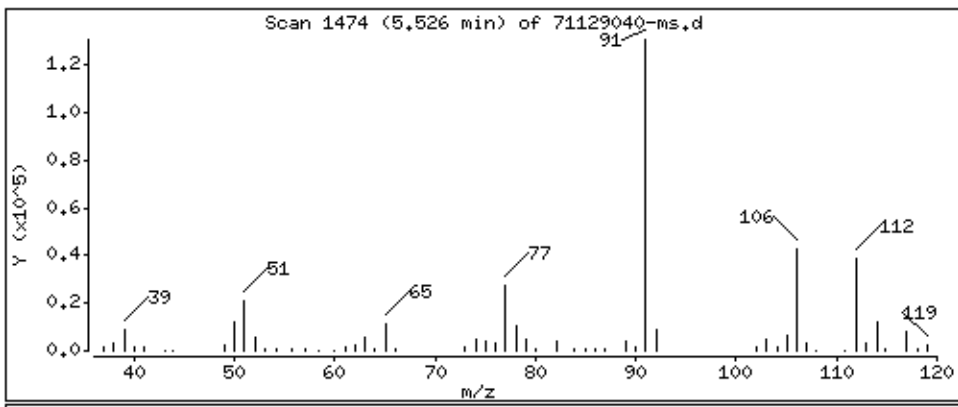
Column phase: RTX-VMS

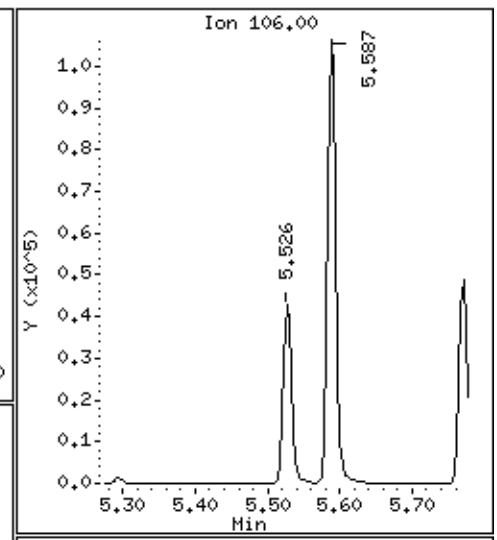
Column diameter: 0.18

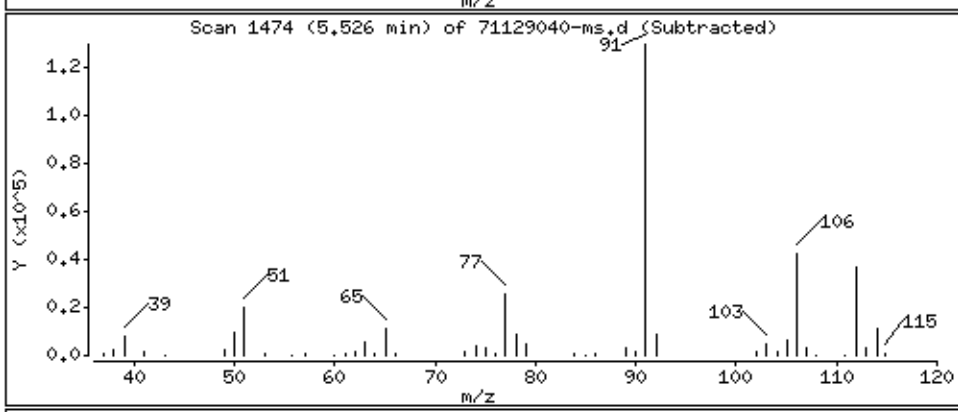
71 Ethylbenzene

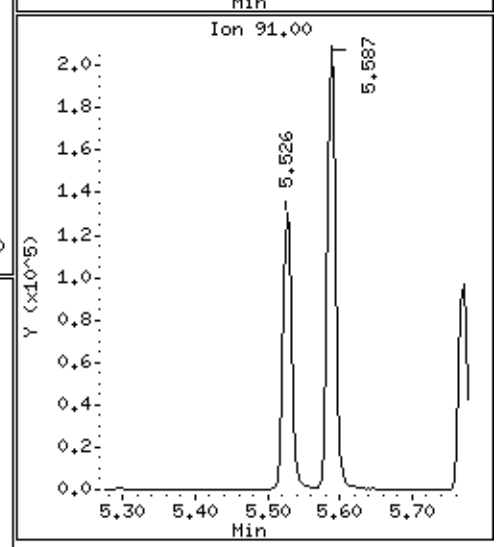
Concentration: 16.5 ug/L

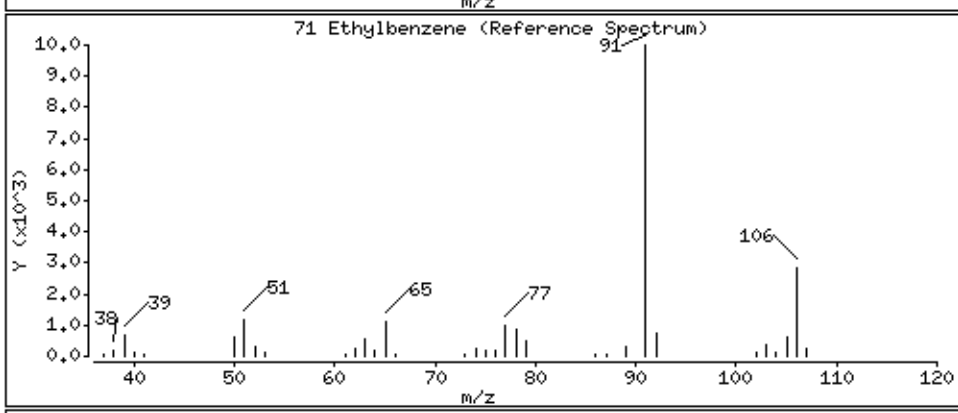
Review Code:

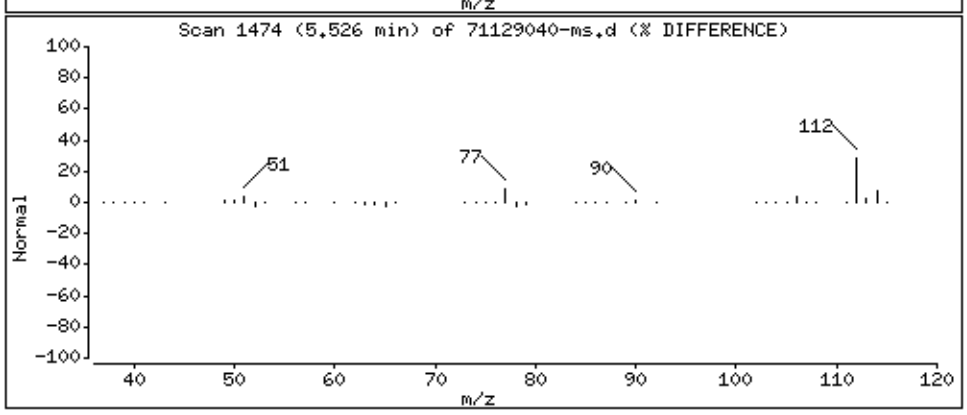












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

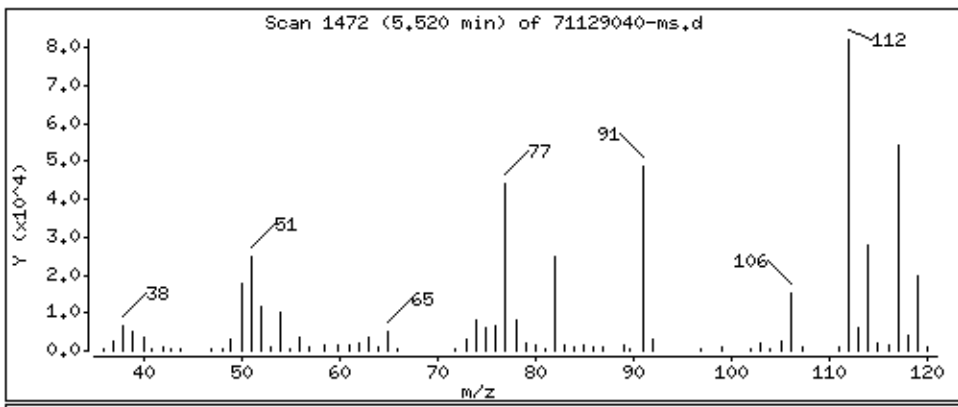
Column phase: RTX-VMS

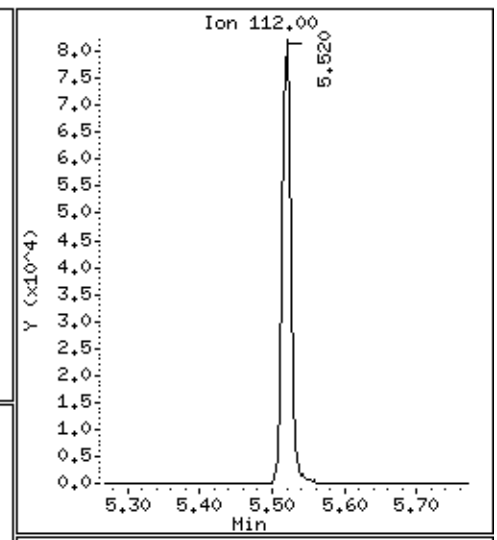
Column diameter: 0.18

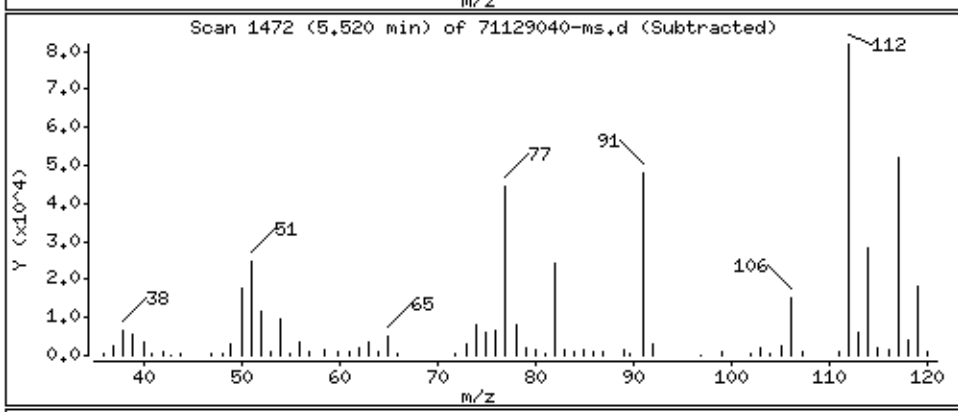
72 Chlorobenzene

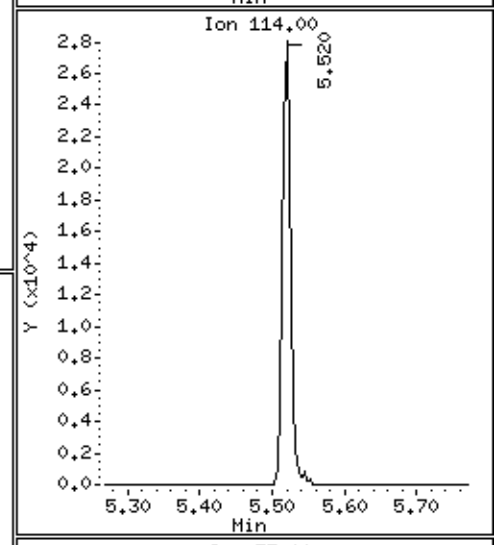
Concentration: 16.8 ug/L

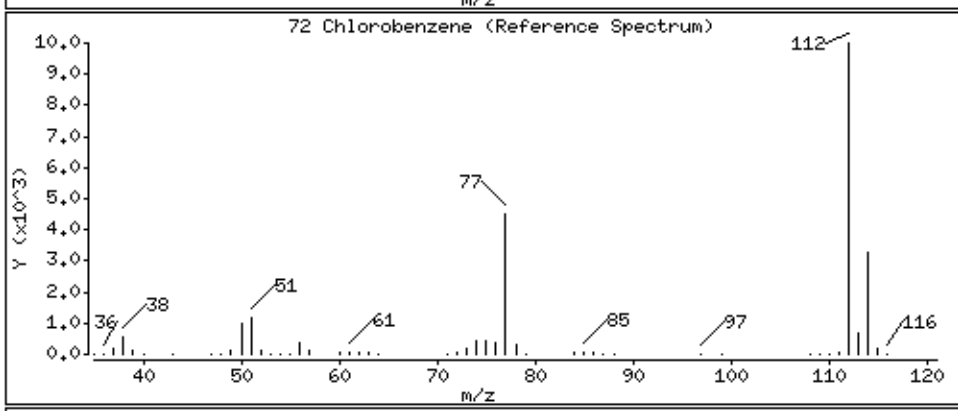
Review Code:

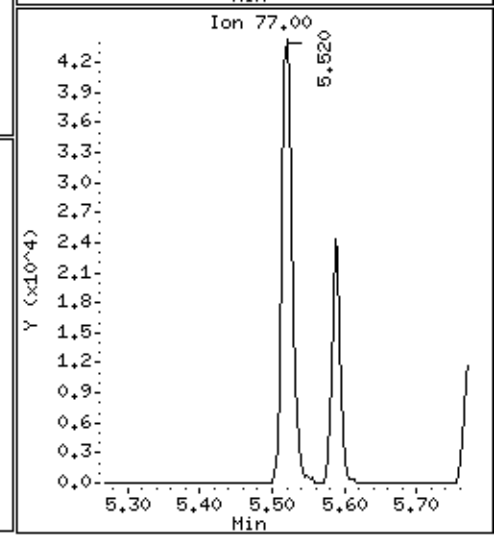


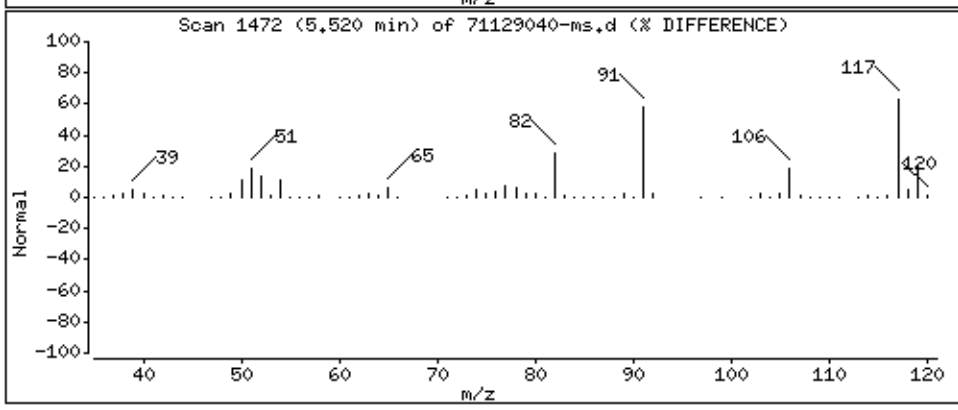












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

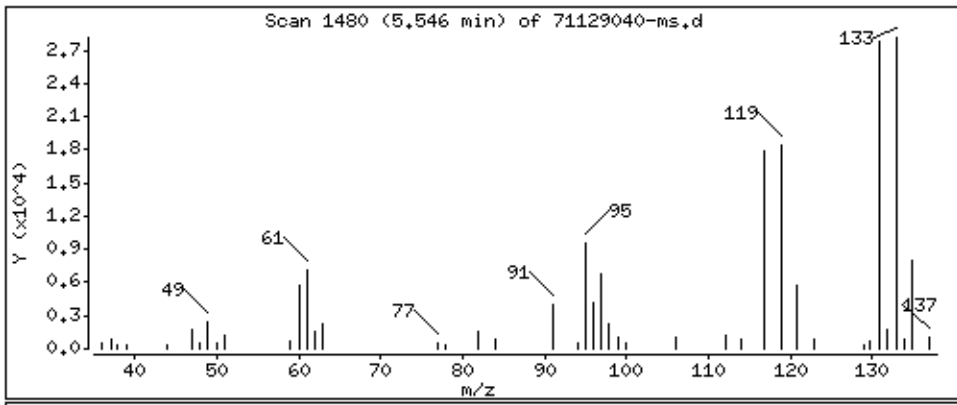
Column phase: RTX-VMS

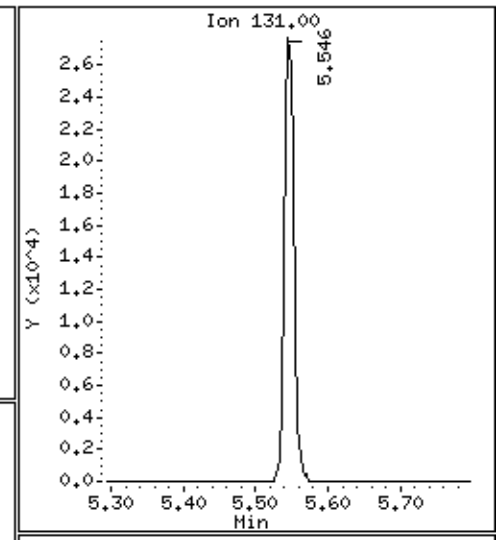
Column diameter: 0.18

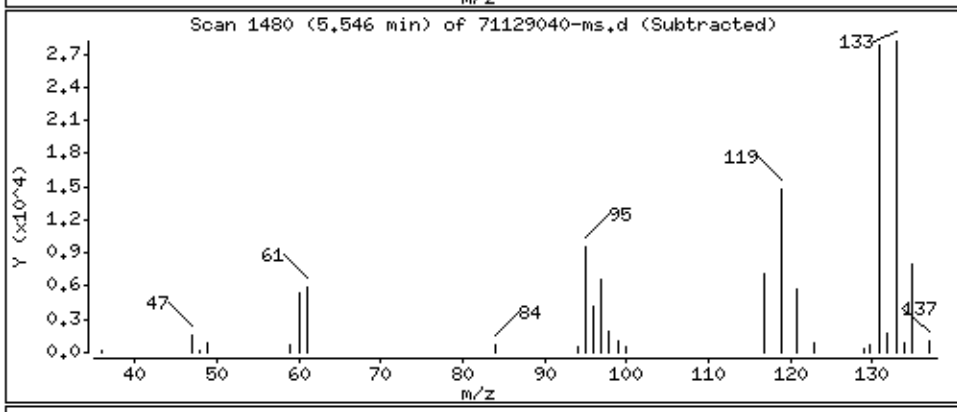
73 1,1,1,2-Tetrachloroethane

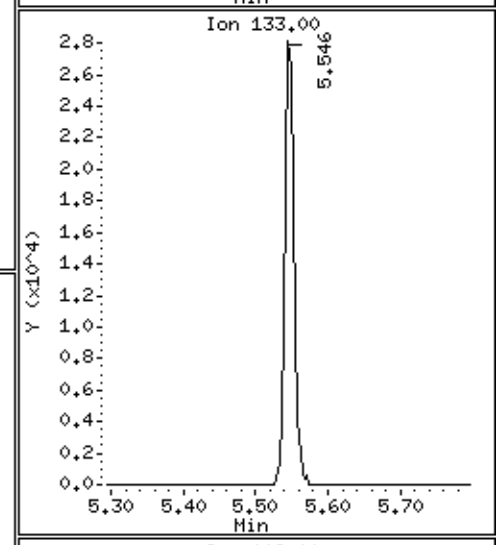
Concentration: 16.9 ug/L

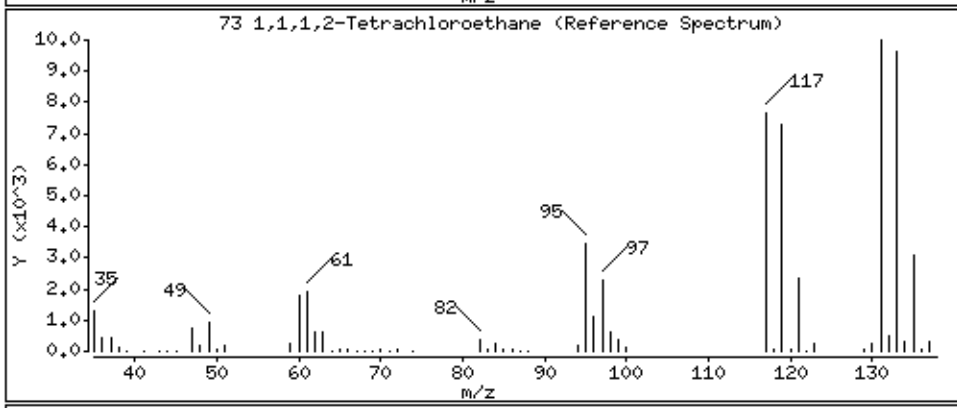
Review Code:

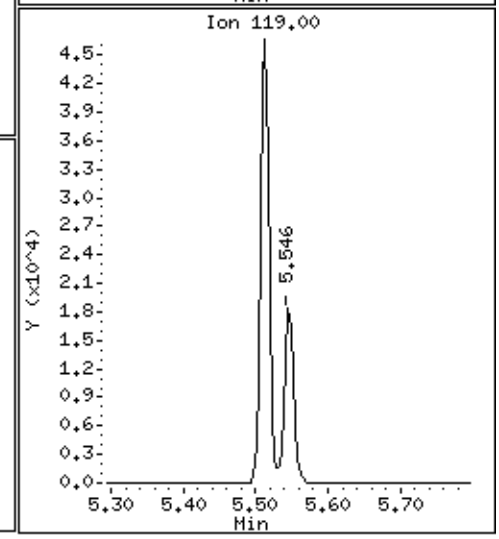


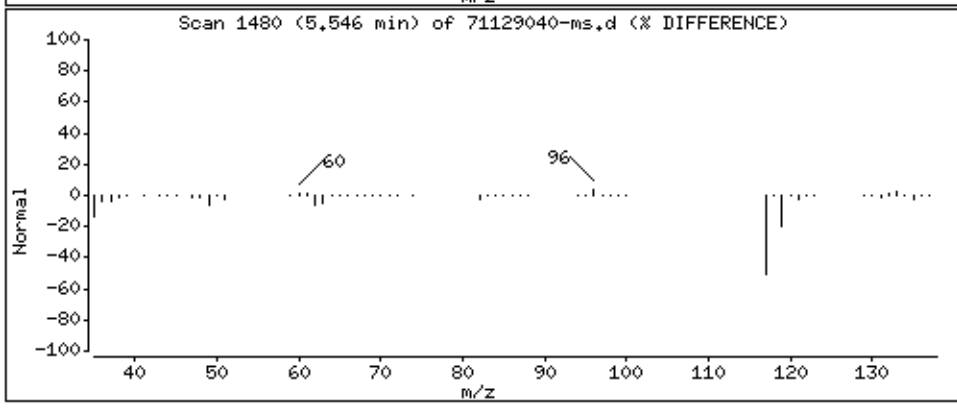












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

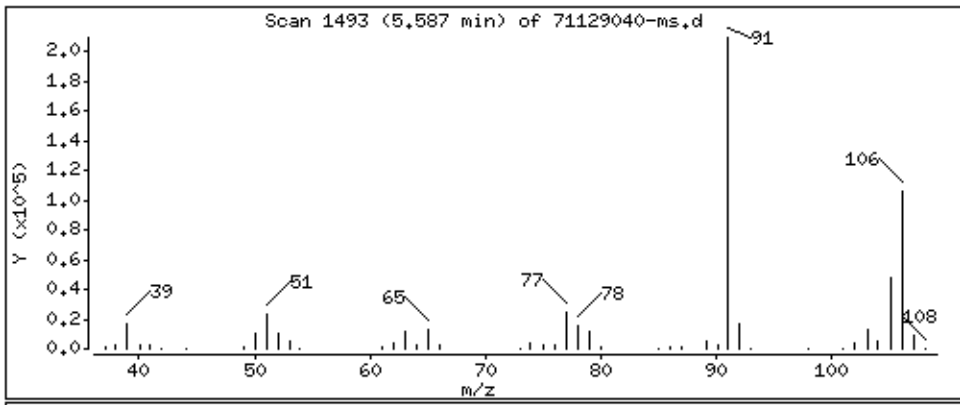
Column phase: RTX-VMS

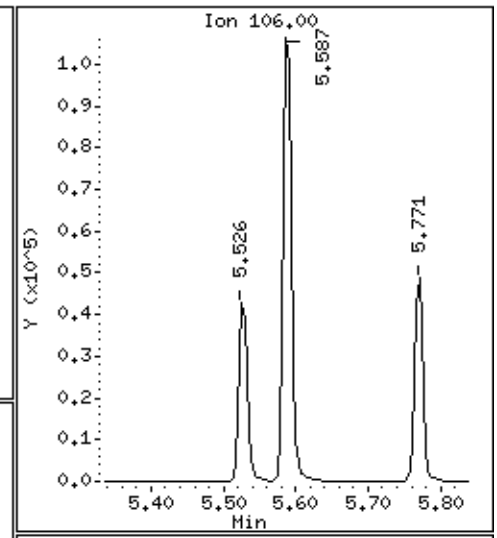
Column diameter: 0.18

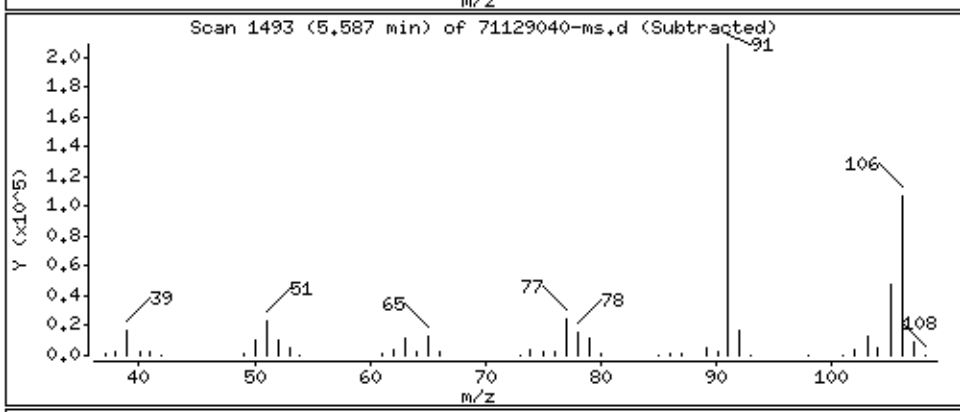
74 m&p-Xylene

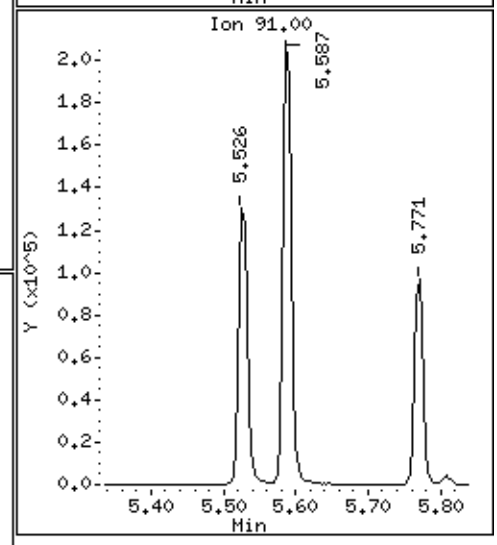
Concentration: 32.5 ug/L

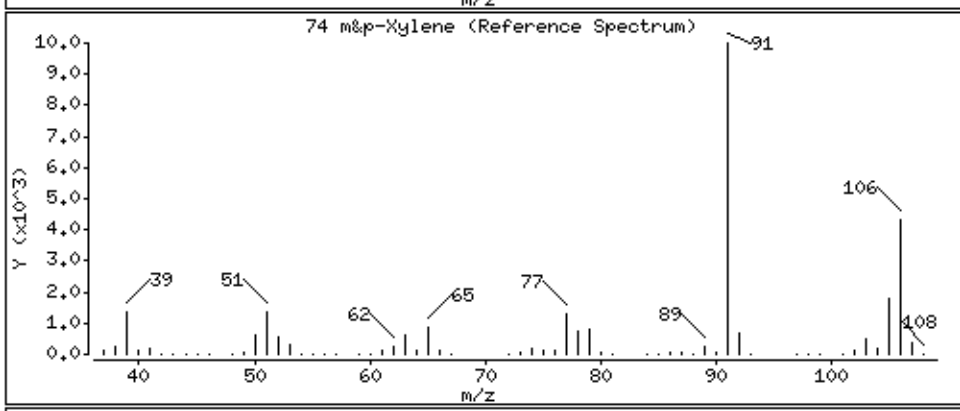
Review Code:

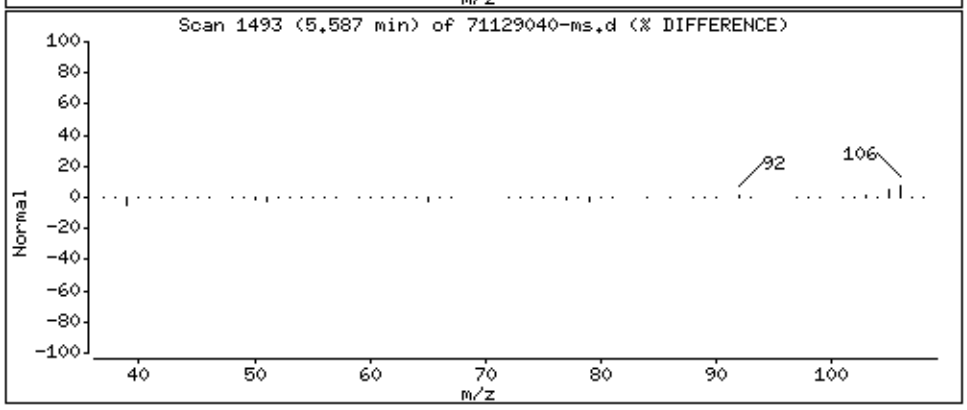












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

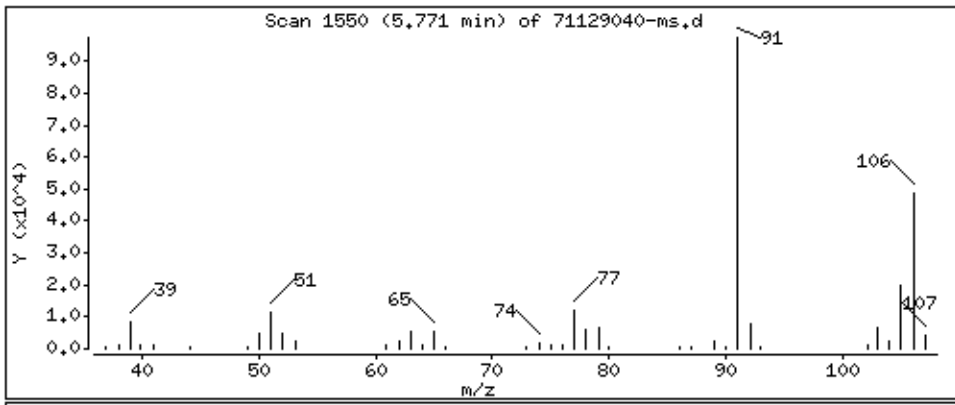
Column phase: RTX-VMS

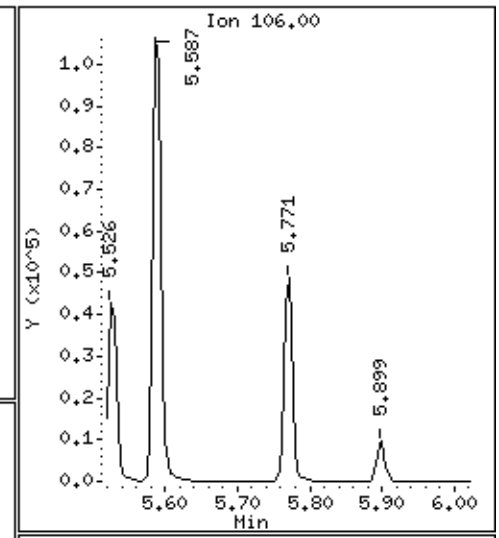
Column diameter: 0.18

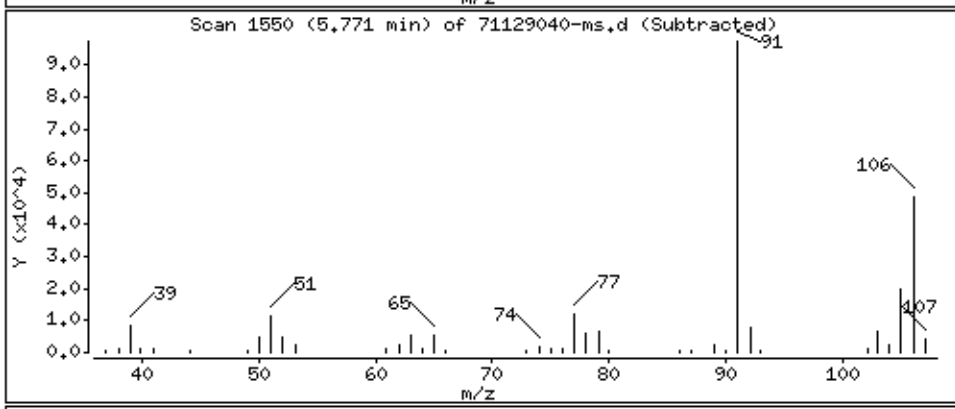
75 o-Xylene

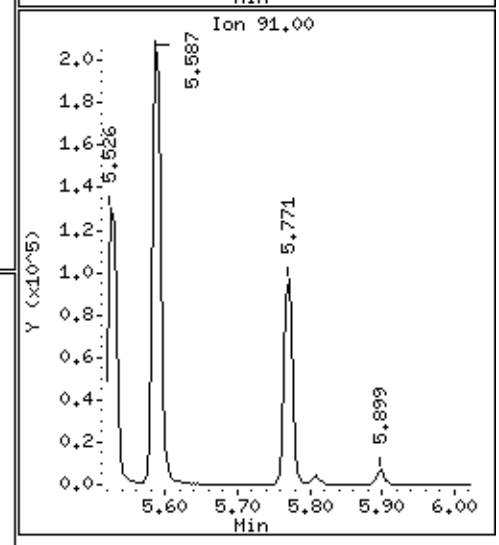
Concentration: 15.3 ug/L

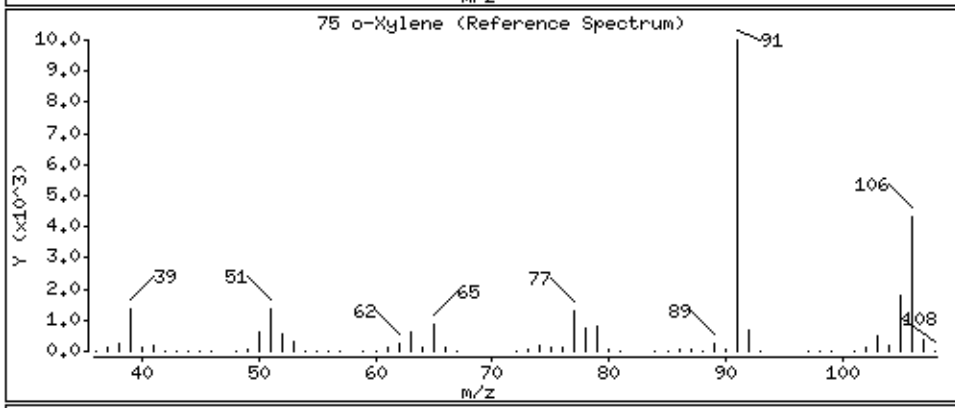
Review Code:

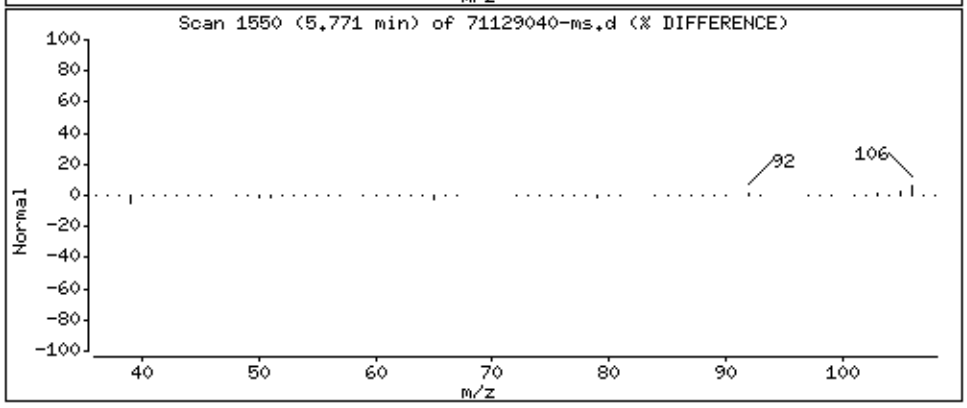












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

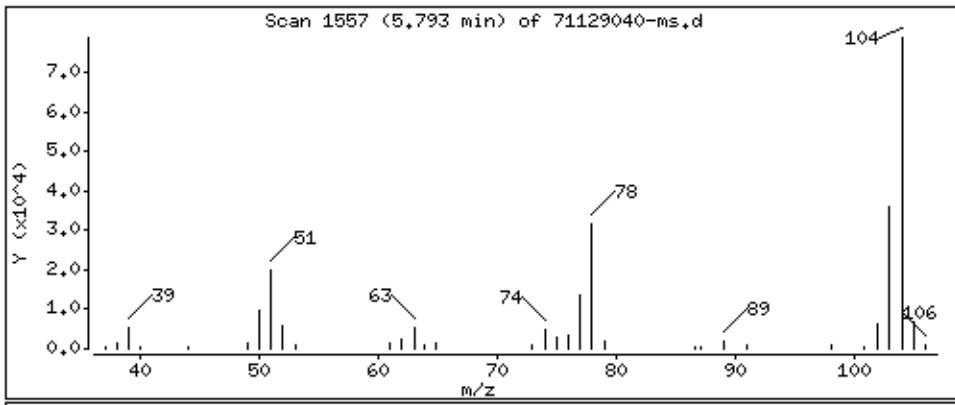
Column phase: RTX-VMS

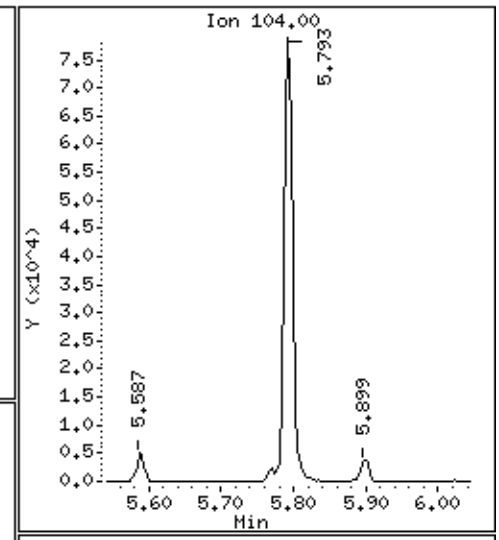
Column diameter: 0.18

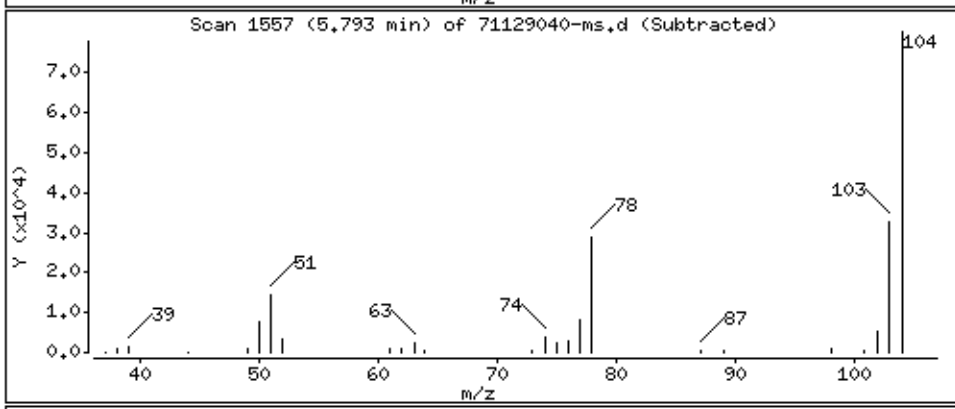
76 Styrene

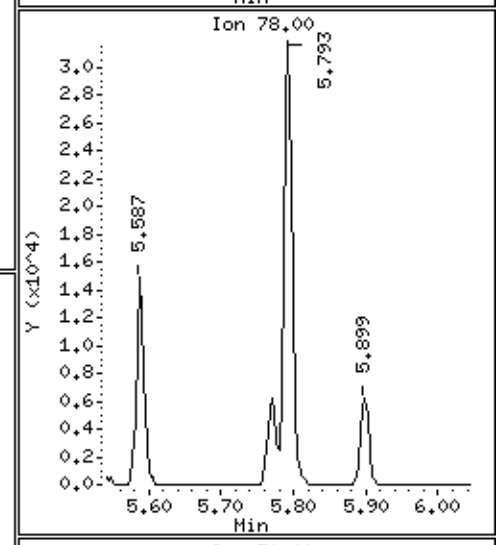
Concentration: 16.8 ug/L

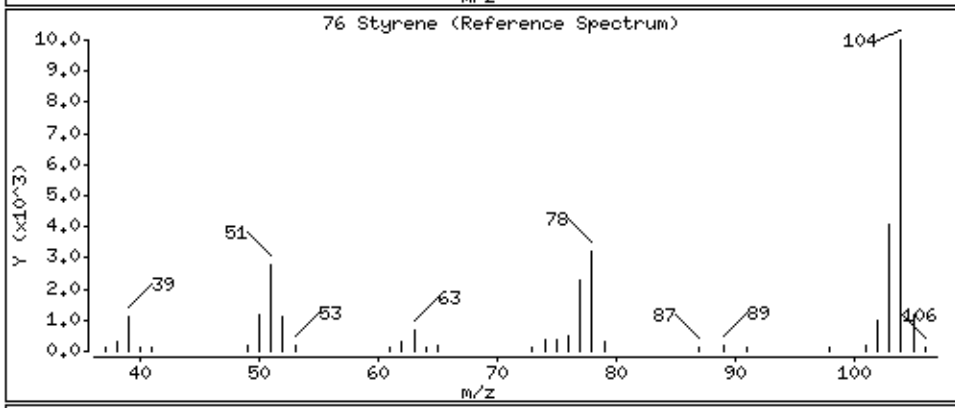
Review Code:

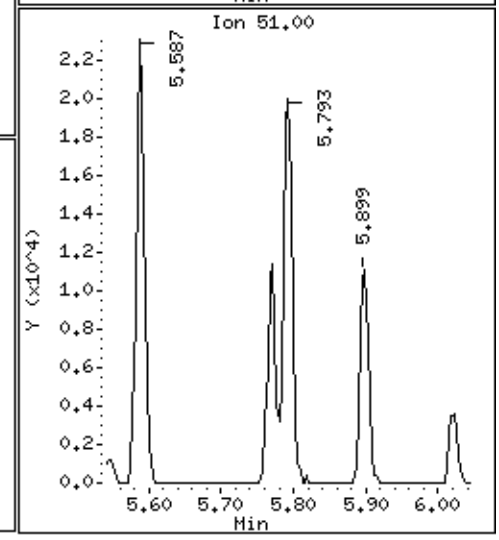


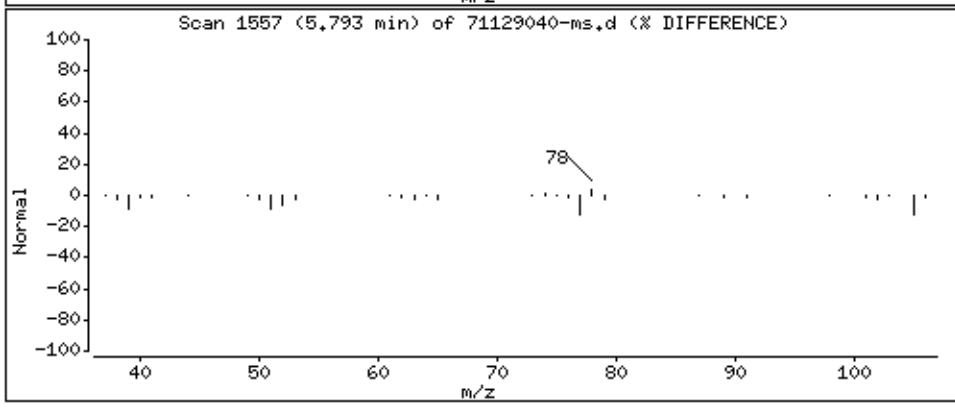












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

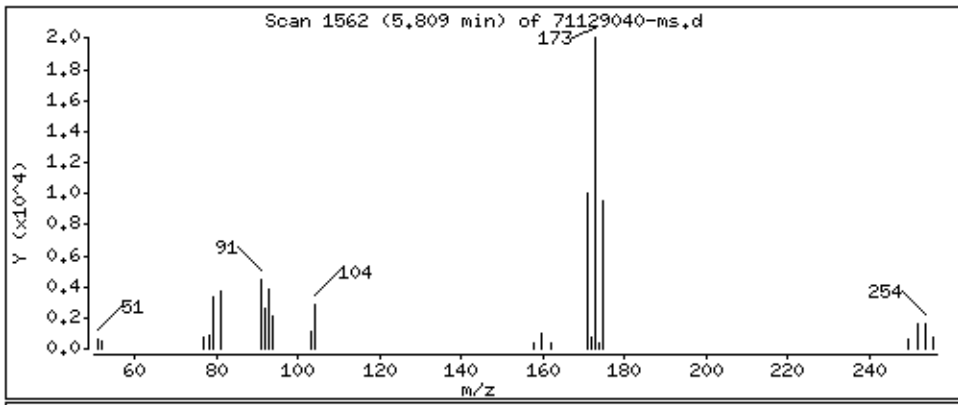
Column phase: RTX-VMS

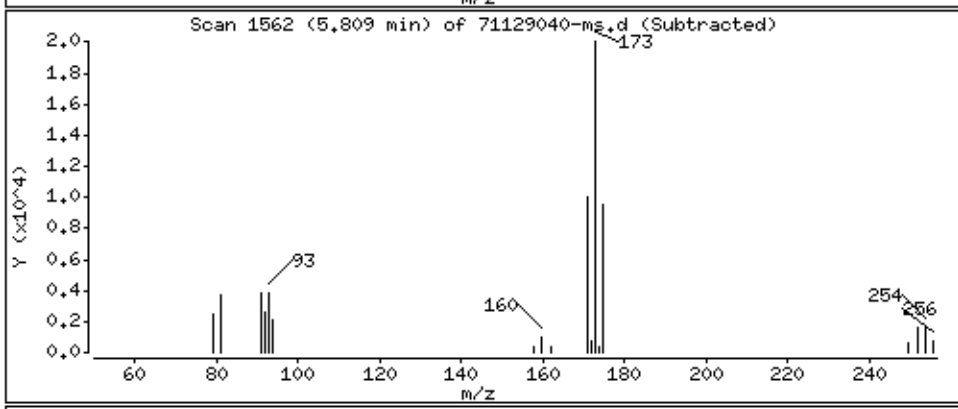
Column diameter: 0.18

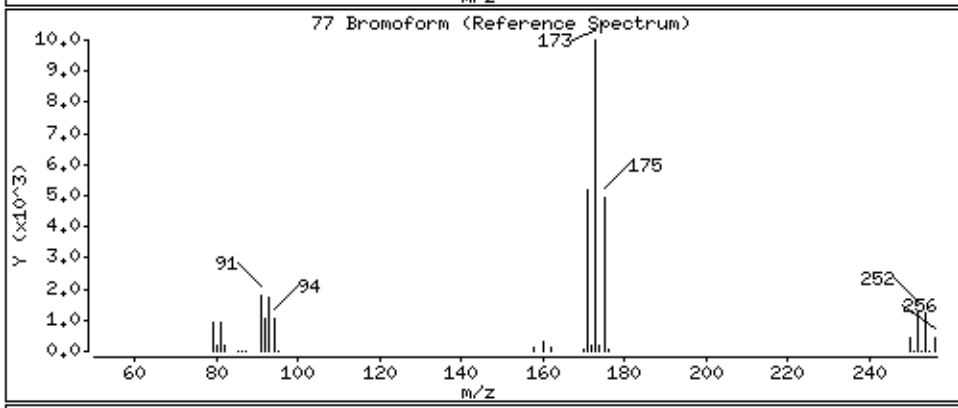
77 Bromoform

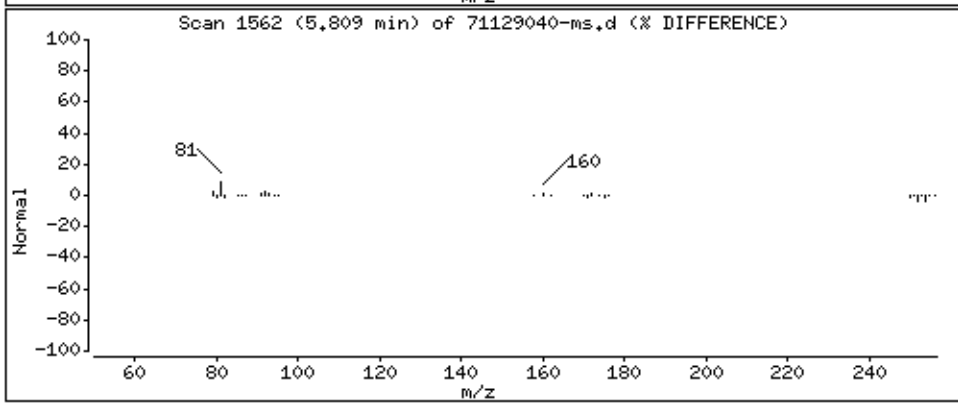
Concentration: 12.4 ug/L

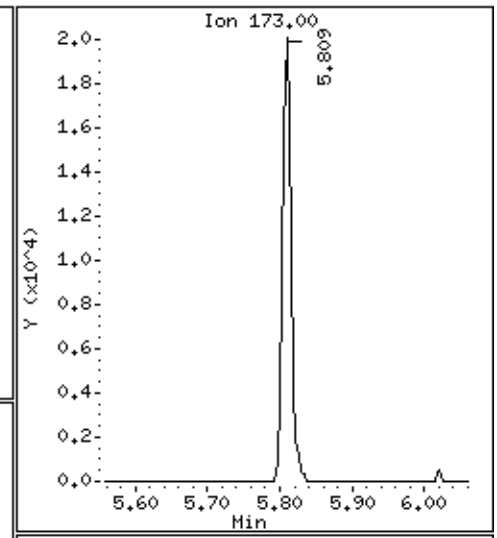
Review Code:

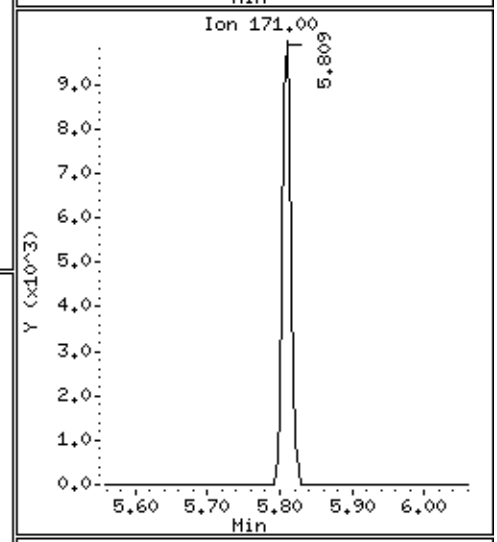


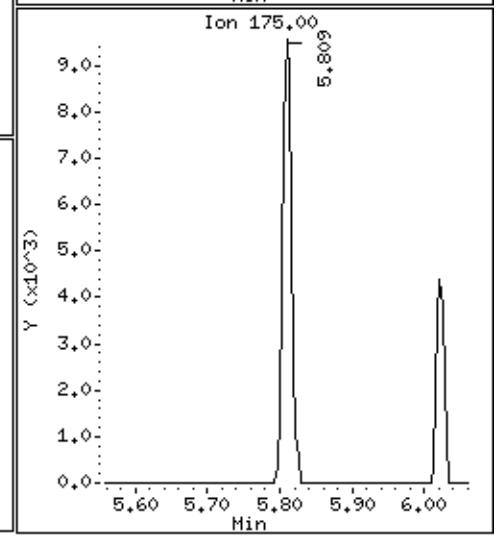












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

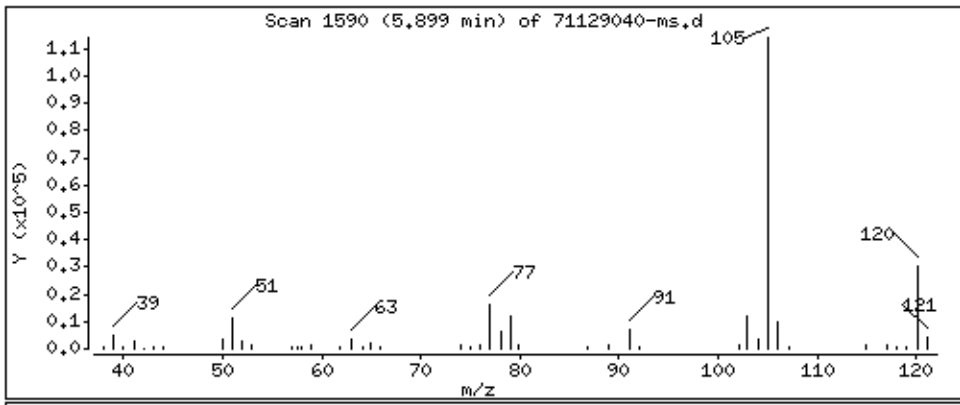
Column phase: RTX-VMS

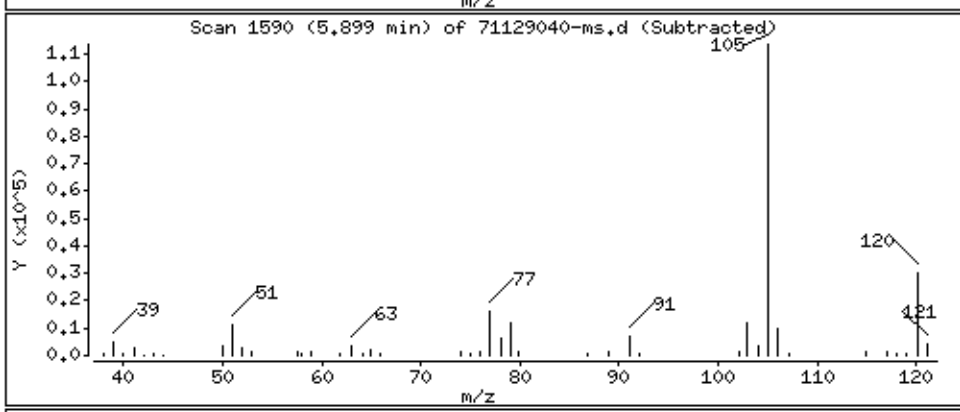
Column diameter: 0.18

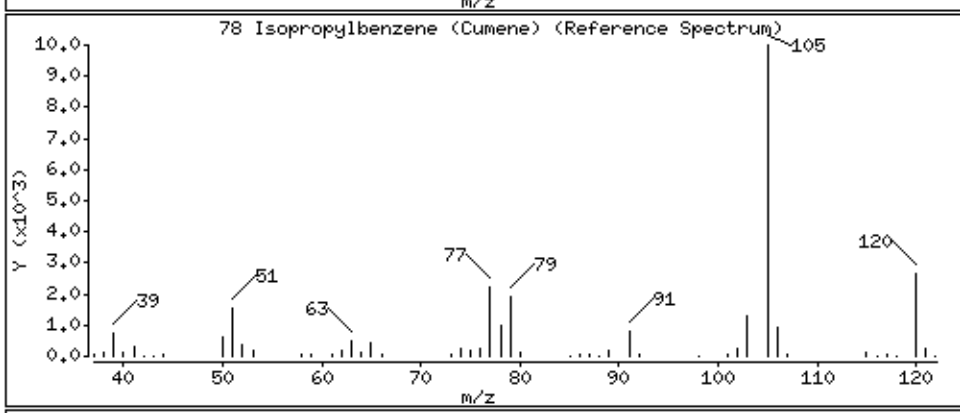
78 Isopropylbenzene (Cumene)

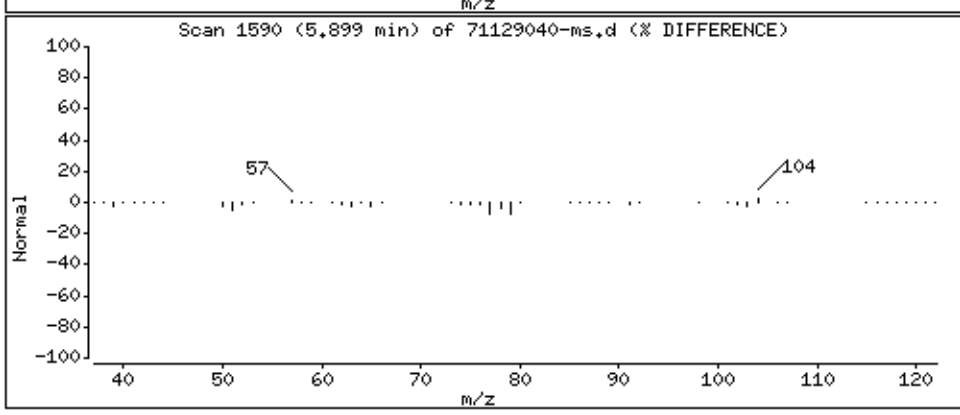
Concentration: 17.4 ug/L

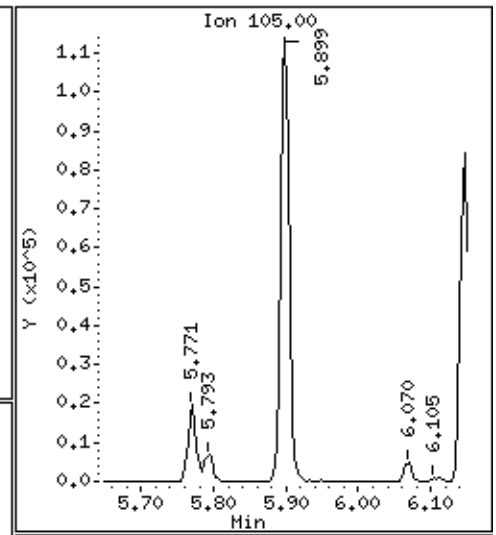
Review Code:

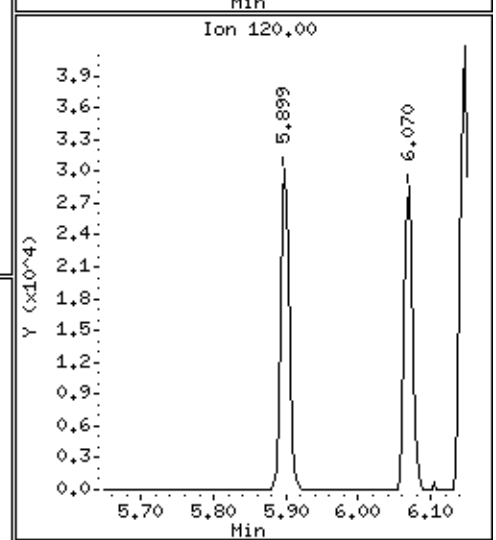


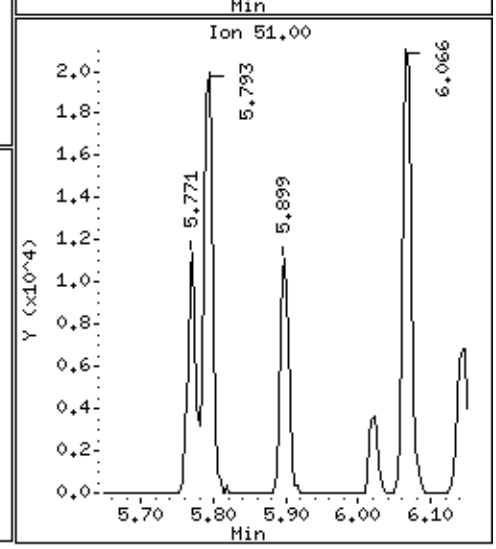












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

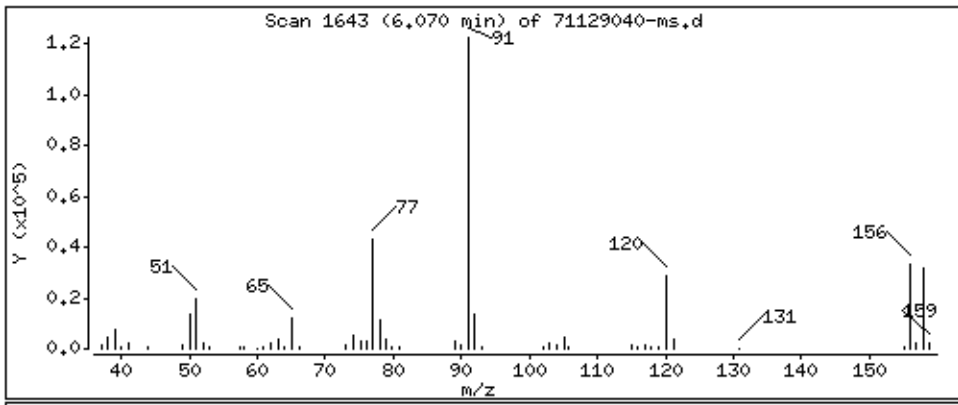
Column phase: RTX-VMS

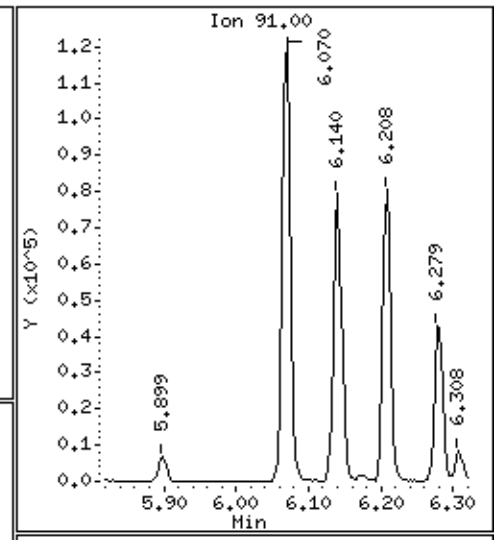
Column diameter: 0.18

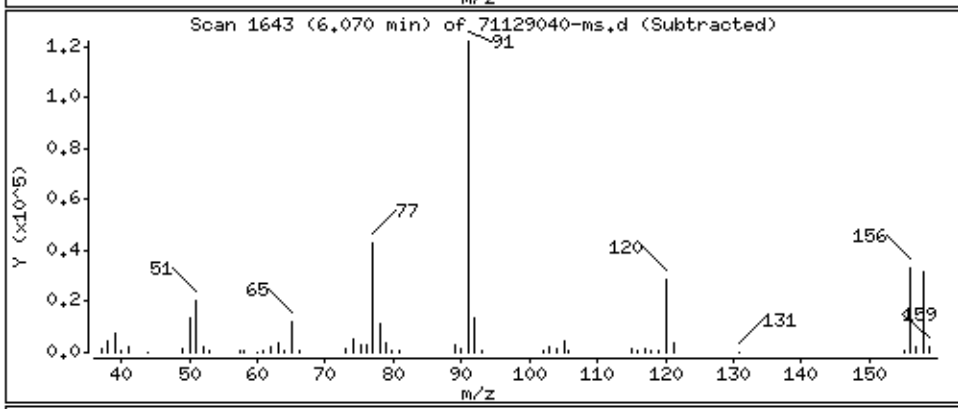
80 n-Propylbenzene

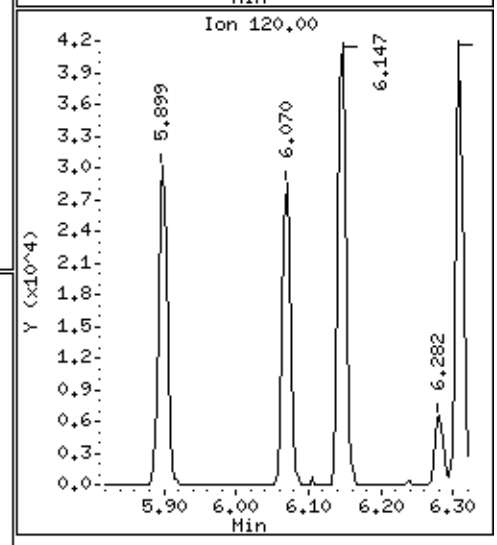
Concentration: 15.8 ug/L

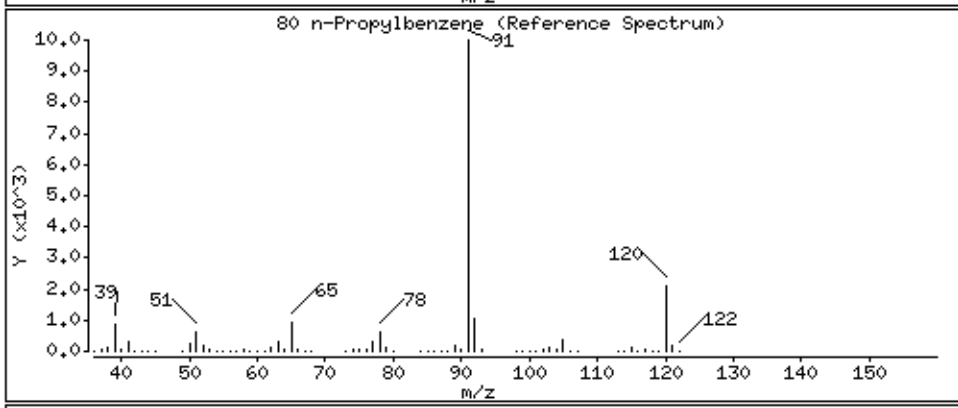
Review Code:

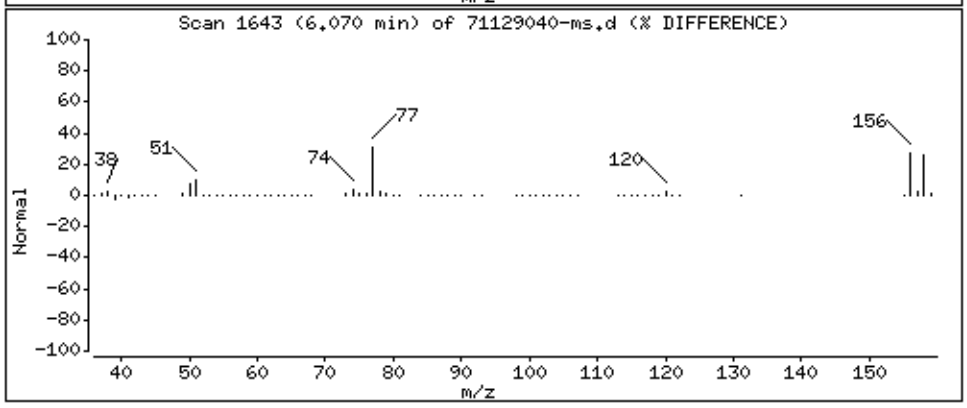












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

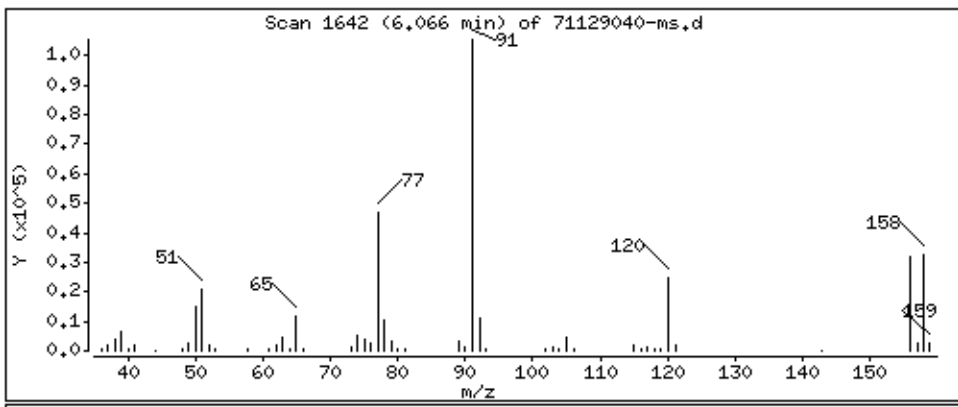
Column phase: RTX-VMS

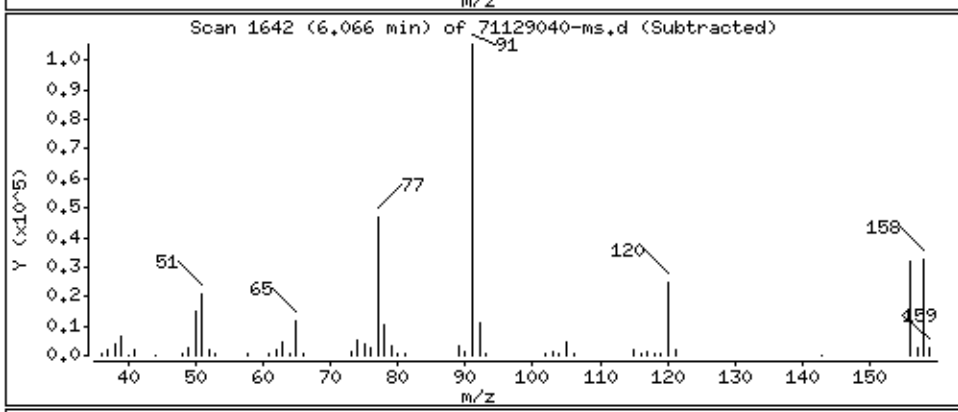
Column diameter: 0.18

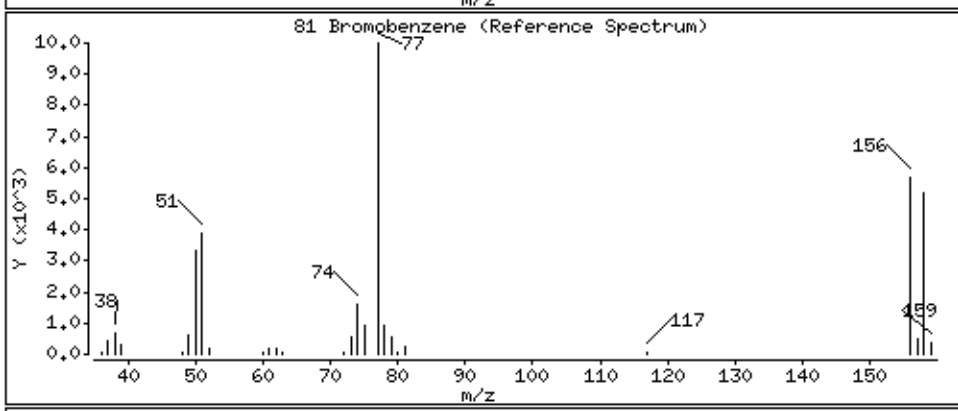
81 Bromobenzene

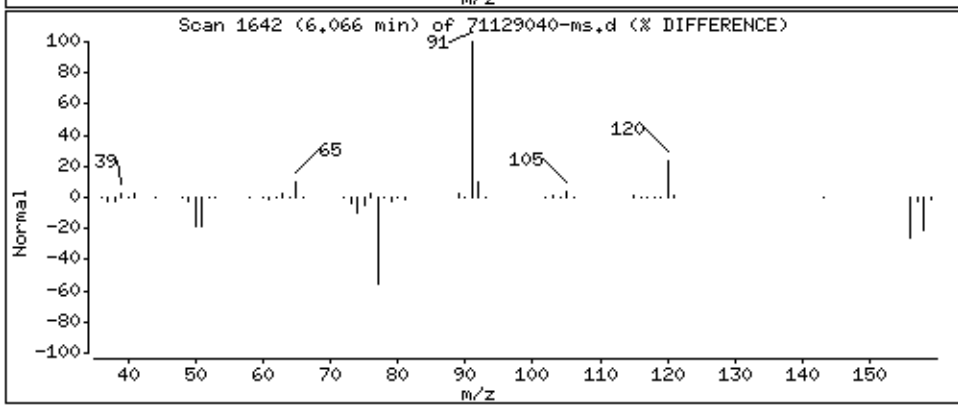
Concentration: 14.2 ug/L

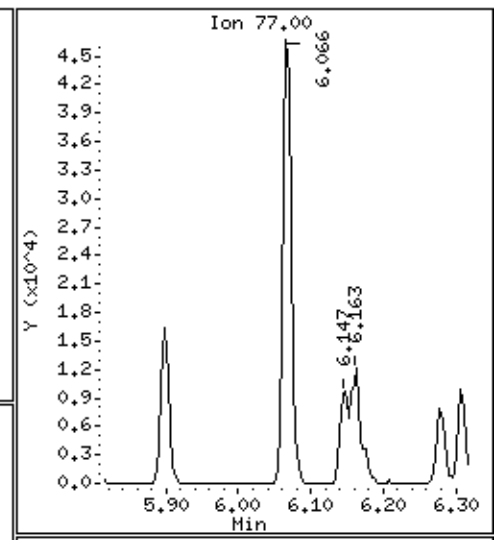
Review Code:

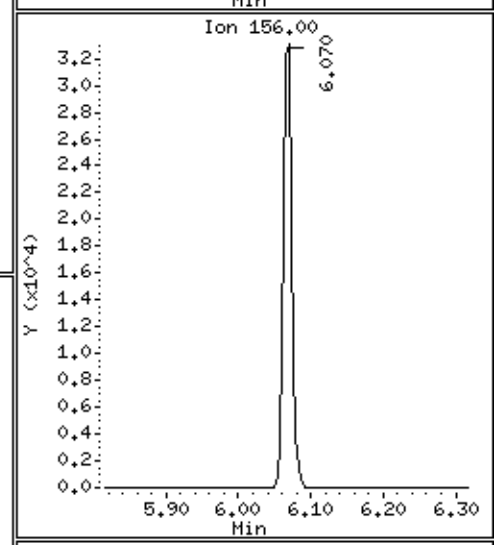


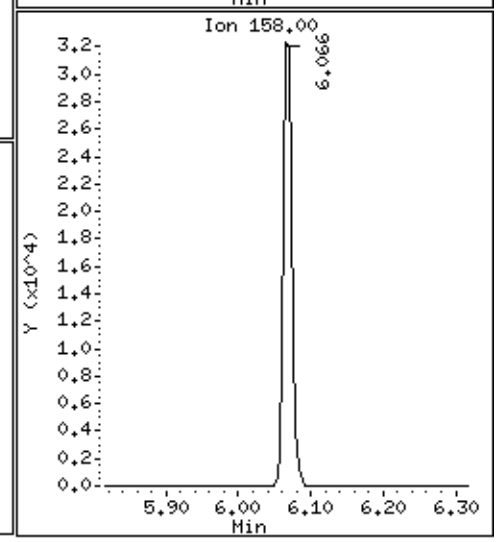












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

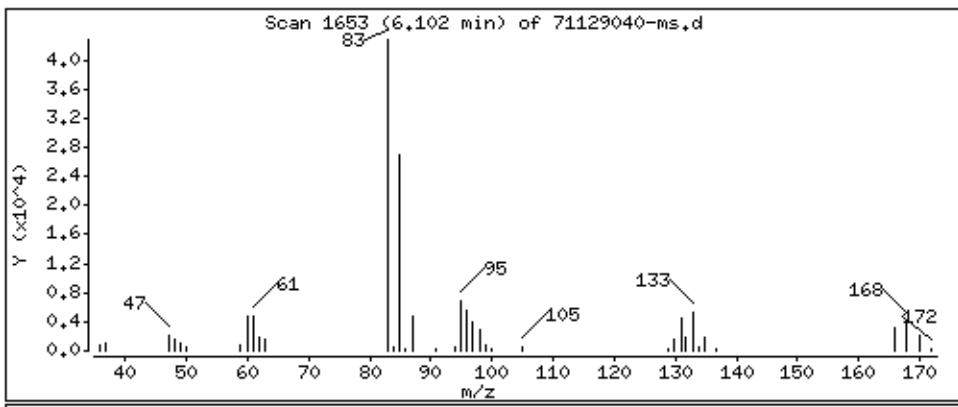
Column phase: RTX-VMS

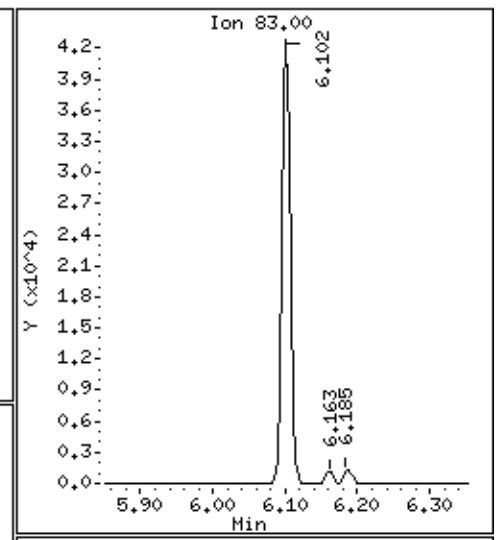
Column diameter: 0.18

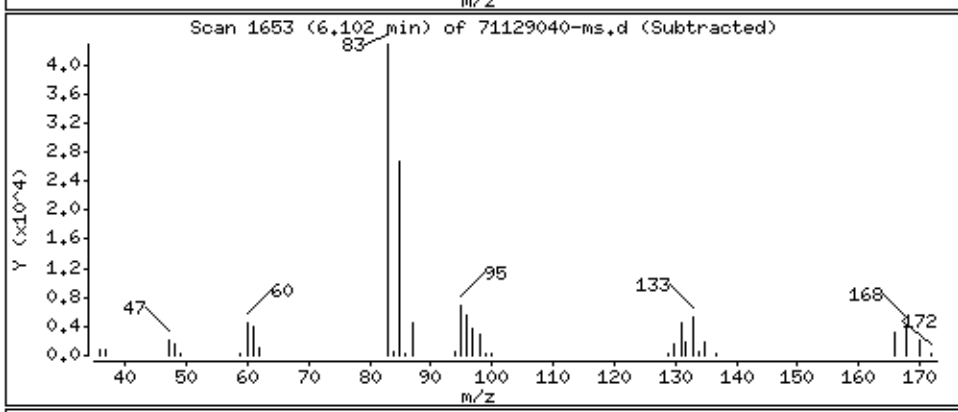
82 1,1,2,2-Tetrachloroethane

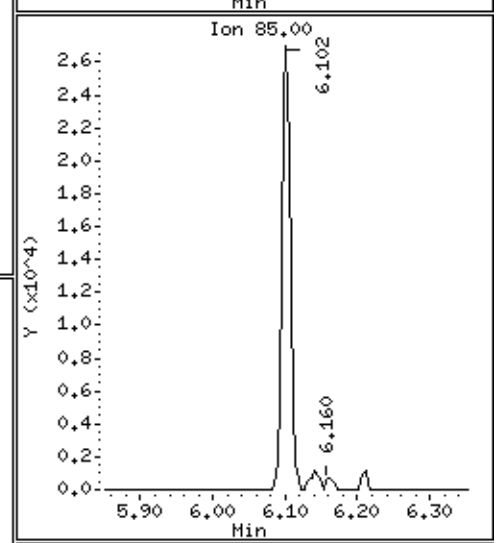
Concentration: 15.2 ug/L

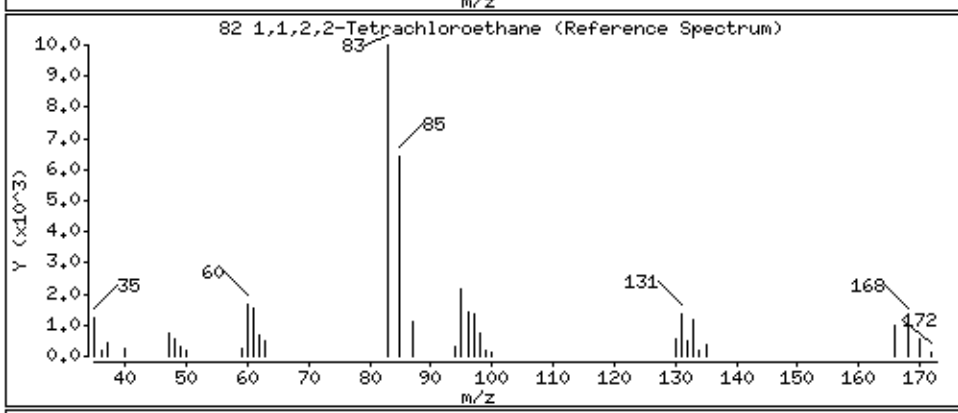
Review Code:

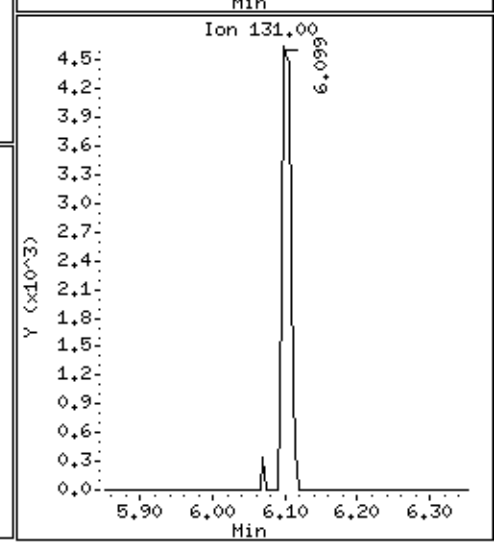


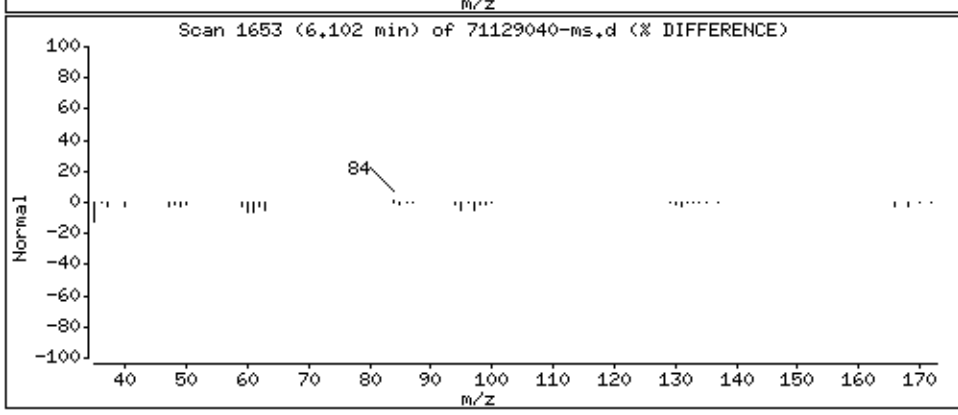












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

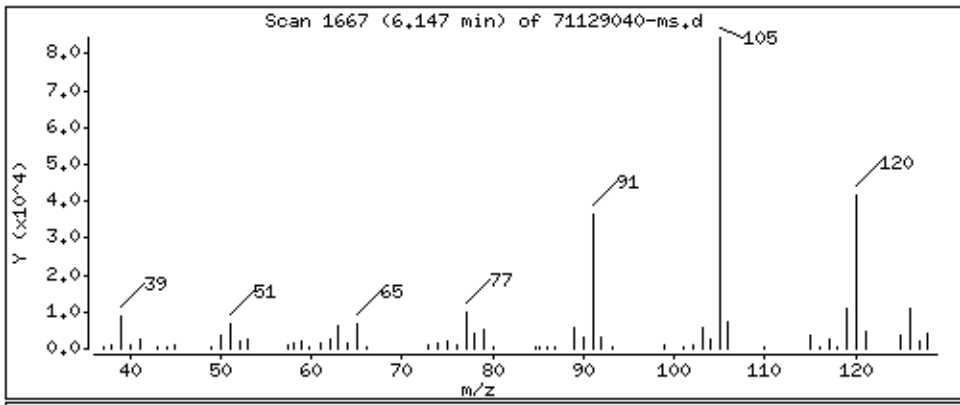
Column phase: RTX-VMS

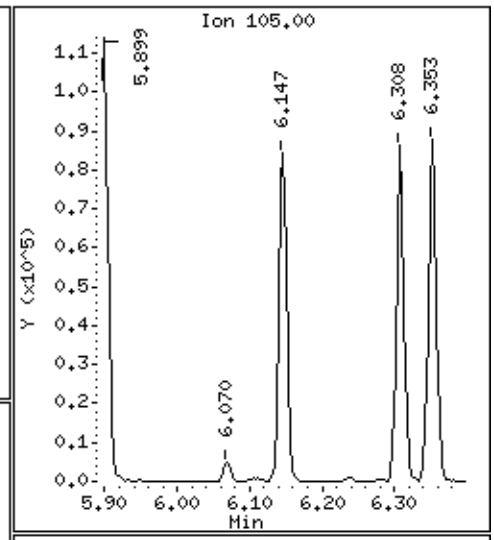
Column diameter: 0.18

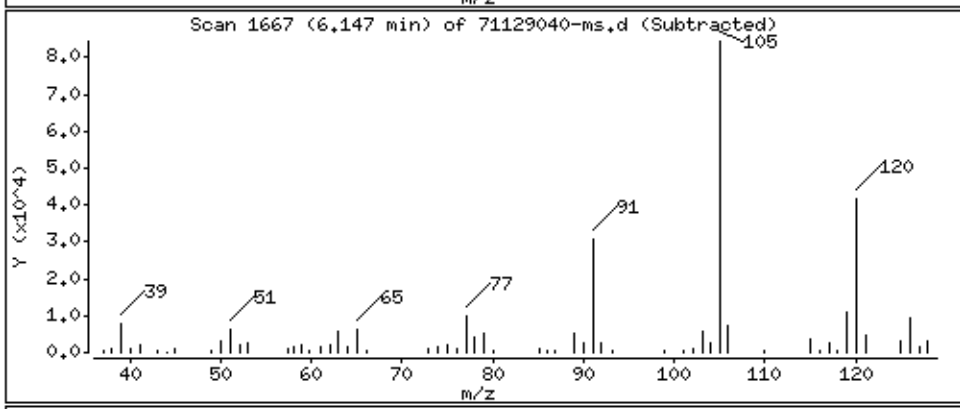
83 1,3,5-Trimethylbenzene

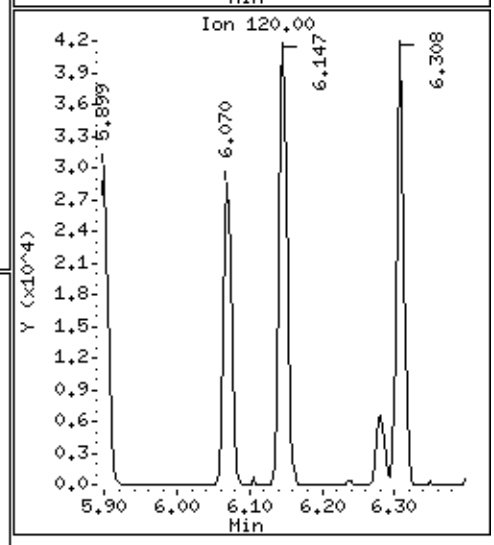
Concentration: 15.3 ug/L

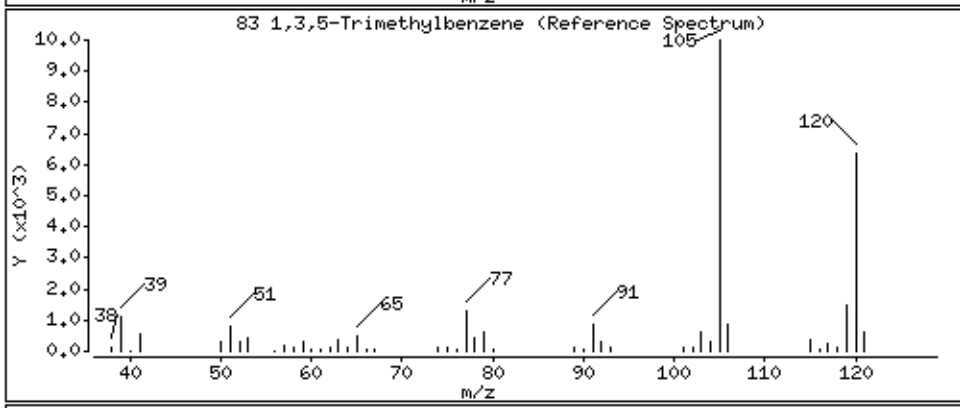
Review Code:

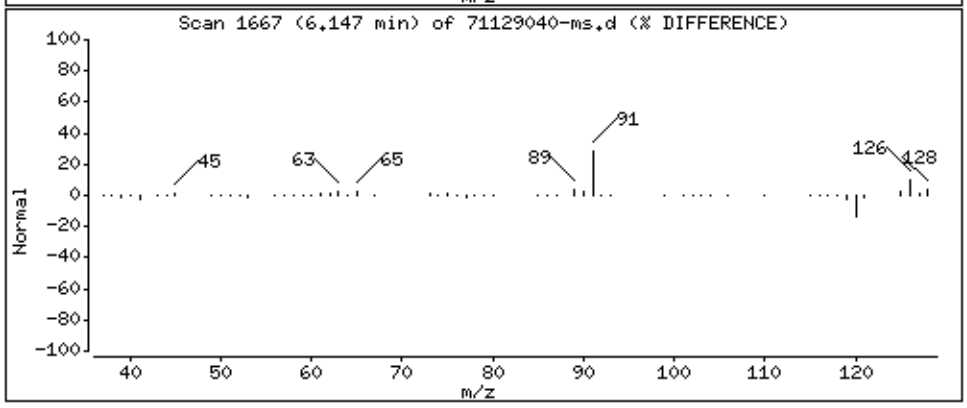












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

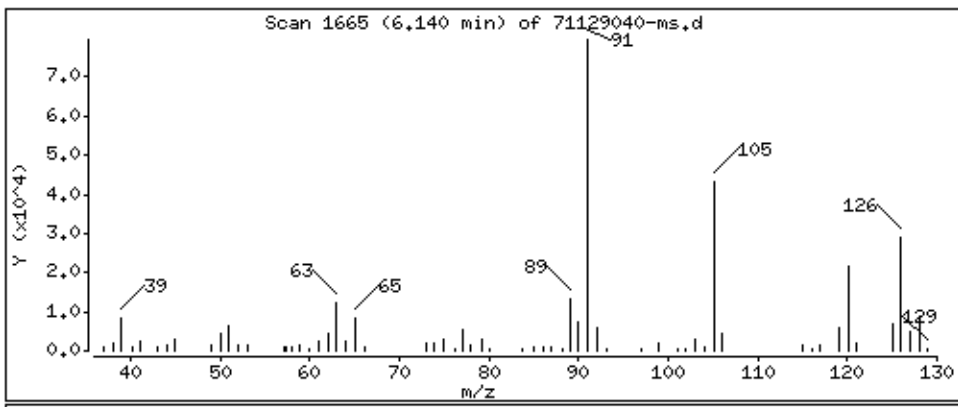
Column phase: RTX-VMS

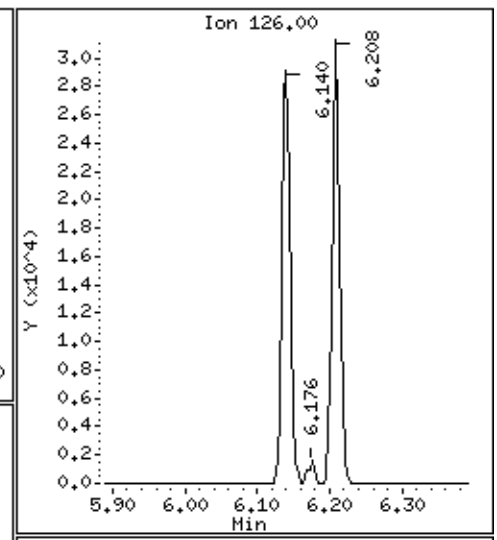
Column diameter: 0.18

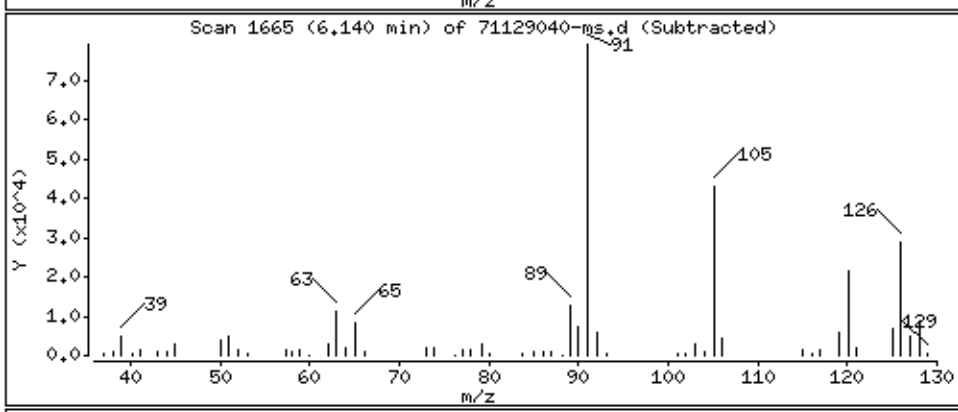
84 2-Chlorotoluene

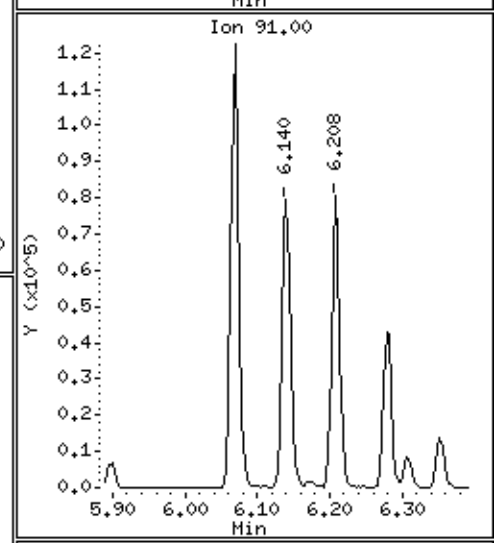
Concentration: 16.2 ug/L

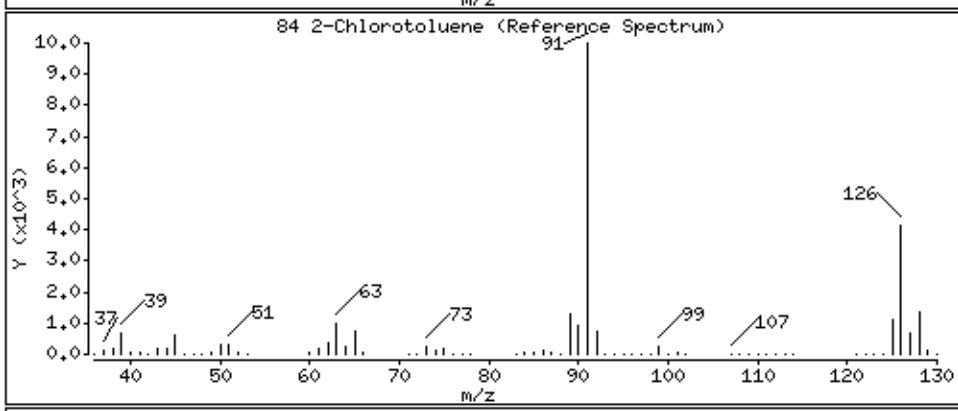
Review Code:

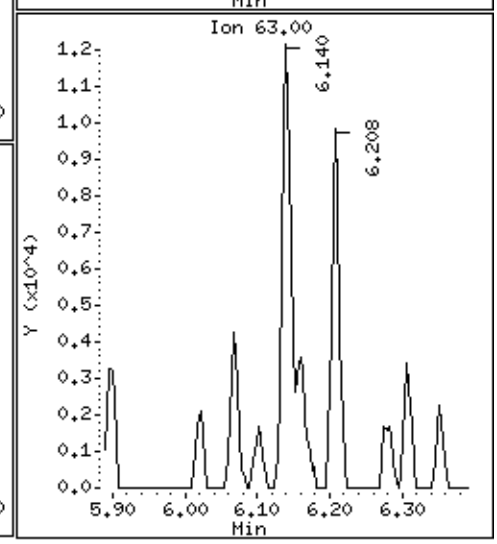


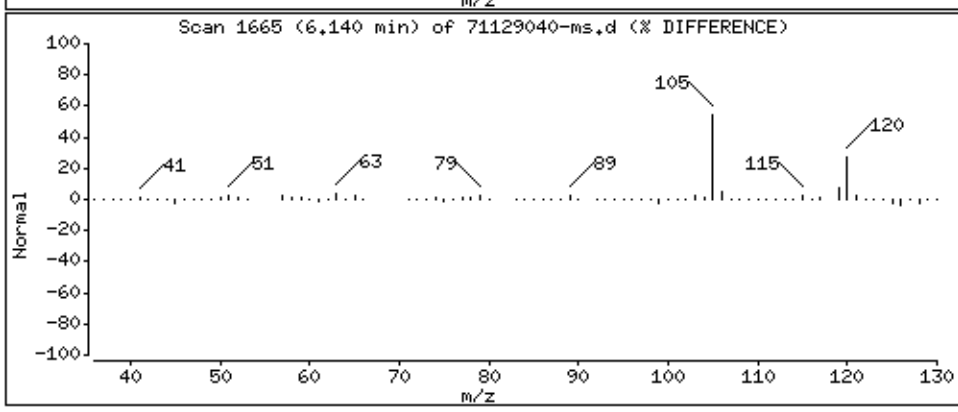












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

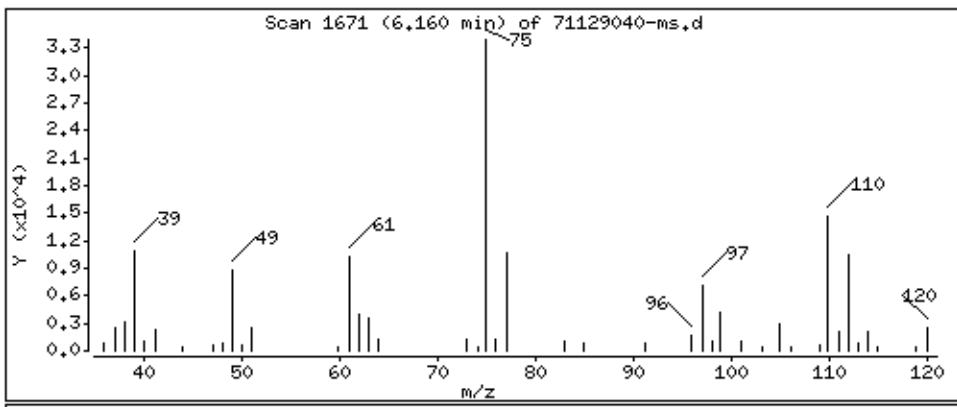
Column phase: RTX-VMS

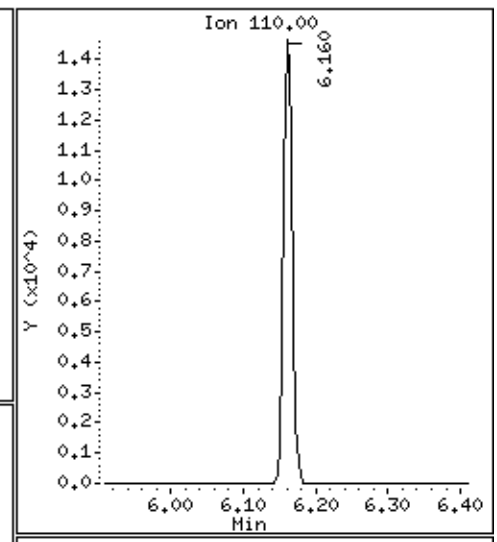
Column diameter: 0.18

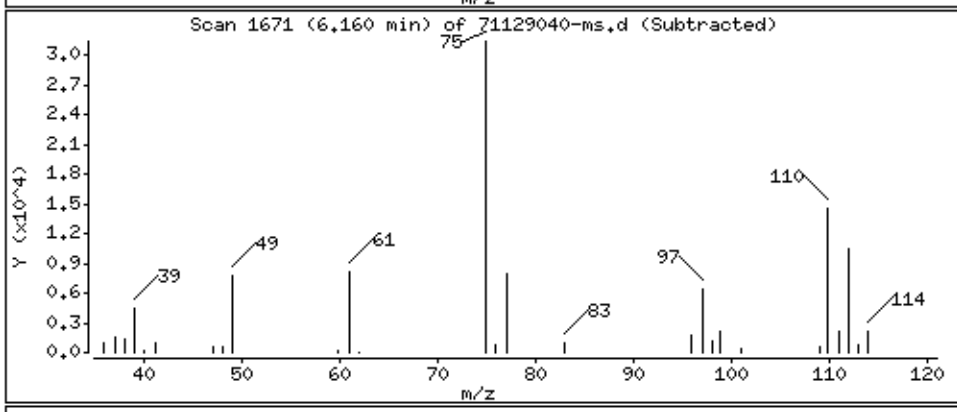
85 1,2,3-Trichloropropane

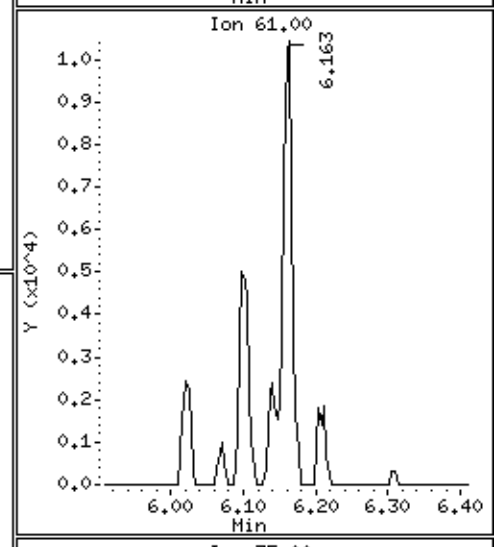
Concentration: 15.6 ug/L

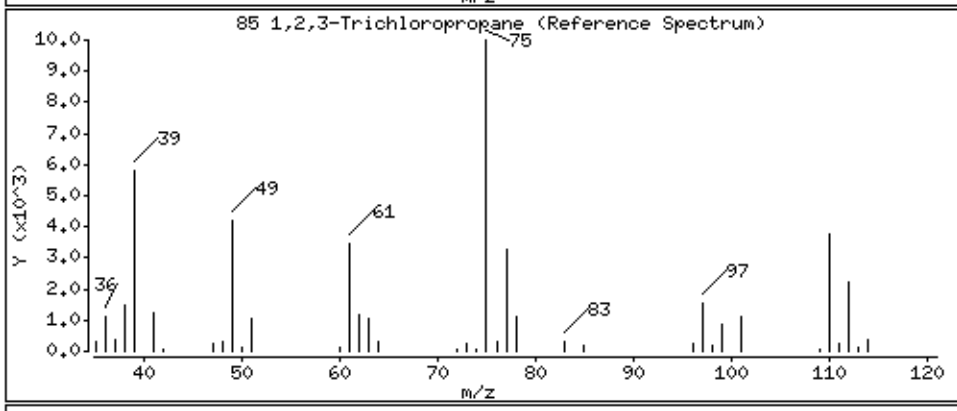
Review Code:

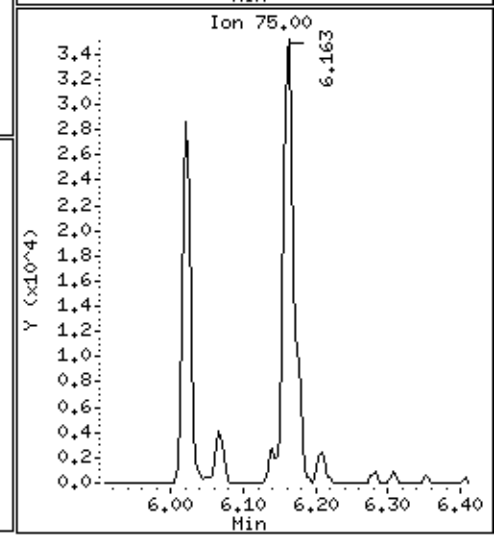


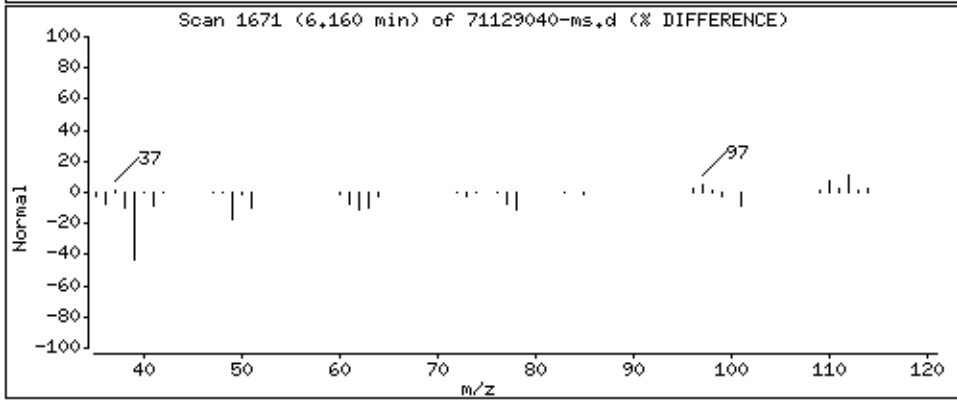












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

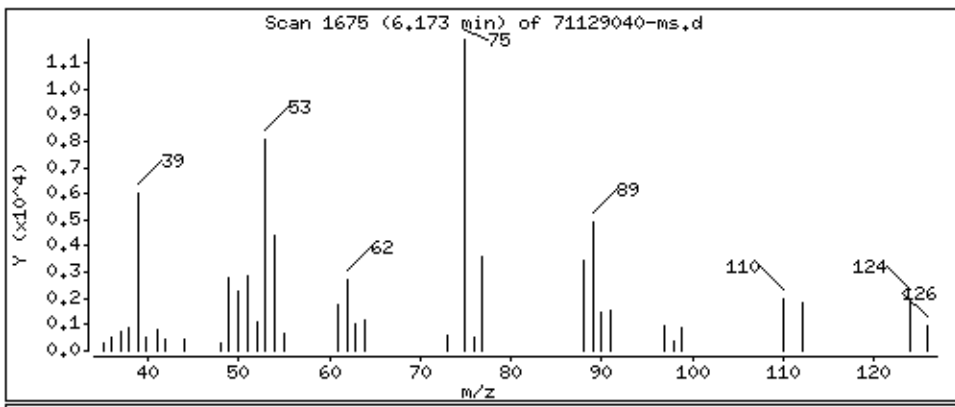
Column phase: RTX-VMS

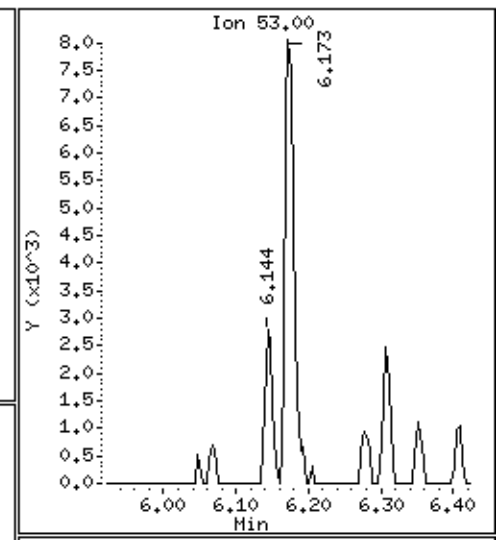
Column diameter: 0.18

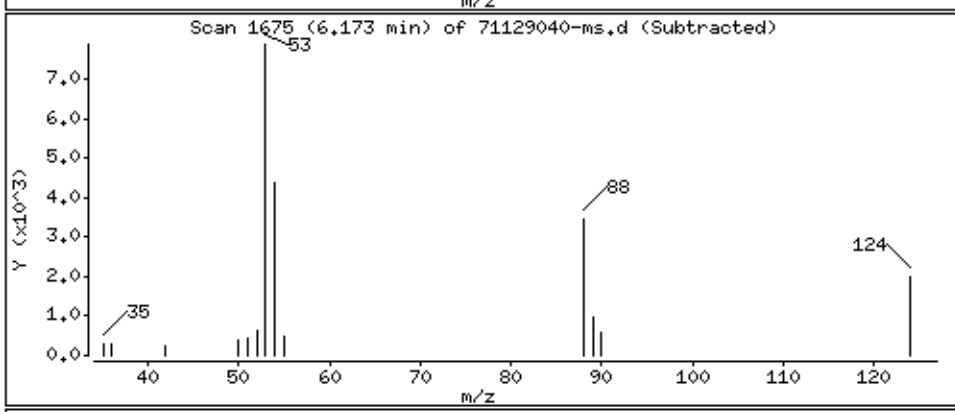
86 trans-1,4-Dichloro-2-butene

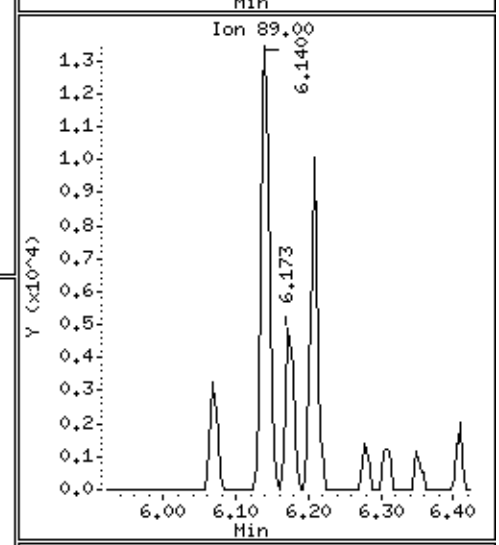
Concentration: 9.63 ug/L

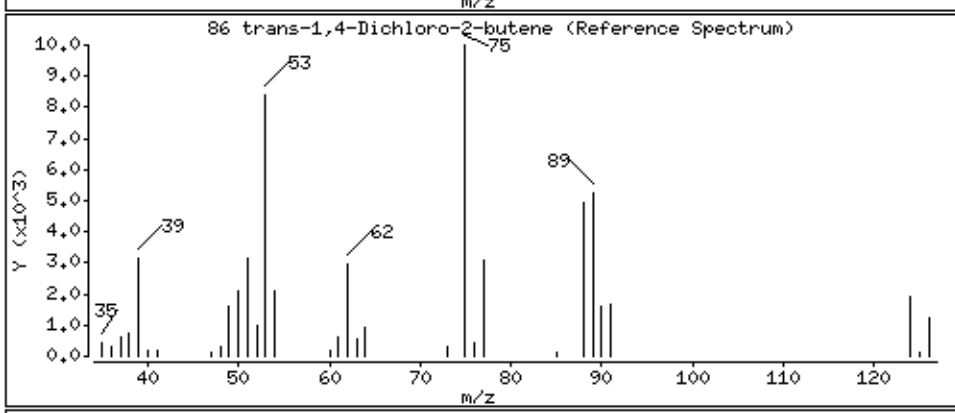
Review Code:

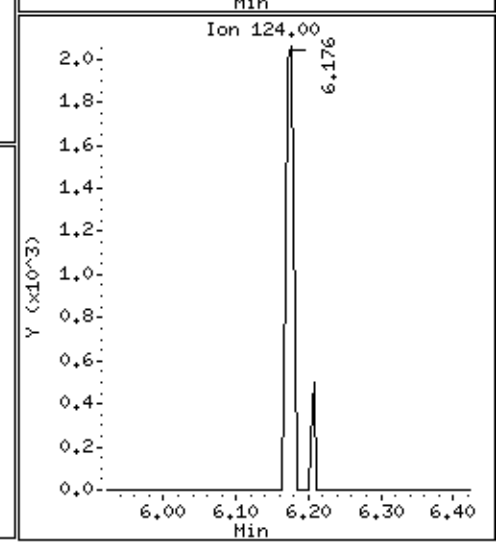


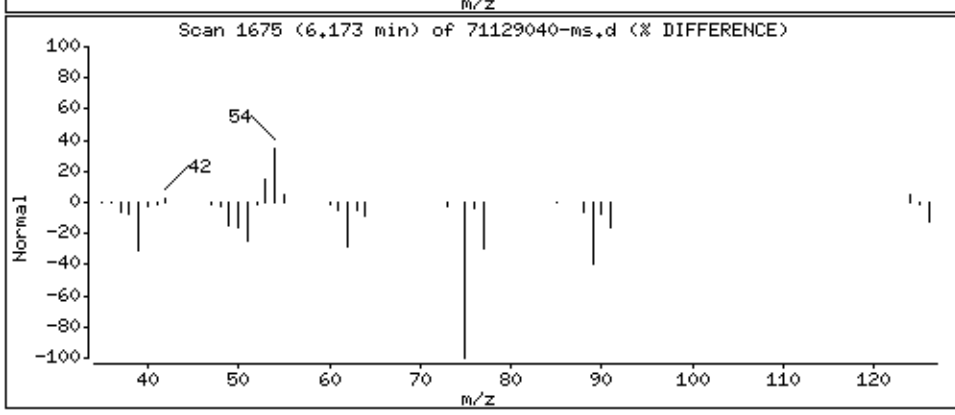












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

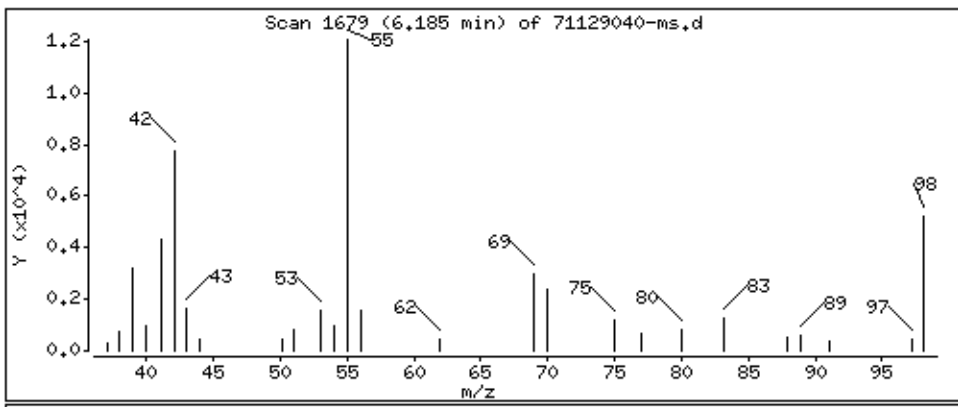
Column phase: RTX-VMS

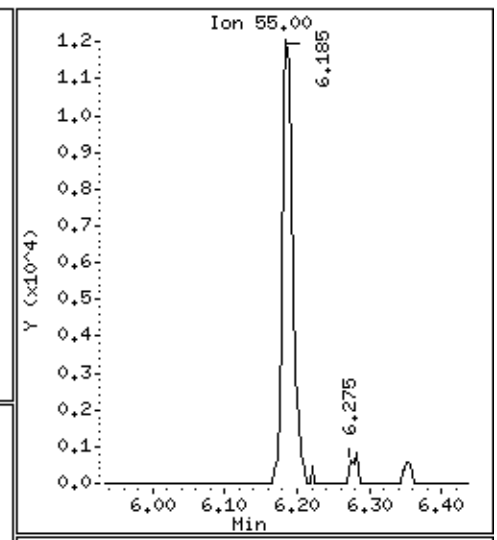
Column diameter: 0.18

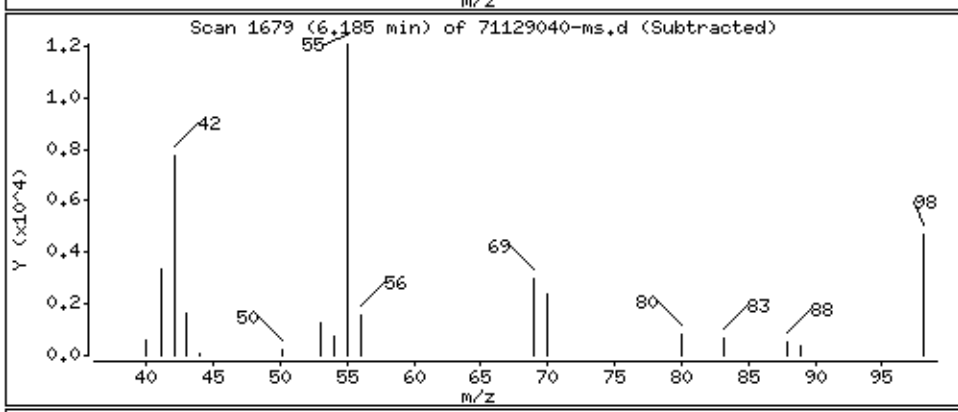
87 Cyclohexanone

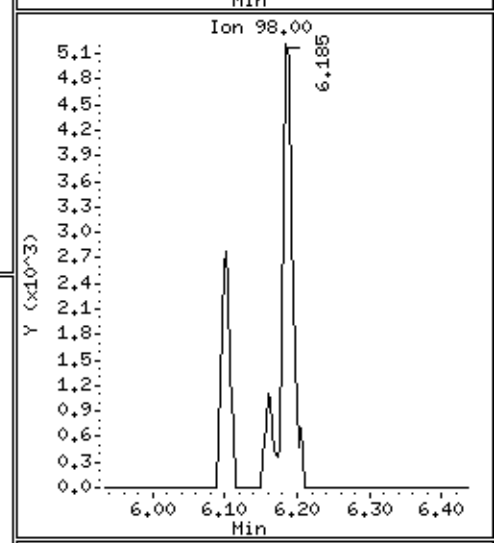
Concentration: 54.8 ug/L

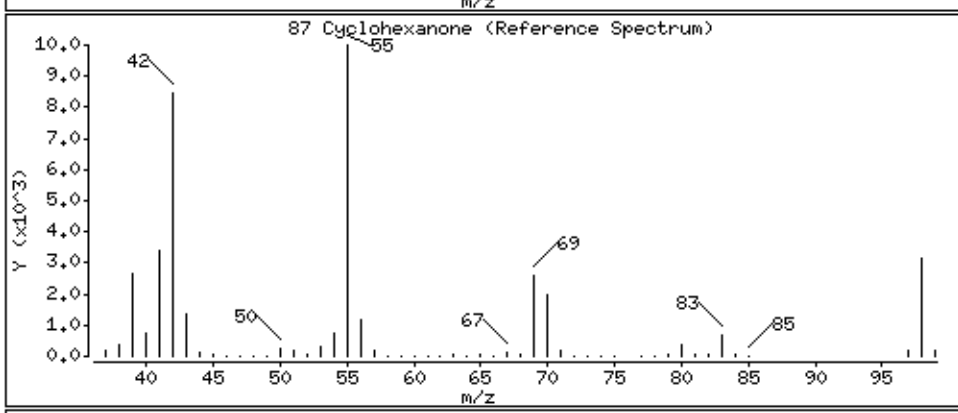
Review Code:

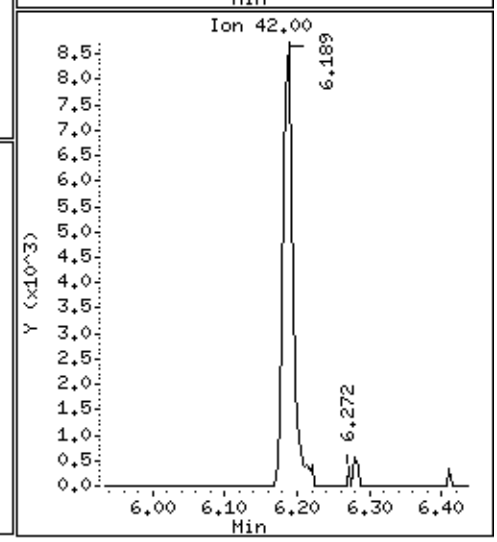


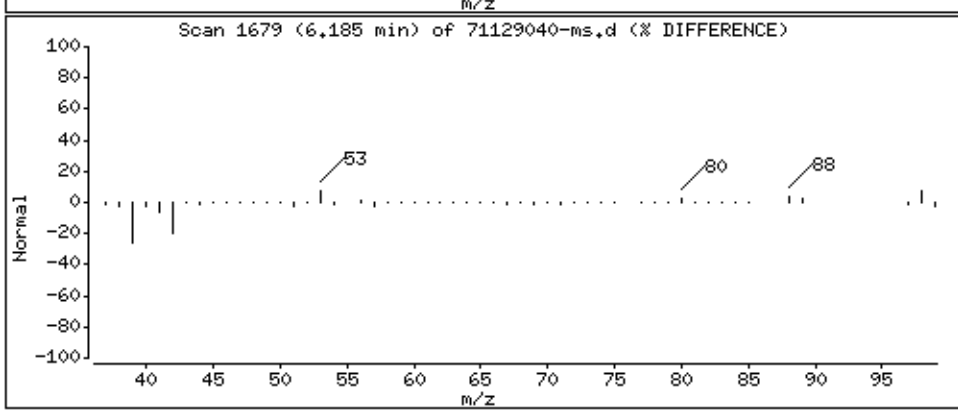












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

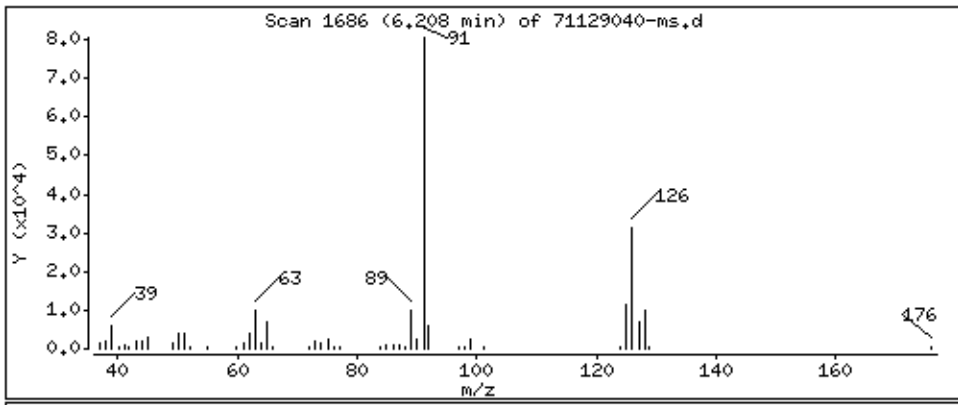
Column phase: RTX-VMS

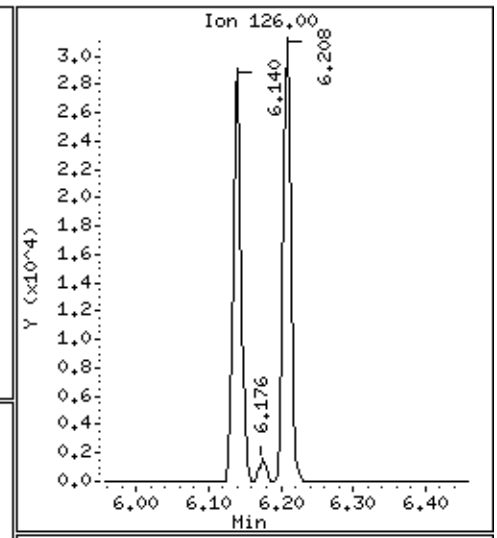
Column diameter: 0.18

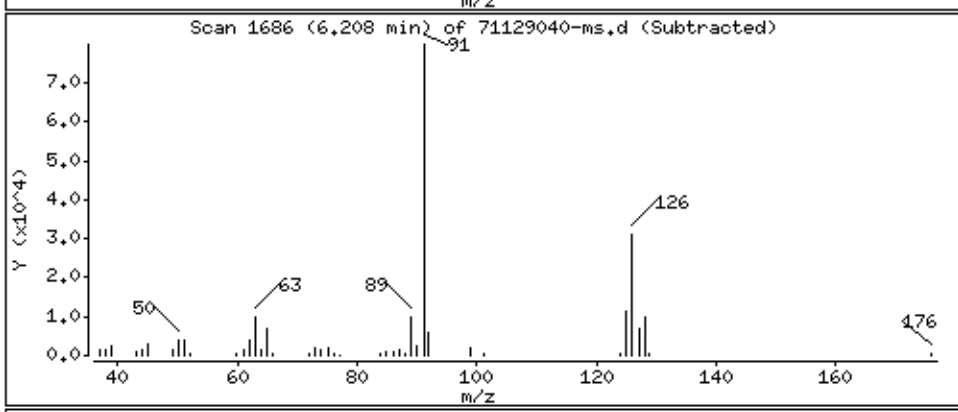
88 4-Chlorotoluene

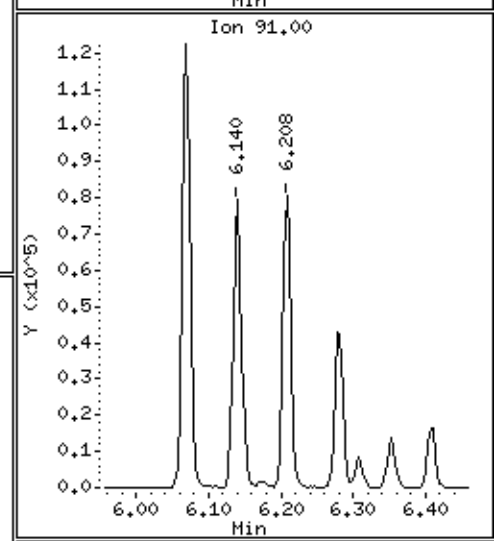
Concentration: 15.6 ug/L

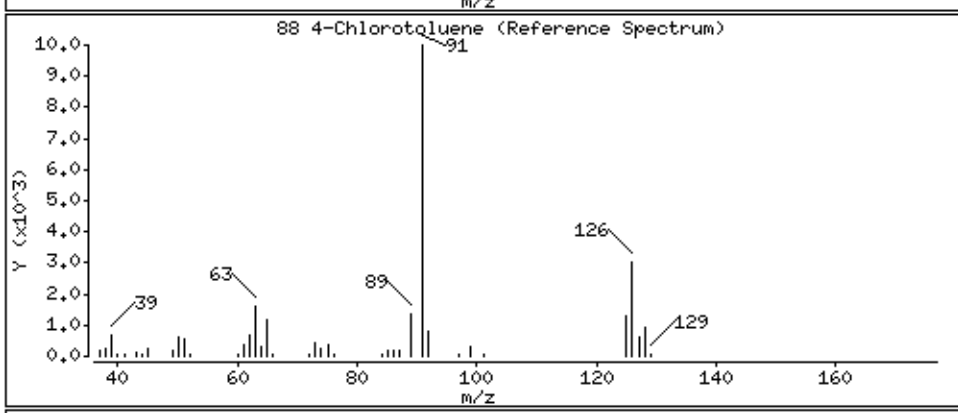
Review Code:

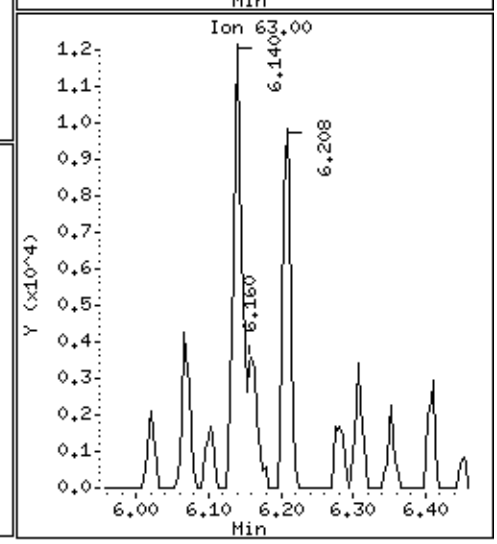


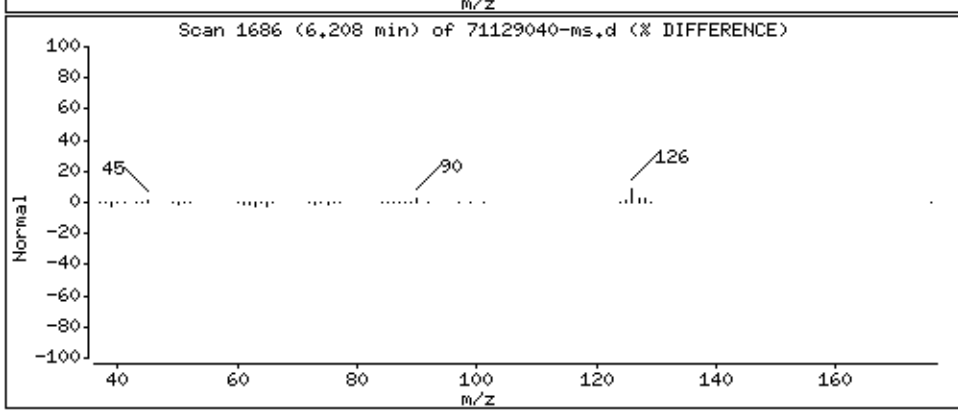












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

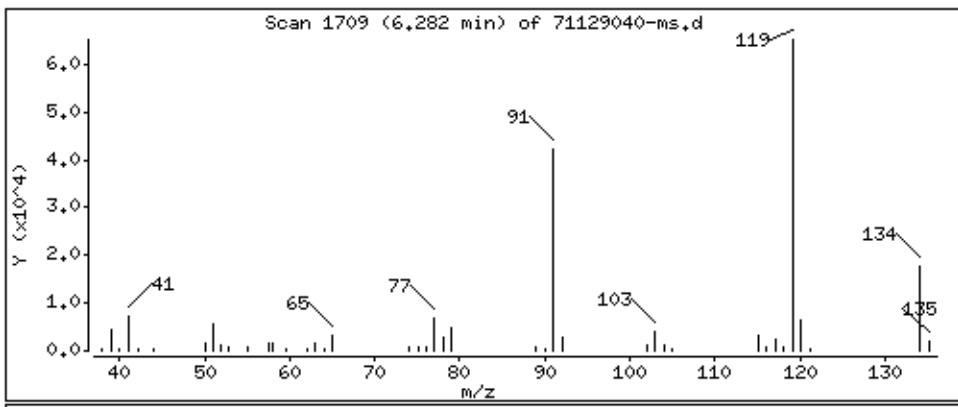
Column phase: RTX-VMS

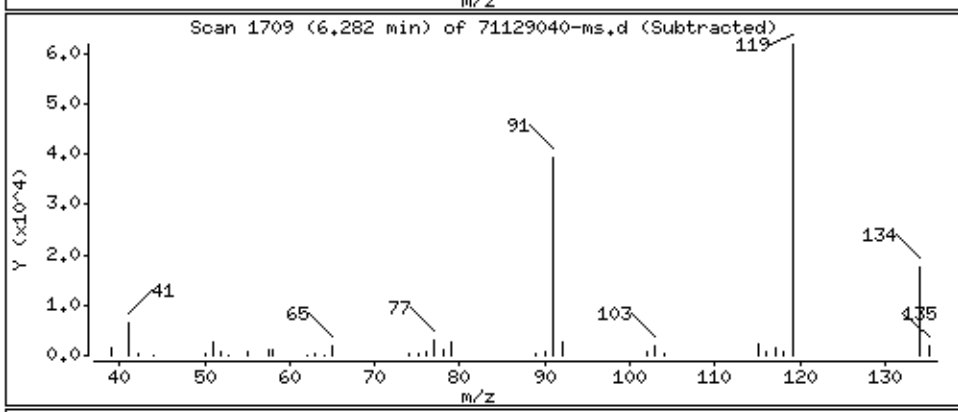
Column diameter: 0.18

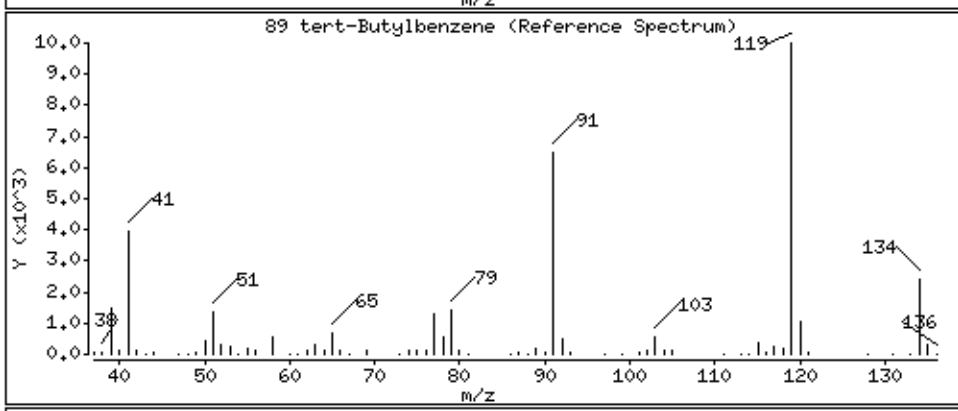
89 tert-Butylbenzene

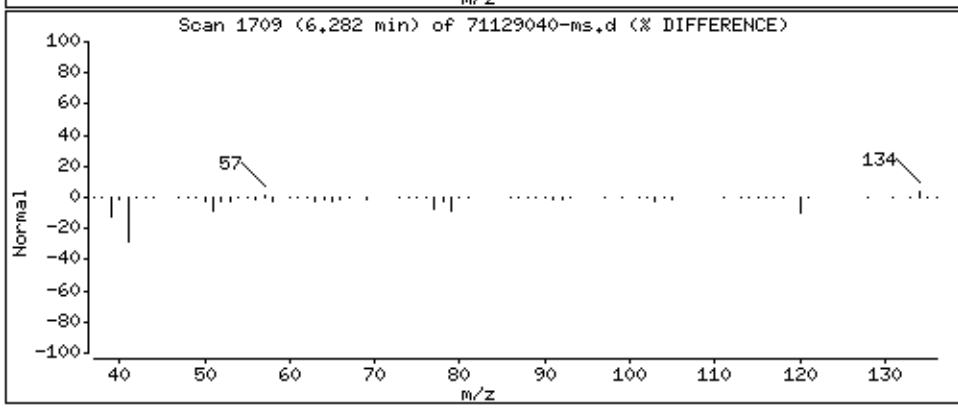
Concentration: 16.2 ug/L

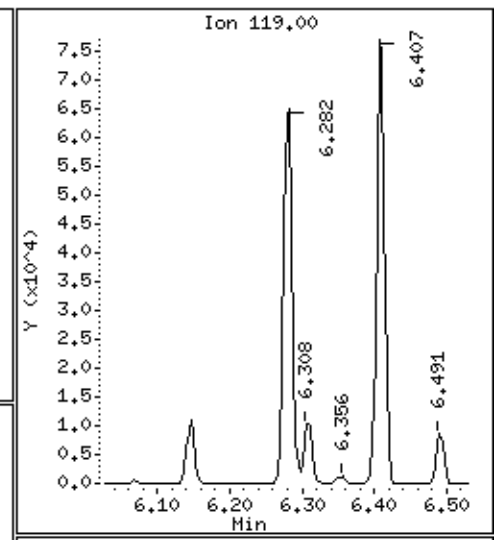
Review Code:

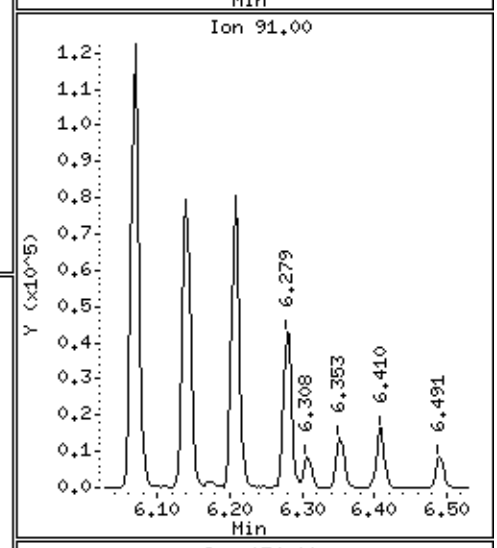


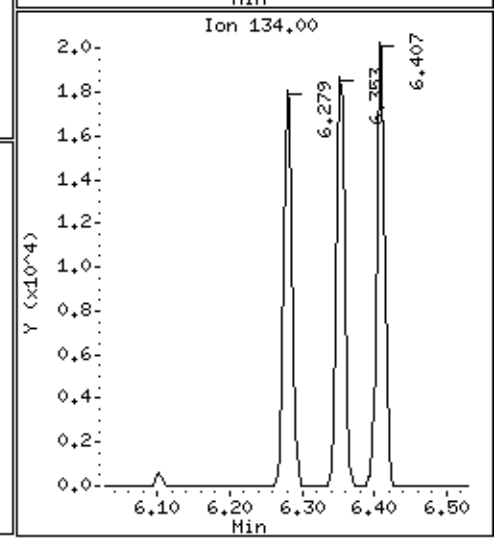












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

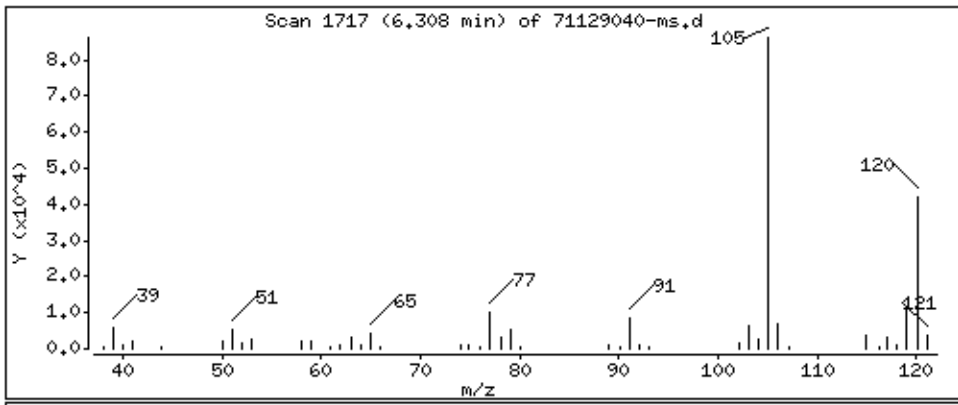
Column phase: RTX-VMS

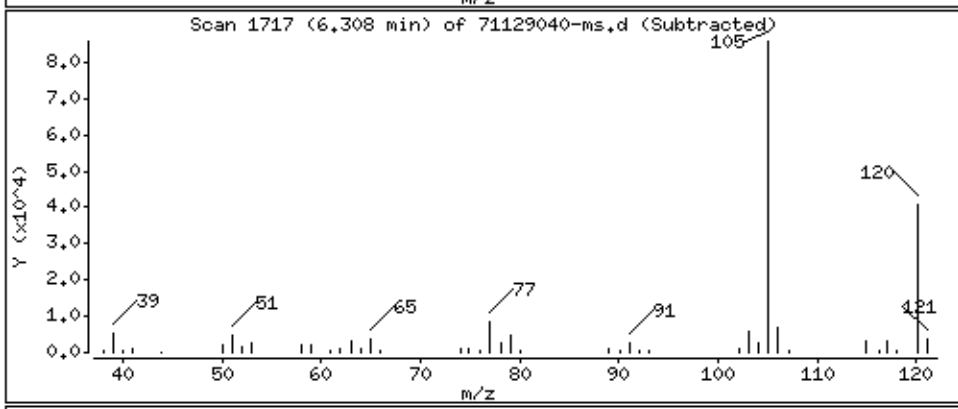
Column diameter: 0.18

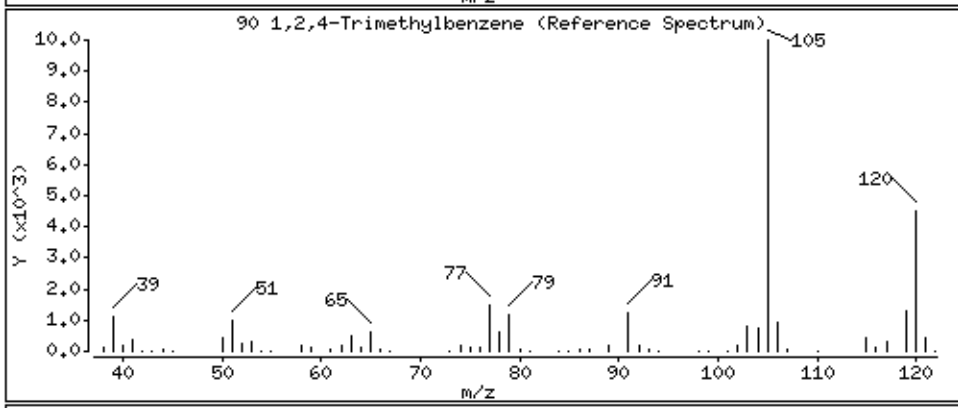
90 1,2,4-Trimethylbenzene

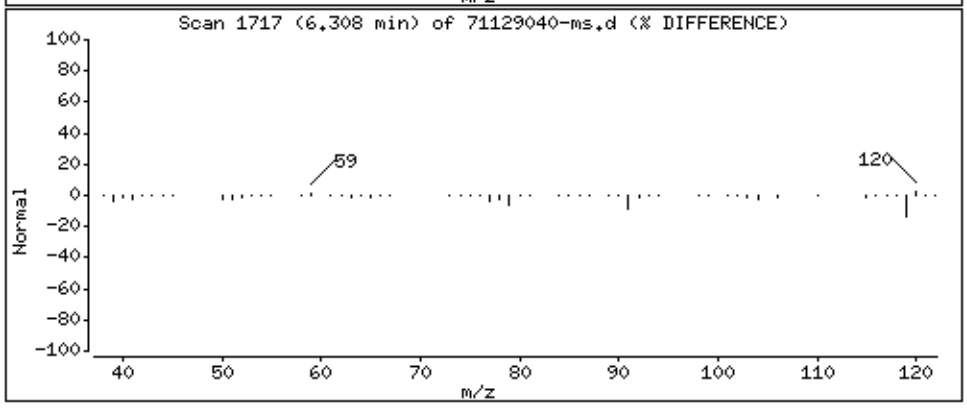
Concentration: 15.4 ug/L

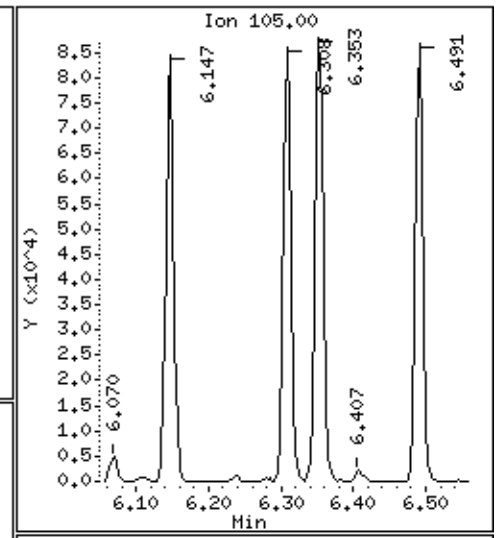
Review Code:

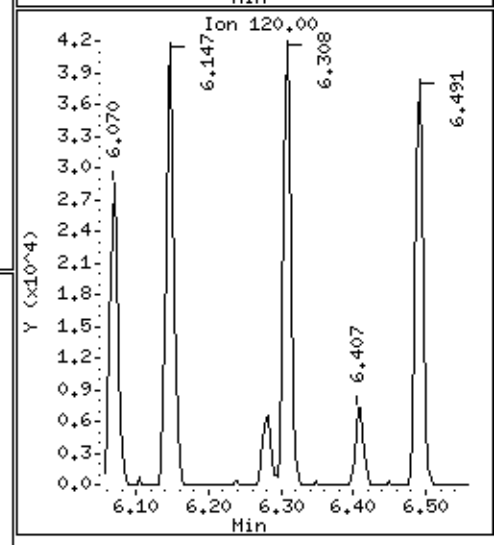












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

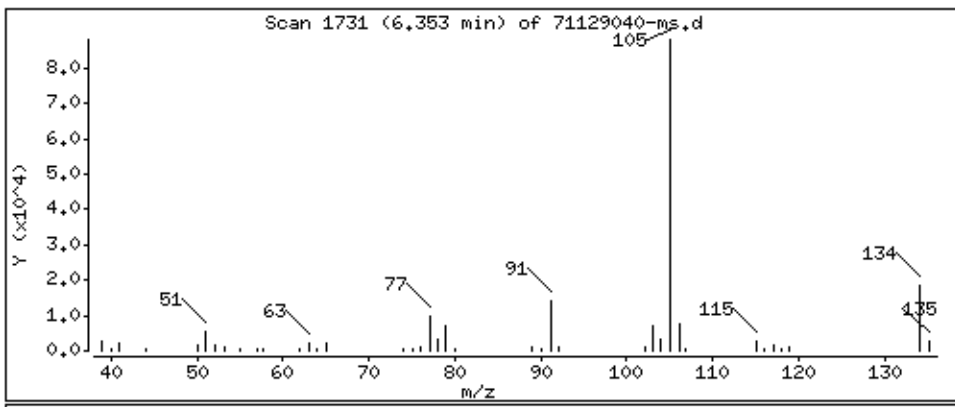
Column phase: RTX-VMS

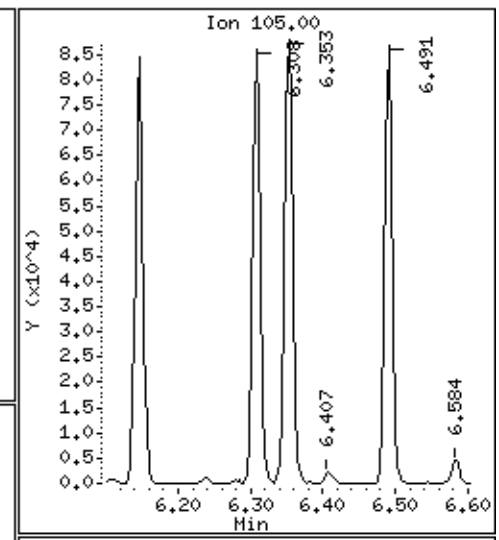
Column diameter: 0.18

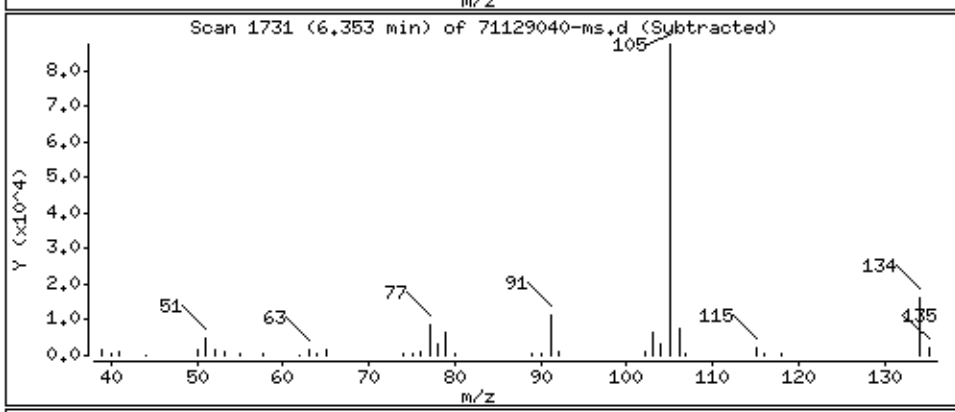
91 sec-Butylbenzene

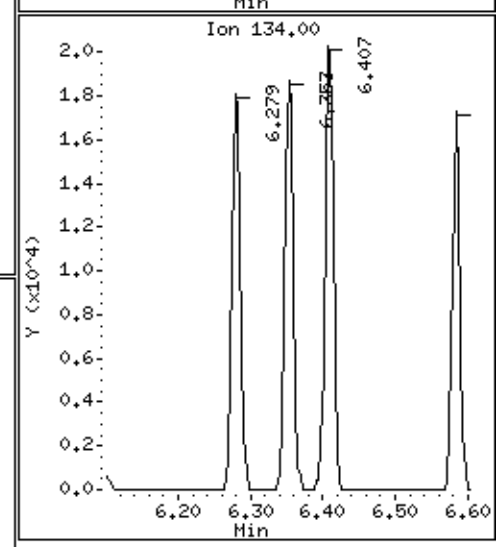
Concentration: 15.4 ug/L

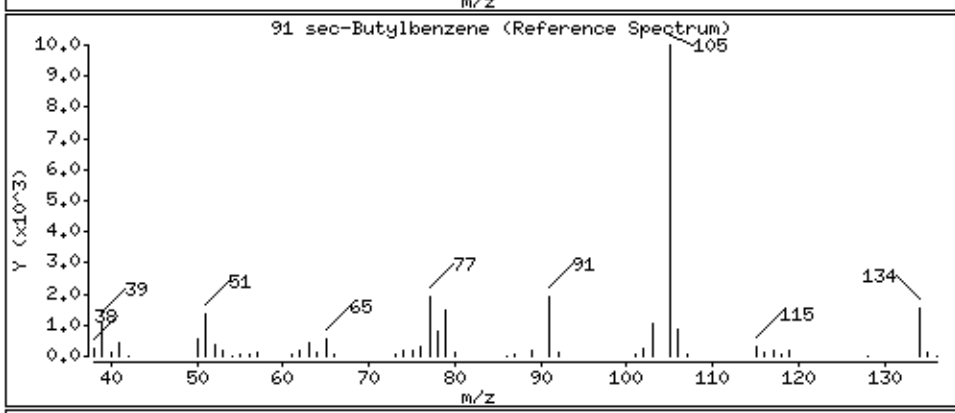
Review Code:

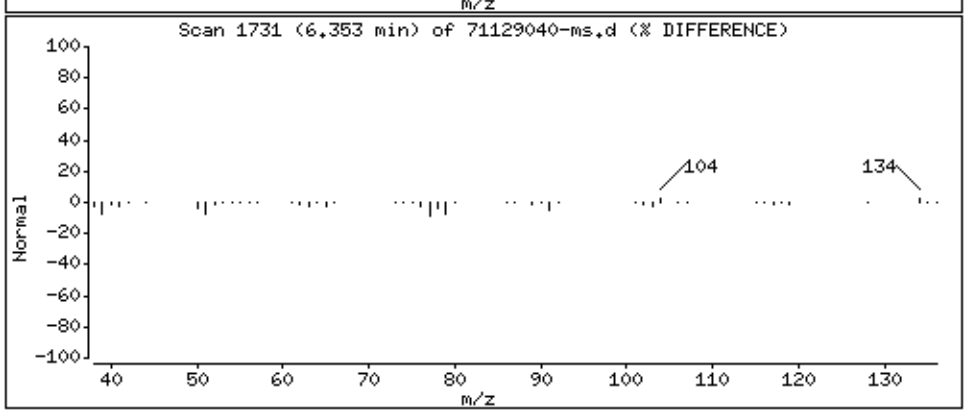












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

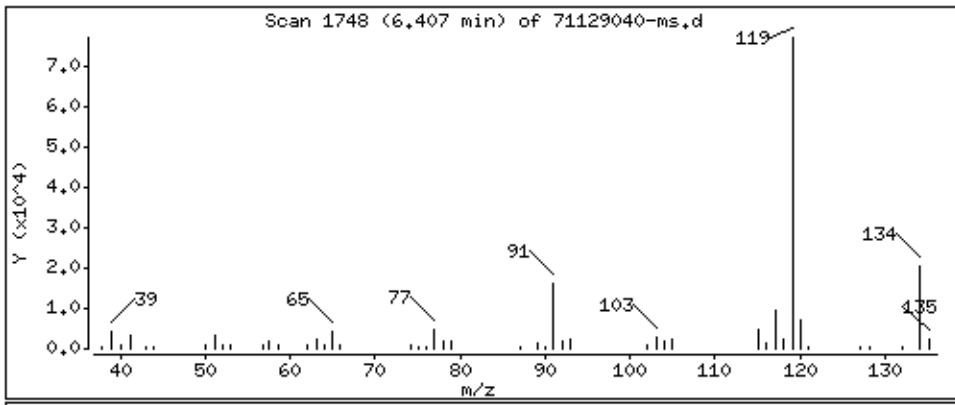
Column phase: RTX-VMS

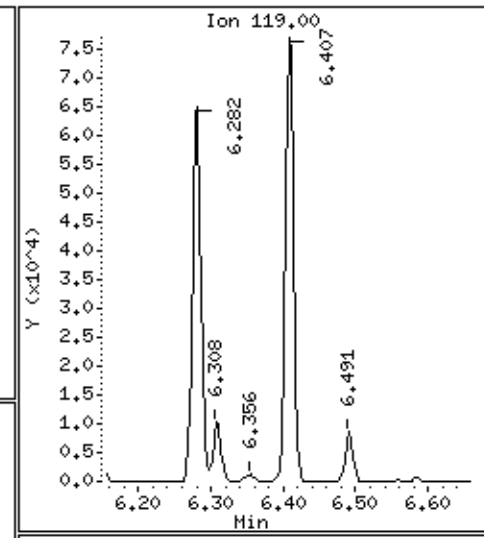
Column diameter: 0.18

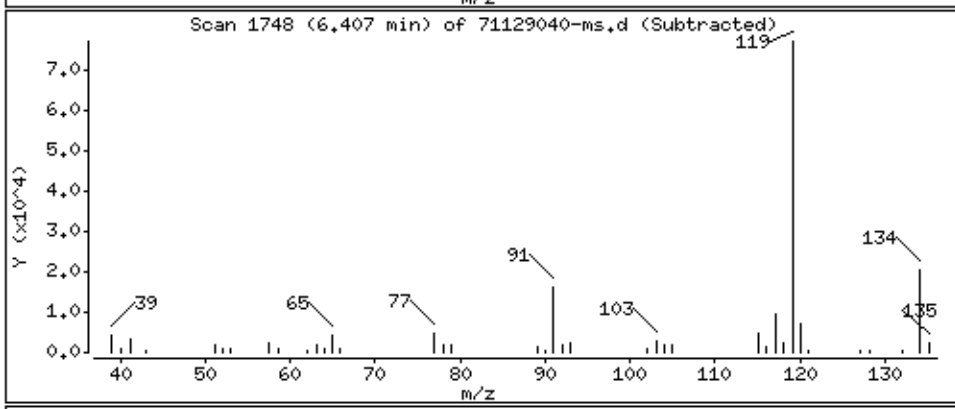
92 p-Isopropyltoluene

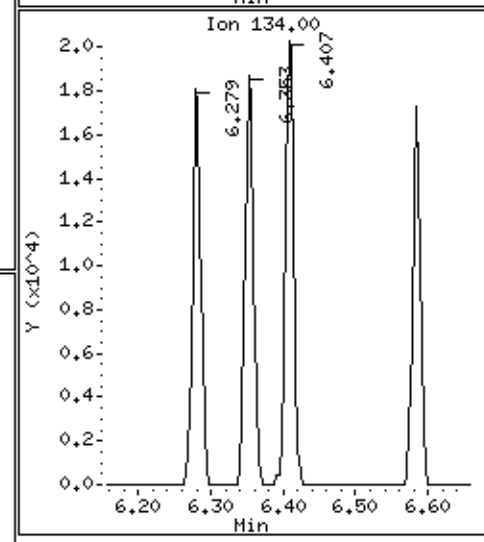
Concentration: 15.7 ug/L

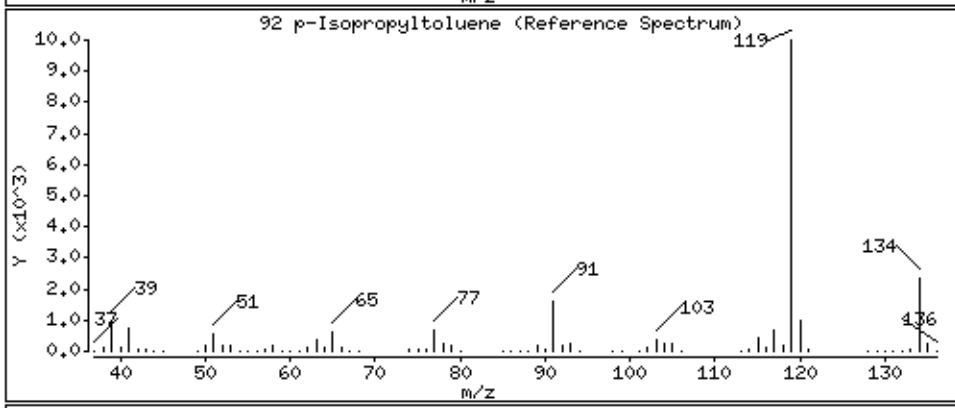
Review Code:

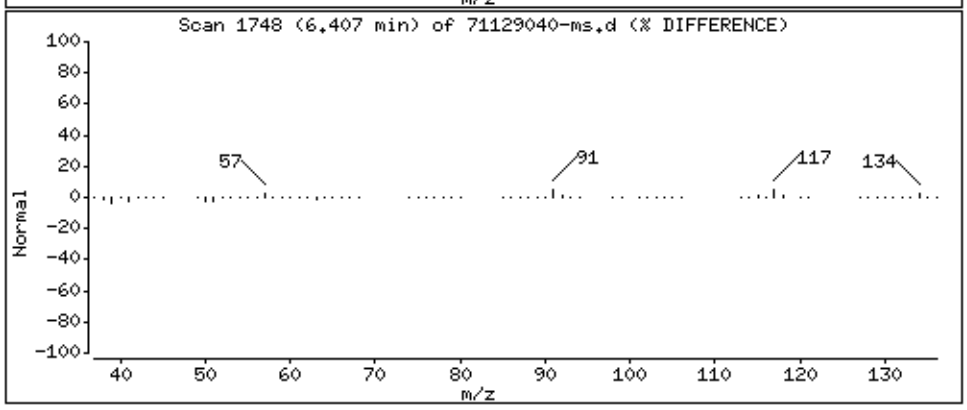












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

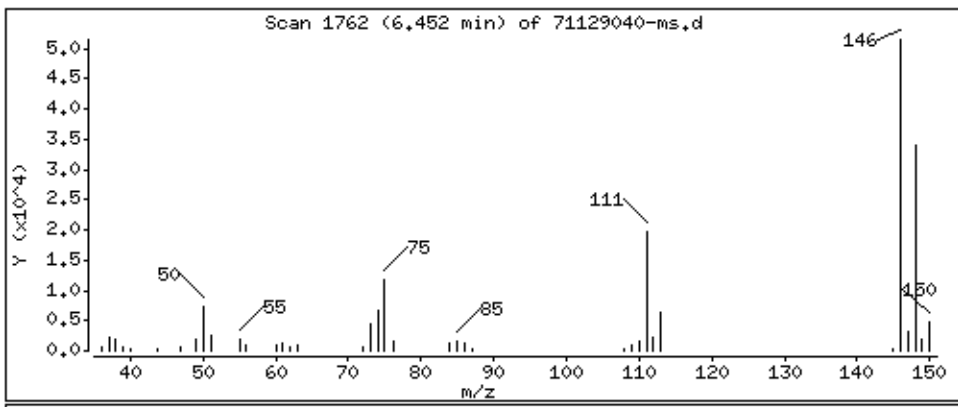
Column phase: RTX-VMS

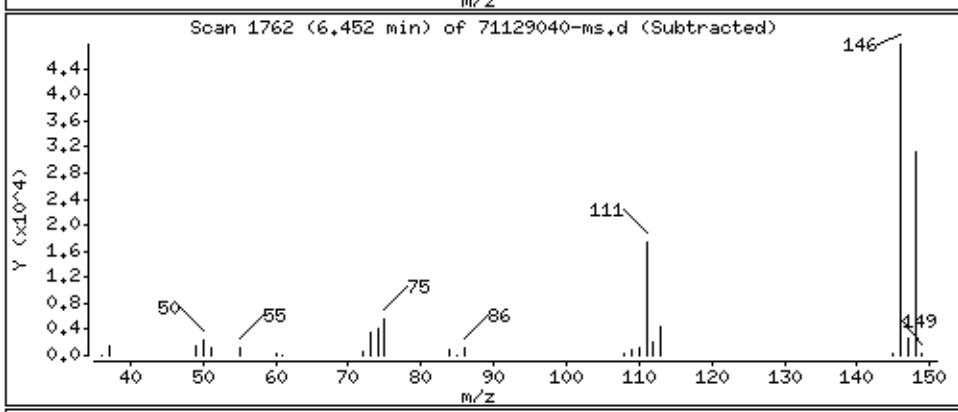
Column diameter: 0.18

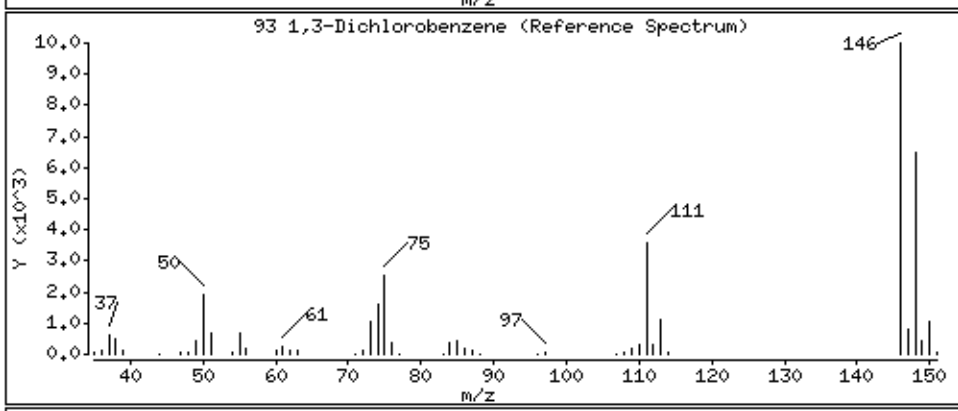
93 1,3-Dichlorobenzene

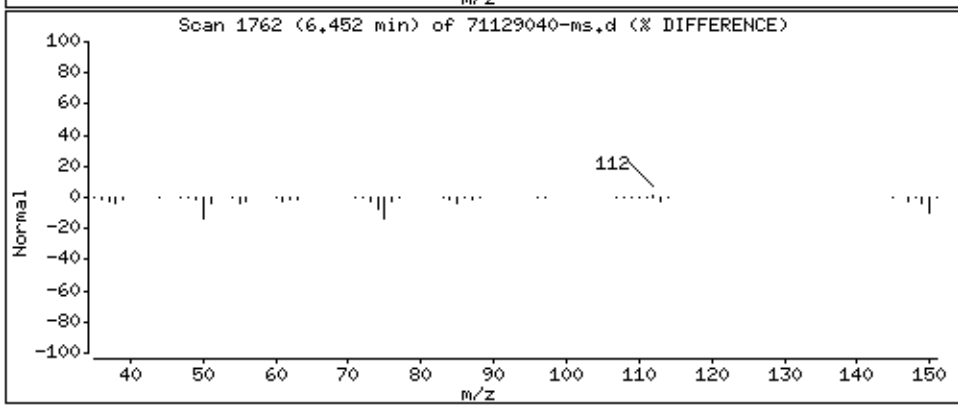
Concentration: 15.6 ug/L

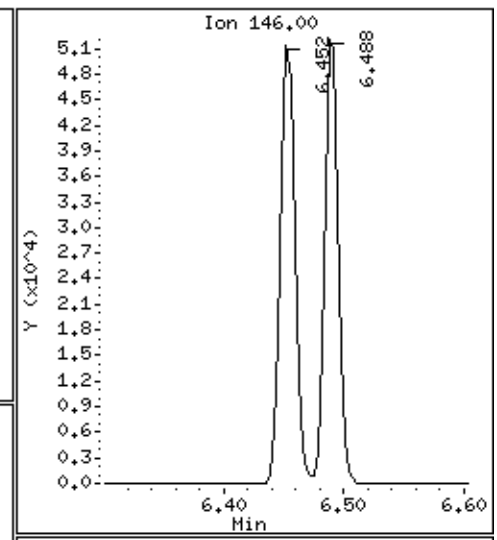
Review Code:

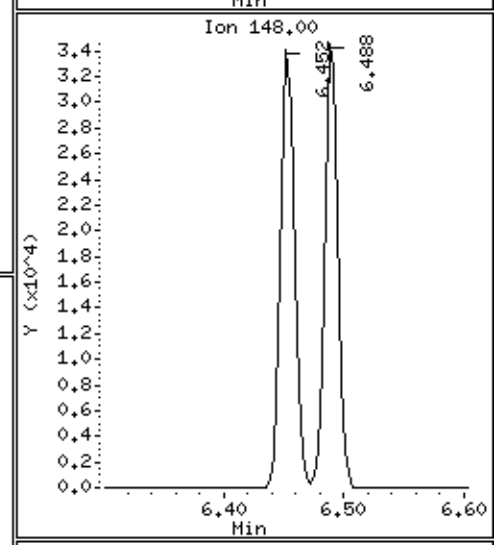


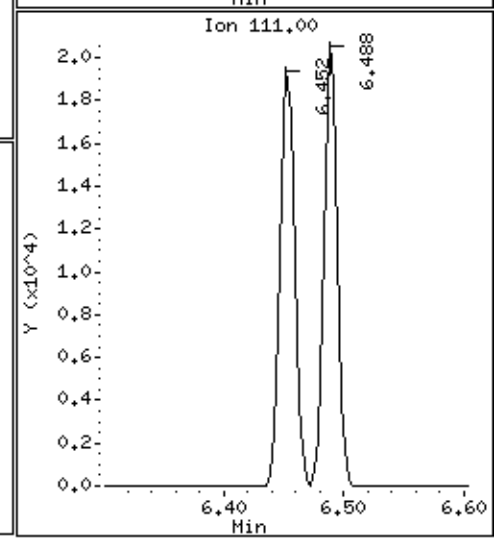












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

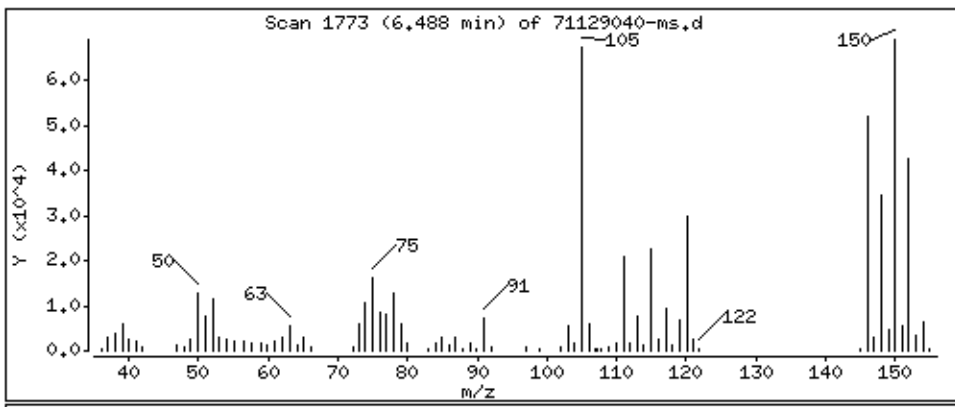
Column phase: RTX-VMS

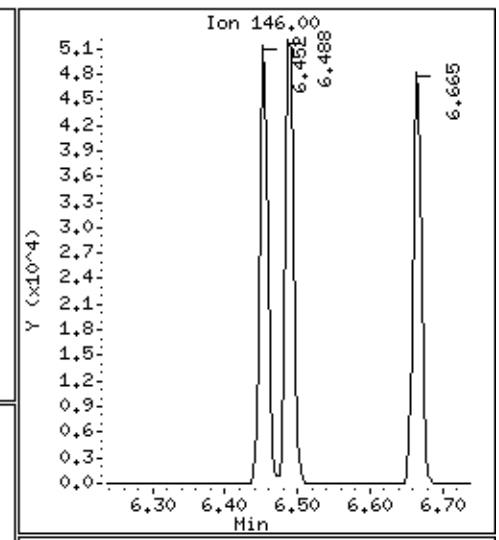
Column diameter: 0.18

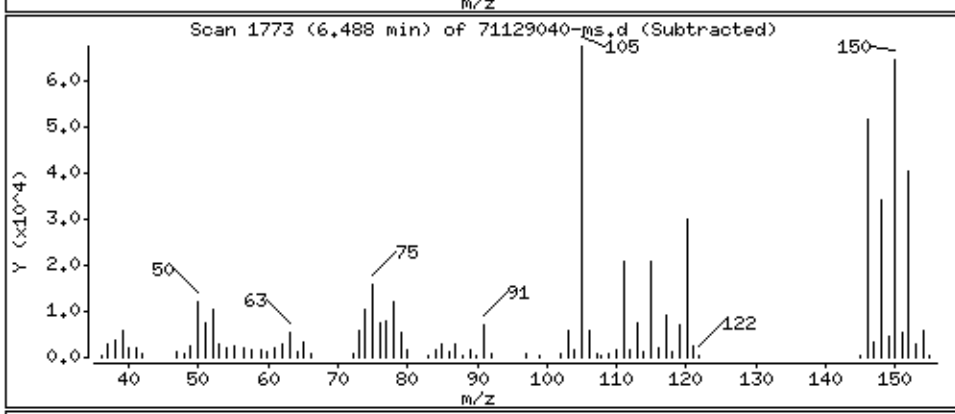
95 1,4-Dichlorobenzene

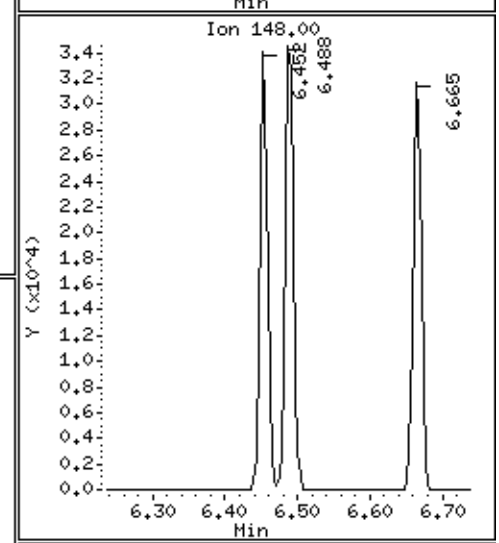
Concentration: 14.8 ug/L

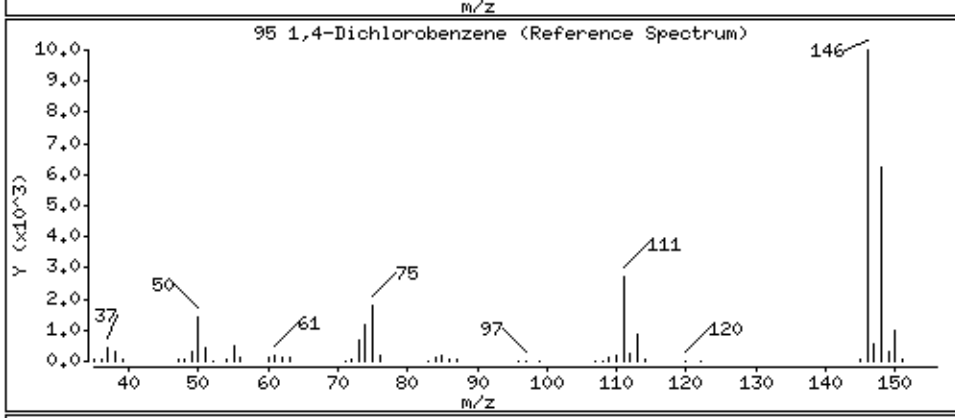
Review Code:

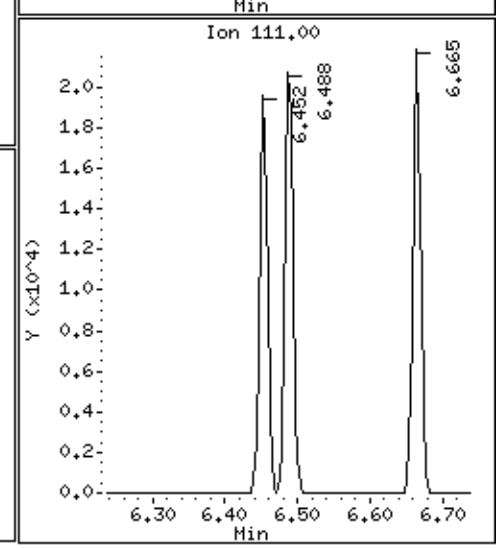


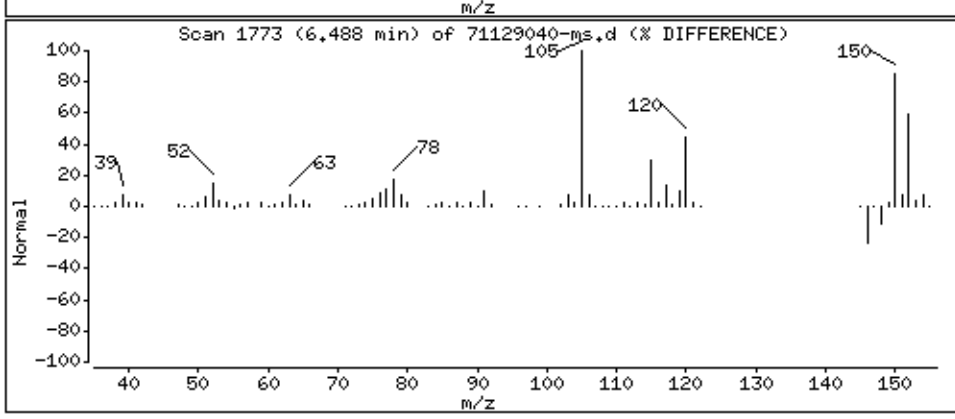












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

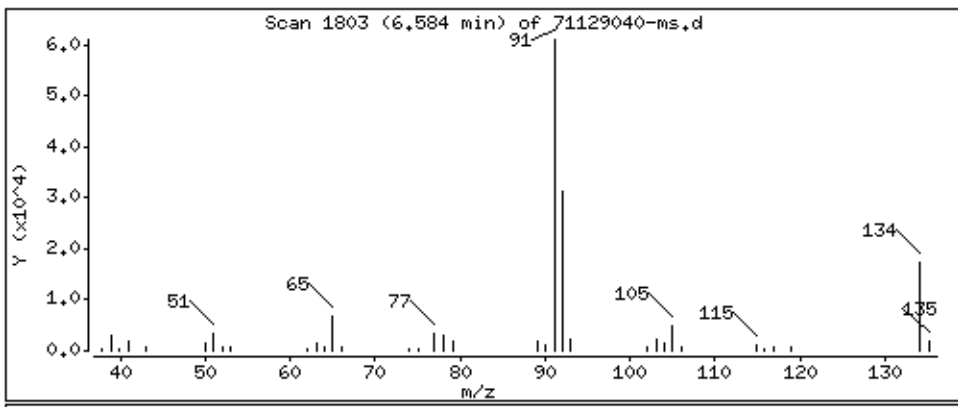
Column phase: RTX-VMS

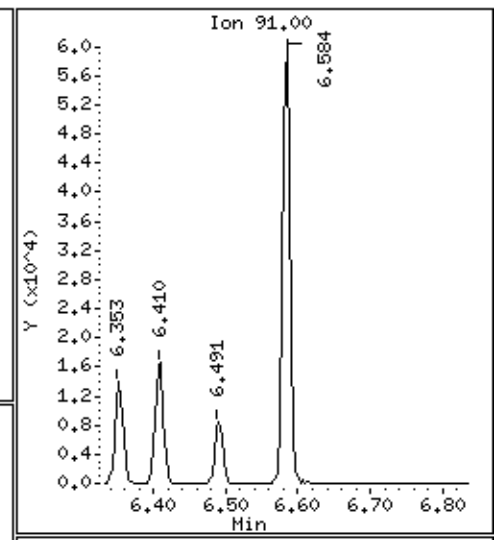
Column diameter: 0.18

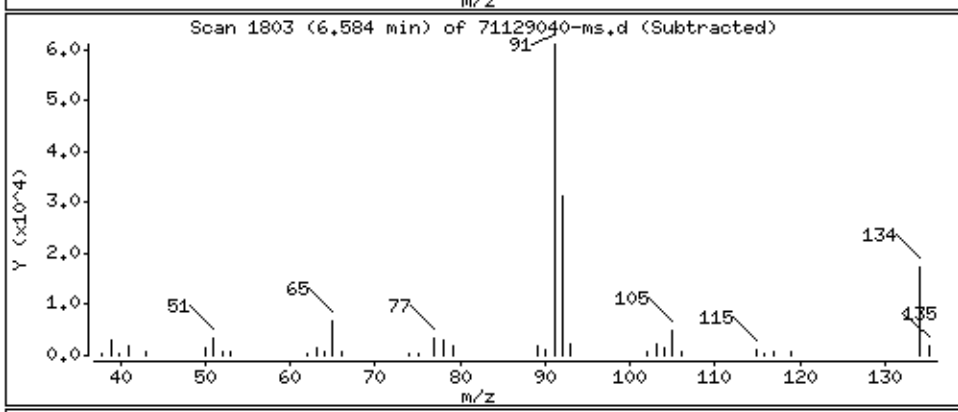
96 n-Butylbenzene

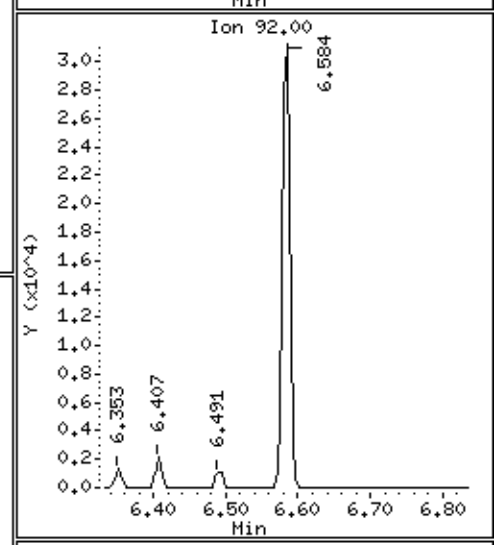
Concentration: 14.3 ug/L

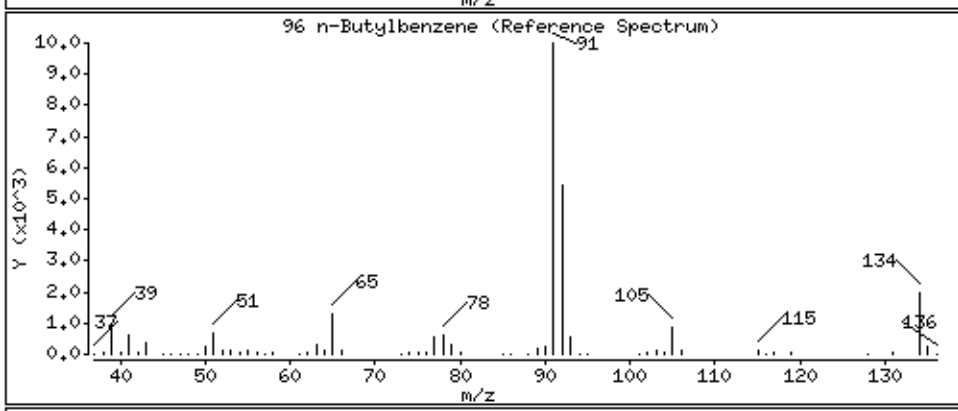
Review Code:

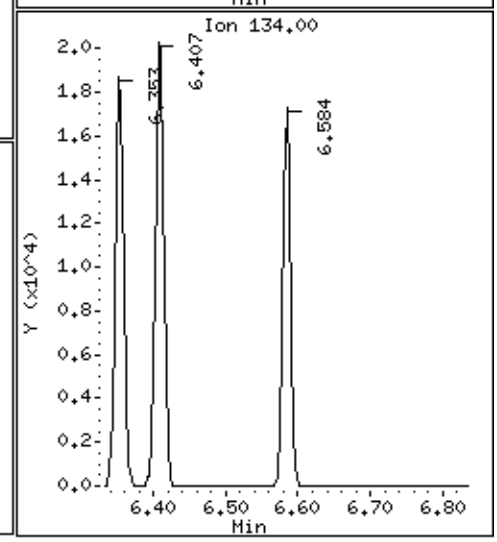


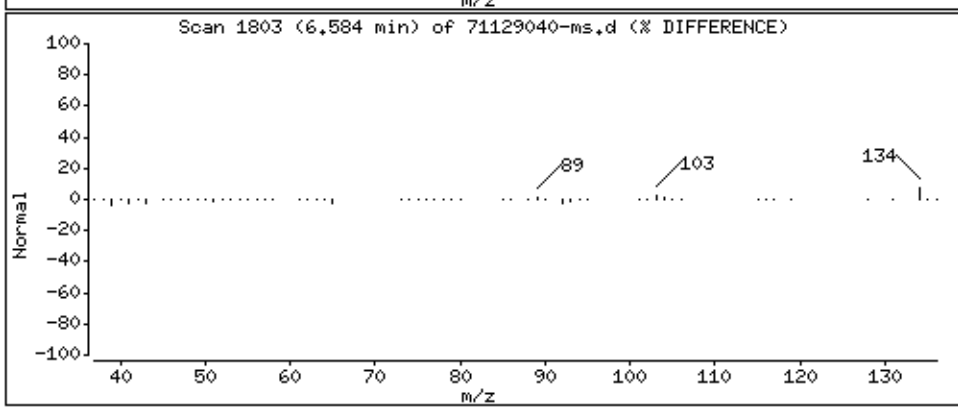












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

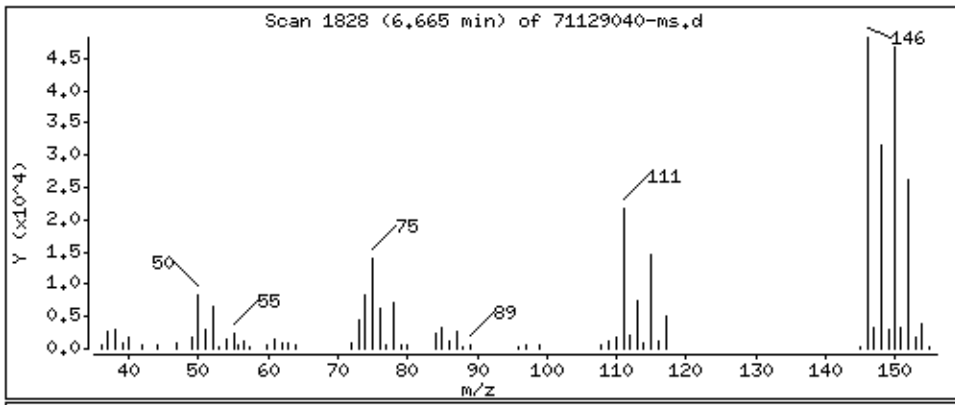
Column phase: RTX-VMS

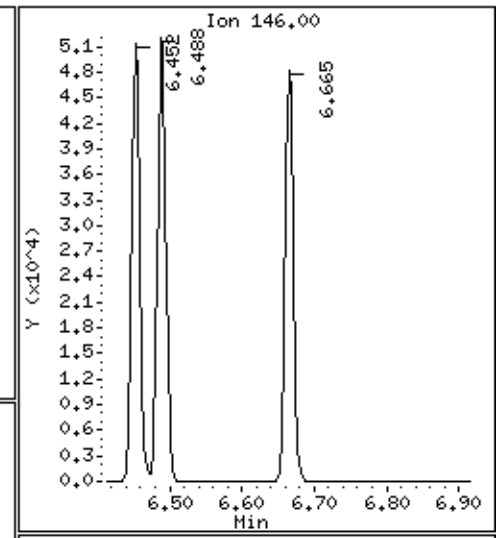
Column diameter: 0.18

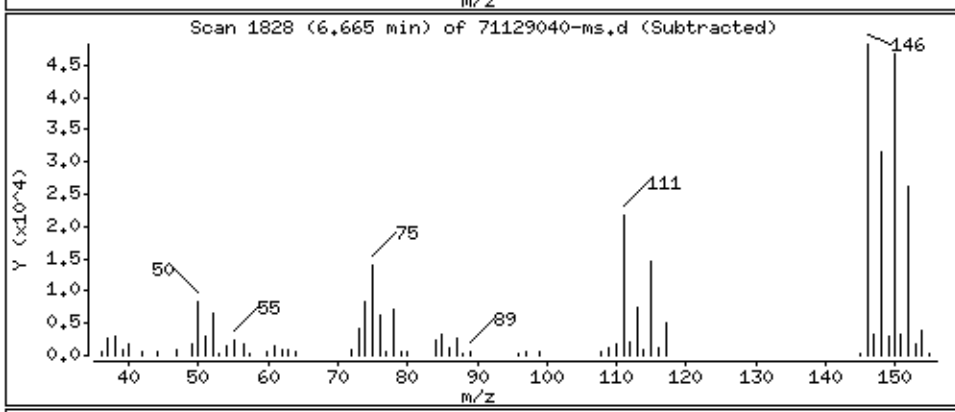
97 1,2-Dichlorobenzene

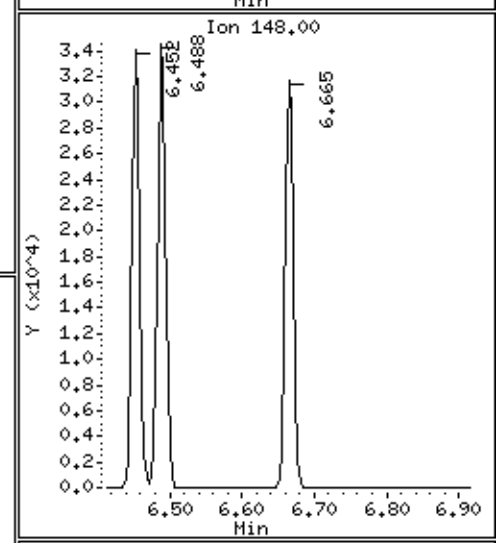
Concentration: 15.1 ug/L

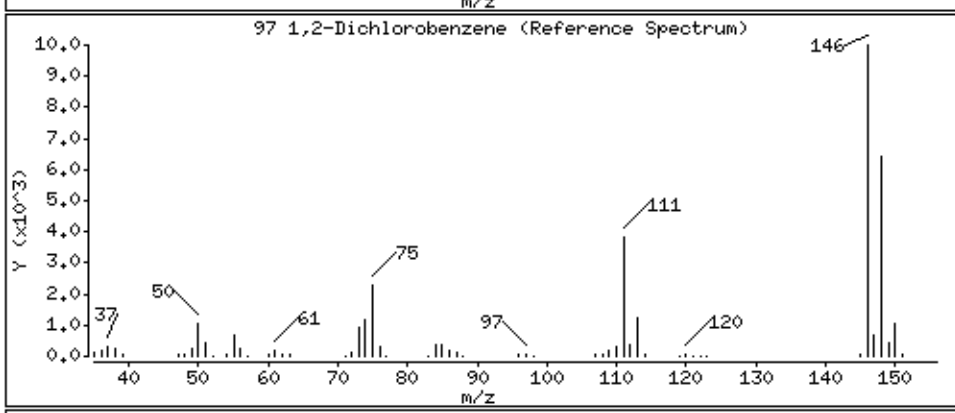
Review Code:

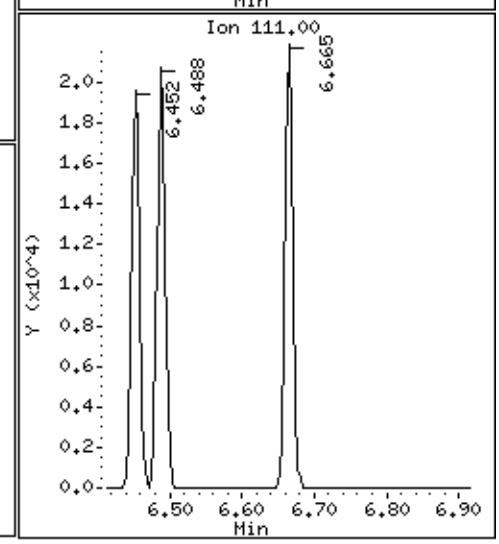


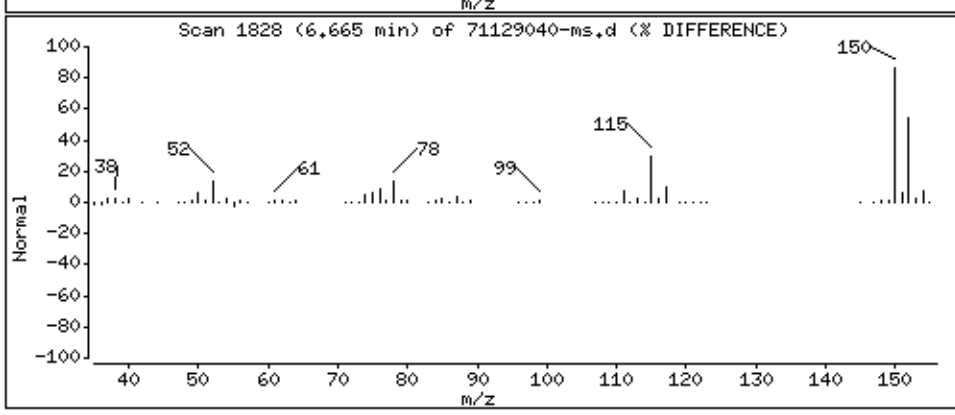












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

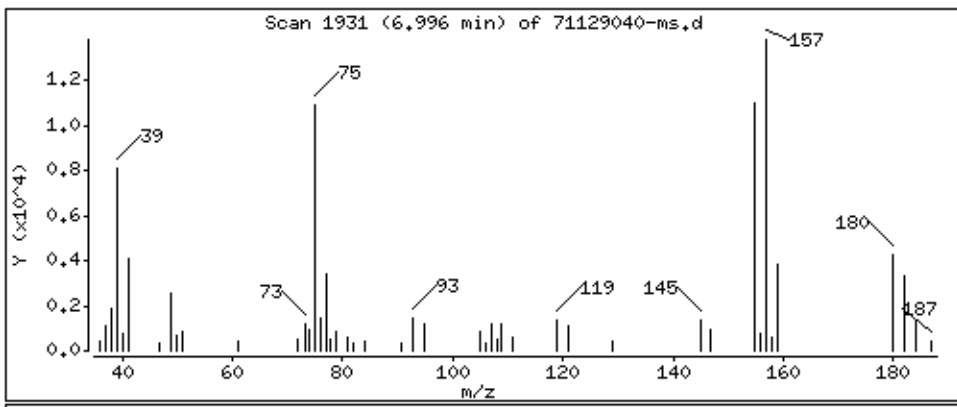
Column phase: RTX-VMS

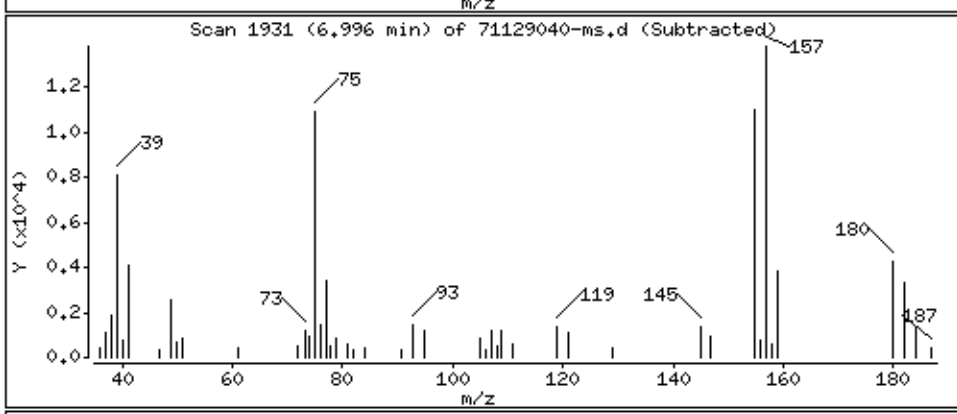
Column diameter: 0.18

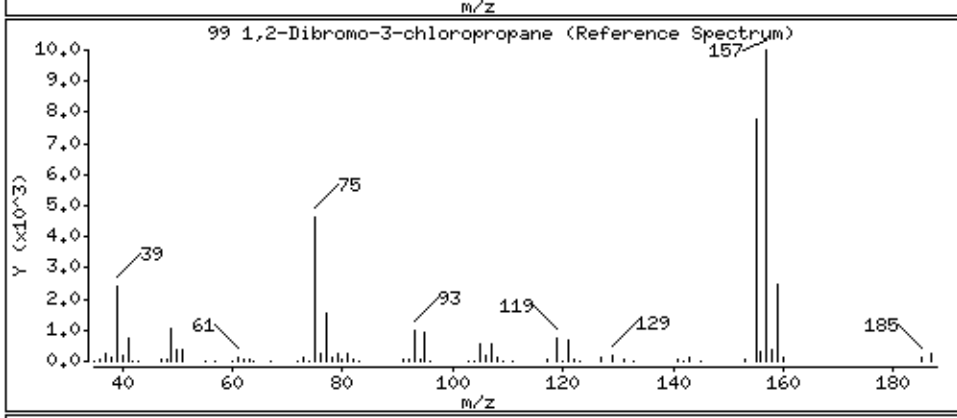
99 1,2-Dibromo-3-chloropropane

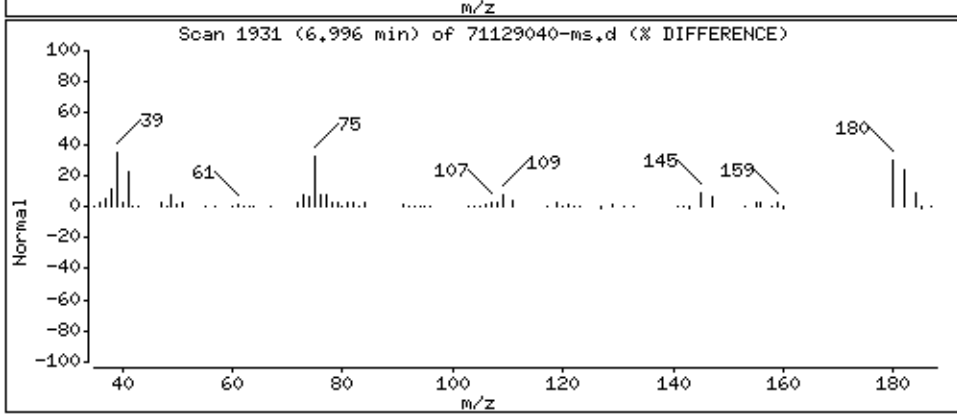
Concentration: 13.3 ug/L

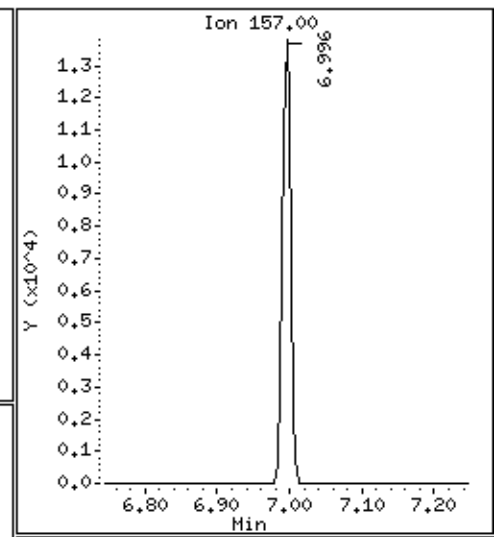
Review Code:

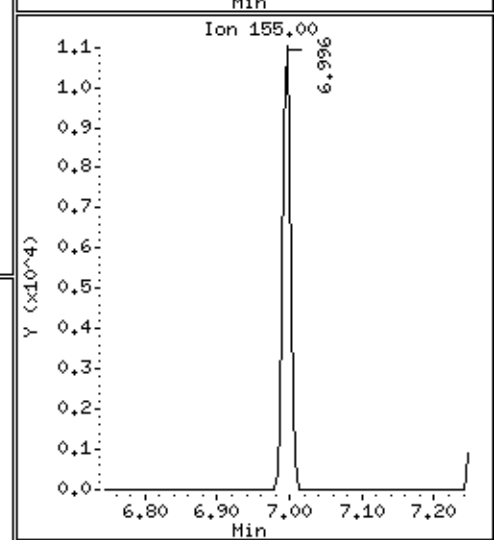


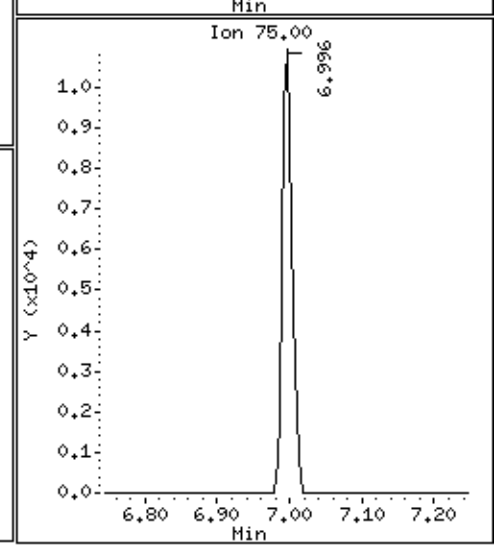












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

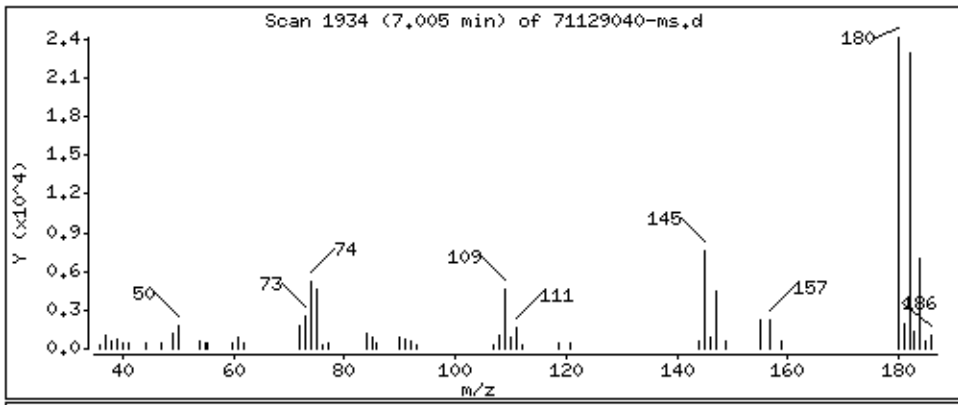
Column phase: RTX-VMS

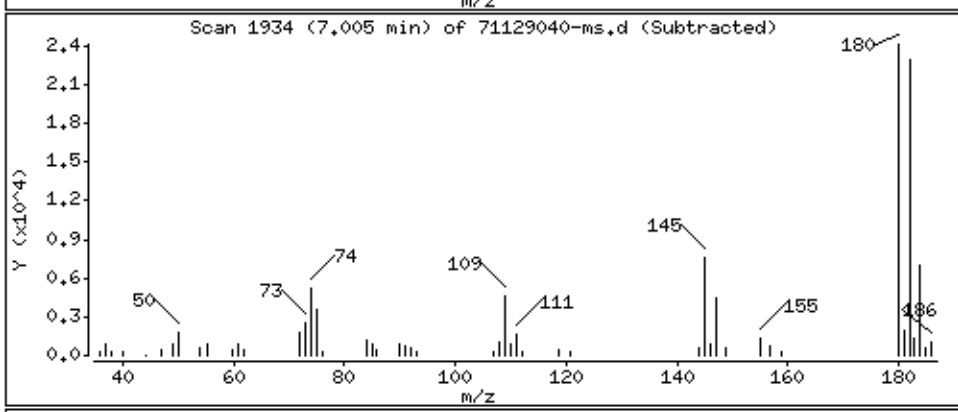
Column diameter: 0.18

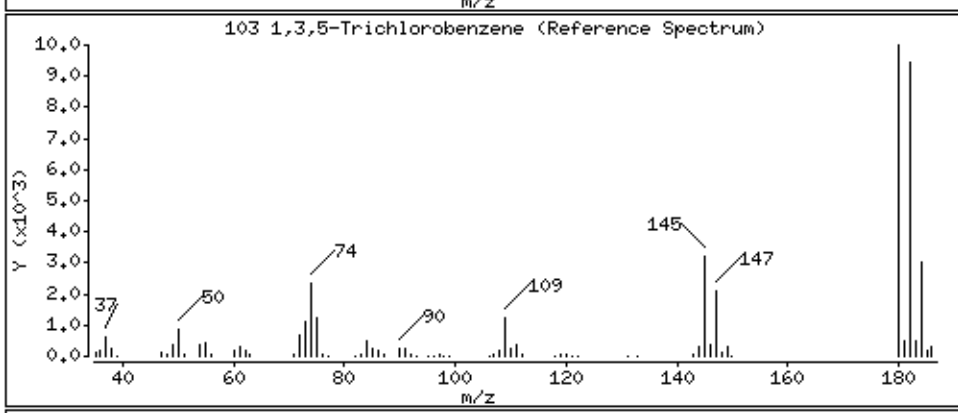
103 1,3,5-Trichlorobenzene

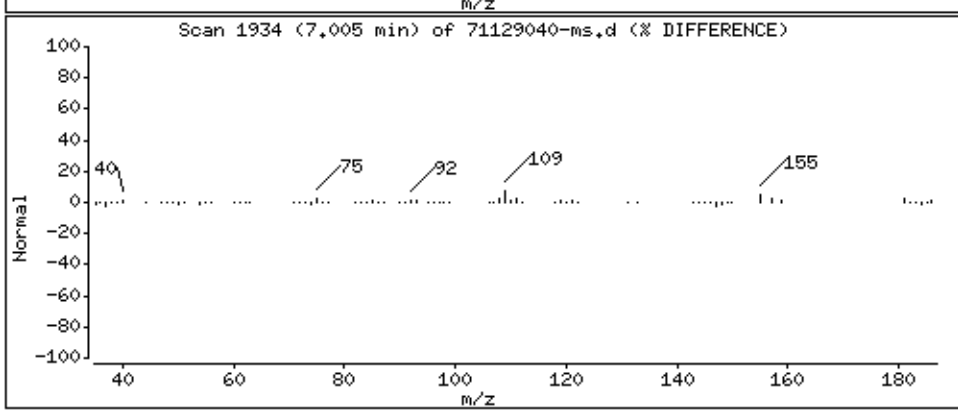
Concentration: 13.7 ug/L

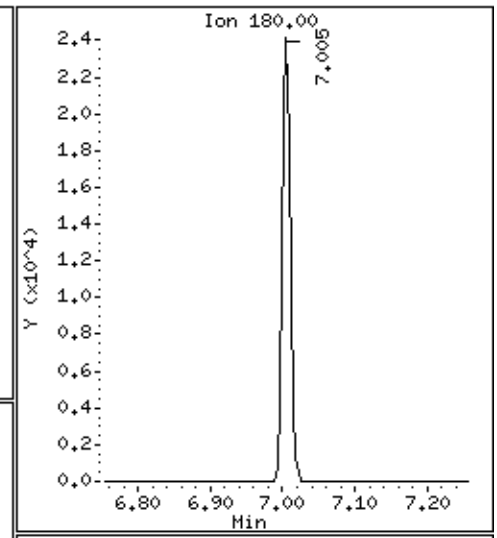
Review Code:

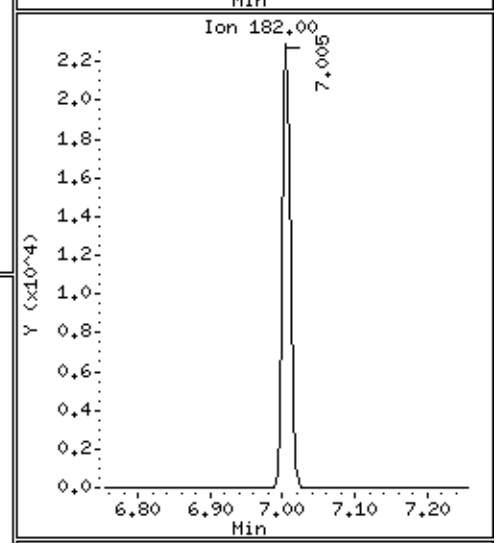


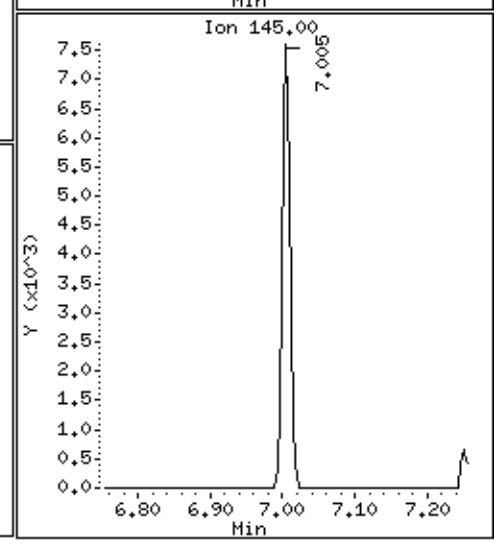












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

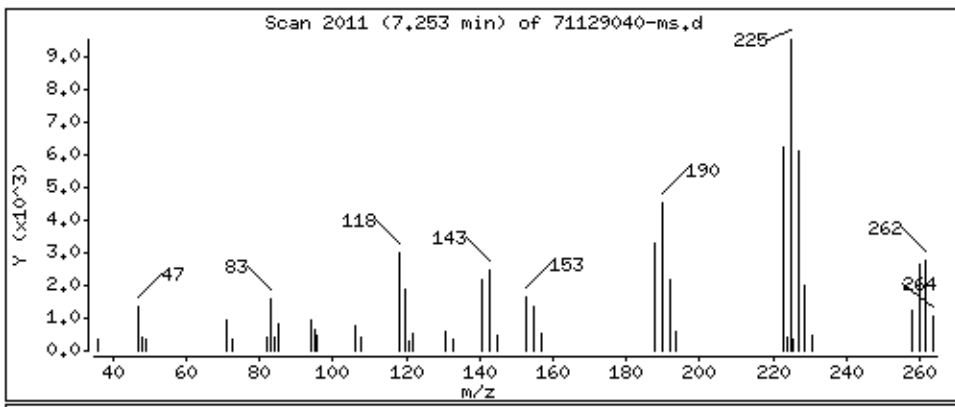
Column phase: RTX-VMS

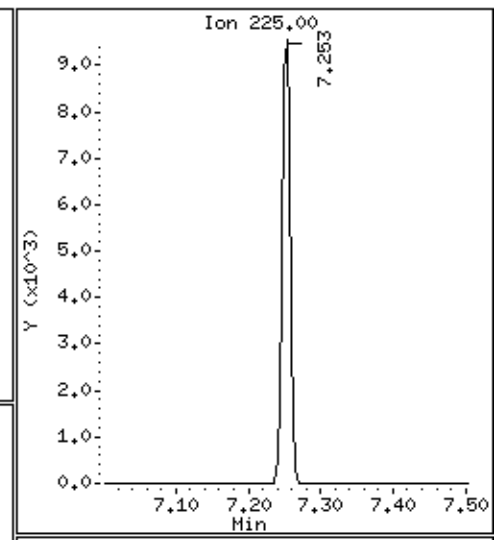
Column diameter: 0.18

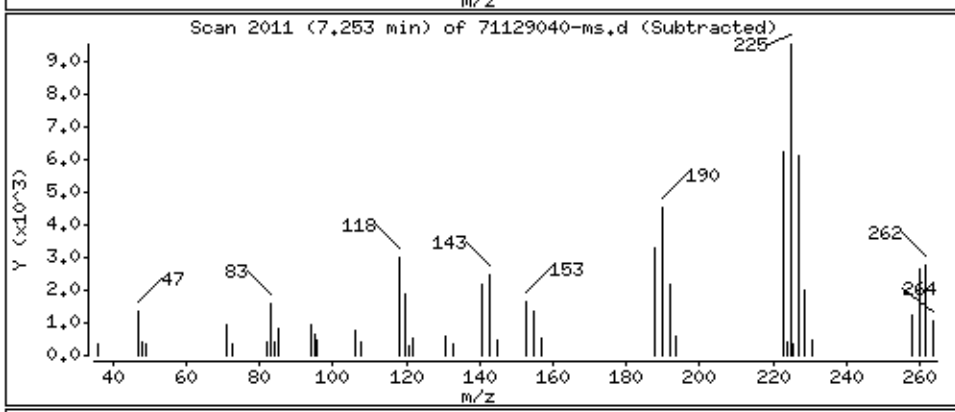
100 Hexachloro-1,3-butadiene

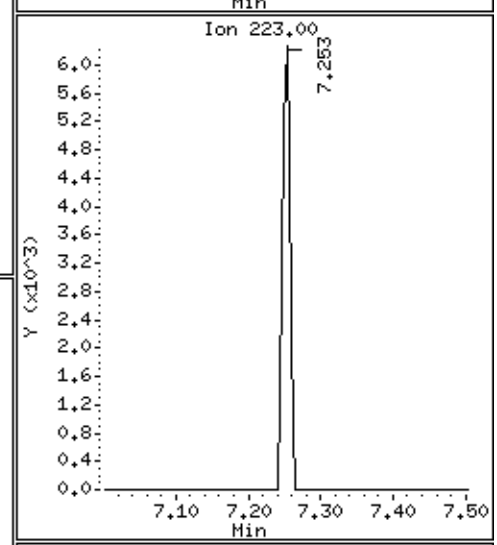
Concentration: 11.8 ug/L

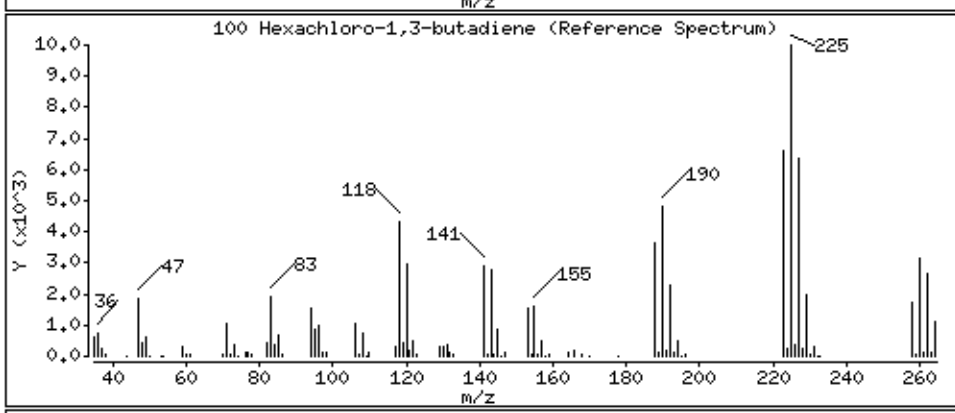
Review Code:

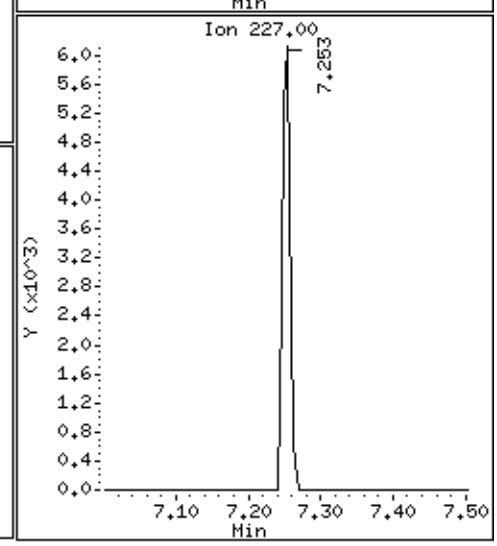


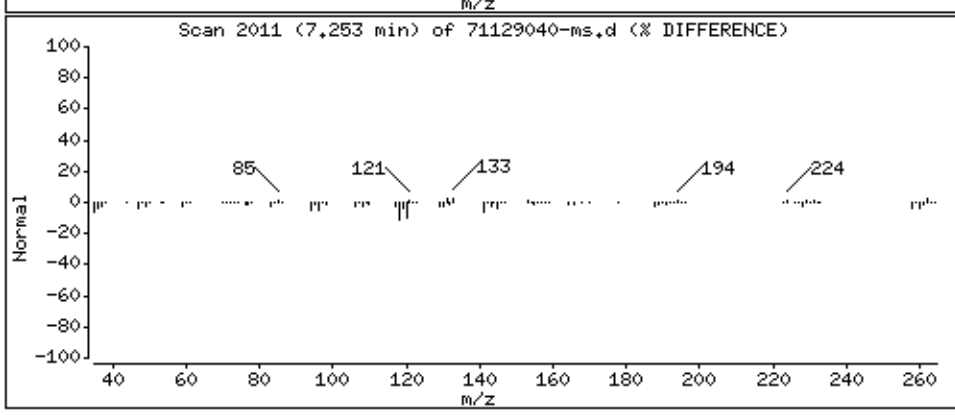












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Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

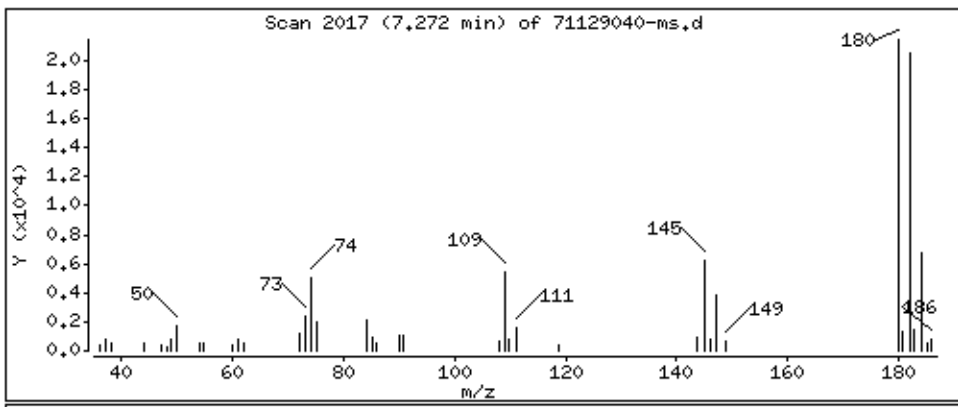
Column phase: RTX-VMS

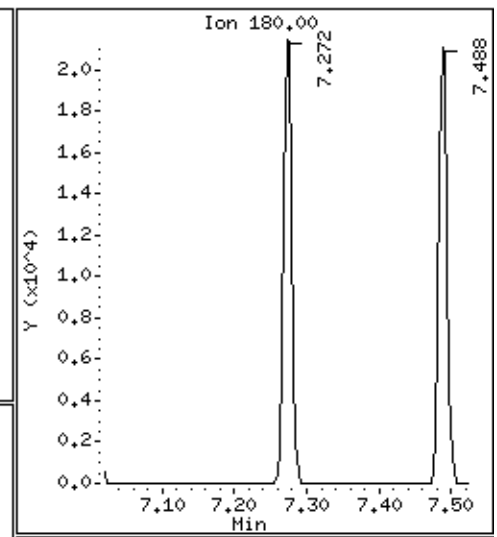
Column diameter: 0.18

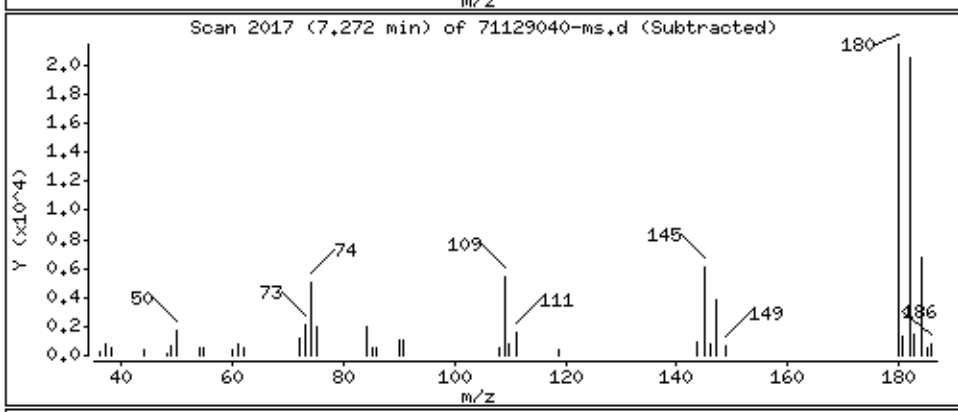
101 1,2,4-Trichlorobenzene

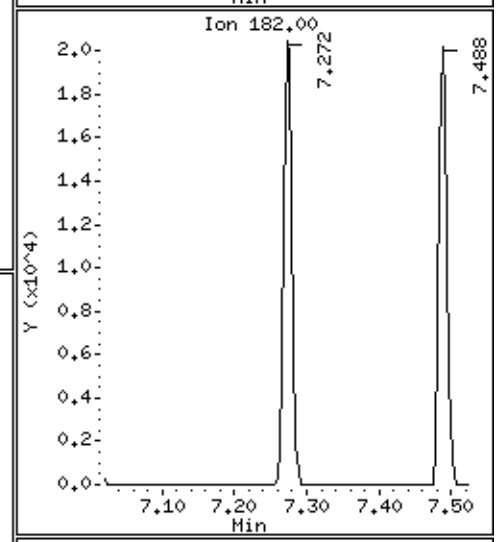
Concentration: 13.4 ug/L

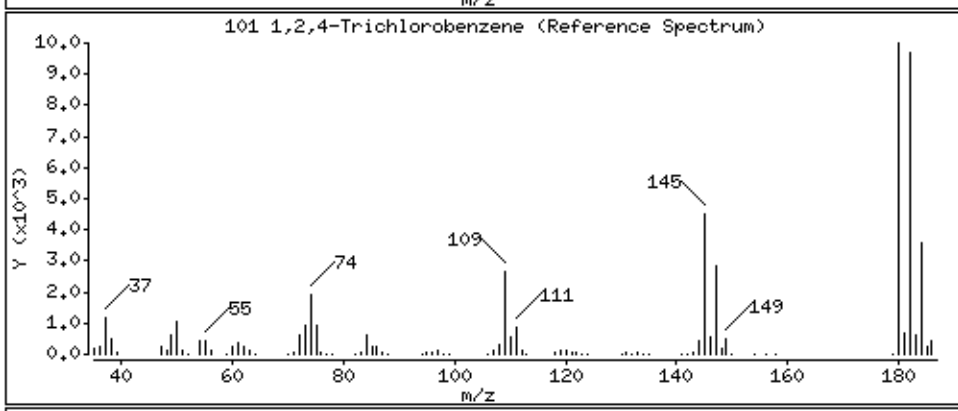
Review Code:

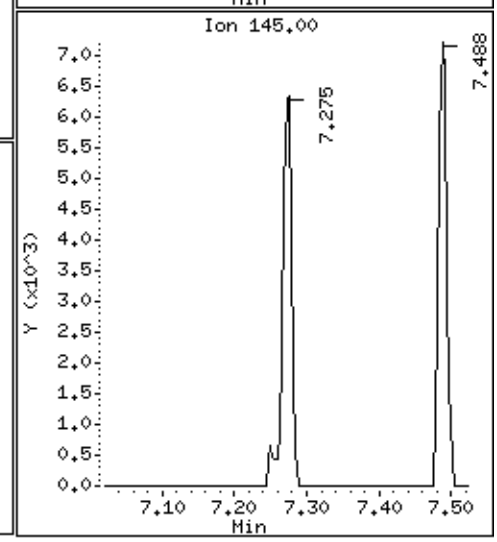


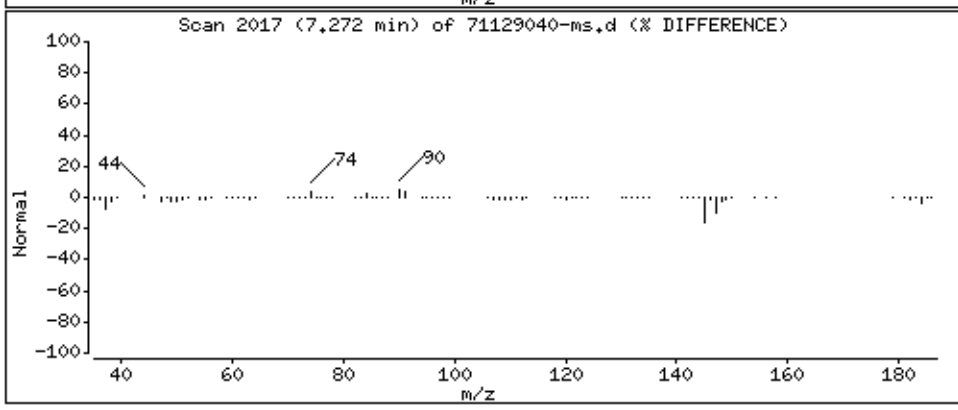












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

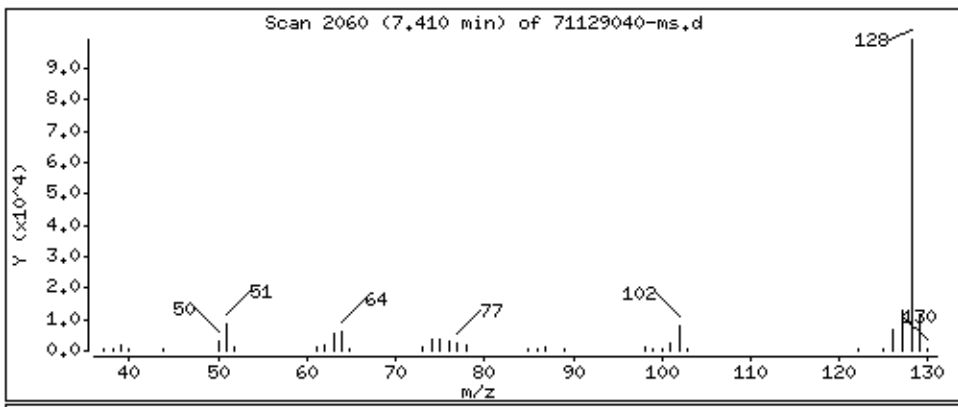
Column phase: RTX-VMS

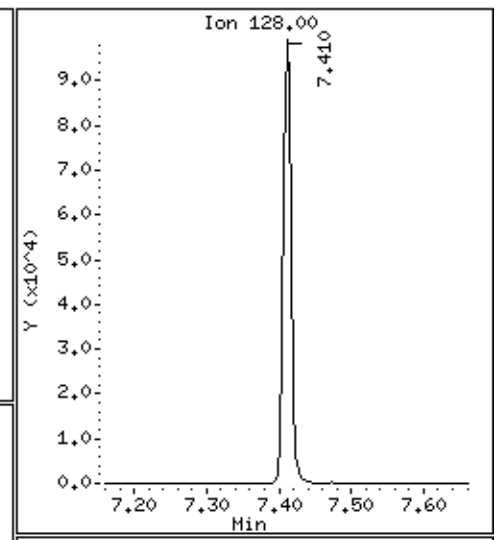
Column diameter: 0.18

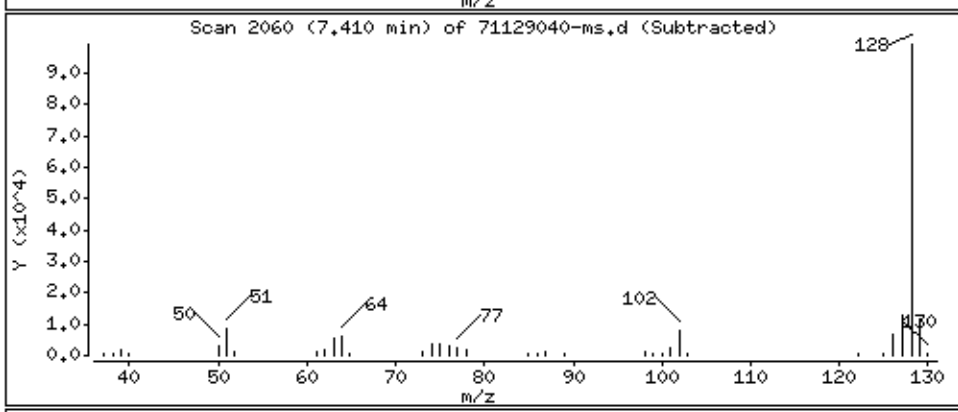
102 Naphthalene

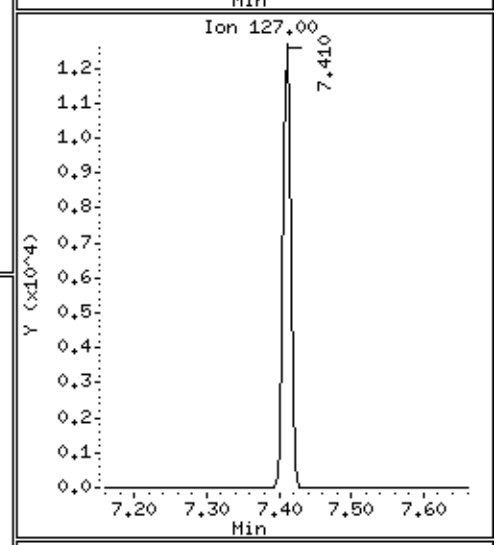
Concentration: 13.6 ug/L

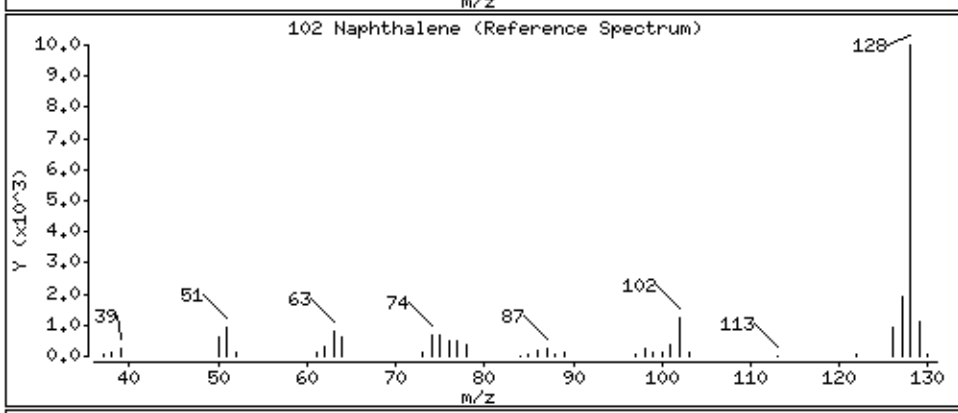
Review Code:

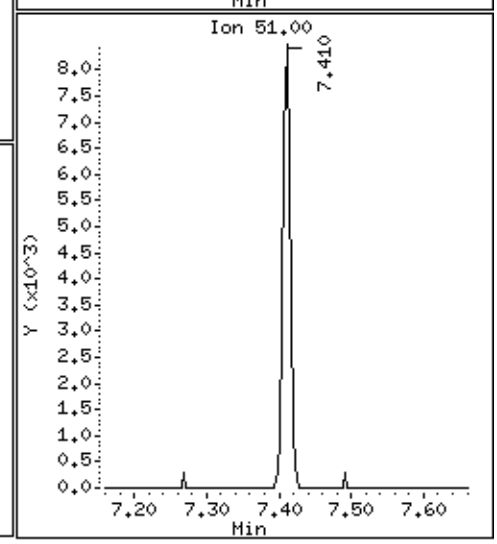


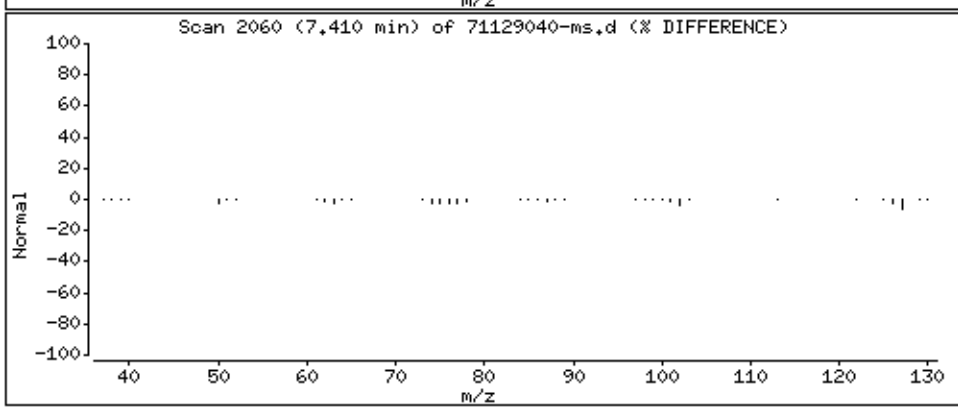












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

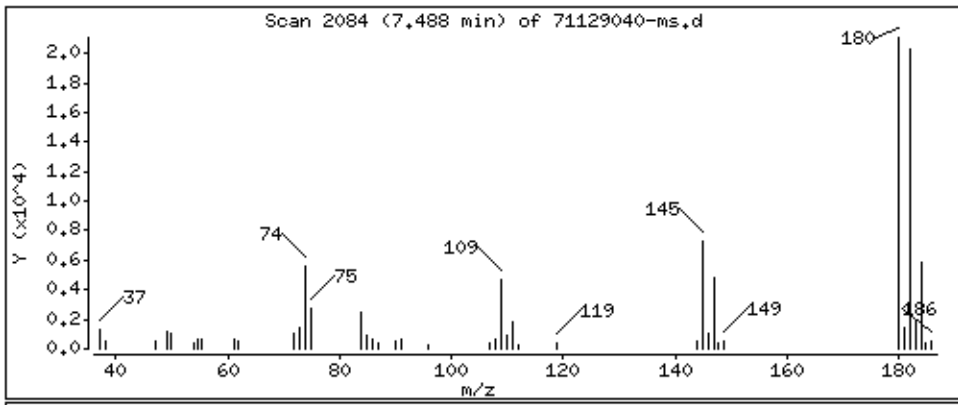
Column phase: RTX-VMS

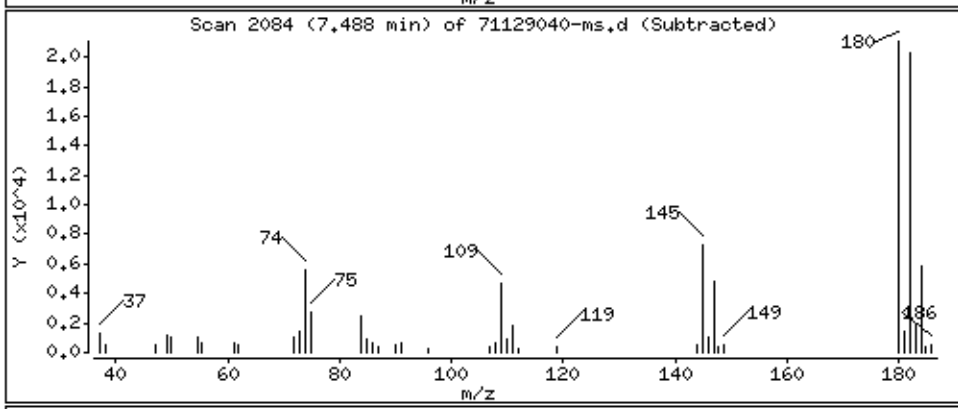
Column diameter: 0.18

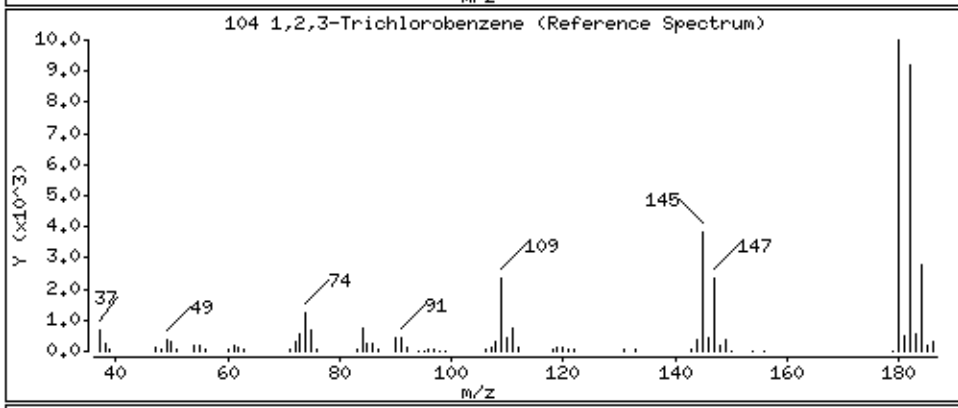
104 1,2,3-Trichlorobenzene

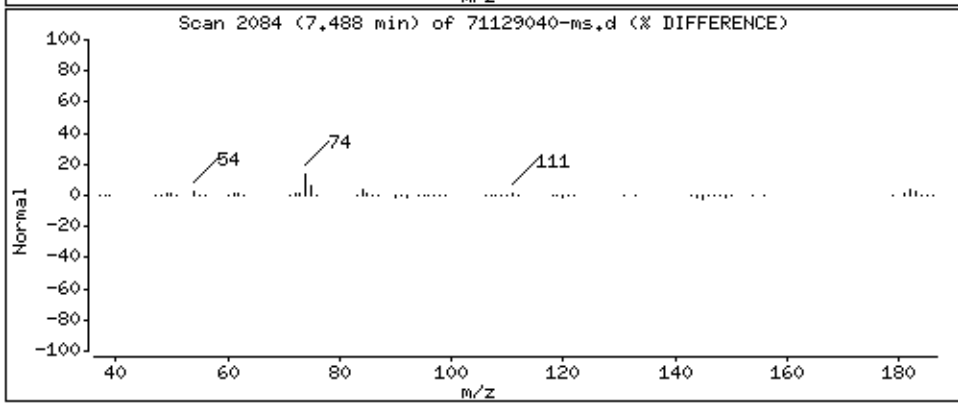
Concentration: 13.2 ug/L

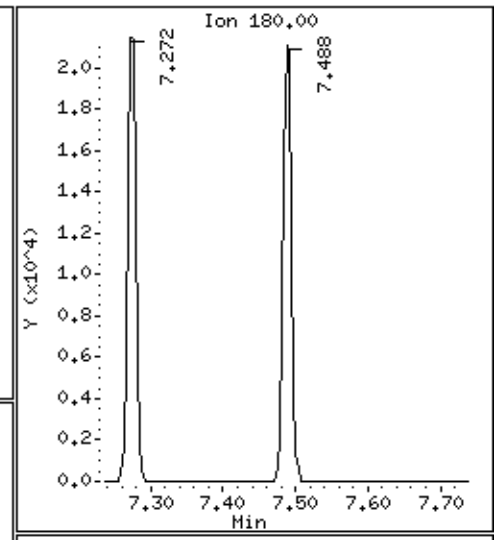
Review Code:

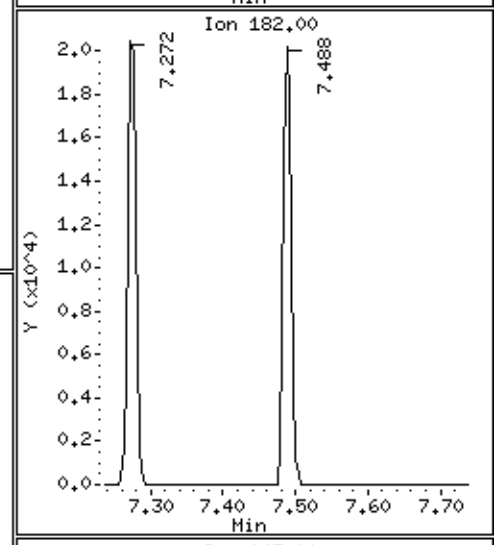


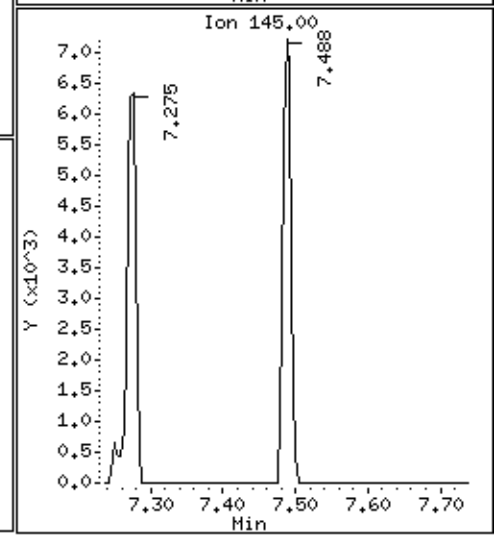












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129040-ms.d

Date : 29-NOV-2019 16:12

Client ID: MW-04MS

Instrument: 30mv7b.i

Sample Info: 1811547

Purge Volume: 5.0

Operator: LEL

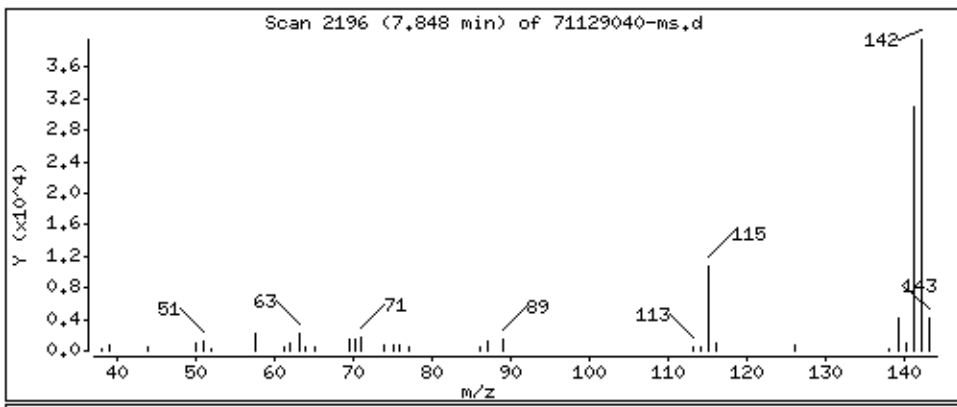
Column phase: RTX-VMS

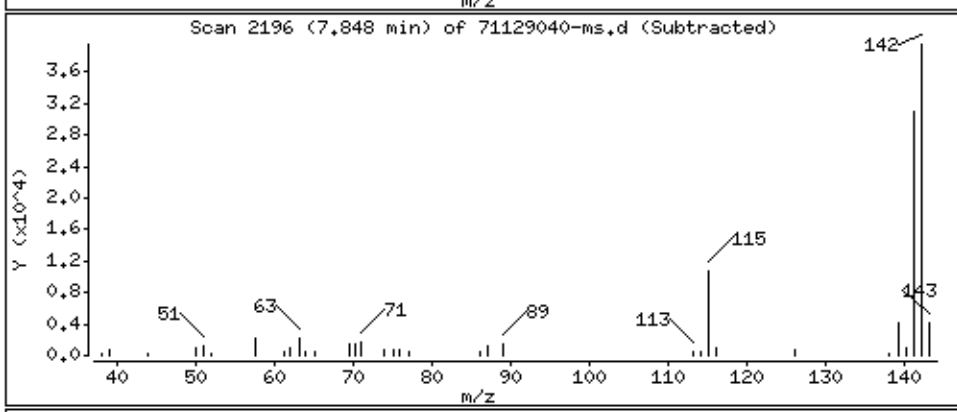
Column diameter: 0.18

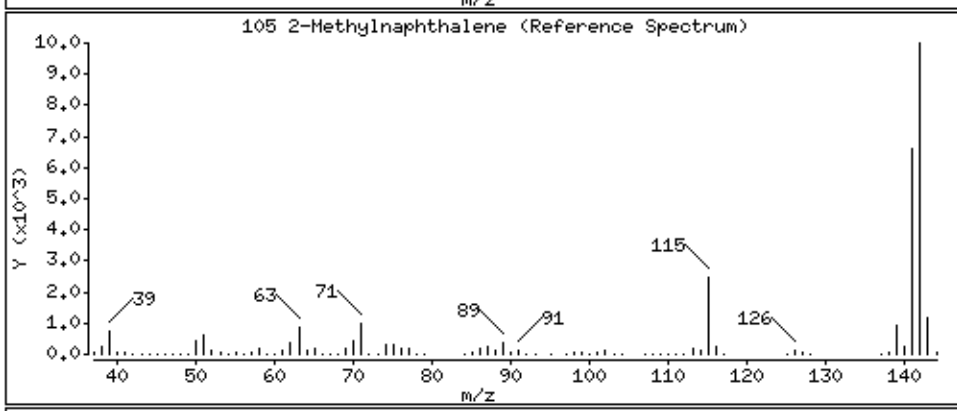
105 2-Methylnaphthalene

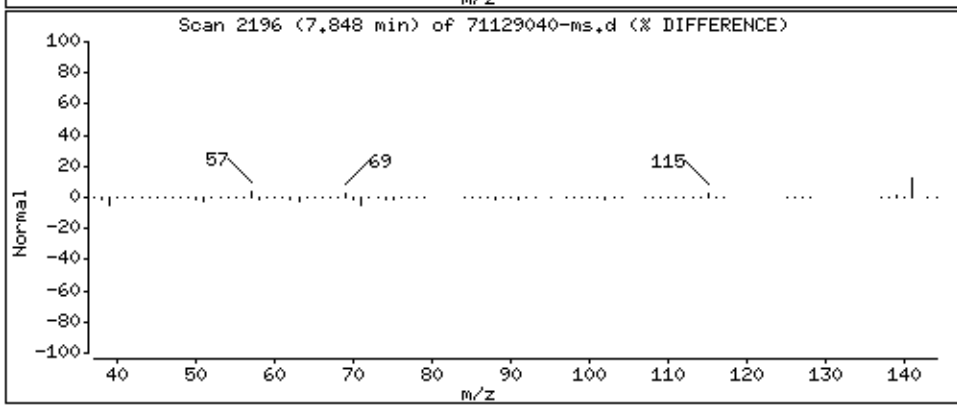
Concentration: 12.5 ug/L

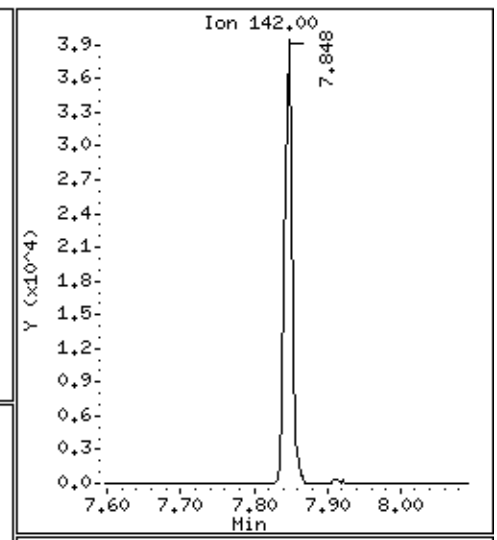
Review Code:

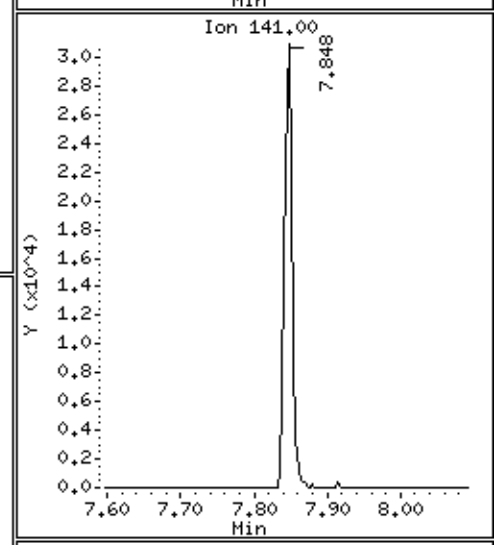


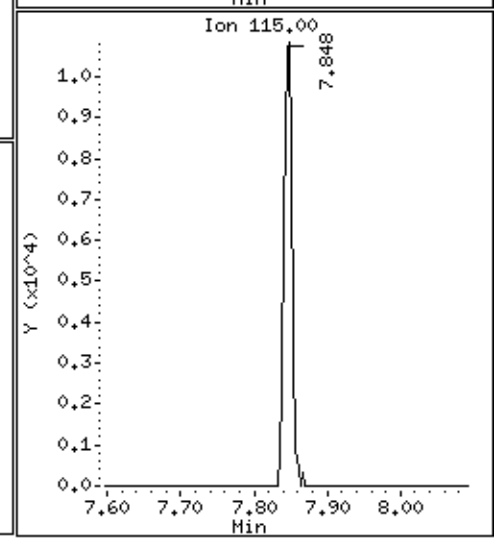












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129040-ms.d
Injection Date: 29-NOV-2019 16:12
Instrument: 30mv7b.i
Lab Sample ID: 1811547
NO SIGNAL MANUAL INTEGRATIONS DONE FOR THIS DATA FILE

SAMPLE NO.

MSD

MSV - FORM I VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:37 Lab Sample ID: 1811548

Date Analyzed: 11/29/2019 16:37 Lab File ID: 7191129.B\2.B\71129042-MSD.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
67-64-1	Acetone	19.0	
71-43-2	Benzene	13.6	
108-86-1	Bromobenzene	12.9	
74-97-5	Bromochloromethane	14.3	
75-27-4	Bromodichloromethane	14.6	
75-25-2	Bromoform	10.8	
74-83-9	Bromomethane	6.6	
78-93-3	2-Butanone (MEK)	17.1	
104-51-8	n-Butylbenzene	12.5	
135-98-8	sec-Butylbenzene	13.7	
98-06-6	tert-Butylbenzene	14.2	
75-15-0	Carbon disulfide	12.0	
56-23-5	Carbon tetrachloride	15.5	
108-90-7	Chlorobenzene	14.9	
75-00-3	Chloroethane	20.5	
110-75-8	2-Chloroethylvinyl ether	ND	U
67-66-3	Chloroform	14.1	
74-87-3	Chloromethane	16.4	
95-49-8	2-Chlorotoluene	14.4	
106-43-4	4-Chlorotoluene	13.5	
96-12-8	1,2-Dibromo-3-chloropropane	10.9	
124-48-1	Dibromochloromethane	13.1	
106-93-4	1,2-Dibromoethane (EDB)	13.5	
74-95-3	Dibromomethane	13.3	
95-50-1	1,2-Dichlorobenzene	13.8	
541-73-1	1,3-Dichlorobenzene	13.6	
106-46-7	1,4-Dichlorobenzene	13.4	
75-71-8	Dichlorodifluoromethane	20.7	
75-34-3	1,1-Dichloroethane	42.2	
107-06-2	1,2-Dichloroethane	15.6	
75-35-4	1,1-Dichloroethene	66.5	
156-59-2	cis-1,2-Dichloroethene	56.2	
156-60-5	trans-1,2-Dichloroethene	16.0	
78-87-5	1,2-Dichloropropane	15.2	
142-28-9	1,3-Dichloropropane	12.7	
594-20-7	2,2-Dichloropropane	14.1	
563-58-6	1,1-Dichloropropene	14.5	

SAMPLE NO.

MSV - FORM I VOA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

MSD

Lab Name: Pace Analytical - Pittsburgh Contract: 215042

Date Received: 11/22/2019 09:30 Matrix: Water SDG No.: 30337003

Date Extracted: 11/29/2019 16:37 Lab Sample ID: 1811548

Date Analyzed: 11/29/2019 16:37 Lab File ID: 7191129.B\2.B\71129042-MSD.D

Initial wt/vol: 5 mL Final wt/vol: 5 mL Dilution: 1 Instrument: 30MV7B Percent Moisture:

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q
10061-01-5	cis-1,3-Dichloropropene	13.8	
10061-02-6	trans-1,3-Dichloropropene	13.4	
100-41-4	Ethylbenzene	14.5	
87-68-3	Hexachloro-1,3-butadiene	11.0	
591-78-6	2-Hexanone	15.5	
98-82-8	Isopropylbenzene (Cumene)	15.5	
99-87-6	p-Isopropyltoluene	13.7	
75-09-2	Methylene Chloride	17.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.6	
1634-04-4	Methyl-tert-butyl ether	13.8	
91-20-3	Naphthalene	12.4	
103-65-1	n-Propylbenzene	14.0	
100-42-5	Styrene	14.9	
630-20-6	1,1,1,2-Tetrachloroethane	14.8	
79-34-5	1,1,2,2-Tetrachloroethane	13.0	
127-18-4	Tetrachloroethene	14.6	
108-88-3	Toluene	14.1	
87-61-6	1,2,3-Trichlorobenzene	11.9	
120-82-1	1,2,4-Trichlorobenzene	12.6	
71-55-6	1,1,1-Trichloroethane	182	
79-00-5	1,1,2-Trichloroethane	14.2	
79-01-6	Trichloroethene	323	
75-69-4	Trichlorofluoromethane	18.8	
95-63-6	1,2,4-Trimethylbenzene	13.6	
108-67-8	1,3,5-Trimethylbenzene	13.8	
108-05-4	Vinyl acetate	13.0	
75-01-4	Vinyl chloride	23.9	
1330-20-7	Xylene (Total)	42.5	
179601-23-1	m&p-Xylene	28.5	
95-47-6	o-Xylene	14.0	

Data File: ...ntarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

SW846-8260 / EPA 624

Data file : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Lab Smp Id: 1811548 Client Smp ID: MW-04MSD
Inj Date : 29-NOV-2019 16:37
Operator : LEL Inst ID: 30mv7b.i
Smp Info : 1811548
Misc Info : 47517
Comment : Heated Purge
Method : \\30wintarget\chem\30mv7b.i\7191129.B\2.b\msv7191112b.m
Meth Date : 29-Nov-2019 09:21 llambert Quant Type: ISTD
Cal Date : 12-NOV-2019 15:51 Cal File: 71112014.d
Als bottle: 42 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: RC10A

Concentration Formula: Amt * DF * Uf * 1/Vo * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	5.000	ng unit correction factor
Vo	5.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
1	Dichlorodifluoromethane	85	0.841	0.841	(0.207)	36970	20.6766	20.7	
2	Chloromethane	50	0.941	0.941	(0.231)	36942	16.3739	16.4	
3	Vinyl chloride	62	0.979	0.979	(0.241)	51631	23.9390	23.9	
4	Bromomethane	94	1.140	1.140	(0.280)	4755	6.64476	6.64	
5	Chloroethane	64	1.195	1.198	(0.294)	13195	20.5175	20.5	
6	Trichlorofluoromethane	101	1.269	1.269	(0.312)	56720	18.8433	18.8	
7	Diethyl ether (Ethyl ether)	59	1.436	1.439	(0.353)	23016	14.6467	14.6	
8	Ethanol	46	1.532	1.542	(0.236)	3831	171.131	171	
9	1,1-Dichloroethene	61	1.548	1.548	(0.381)	185791	66.5294	66.5(R)	
10	1,1,2-Trichlorotrifluoroethane	151	1.568	1.571	(0.386)	21465	14.2261	14.2	
11	Carbon disulfide	76	1.568	1.568	(0.386)	56200	11.9727	12.0	
12	Iodomethane	142	1.635	1.635	(0.402)	5732	6.61895	6.62	
13	Acrolein	56	1.751	1.754	(0.431)	6937	14.3242	14.3(M)	LT
14	Allyl chloride	41	1.834	1.835	(0.451)	202108	84.8975	84.9	
15	Methylene Chloride	49	1.905	1.902	(0.469)	34952	17.5679	17.6	
16	Acetone	58	1.950	1.944	(0.480)	7279	19.0325	19.0	
17	trans-1,2-Dichloroethene	61	2.008	2.008	(0.494)	38187	16.0113	16.0	
18	Methyl acetate	74	2.027	2.024	(0.499)	12408	16.3329	16.3(Q)	
19	n-Hexane	86	2.056	2.063	(0.506)	3493	12.3506	12.4	
20	Methyl-tert-butyl ether	73	2.088	2.089	(0.514)	67092	13.8498	13.8(QR)	
21	tert-Butyl Alcohol	59	2.175	2.172	(0.535)	60210	83.3722	83.4(Q)	
22	Acetonitrile	41	2.285	2.278	(0.562)	34244	86.1357	86.1	
23	Diisopropyl ether	45	2.375	2.375	(0.584)	87363	16.7333	16.7	

Data File: ...ntarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Report Date: 02-Dec-2019 10:32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	24 Chloroprene	53	2.449	2.452	(0.602)	31420	17.3442	17.3	
	25 1,1-Dichloroethane	63	2.474	2.471	(0.609)	124028	42.1594	42.2(R)	
	26 Acrylonitrile	53	2.529	2.526	(0.622)	20875	16.8768	16.9	
	27 Ethyl-tert-butyl ether	59	2.690	2.687	(0.662)	77156	15.4883	15.5	
	28 Vinyl acetate	43	2.706	2.706	(0.666)	59174	13.0350	13.0(R)	
	29 cis-1,2-Dichloroethene	61	2.963	2.957	(0.729)	126452	56.2276	56.2(R)	
	30 2,2-Dichloropropane	77	3.066	3.066	(0.754)	31597	14.0664	14.1	
	31 Cyclohexane	56	3.143	3.146	(0.773)	43944	16.4213	16.4	
	32 Bromochloromethane	130	3.159	3.159	(0.777)	15977	14.2836	14.3	
	33 Chloroform	83	3.252	3.246	(0.800)	40109	14.1099	14.1	
	34 Ethyl acetate	43	3.410	3.407	(0.839)	24181	15.7402	15.7(Q)	
	35 Carbon tetrachloride	117	3.362	3.365	(0.827)	35491	15.5323	15.5	
	36 Tetrahydrofuran	42	3.416	3.407	(0.840)	27018	20.4839	20.5	
$	37 Dibromofluoromethane (S)	111	3.436	3.433	(0.845)	48429	32.0766	32.1	
	38 1,1,1-Trichloroethane	97	3.439	3.439	(0.846)	446134	182.473	182(R)	
	39 2-Butanone (MEK)	43	3.590	3.584	(0.883)	34150	17.0802	17.1	
	40 1,1-Dichloropropene	75	3.577	3.571	(0.880)	32283	14.4564	14.4(M)	LT
	41 Benzene	78	3.783	3.780	(0.930)	89162	13.6053	13.6(R)	
	42 Propionitrile	54	3.821	3.822	(0.940)	7779	16.2868	16.3(M)	LT
	43 Methacrylonitrile	41	3.834	3.831	(0.943)	25648	16.5854	16.6	
	44 tert-Amylmethyl ether	73	3.886	3.886	(0.956)	56048	13.4067	13.4	
$	46 1,2-Dichloroethane-d4 (S)	65	3.886	3.883	(0.956)	50607	32.5817	32.6	
	45 Isobutanol	43	3.998	3.992	(0.983)	17425	86.2203	86.2(QM)	GT
	47 1,2-Dichloroethane	62	3.934	3.931	(0.968)	32179	15.5713	15.6	
*	48 Fluorobenzene (IS)	96	4.066	4.066	(1.000)	174643	30.0000		
	49 Methylcyclohexane	55	4.149	4.150	(1.021)	25120	15.9792	16.0(Q)	
	50 Trichloroethene	132	4.166	4.162	(1.025)	609108	323.117	323(R)	
	51 Dibromomethane	174	4.384	4.384	(1.078)	17253	13.2633	13.3	
	52 1,2-Dichloropropane	63	4.432	4.433	(1.090)	23494	15.2297	15.2	
	53 Bromodichloromethane	83	4.471	4.468	(1.100)	25828	14.6118	14.6	
	54 Methyl methacrylate	69	4.551	4.551	(1.119)	19179	14.1161	14.1	
	55 1,4-Dioxane (p-Dioxane)	88	4.567	4.568	(1.123)	5092	173.822	174(Q)	
	56 2-Chloroethylvinyl ether	63	Compound Not Detected.						
	57 cis-1,3-Dichloropropene	75	4.747	4.744	(1.168)	30231	13.7929	13.8	
$	58 Toluene-d8 (S)	98	4.825	4.822	(0.875)	153548	28.6768	28.7	
	59 Toluene	91	4.847	4.844	(0.879)	96641	14.0787	14.1	
	60 2-Nitropropane	43	4.960	4.957	(1.220)	70869	84.1098	84.1	
	61 4-Methyl-2-pentanone (MIBK)	43	5.024	5.024	(1.236)	49218	17.6177	17.6	
	62 Tetrachloroethene	166	5.021	5.021	(0.911)	27603	14.6136	14.6	
	63 trans-1,3-Dichloropropene	75	5.040	5.040	(0.914)	28115	13.4383	13.4	
	64 Ethyl methacrylate	41	5.111	5.111	(0.927)	23889	16.7212	16.7	
	65 1,1,2-Trichloroethane	97	5.114	5.111	(0.928)	21688	14.2253	14.2	
	66 Dibromochloromethane	129	5.191	5.191	(0.942)	22068	13.1037	13.1	
	67 1,3-Dichloropropane	76	5.233	5.233	(0.949)	32645	12.7394	12.7(R)	
	68 1,2-Dibromoethane (EDB)	107	5.294	5.294	(0.960)	23703	13.5414	13.5	
	69 2-Hexanone	43	5.391	5.391	(0.978)	38217	15.4986	15.5	
*	70 Chlorobenzene-d5 (IS)	117	5.513	5.513	(1.000)	119033	30.0000		
	71 Ethylbenzene	106	5.526	5.526	(1.002)	31177	14.4555	14.4	
	72 Chlorobenzene	112	5.519	5.519	(1.001)	60875	14.8503	14.8	
	73 1,1,1,2-Tetrachloroethane	131	5.545	5.545	(1.006)	22414	14.7524	14.8	
	74 m&p-Xylene	106	5.587	5.587	(1.013)	74360	28.4509	28.4(R)	
	75 o-Xylene	106	5.770	5.770	(1.047)	35523	14.0148	14.0(R)	
	76 Styrene	104	5.792	5.793	(1.051)	57028	14.8518	14.8	
	77 Bromoform	173	5.809	5.809	(0.896)	14174	10.7810	10.8	

Data File: ...ntarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Report Date: 02-Dec-2019 10:32

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)	REVIEW C
	78 Isopropylbenzene (Cumene)	105	5.899	5.899	(0.910)	82555	15.4868	15.5(R)	
$	79 4-Bromofluorobenzene (S)	174	6.021	6.021	(0.929)	47362	28.7551	28.8	
	80 n-Propylbenzene	91	6.069	6.069	(0.936)	82721	13.9569	14.0(R)	
	81 Bromobenzene	77	6.066	6.066	(0.936)	33748	12.9441	12.9(R)	
	82 1,1,2,2-Tetrachloroethane	83	6.101	6.101	(0.941)	29054	12.9751	13.0	
	83 1,3,5-Trimethylbenzene	105	6.146	6.146	(0.948)	56639	13.7512	13.8(R)	
	84 2-Chlorotoluene	126	6.140	6.140	(0.947)	20089	14.3755	14.4	
	85 1,2,3-Trichloropropane	110	6.162	6.159	(0.951)	10673	13.3834	13.4(R)	
	86 trans-1,4-Dichloro-2-butene	53	6.175	6.172	(0.953)	6404	8.87997	8.88(Q)	
	87 Cyclohexanone	55	6.185	6.185	(0.954)	12399	57.1691	57.2	
	88 4-Chlorotoluene	126	6.207	6.207	(0.958)	20041	13.5491	13.5(R)	
	89 tert-Butylbenzene	119	6.281	6.278	(0.969)	47239	14.1546	14.2(R)	
	90 1,2,4-Trimethylbenzene	105	6.307	6.307	(0.973)	55670	13.6174	13.6(R)	
	91 sec-Butylbenzene	105	6.352	6.352	(0.980)	61115	13.6913	13.7(R)	
	92 p-Isopropyltoluene	119	6.410	6.407	(0.989)	51683	13.6757	13.7	
	93 1,3-Dichlorobenzene	146	6.455	6.452	(0.996)	34928	13.6255	13.6	
*	94 1,4-Dichlorobenzene-d4 (IS)	152	6.481	6.481	(1.000)	52843	30.0000		
	95 1,4-Dichlorobenzene	146	6.490	6.487	(1.001)	36862	13.4090	13.4(R)	
	96 n-Butylbenzene	91	6.583	6.584	(1.016)	36726	12.5429	12.5(R)	
$	98 1,2-Dichlorobenzene-d4 (S)	152	6.661	6.661	(1.028)	24005	29.7937	29.8	
	97 1,2-Dichlorobenzene	146	6.664	6.664	(1.028)	34582	13.8250	13.8	
	99 1,2-Dibromo-3-chloropropane	157	6.995	6.995	(1.079)	8960	10.9309	10.9	
	103 1,3,5-Trichlorobenzene	180	7.005	7.005	(1.081)	16846	12.5018	12.5(R)	
	100 Hexachloro-1,3-butadiene	225	7.252	7.252	(1.119)	6711	10.9746	11.0	
	101 1,2,4-Trichlorobenzene	180	7.275	7.272	(1.123)	15702	12.6189	12.6	
	102 Naphthalene	128	7.410	7.410	(1.143)	68104	12.3882	12.4(R)	
	104 1,2,3-Trichlorobenzene	180	7.487	7.487	(1.155)	14717	11.8606	11.9	
	105 2-Methylnaphthalene	142	7.847	7.847	(1.211)	27229	11.8677	11.9	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Review Codes Legend

:
LT: Indicates that the peak in question was inappropriately integrated to an area less than what it should be (e.g., Peak area was cut).
GT: Indicates that the peak in question was inappropriately integrated to an area greater than it should be (e.g., Peak tailing).

Data File: ...ntarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 1811548
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-04MSD
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
75-69-4	Dichlorodifluoromethane	20.7	
74-87-3	Chloromethane	16.4	
75-01-4	Vinyl chloride	23.9	
74-83-9	Bromomethane	6.64	
75-00-3	Chloroethane	20.5	
75-69-4	Trichlorofluoromethane	18.8	
60-29-7	Diethyl ether (Ethyl ether)	14.6	
64-17-5	Ethanol	171	
75-35-4	1,1-Dichloroethene	66.5	
76-13-1	1,1,2-Trichlorotrifluoroetha	14.2	
75-15-0	Carbon disulfide	12.0	
74-88-4	Iodomethane	6.62	
107-02-8	Acrolein	14.3	
107-05-1	Allyl chloride	84.9	
75-09-2	Methylene Chloride	17.6	
67-64-1	Acetone	19.0	
156-60-5	trans-1,2-Dichloroethene	16.0	
79-20-9	Methyl acetate	16.3	
110-54-3	n-Hexane	12.4	
1634-04-4	Methyl-tert-butyl ether	13.8	
75-65-0	tert-Butyl Alcohol	83.4	
75-05-8	Acetonitrile	86.1	
108-20-3	Diisopropyl ether	16.7	
126-99-8	Chloroprene	17.3	
75-34-3	1,1-Dichloroethane	42.2	
107-13-1	Acrylonitrile	16.9	
637-92-3	Ethyl-tert-butyl ether	15.5	
108-05-4	Vinyl acetate	13.0	
156-59-2	cis-1,2-Dichloroethene	56.2	
594-20-7	2,2-Dichloropropane	14.1	
110-82-7	Cyclohexane	16.4	
74-97-5	Bromochloromethane	14.3	
67-66-3	Chloroform	14.1	
141-78-6	Ethyl acetate	15.7	
56-23-5	Carbon tetrachloride	15.5	
109-99-9	Tetrahydrofuran	20.5	
71-55-6	1,1,1-Trichloroethane	182	
78-93-3	2-Butanone (MEK)	17.1	
563-58-6	1,1-Dichloropropene	14.4	
71-43-2	Benzene	13.6	
107-12-0	Propionitrile	16.3	
126-98-7	Methacrylonitrile	16.6	

Data File: ...ntarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Report Date: 02-Dec-2019 10:32

Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 1811548
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-04MSD
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
994-05-8	tert-Amylmethyl ether	13.4	
78-83-1	Isobutanol	86.2	
107-06-2	1,2-Dichloroethane	15.6	
108-87-2	Methylcyclohexane	16.0	
79-01-6	Trichloroethene	323	
74-95-3	Dibromomethane	13.3	
78-87-5	1,2-Dichloropropane	15.2	
75-27-4	Bromodichloromethane	14.6	
80-62-6	Methyl methacrylate	14.1	
123-91-1	1,4-Dioxane (p-Dioxane)	174	
10061-01-5	cis-1,3-Dichloropropene	13.8	
108-88-3	Toluene	14.1	
79-46-9	2-Nitropropane	84.1	
108-10-1	4-Methyl-2-pentanone (MIBK)	17.6	
127-18-4	Tetrachloroethene	14.6	
10061-02-6	trans-1,3-Dichloropropene	13.4	
97-63-2	Ethyl methacrylate	16.7	
79-00-5	1,1,2-Trichloroethane	14.2	
124-48-1	Dibromochloromethane	13.1	
142-28-9	1,3-Dichloropropane	12.7	
106-93-4	1,2-Dibromoethane (EDB)	13.5	
591-78-6	2-Hexanone	15.5	
100-41-4	Ethylbenzene	14.4	
108-90-7	Chlorobenzene	14.8	
630-20-6	1,1,1,2-Tetrachloroethane	14.8	
7816-60-0	m&p-Xylene	28.4	
95-47-6	o-Xylene	14.0	
100-42-5	Styrene	14.8	
75-25-2	Bromoform	10.8	
98-82-8	Isopropylbenzene (Cumene)	15.5	
103-65-1	n-Propylbenzene	14.0	
108-86-1	Bromobenzene	12.9	
79-34-5	1,1,2,2-Tetrachloroethane	13.0	
108-67-8	1,3,5-Trimethylbenzene	13.8	
95-49-8	2-Chlorotoluene	14.4	
96-18-4	1,2,3-Trichloropropane	13.4	
110-57-6	trans-1,4-Dichloro-2-butene	8.88	
108-94-1	Cyclohexanone	57.2	
106-43-4	4-Chlorotoluene	13.5	
98-06-6	tert-Butylbenzene	14.2	
95-63-6	1,2,4-Trimethylbenzene	13.6	
135-98-8	sec-Butylbenzene	13.7	

Data File: ...ntarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Report Date: 02-Dec-2019 10:32

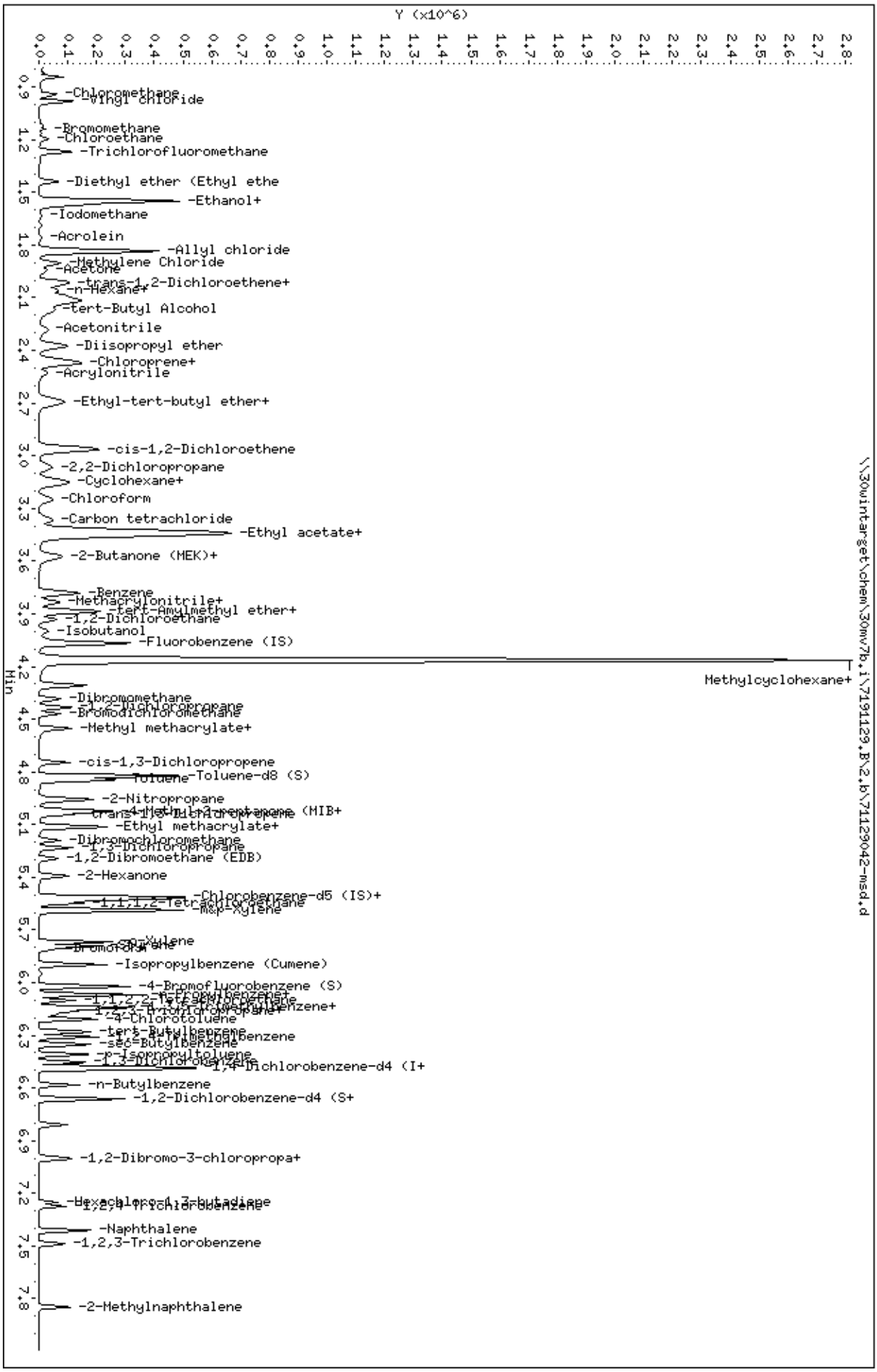
Pace Analytical Services, Inc.

TARGET COMPOUNDS

Client Name: GeoLogic NY, P.C.
Lab Smp Id: 1811548
Sample Location:
Sample Date: 20-NOV-2019
Sample Matrix: WATER
Analysis Type: VOA
Data Type: MS DATA
Misc Info: 47517

Client SDG: 30337003
Client Smp ID: MW-04MSD
Sample Point:
Date Received: 22-NOV-2019
Quant Type: ISTD
Level: LOW
Operator: LEL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/KG) ug/L	Q
99-87-6	p-Isopropyltoluene	13.7	
541-73-1	1,3-Dichlorobenzene	13.6	
106-46-7	1,4-Dichlorobenzene	13.4	
104-51-8	n-Butylbenzene	12.5	
95-50-1	1,2-Dichlorobenzene	13.8	
96-12-8	1,2-Dibromo-3-chloropropane	10.9	
108-70-3	1,3,5-Trichlorobenzene	12.5	
87-68-3	Hexachloro-1,3-butadiene	11.0	
120-82-1	1,2,4-Trichlorobenzene	12.6	
91-20-3	Naphthalene	12.4	
87-61-6	1,2,3-Trichlorobenzene	11.9	
91-57-6	2-Methylnaphthalene	11.9	
1868-53-7	Dibromofluoromethane (S)	32.1	
17060-07-0	1,2-Dichloroethane-d4 (S)	32.6	
2037-26-5	Toluene-d8 (S)	28.7	
460-00-4	4-Bromofluorobenzene (S)	28.8	
2199-69-1	1,2-Dichlorobenzene-d4 (S)	29.8	


Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Date : 29-NOV-2019 16:37
Client ID: MW-04MSD
Sample Info: 1811548
Purge Volume: 5.0
Column phase: RTX-VMS
Instrument: 30mv7b.i
Operator: LEL
Column diameter: 0.18
\\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d
Y (x10^6)
Min
-Chloromethane
-Vinyl Chloride
-Bromomethane
-Chloroethane
-Trichlorofluoromethane
-Diethyl ether (Ethyl ethe
-Ethanol+
-Iodomethane
-Acrolein
-Allyl chloride
-Methylene Chloride
-Acetone
-trans-1,2-Dichloroethene+
-n-Hexane+
-Tert-Butyl Alcohol
-Acetonitrile
-Diisopropyl ether
-Chloroprene+
-Acrylonitrile
-Ethyl-tert-butyl ether+
-cis-1,2-Dichloroethene
-2,2-Dichloropropane
-Cyclohexane+
-Chloroform
-Carbon tetrachloride
-Ethyl acetate+
-2-Butanone (MEK)+
-Benzene
-Methacrylonitrile+
-tert-Amylmethyl ether+
-1,2-Dichloroethane
-Isobutanol
-Fluorobenzene (IS)
Methylcyclohexane+
-Dibromomethane
-1,1-Dichloropropane
-Bromodichloromethane
-Methyl methacrylate+
-cis-1,3-Dichloropropene
-Toluene-Toluene-d8 (S)
-2-Nitropropane
-4-Methyl-2-pentanone (MIB+
-trans-1,3-Dichloropropene
-Ethyl methacrylate+
-Dibromochloromethane
-1,3-Dichloropropane
-1,2-Dibromoethane (EDB)
-2-Hexanone
-Chlorobenzene-d5 (IS)+
-1,1,1,2-Tetrachloroethane
-m&p-Xylene
-o-Xylene
-Bromoform
-Isopropylbenzene (Cumene)
-4-Bromofluorobenzene (S)
-n-Propylbenzene+
-1,1,2,2-Tetrachloroethane
-1,2,3-Trichloropropane+
-4-Chlorotoluene
-tert-Butylbenzene
-1,2,4-Trimethylbenzene
-sec-Butylbenzene
-p-Isopropyltoluene
-1,3-Dichlorobenzene-1,4-Dichlorobenzene-d4 (I+
-n-Butylbenzene
-1,2-Dichlorobenzene-d4 (S+
-1,2-Dibromo-3-chloropropa+
-Hexachloro-1,3-butadiene
-1,2,4-Trichlorobenzene
-Naphthalene
-1,2,3-Trichlorobenzene
-2-Methylnaphthalene

Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

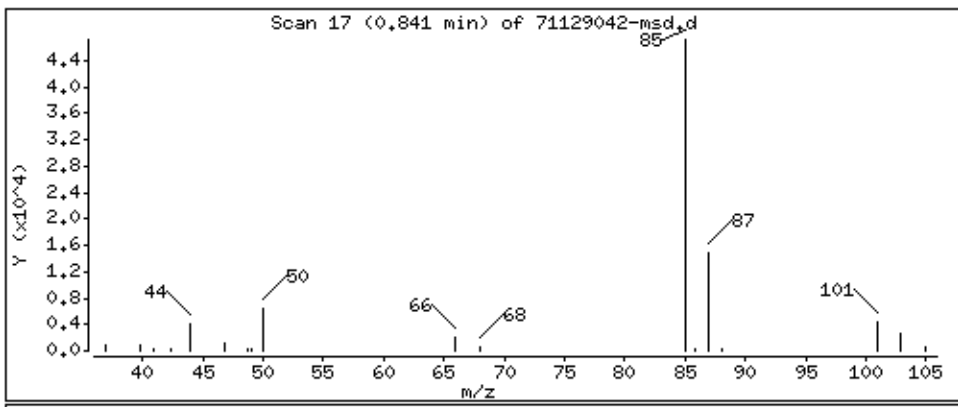
Column phase: RTX-VMS

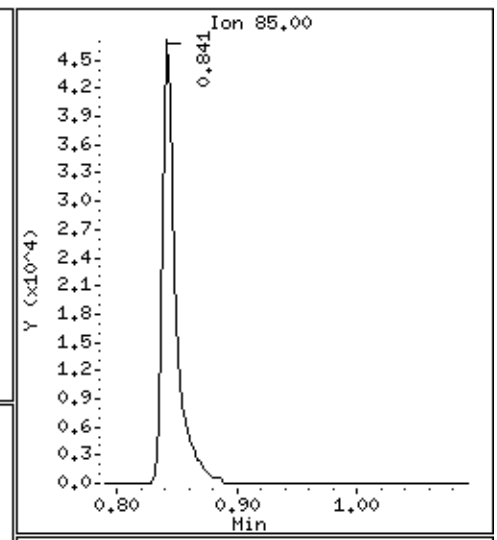
Column diameter: 0.18

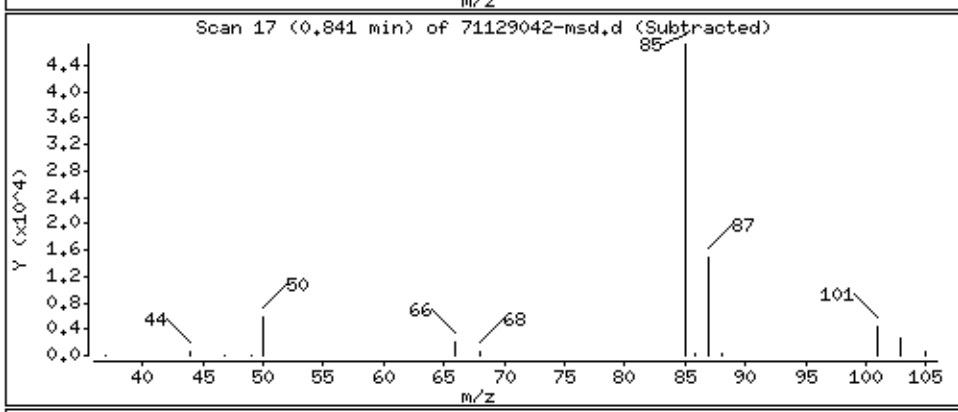
1 Dichlorodifluoromethane

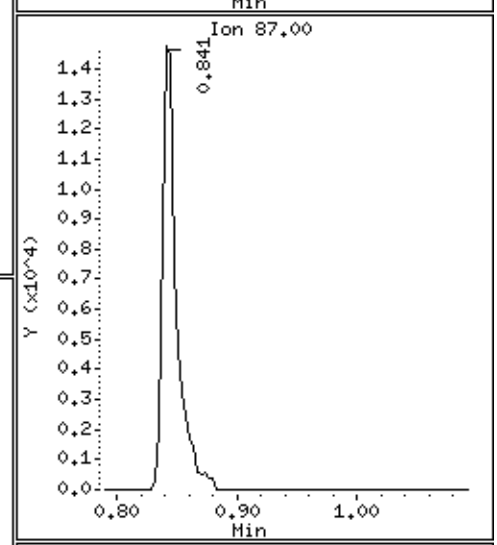
Concentration: 20.7 ug/L

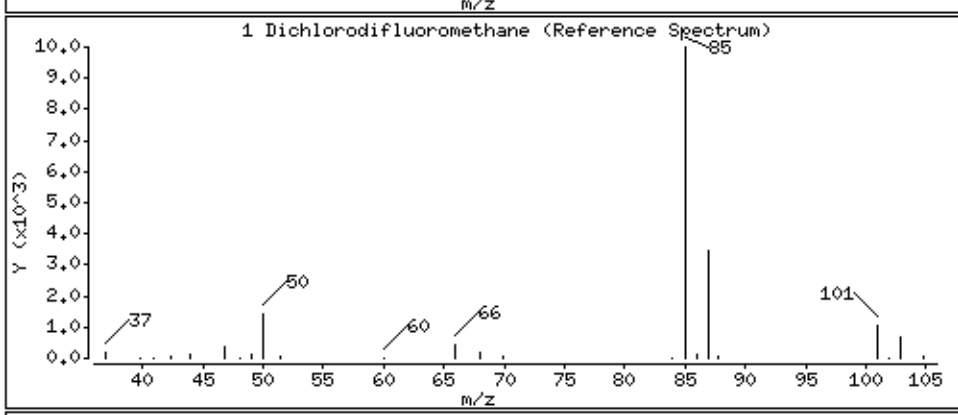
Review Code:

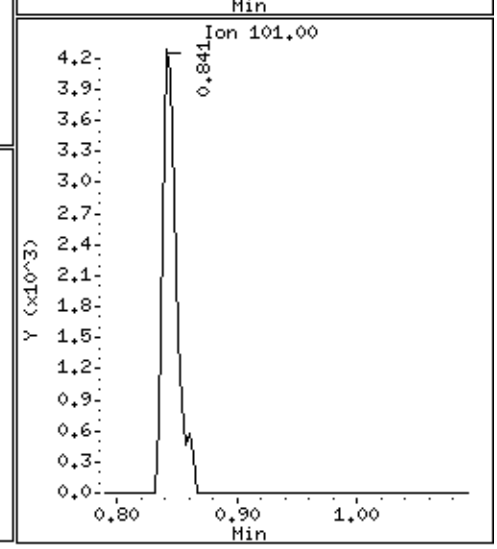


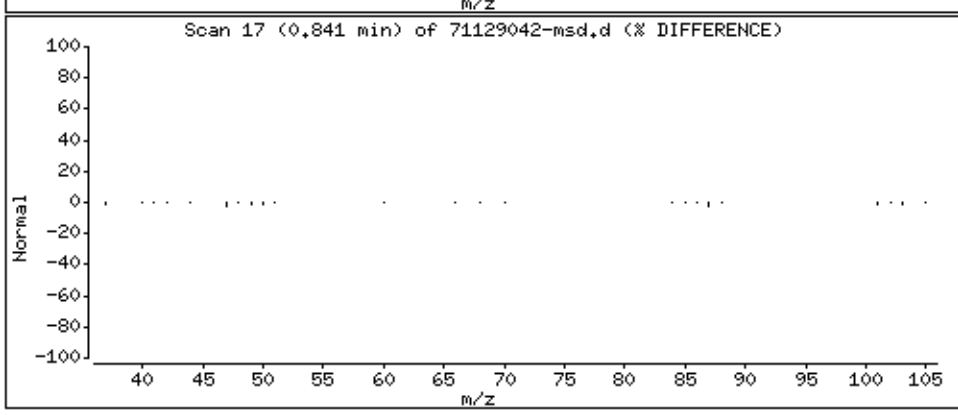












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

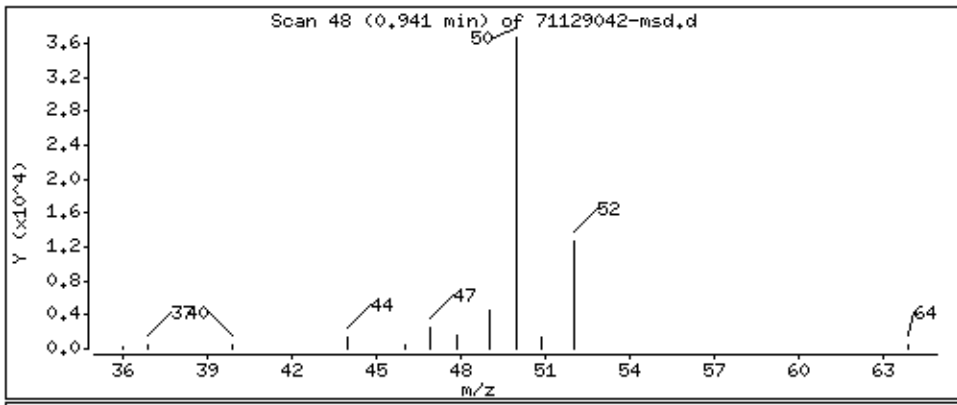
Column phase: RTX-VMS

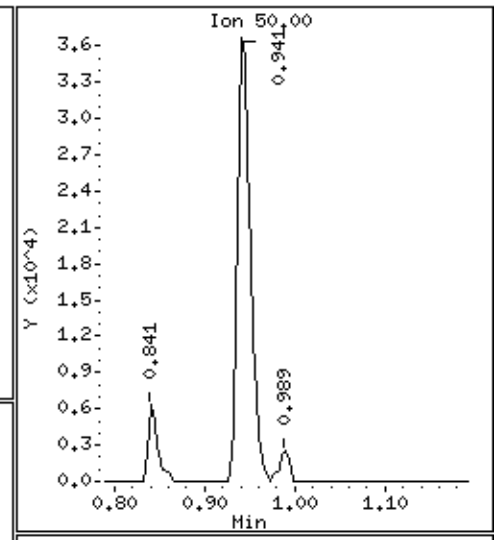
Column diameter: 0.18

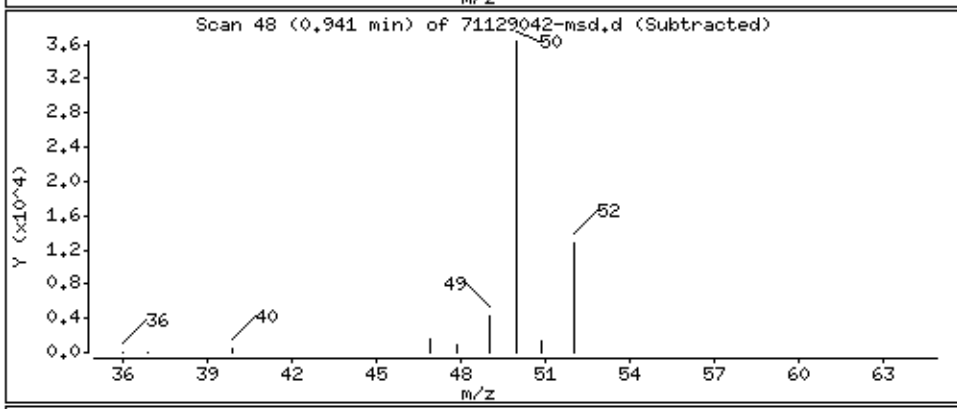
2 Chloromethane

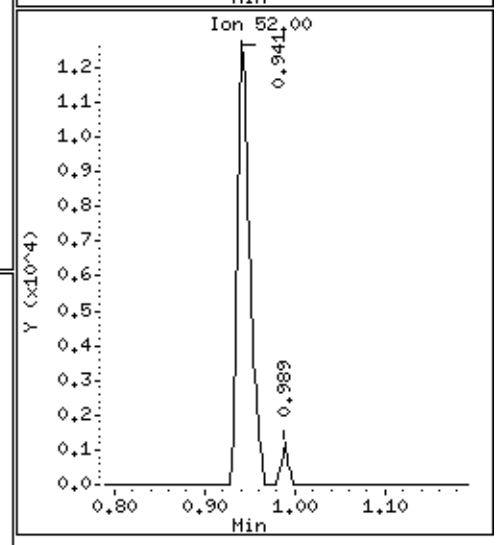
Concentration: 16.4 ug/L

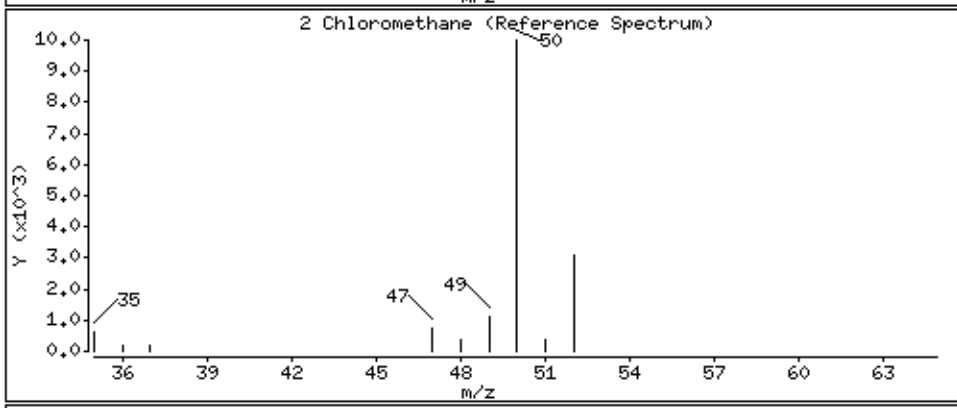
Review Code:

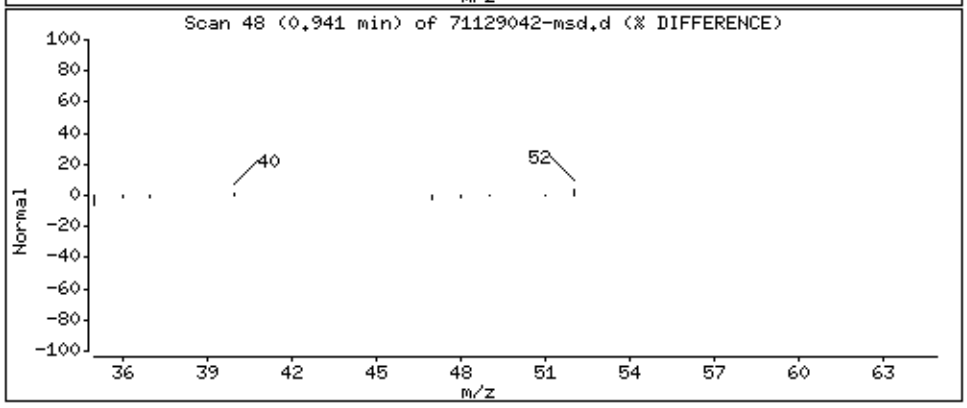












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

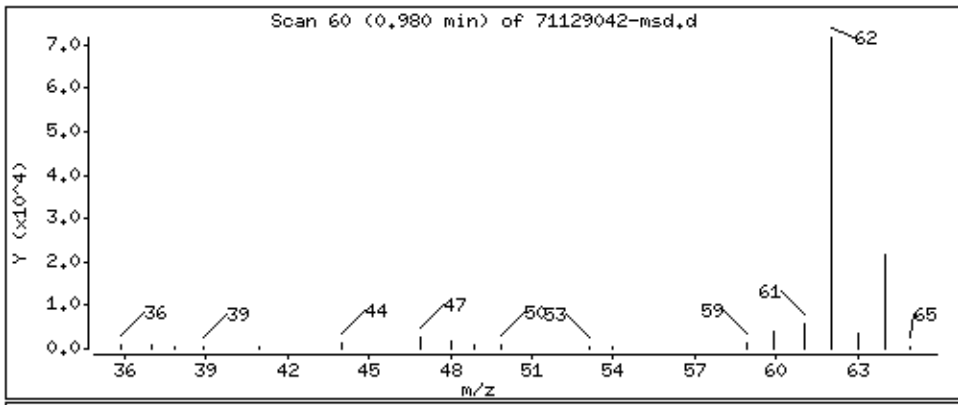
Column phase: RTX-VMS

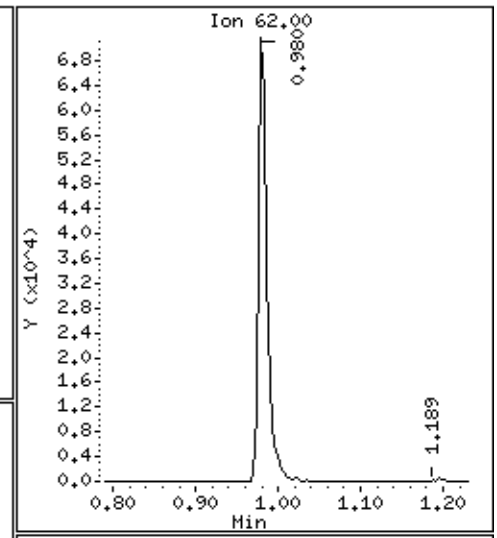
Column diameter: 0.18

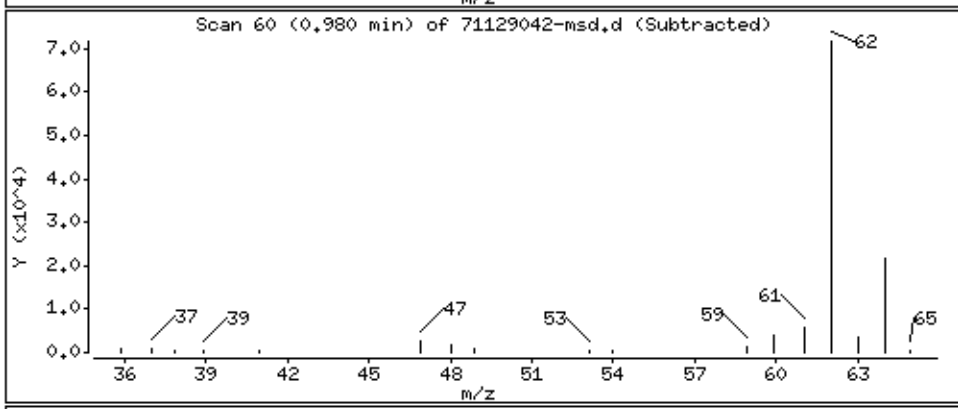
3 Vinyl chloride

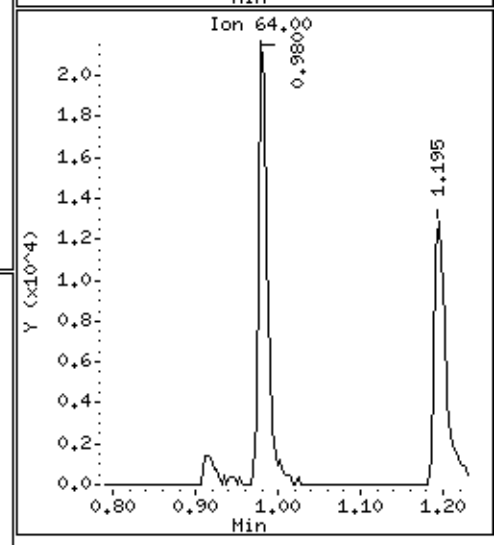
Concentration: 23.9 ug/L

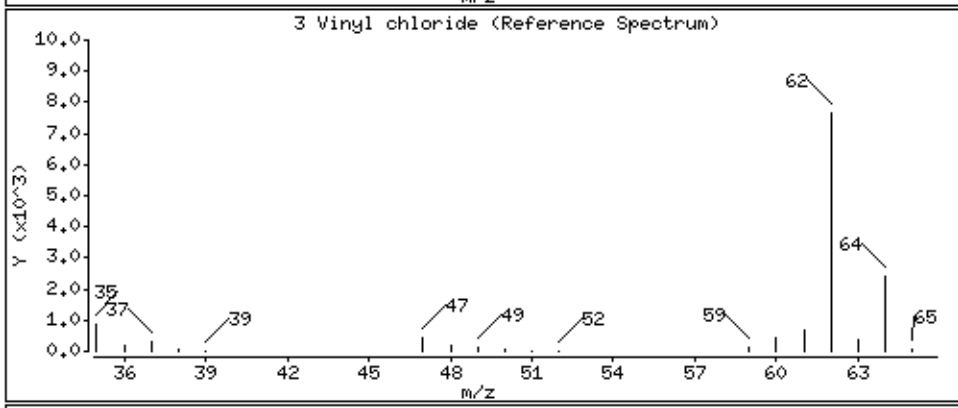
Review Code:

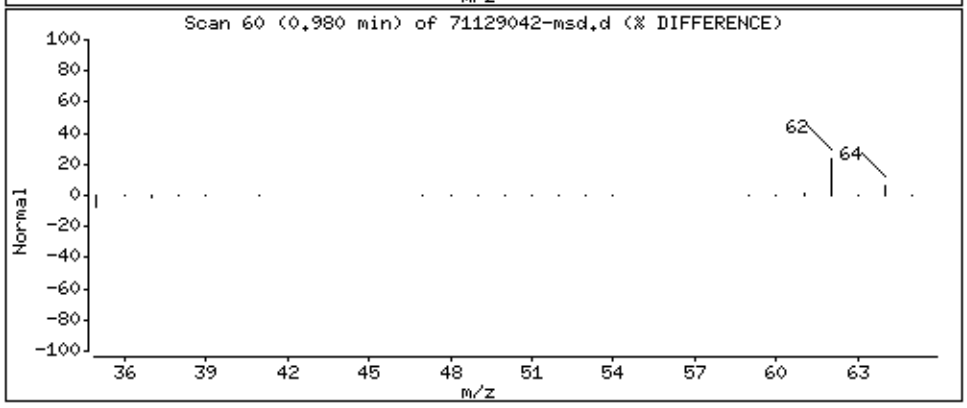












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

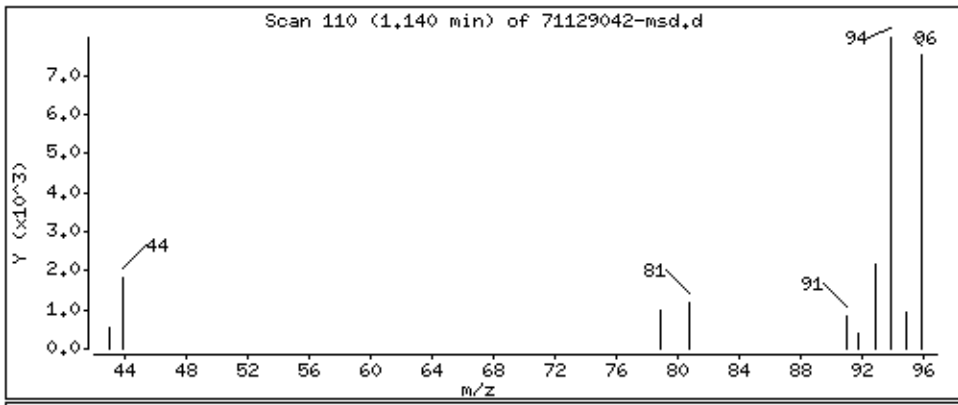
Column phase: RTX-VMS

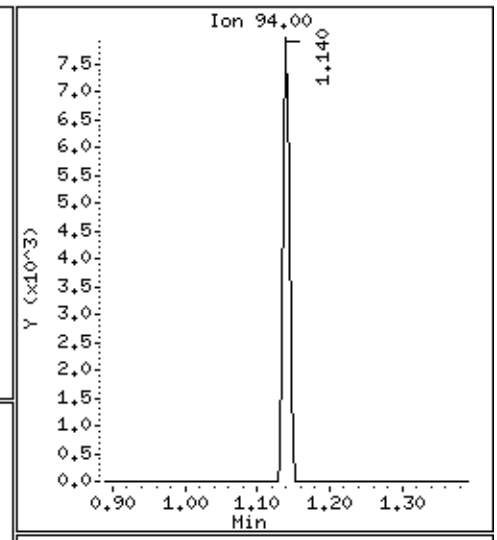
Column diameter: 0.18

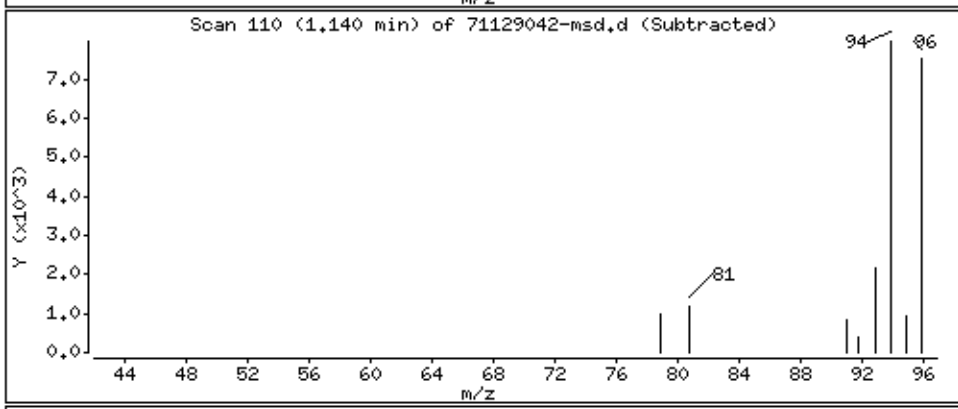
4 Bromomethane

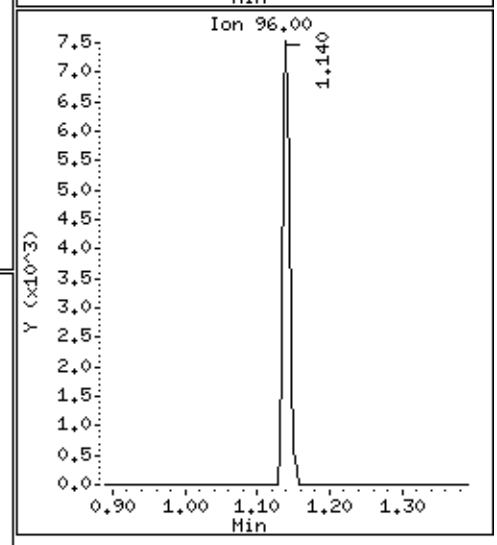
Concentration: 6.64 ug/L

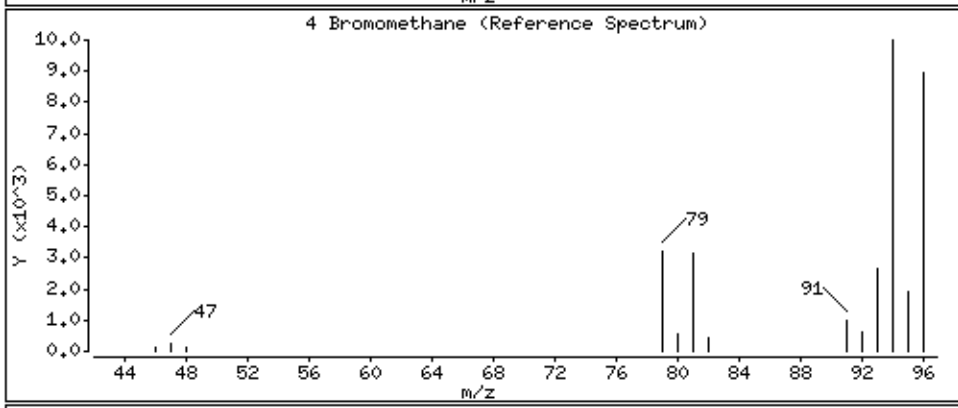
Review Code:

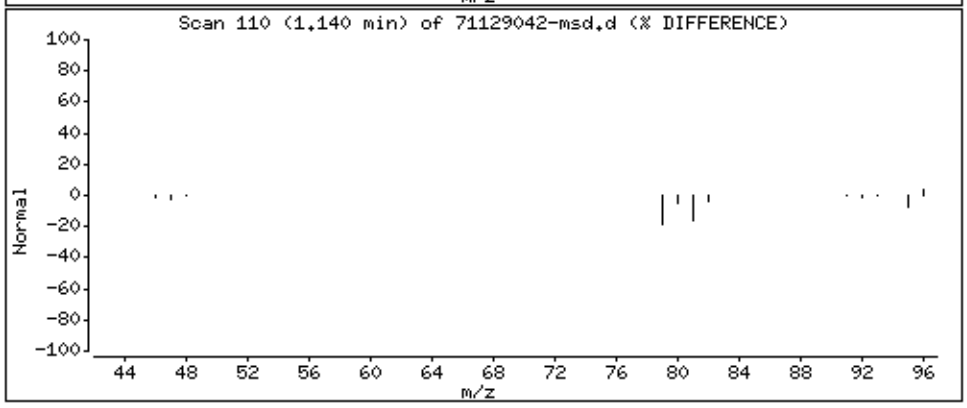












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

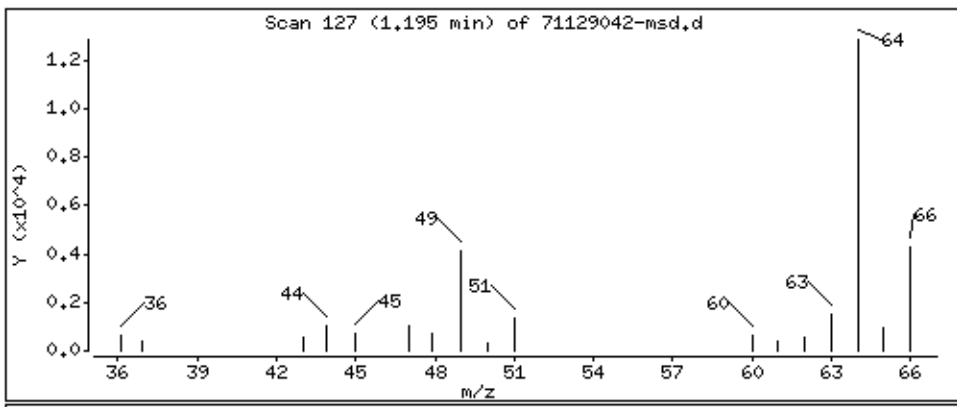
Column phase: RTX-VMS

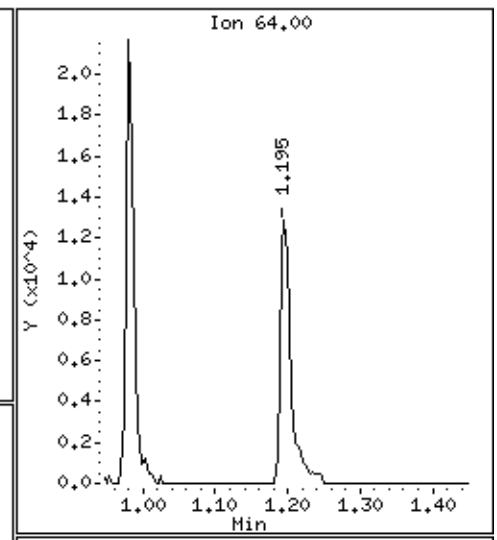
Column diameter: 0.18

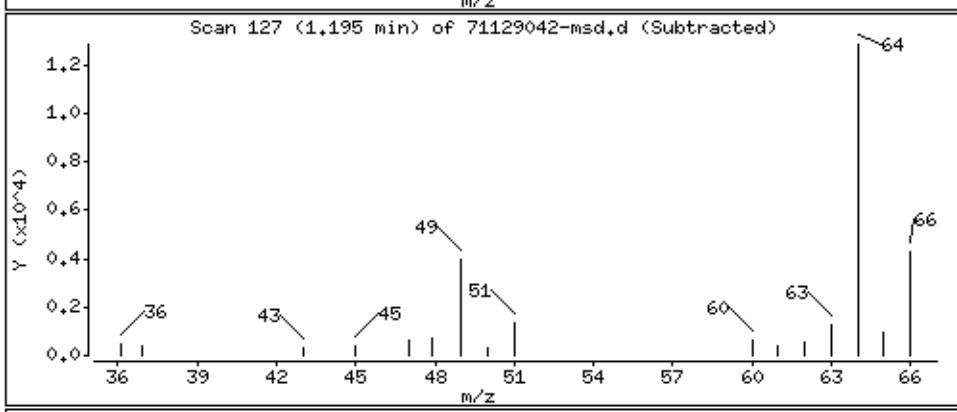
5 Chloroethane

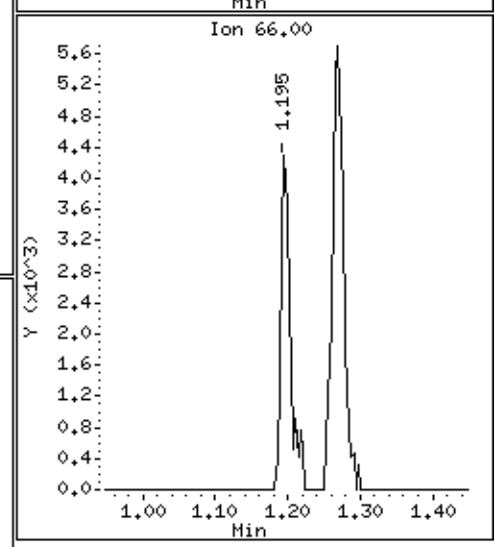
Concentration: 20.5 ug/L

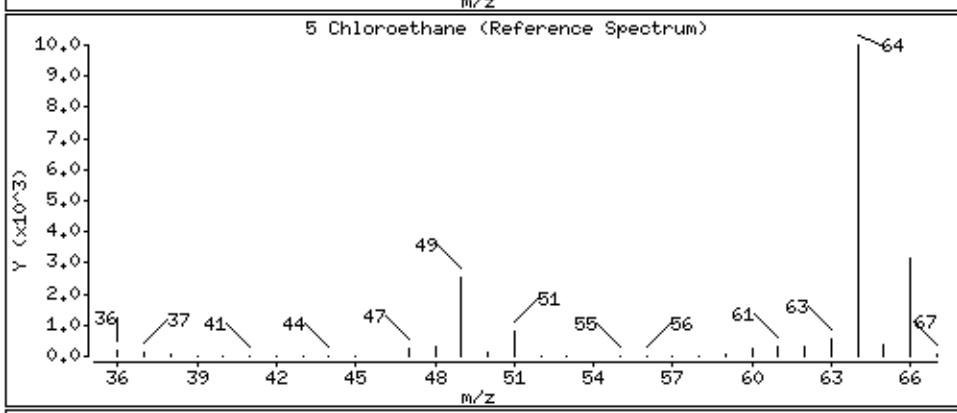
Review Code:

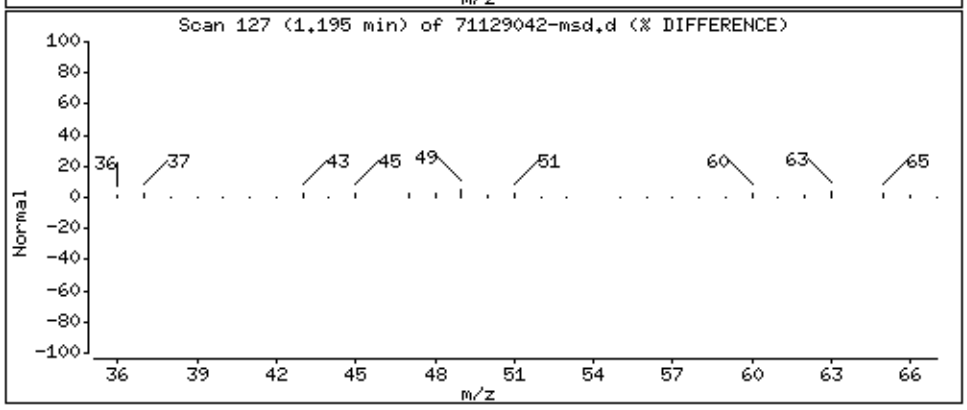












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

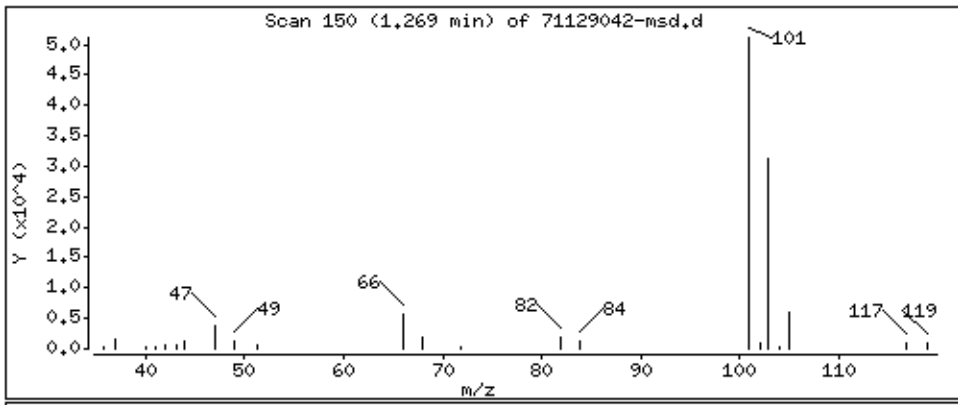
Column phase: RTX-VMS

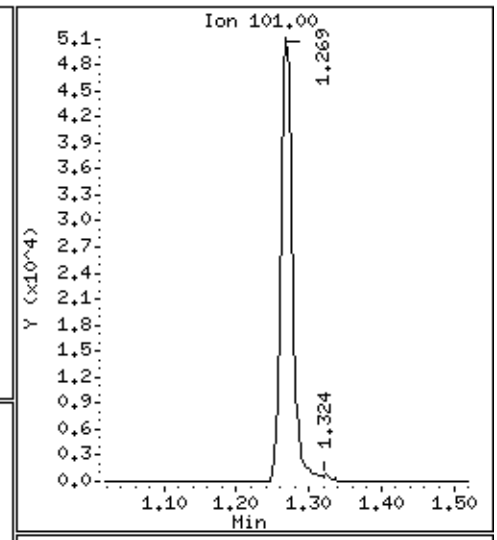
Column diameter: 0.18

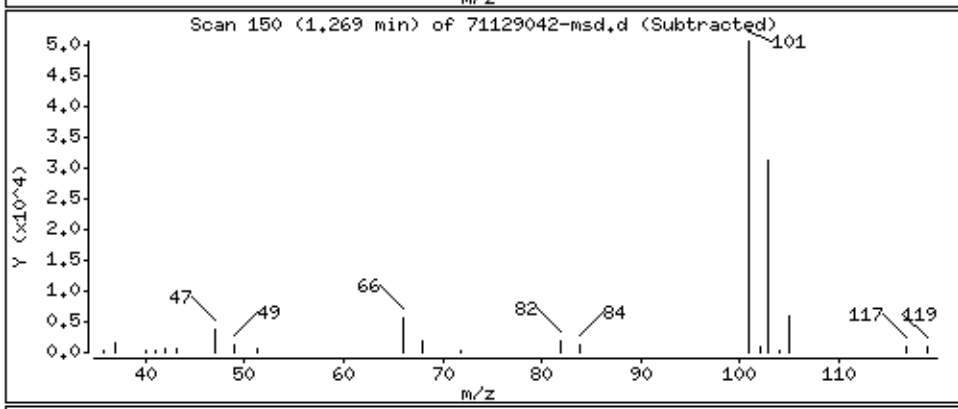
6 Trichlorofluoromethane

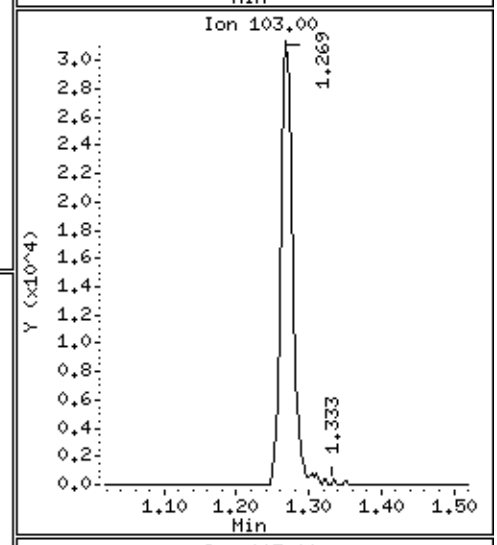
Concentration: 18.8 ug/L

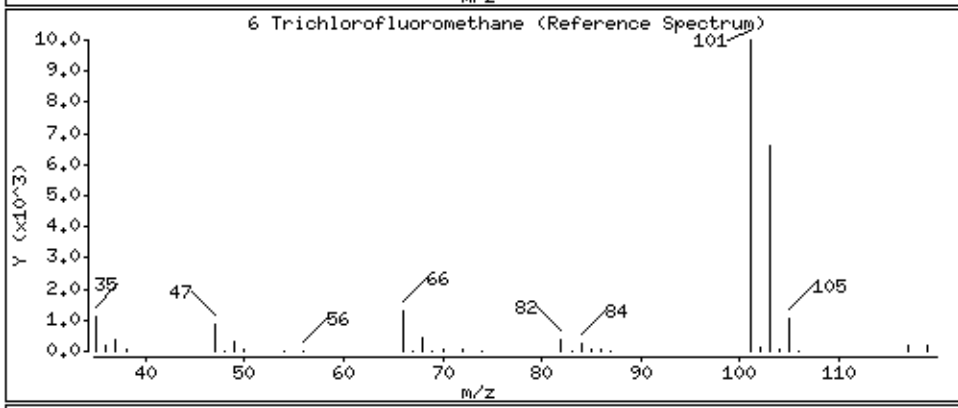
Review Code:

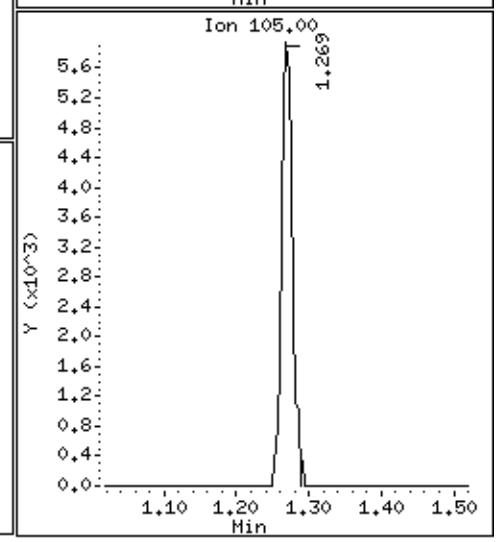


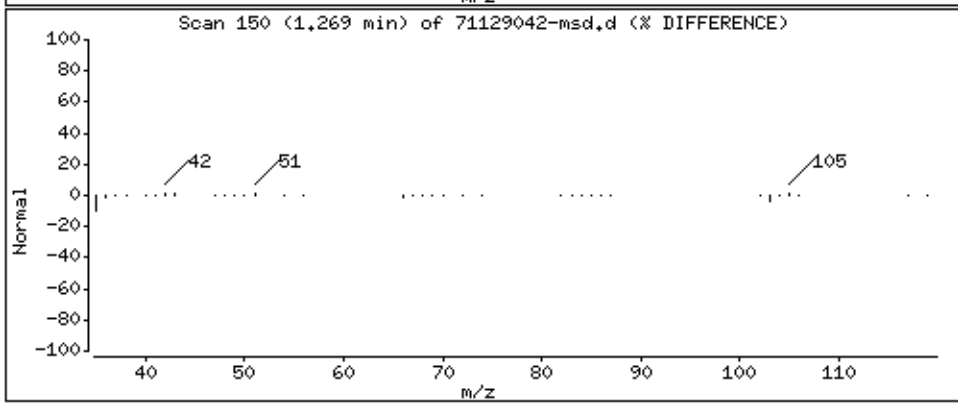












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

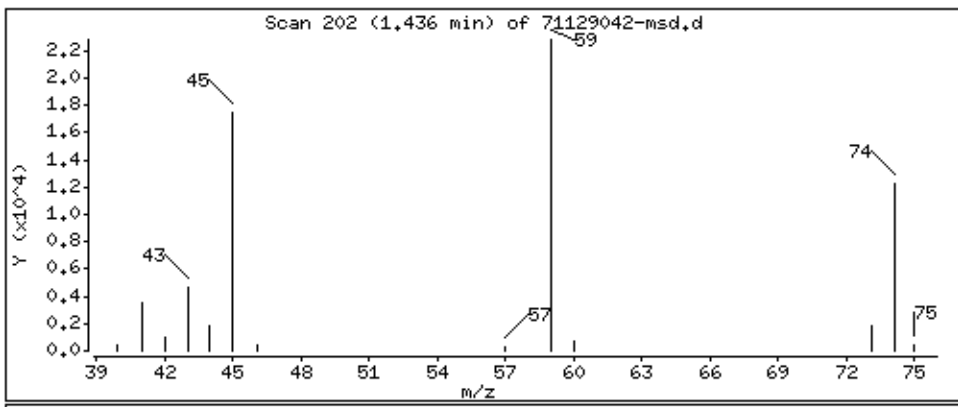
Column phase: RTX-VMS

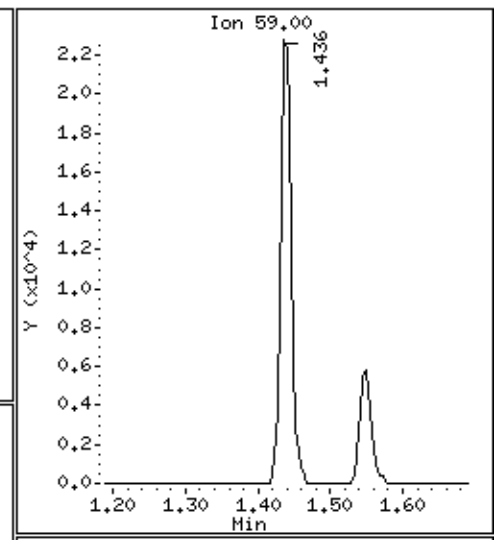
Column diameter: 0.18

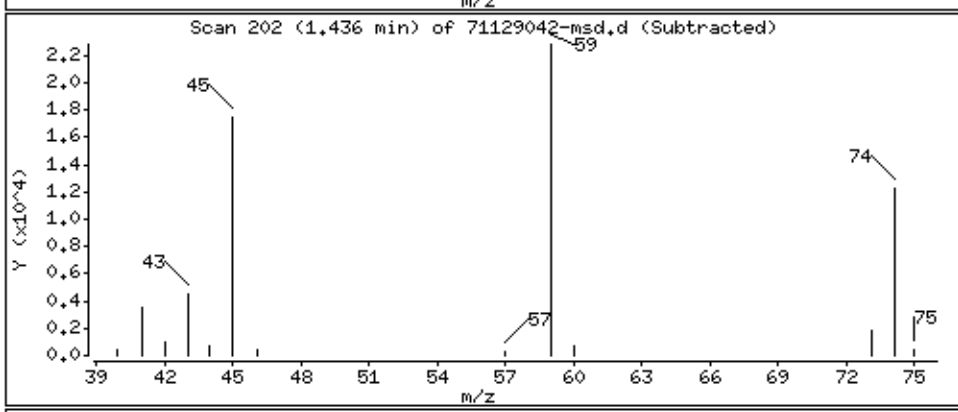
7 Diethyl ether (Ethyl ether)

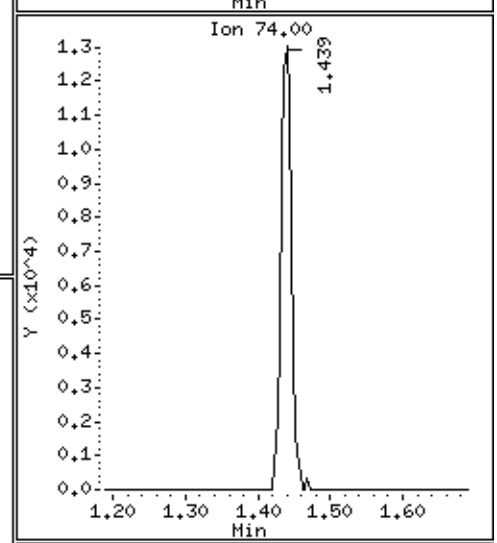
Concentration: 14.6 ug/L

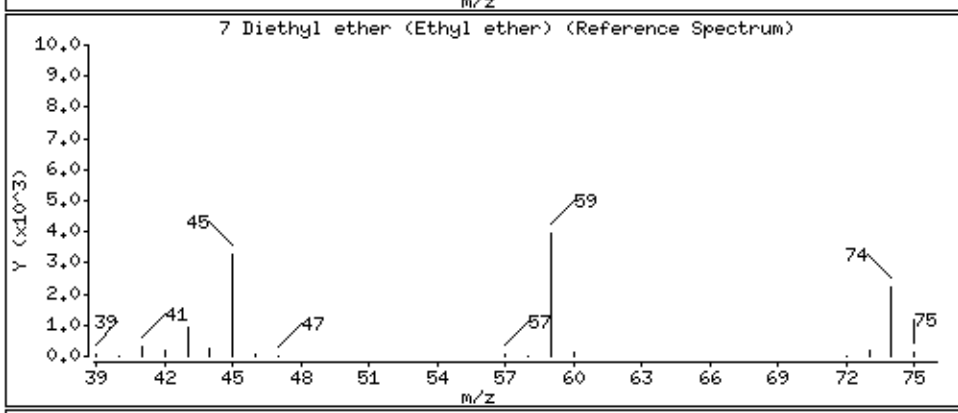
Review Code:

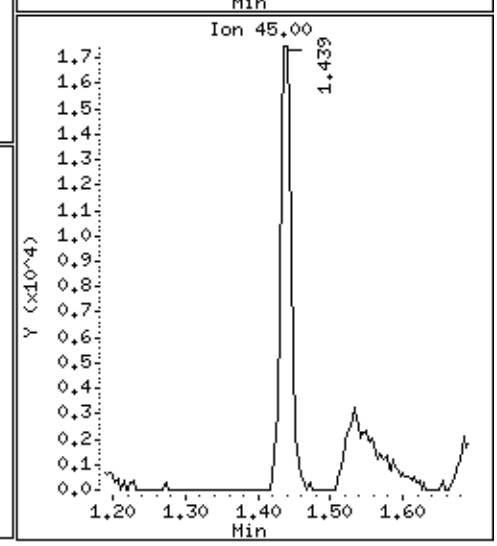


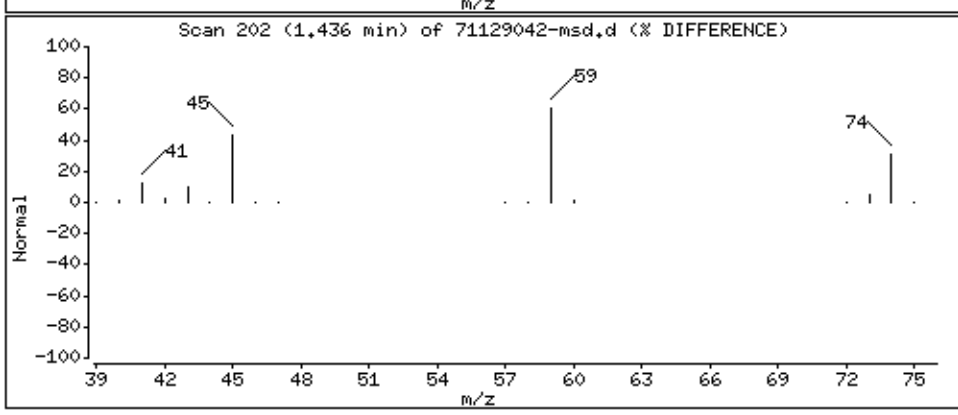












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

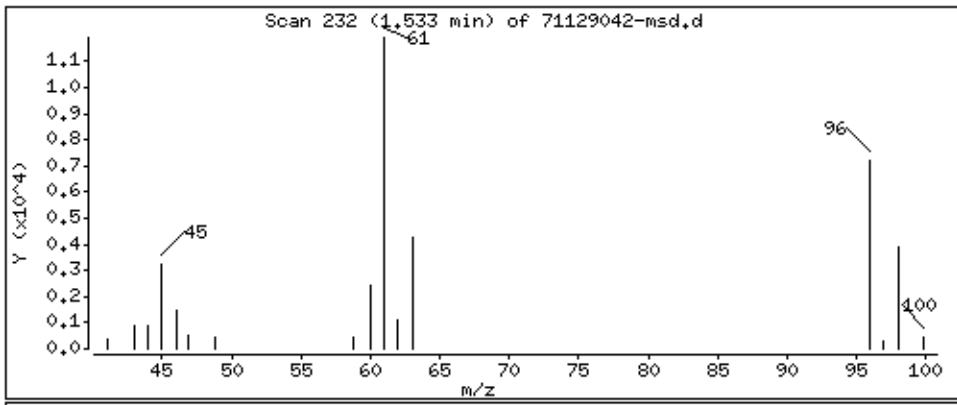
Column phase: RTX-VMS

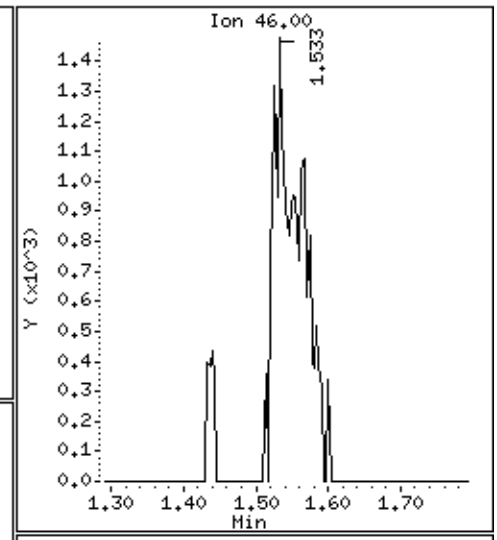
Column diameter: 0.18

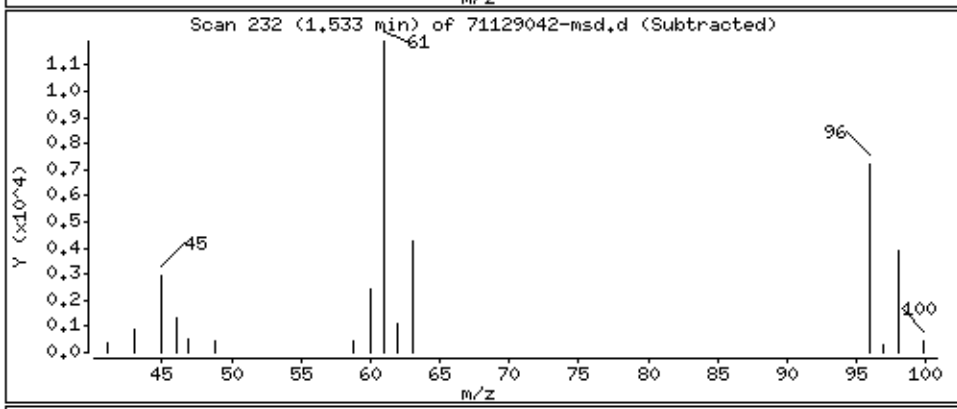
8 Ethanol

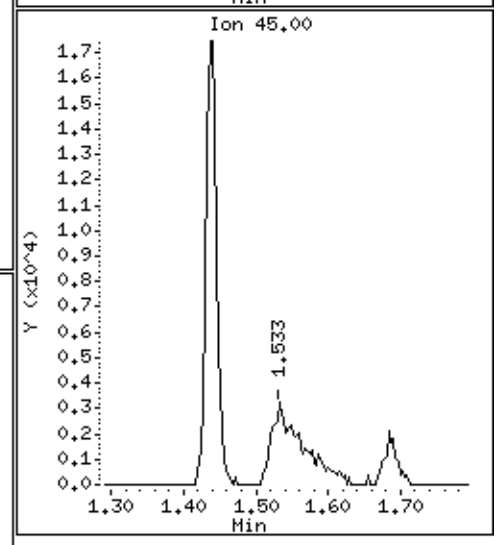
Concentration: 171 ug/L

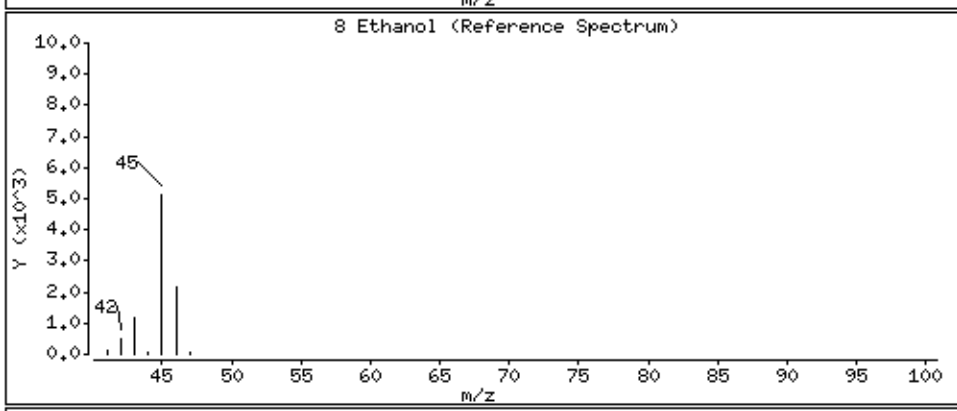
Review Code:

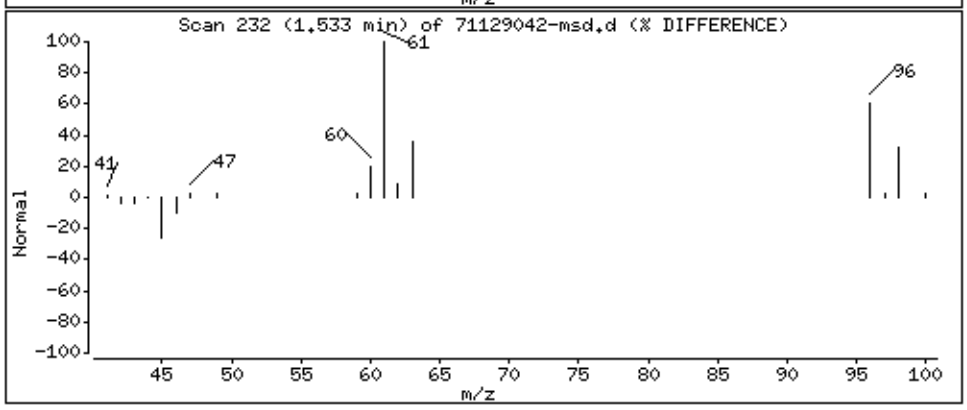












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

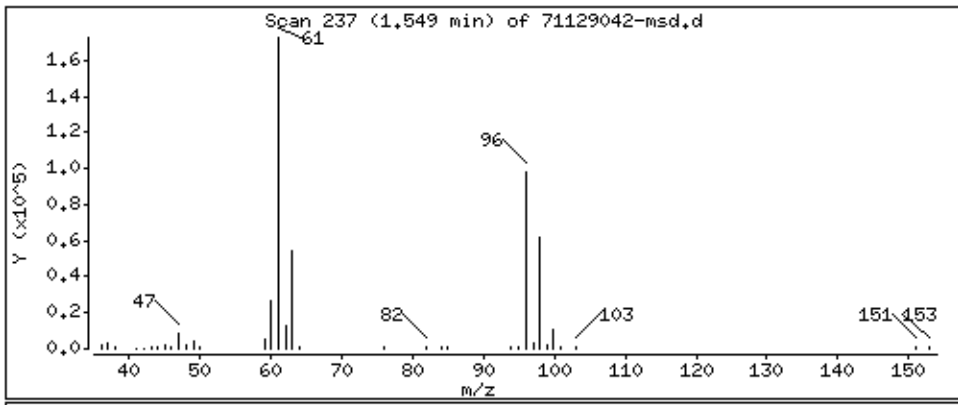
Column phase: RTX-VMS

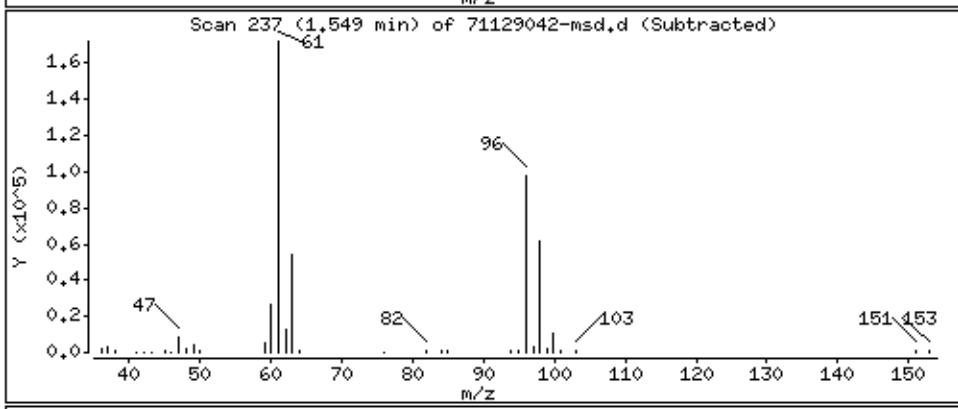
Column diameter: 0.18

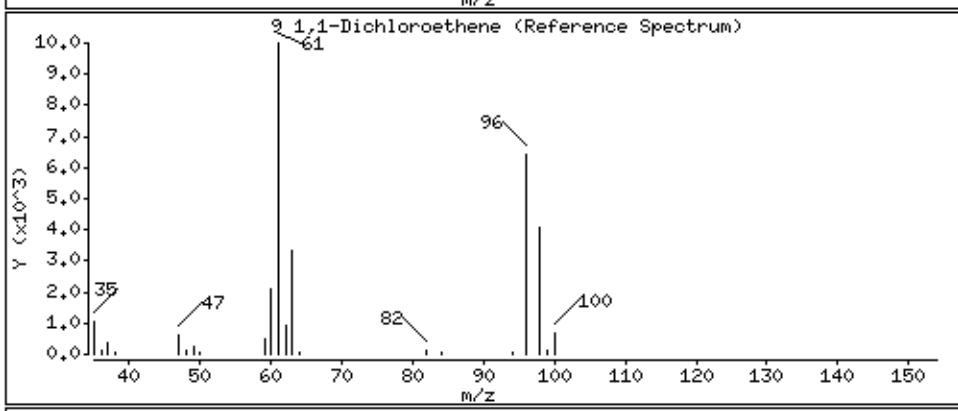
9 1,1-Dichloroethene

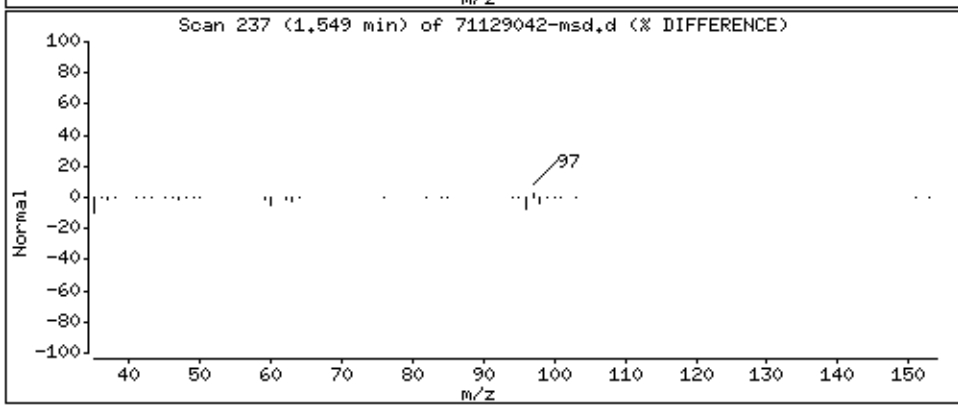
Concentration: 66.5 ug/L

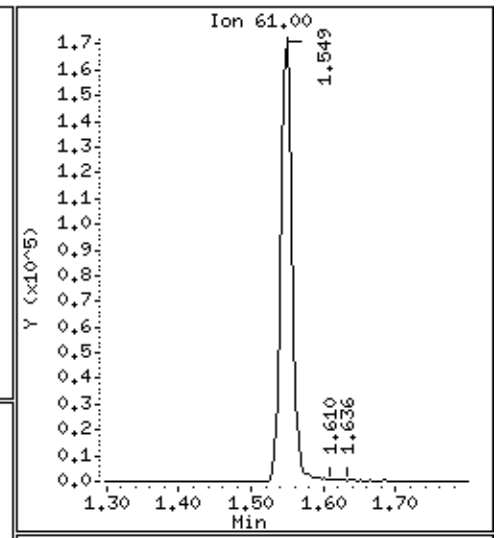
Review Code:

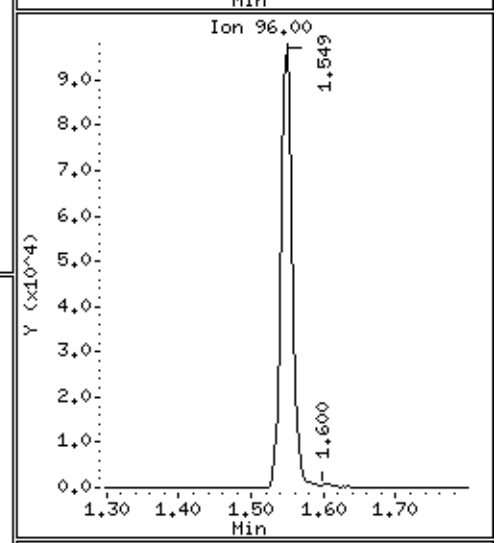


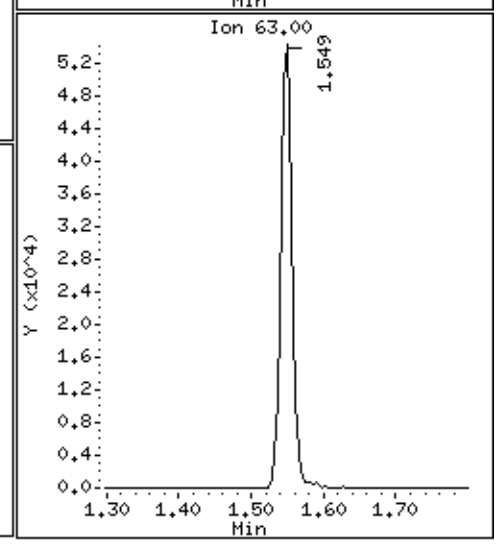












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

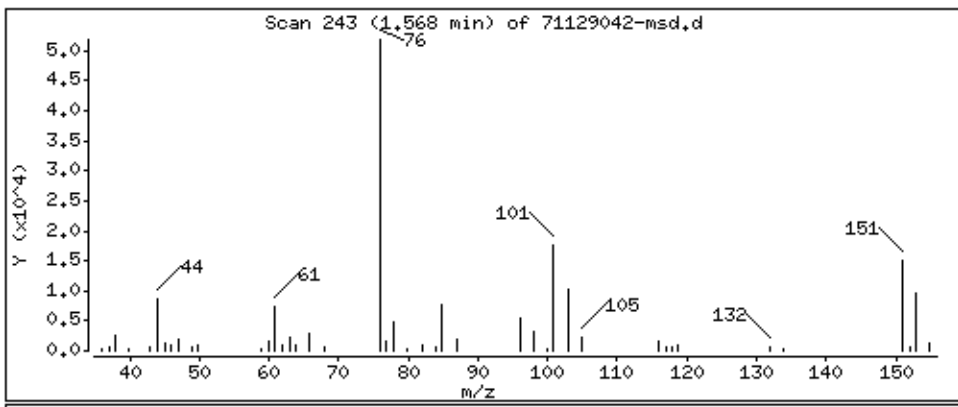
Column phase: RTX-VMS

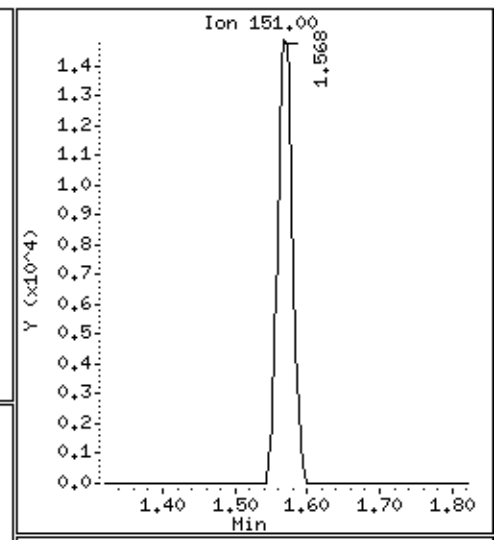
Column diameter: 0.18

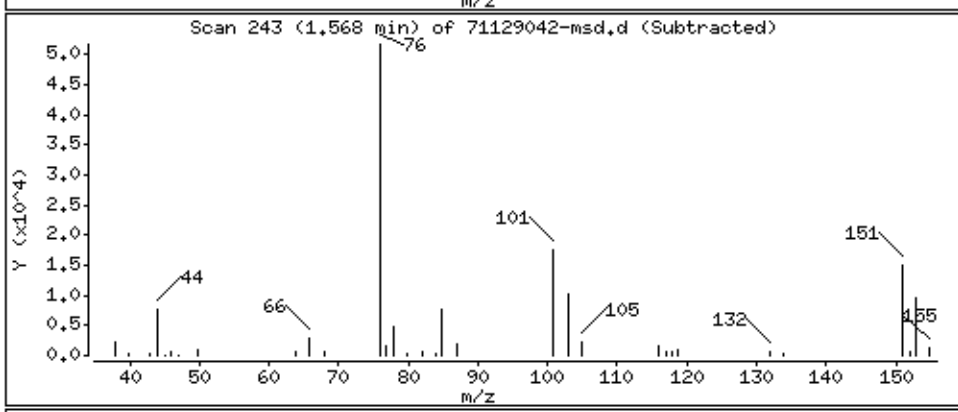
10 1,1,2-Trichlorotrifluoroethane

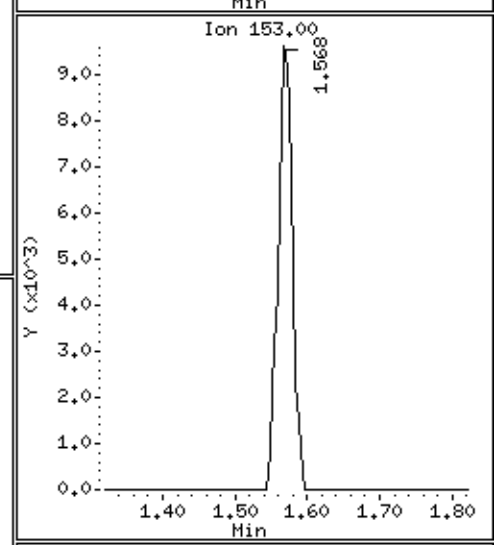
Concentration: 14.2 ug/L

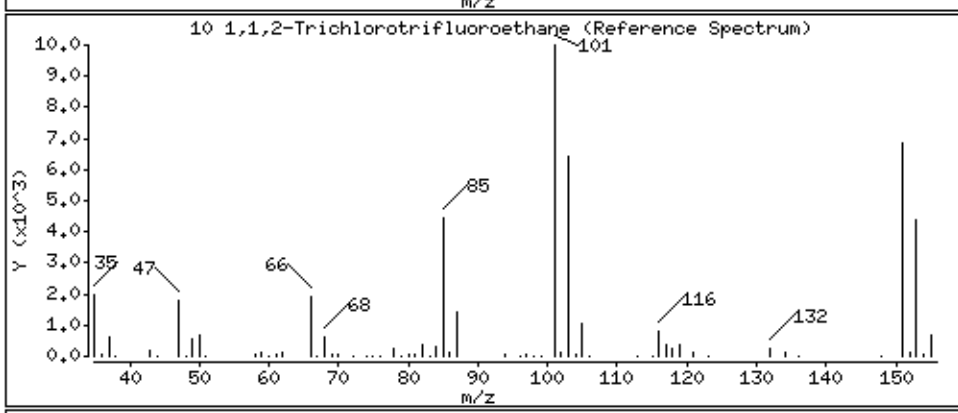
Review Code:

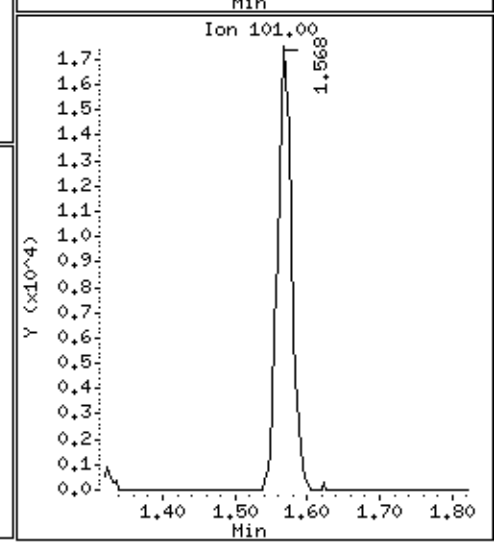


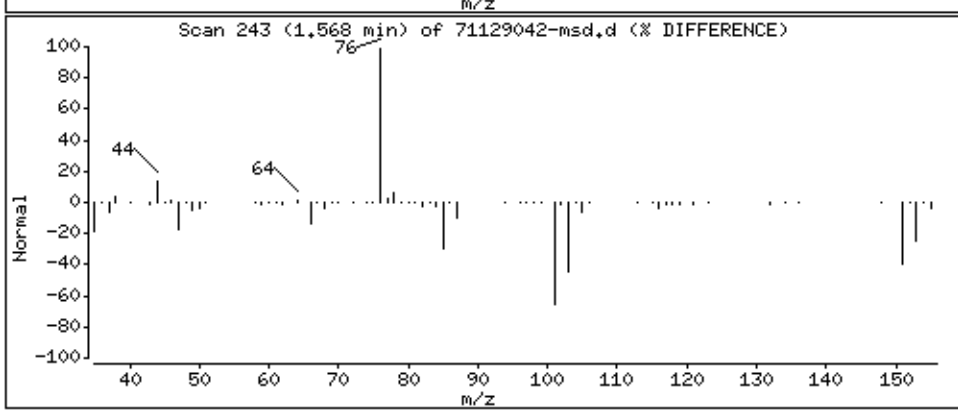












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

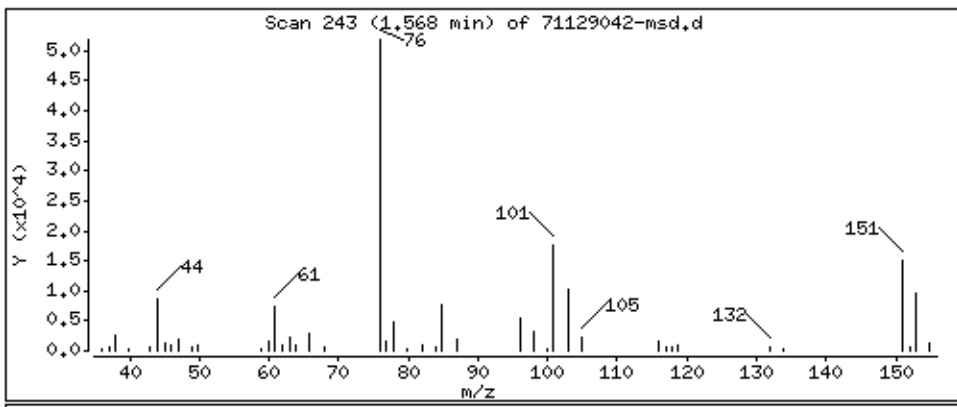
Column phase: RTX-VMS

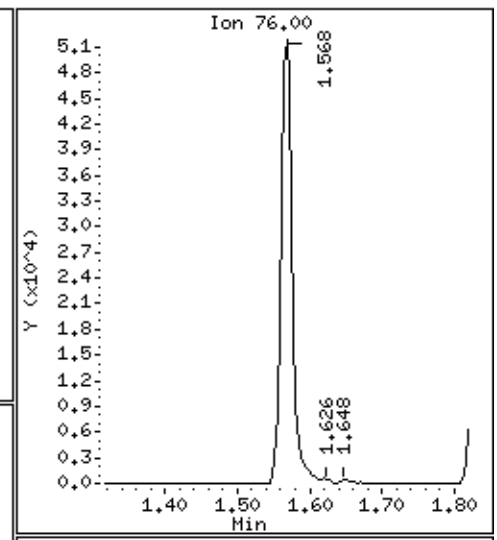
Column diameter: 0.18

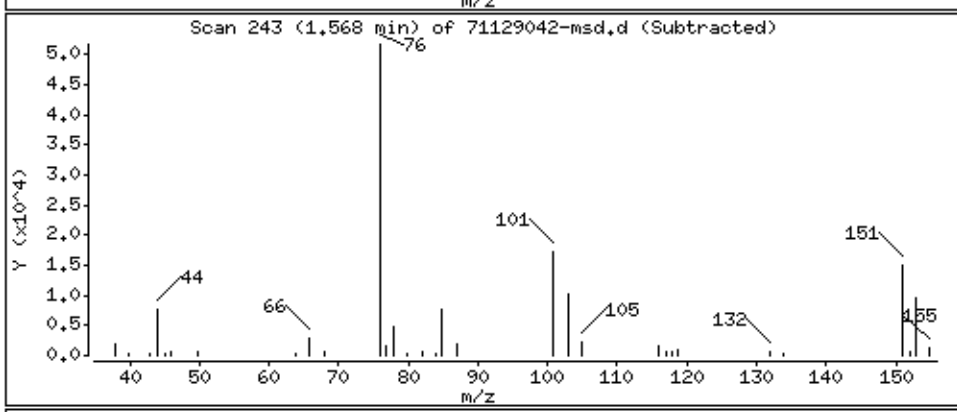
11 Carbon disulfide

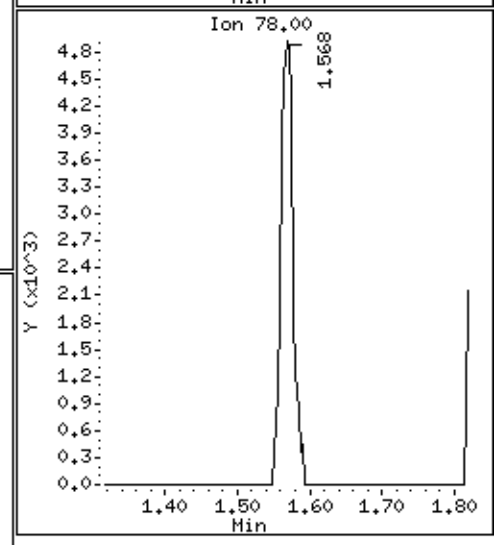
Concentration: 12.0 ug/L

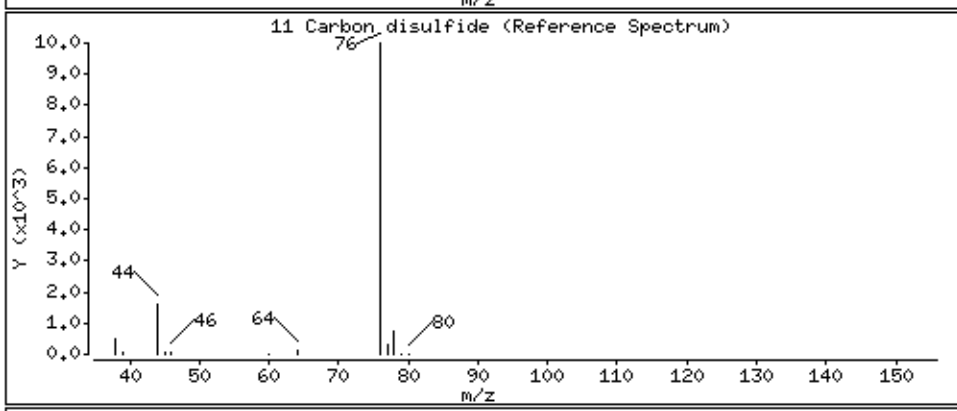
Review Code:

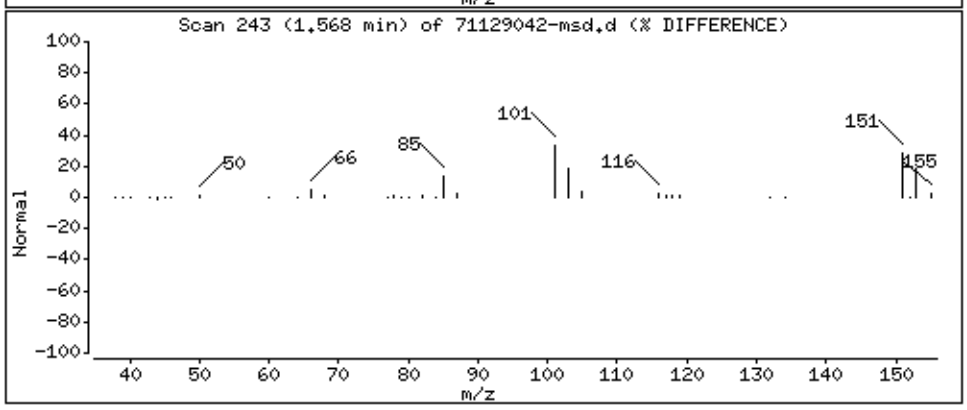












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

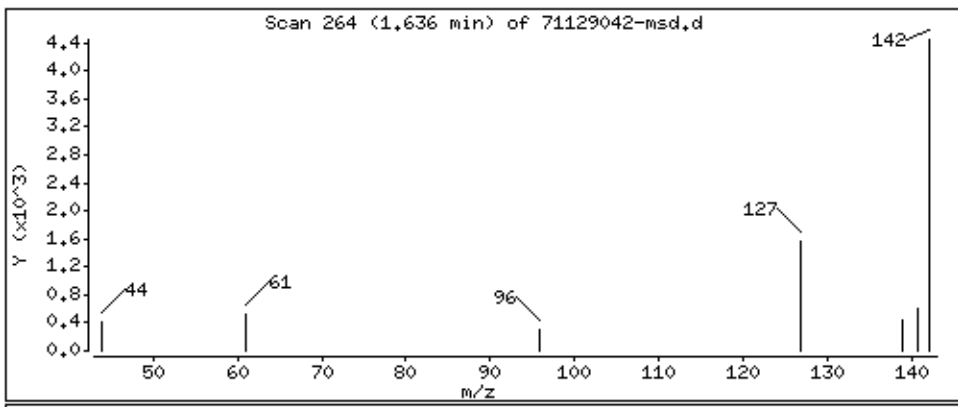
Column phase: RTX-VMS

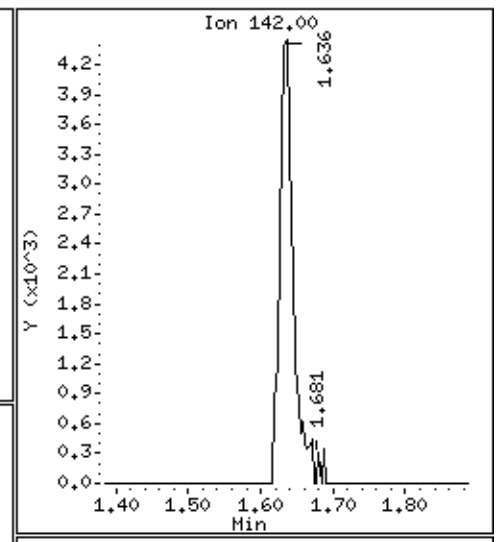
Column diameter: 0.18

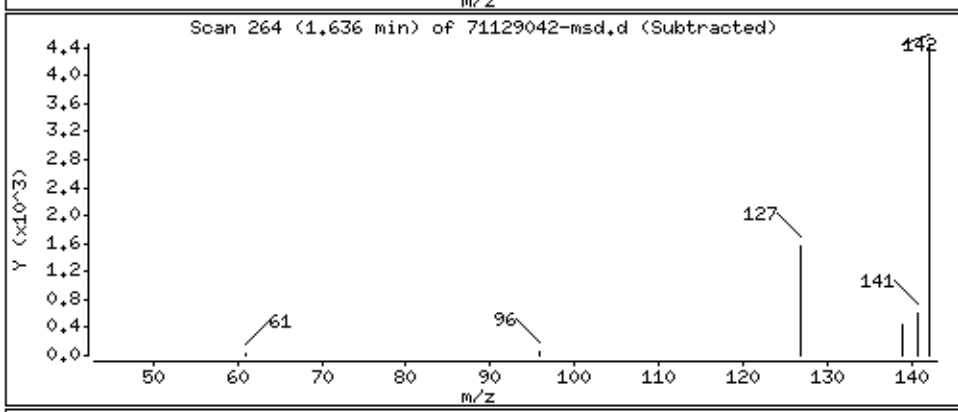
12 Iodomethane

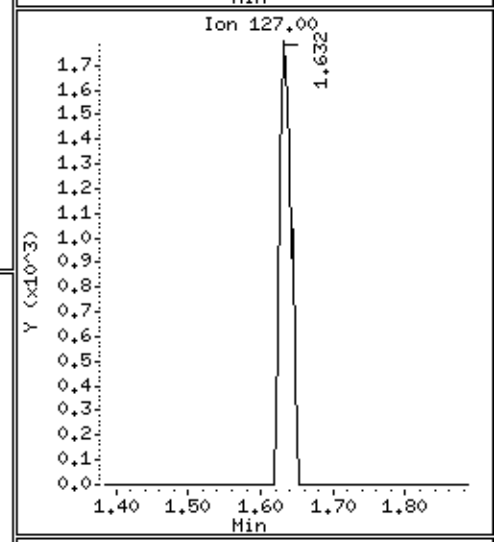
Concentration: 6.62 ug/L

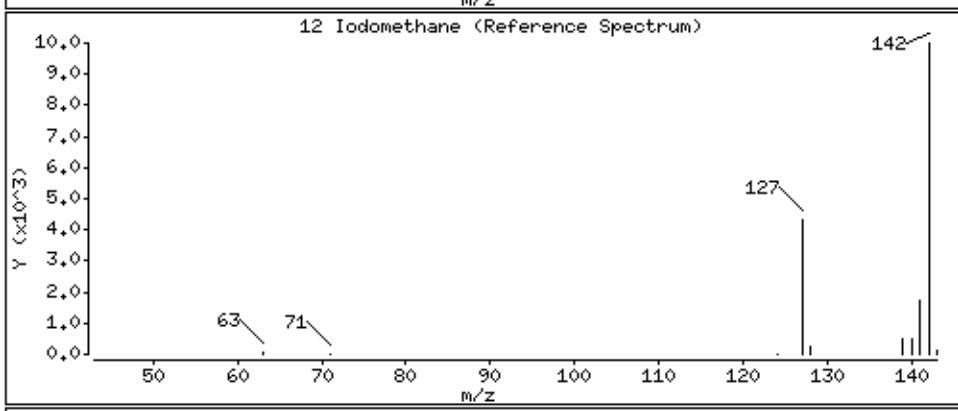
Review Code:

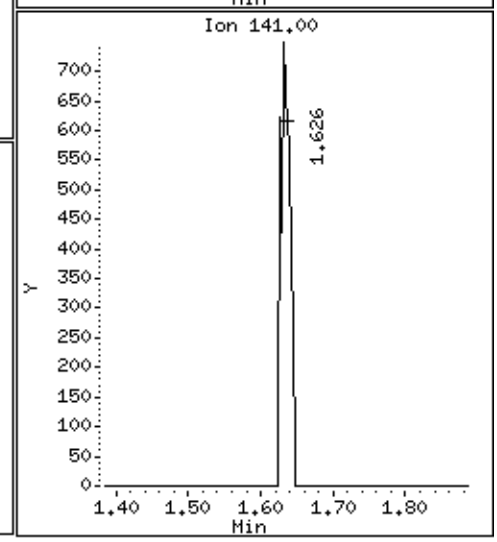


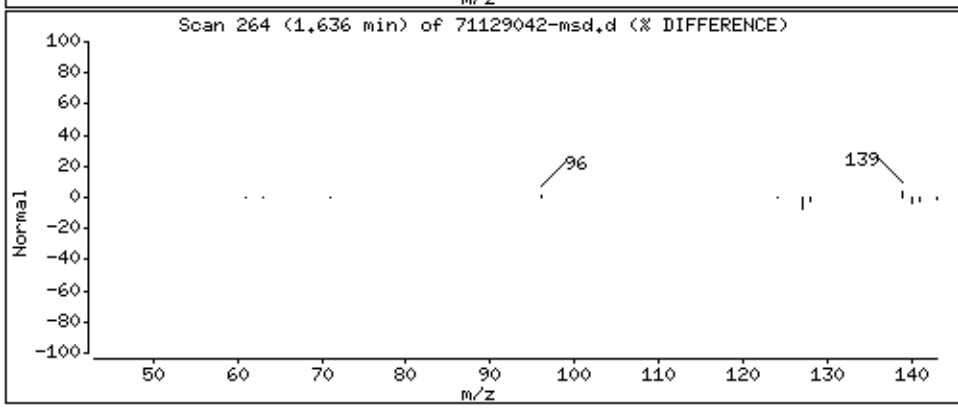












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

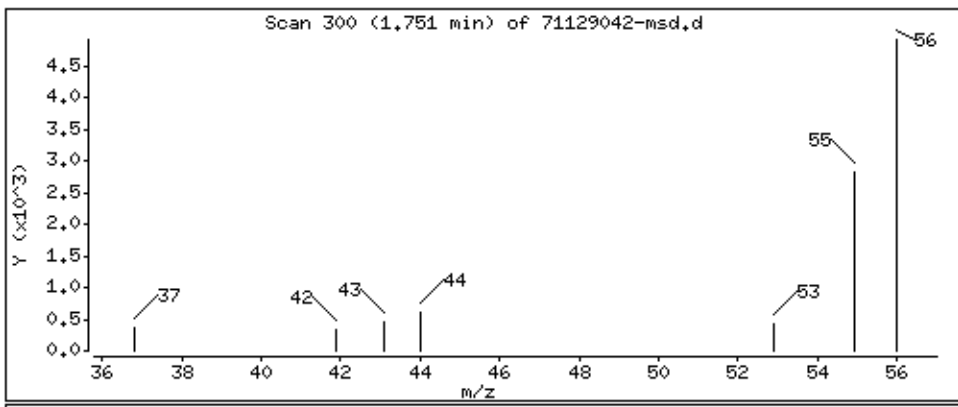
Column phase: RTX-VMS

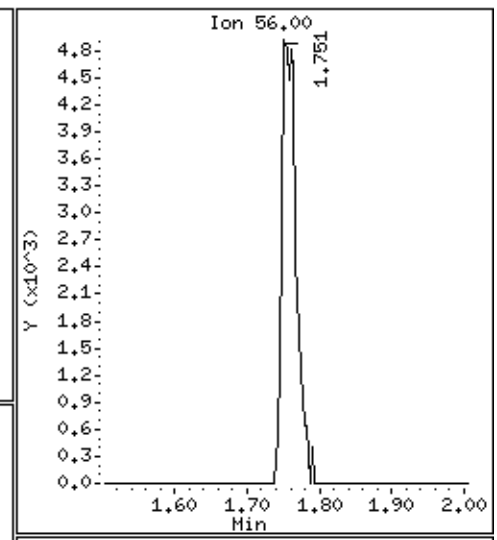
Column diameter: 0.18

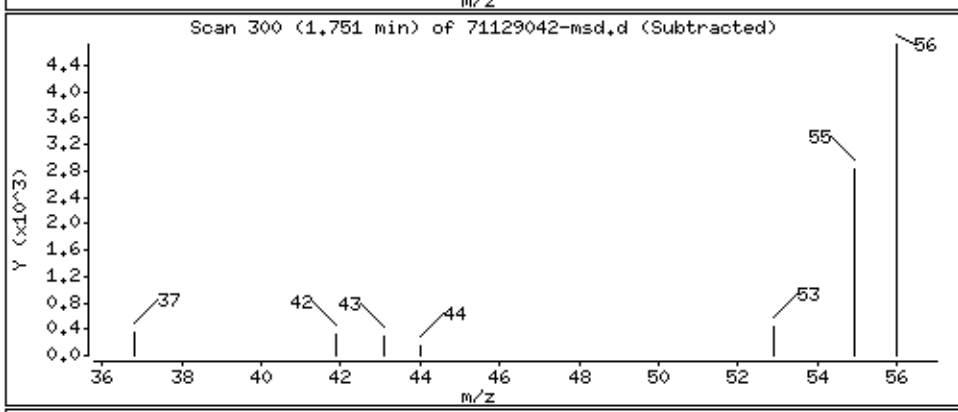
13 Acrolein

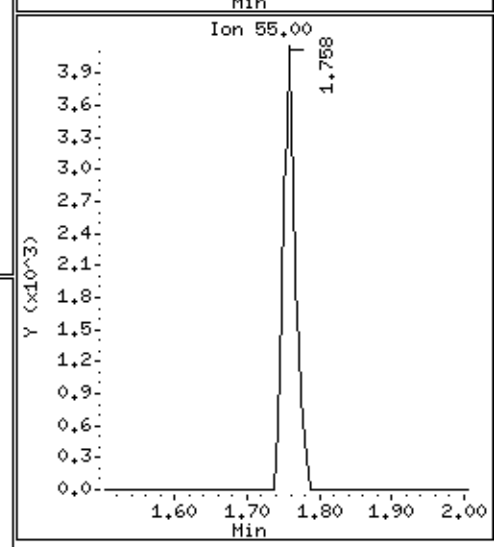
Concentration: 14.3 ug/L

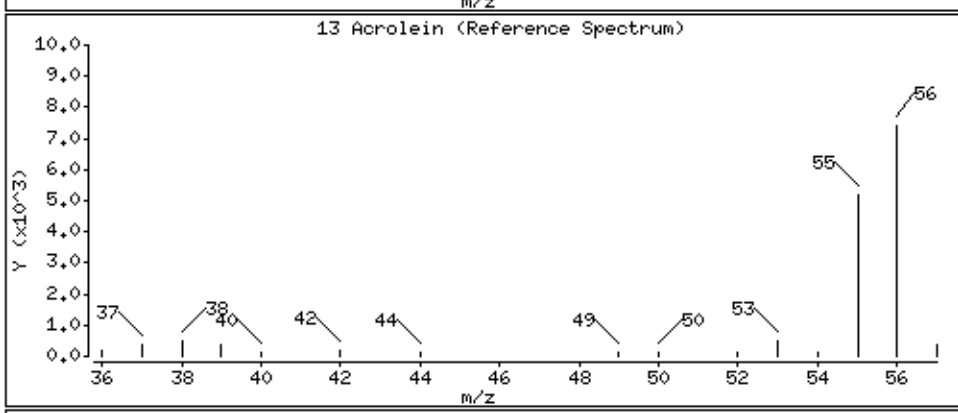
Review Code: LT

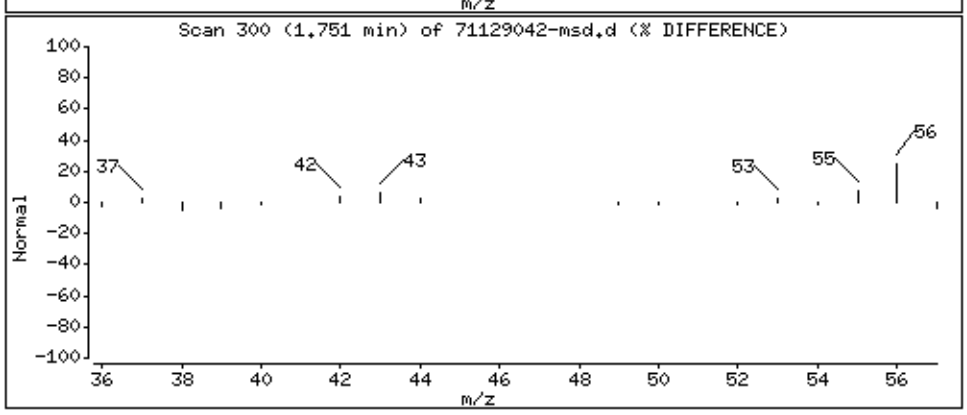












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

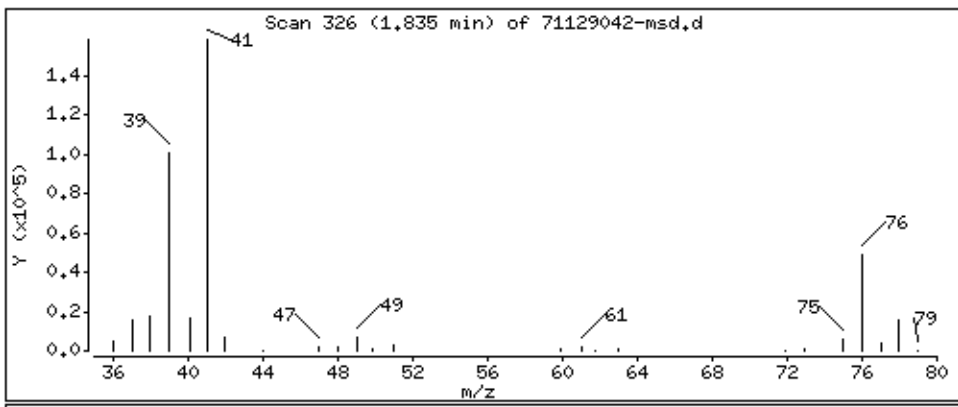
Column phase: RTX-VMS

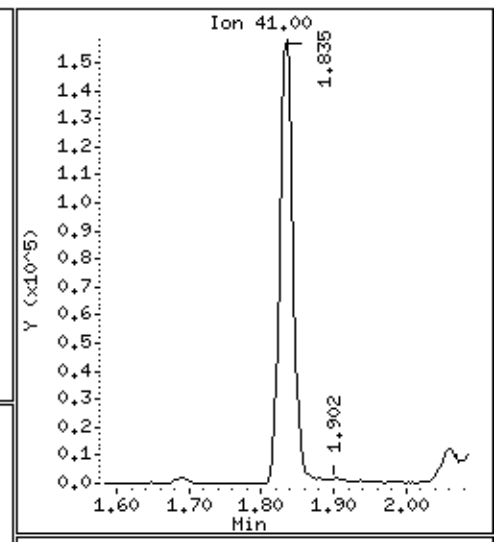
Column diameter: 0.18

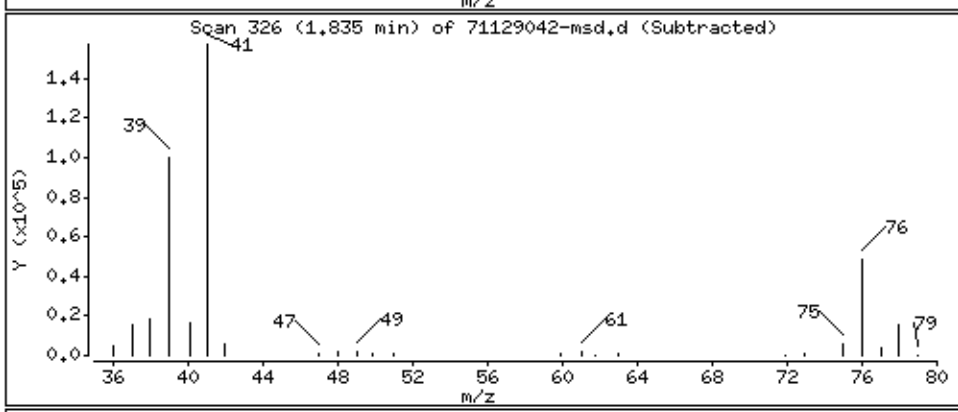
14 Allyl chloride

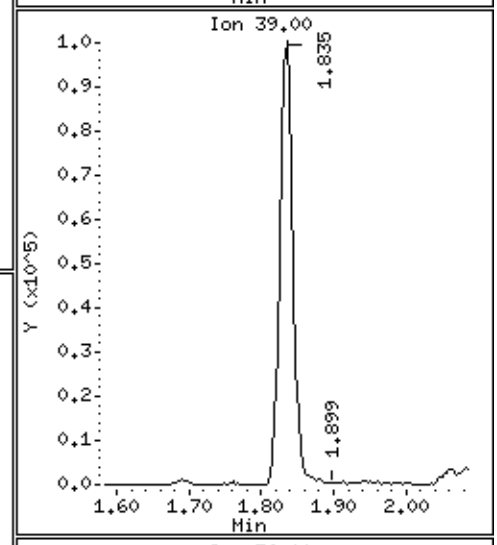
Concentration: 84.9 ug/L

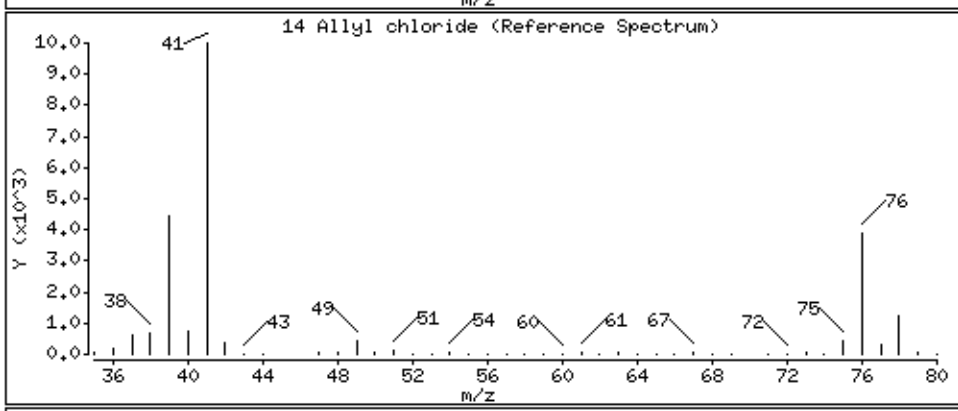
Review Code:

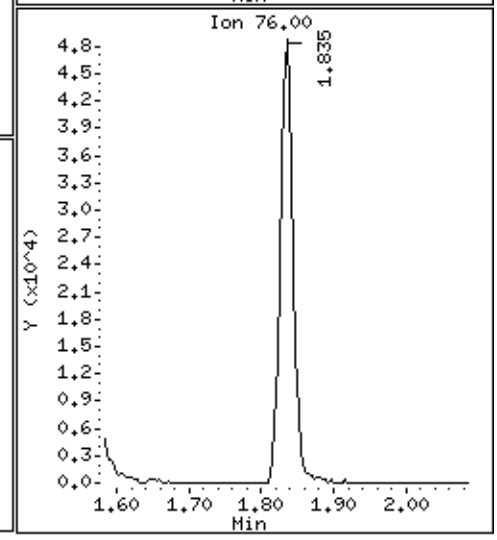


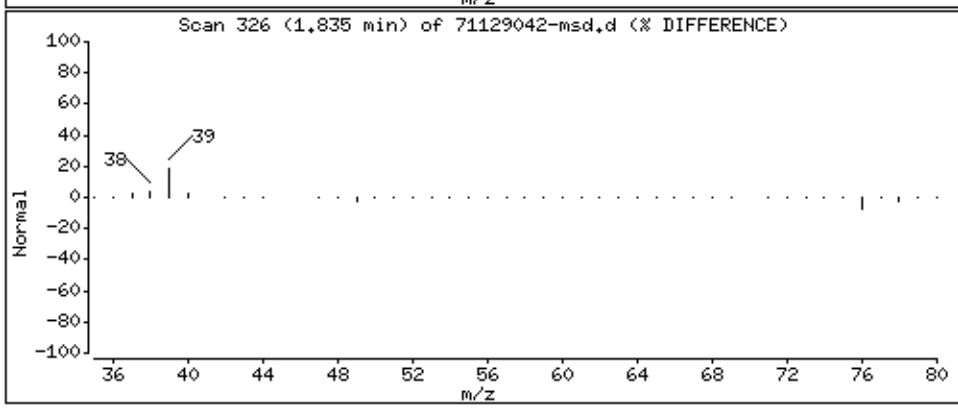












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

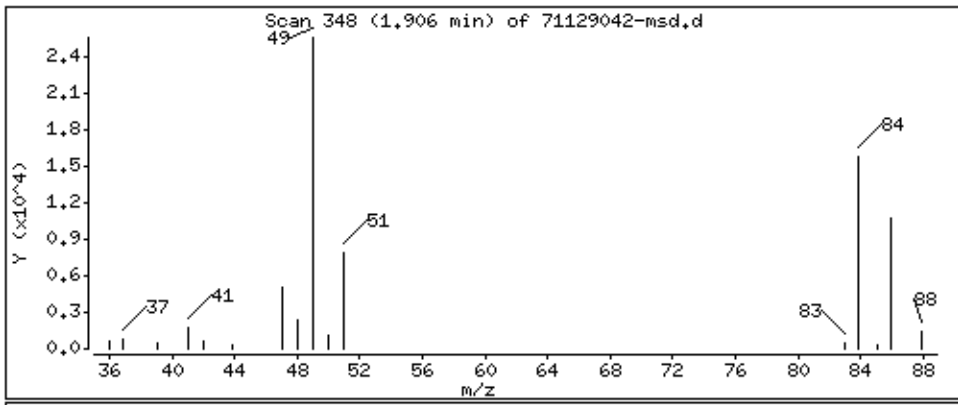
Column phase: RTX-VMS

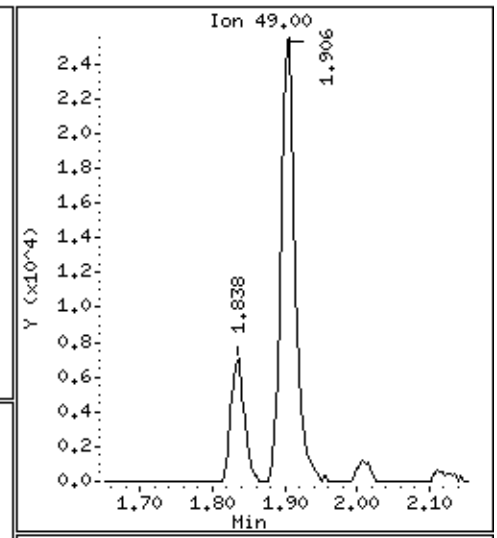
Column diameter: 0.18

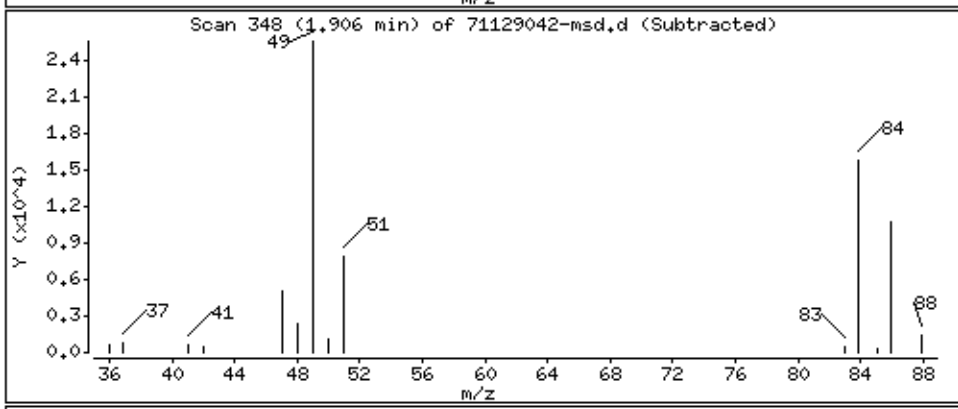
15 Methylene Chloride

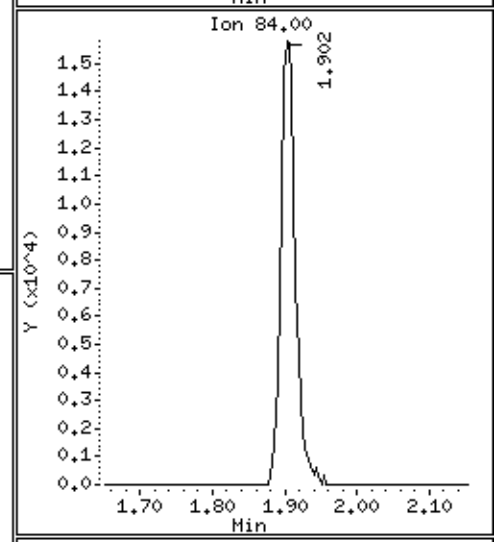
Concentration: 17.6 ug/L

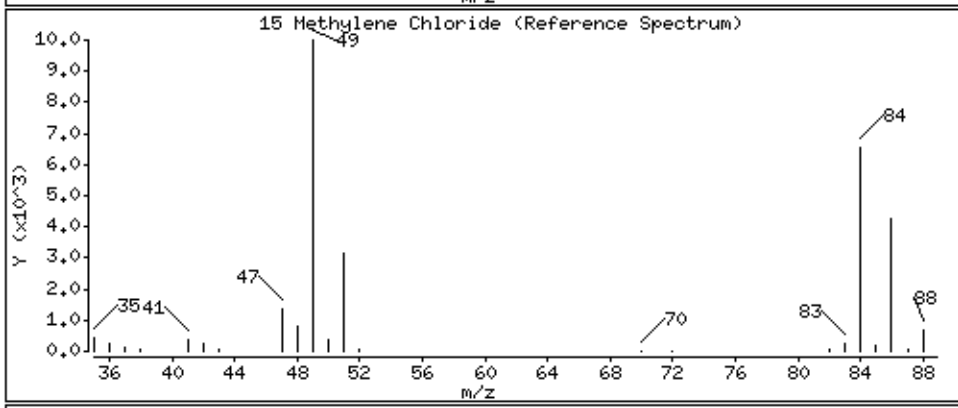
Review Code:

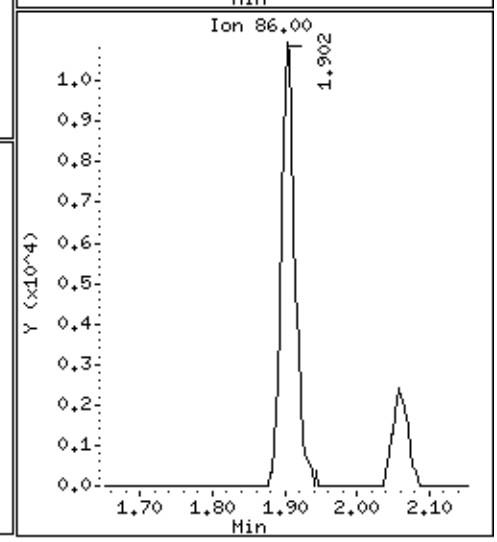


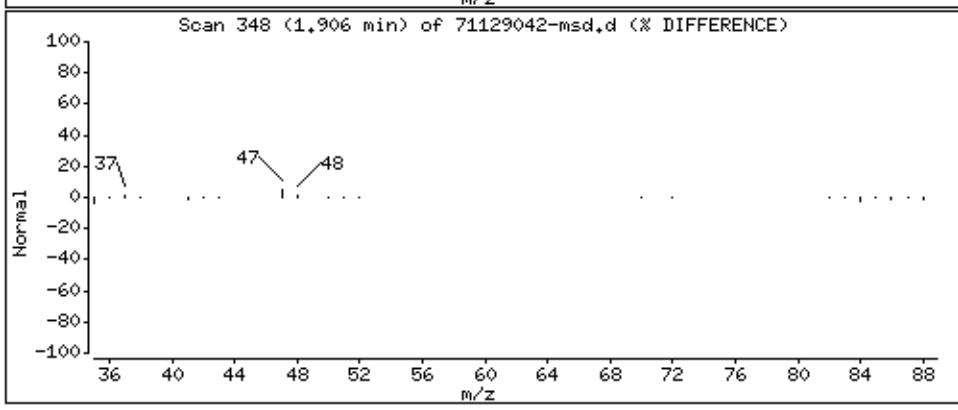












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

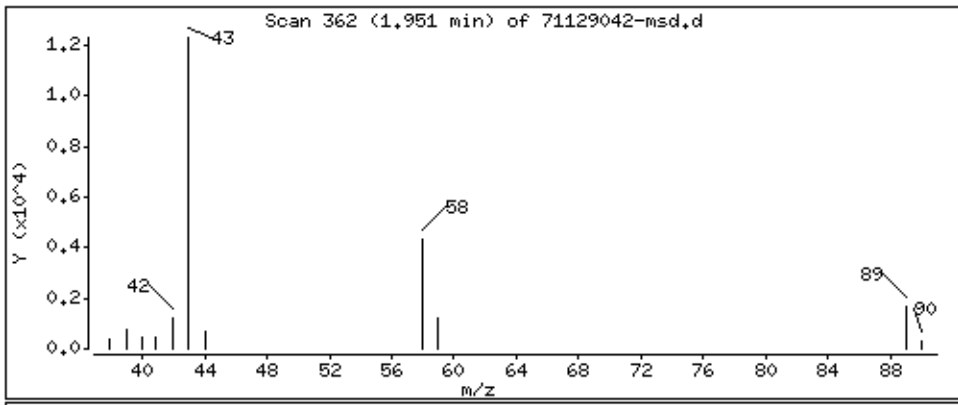
Column phase: RTX-VMS

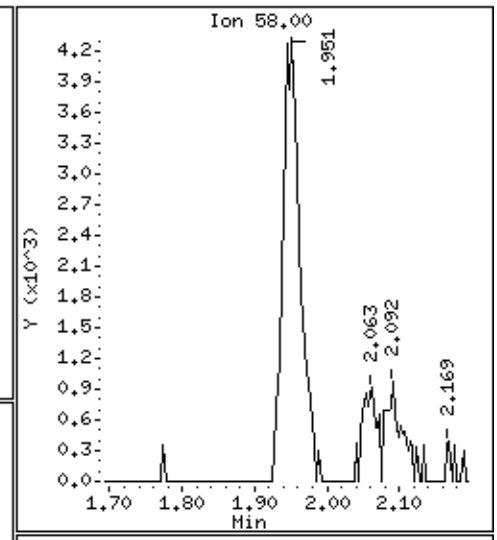
Column diameter: 0.18

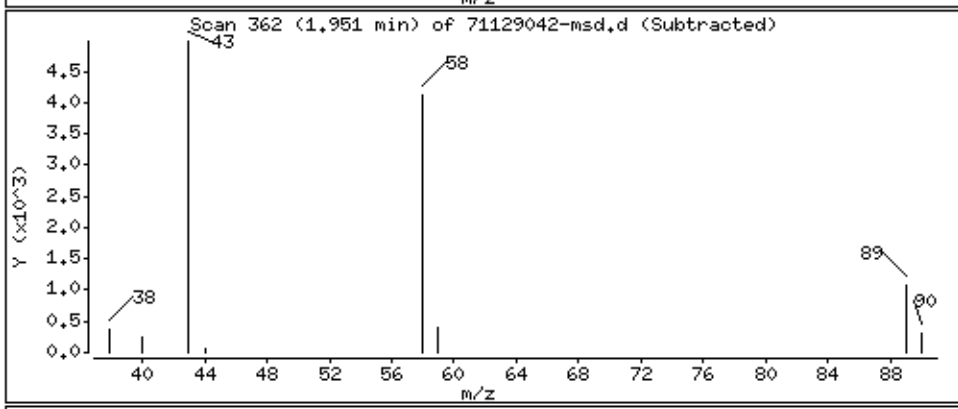
16 Acetone

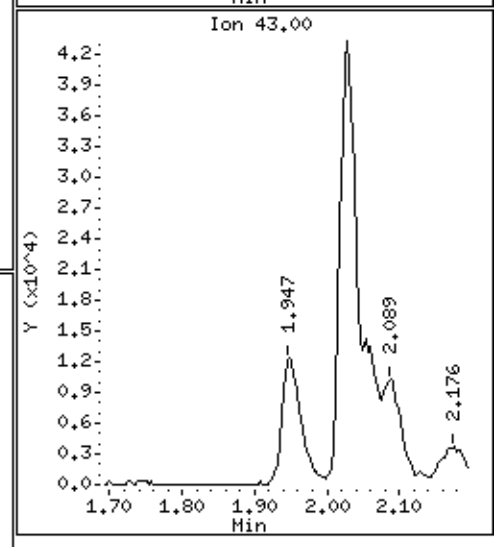
Concentration: 19.0 ug/L

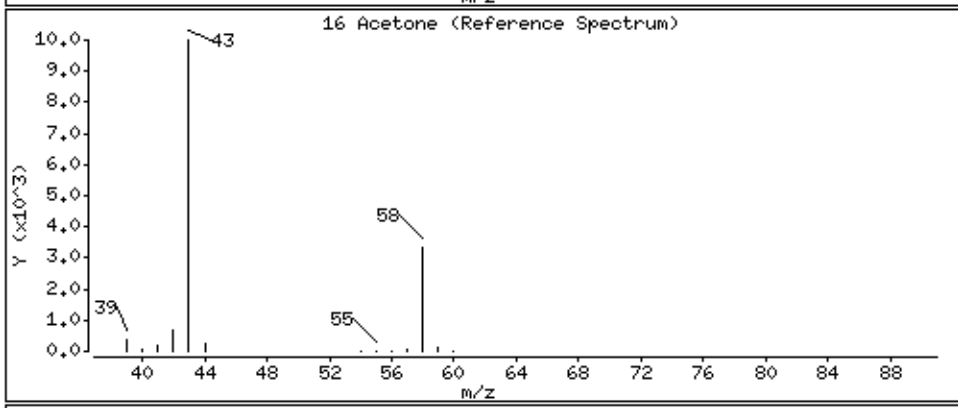
Review Code:

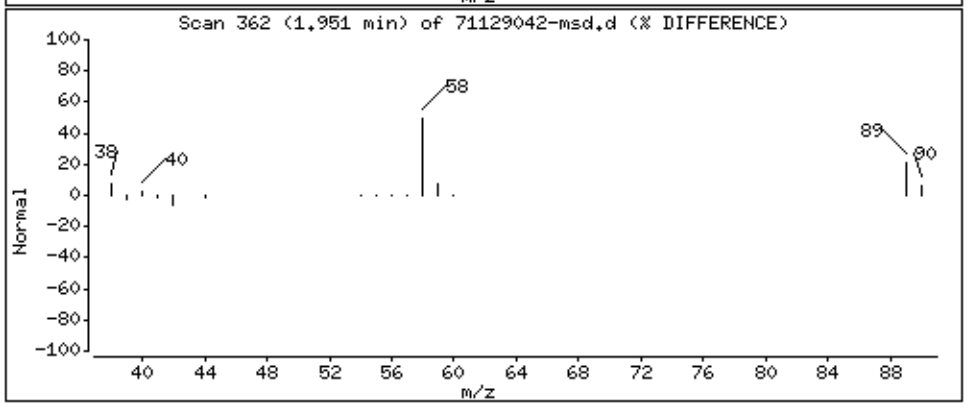












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

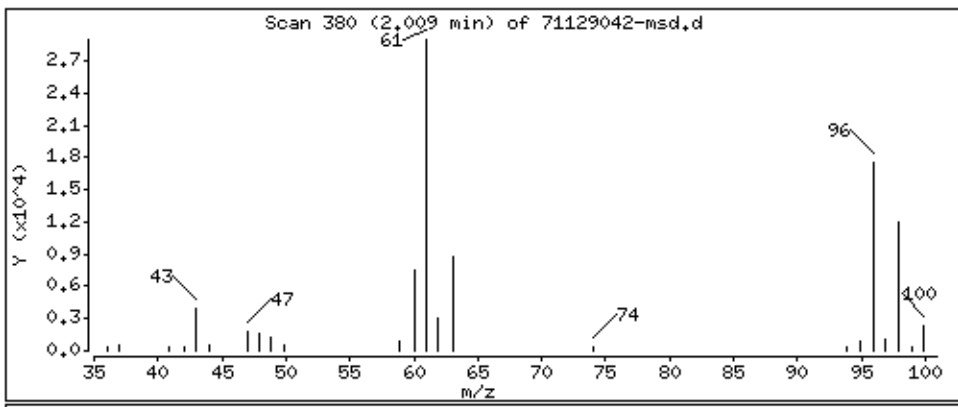
Column phase: RTX-VMS

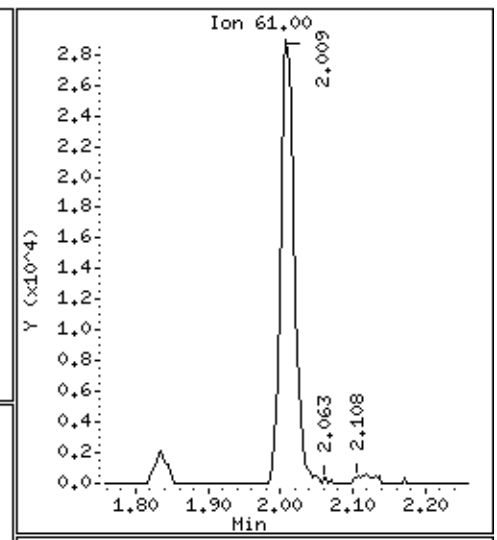
Column diameter: 0.18

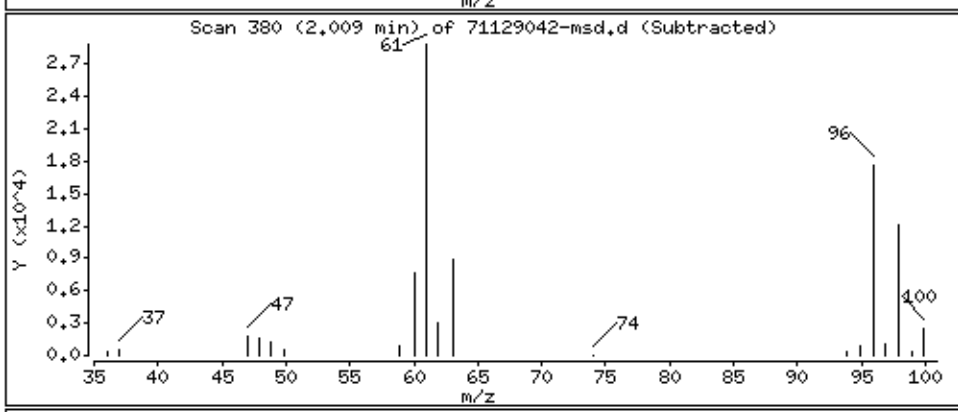
17 trans-1,2-Dichloroethene

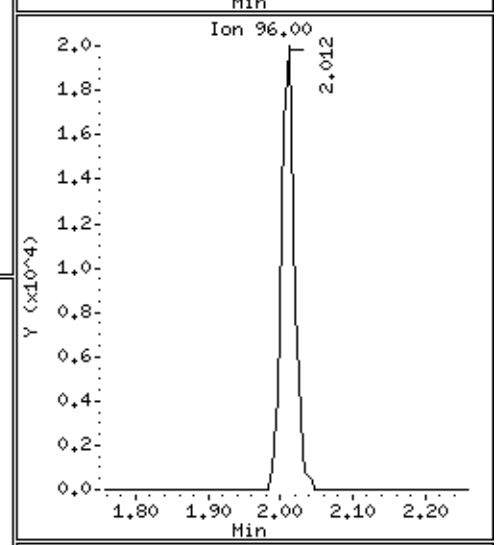
Concentration: 16.0 ug/L

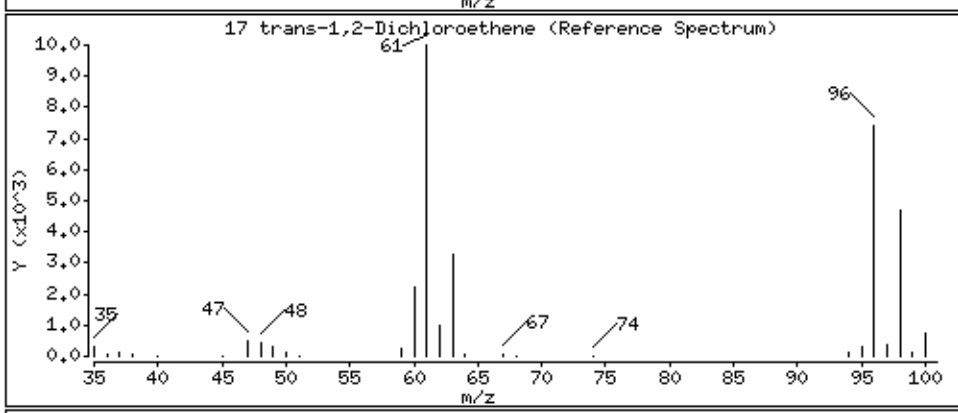
Review Code:

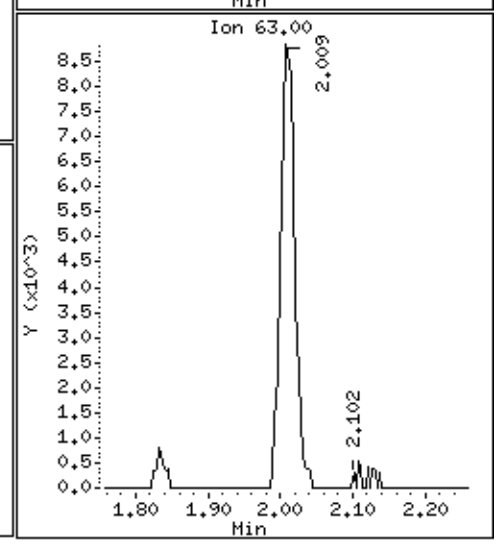


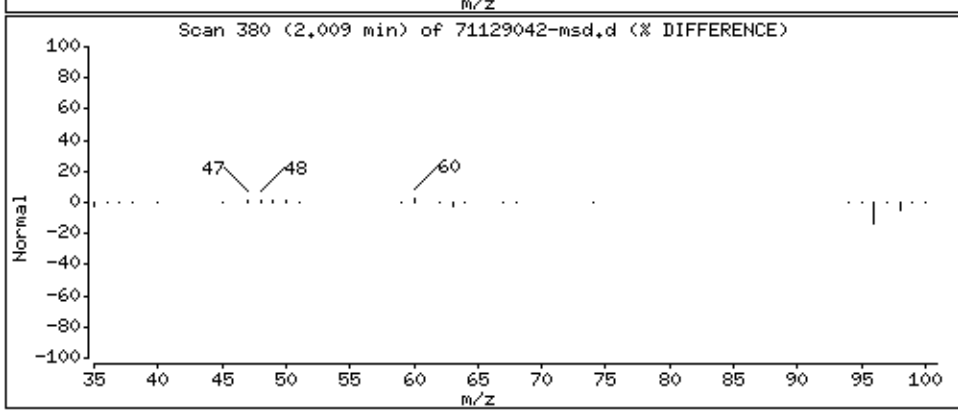












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

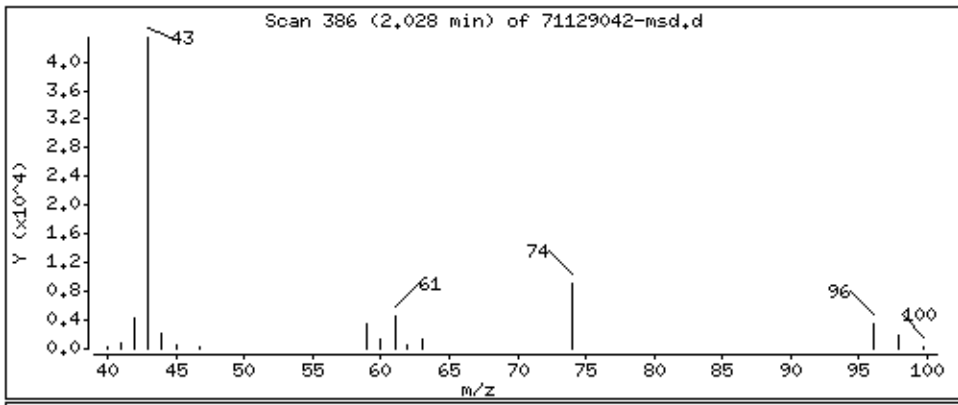
Column phase: RTX-VMS

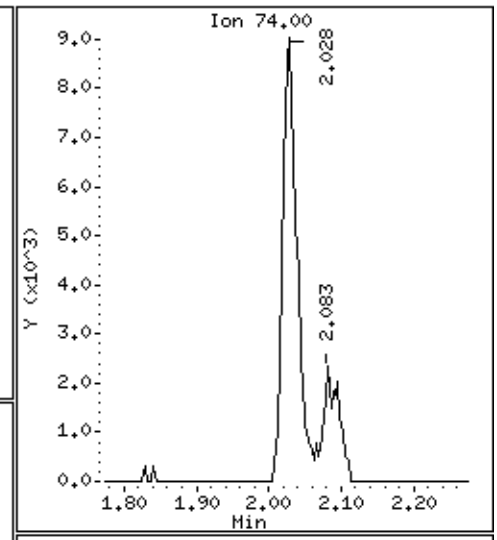
Column diameter: 0.18

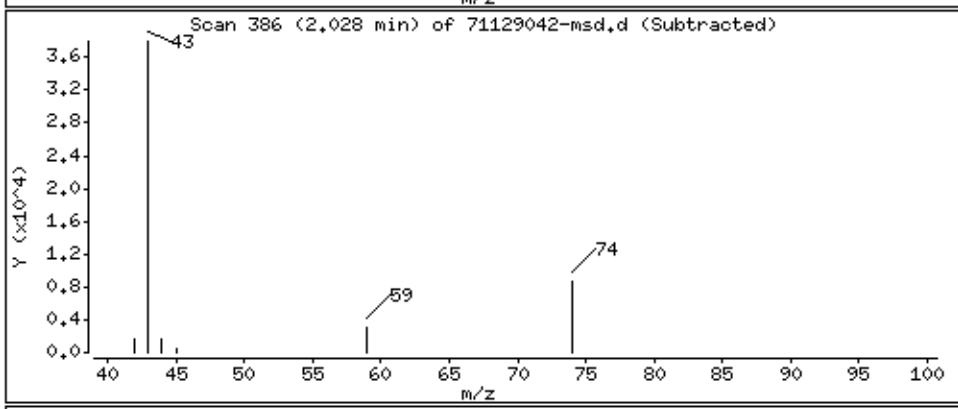
18 Methyl acetate

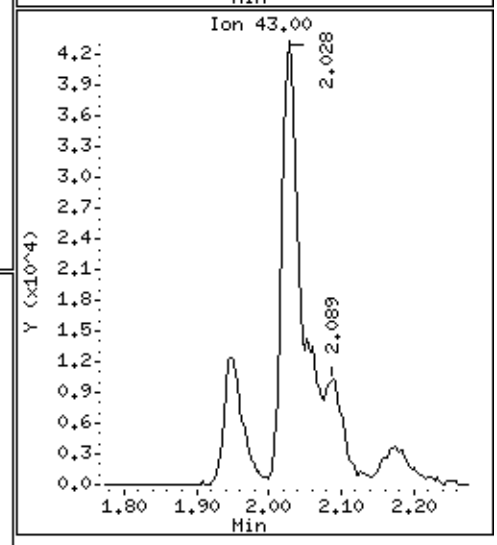
Concentration: 16.3 ug/L

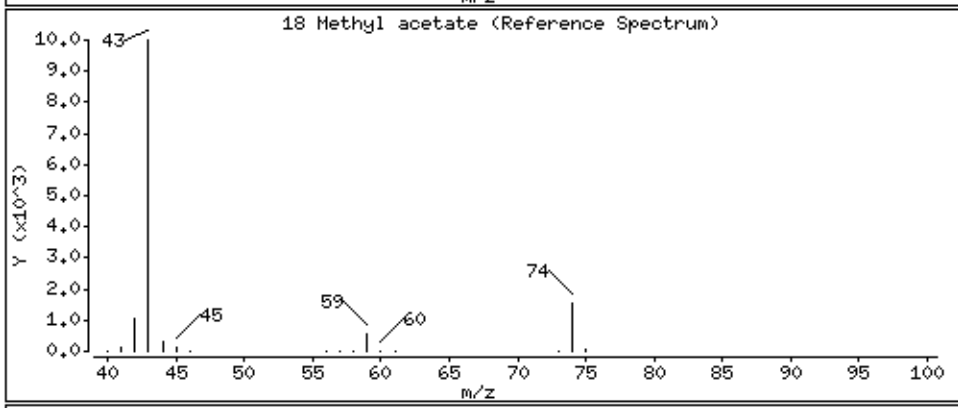
Review Code:

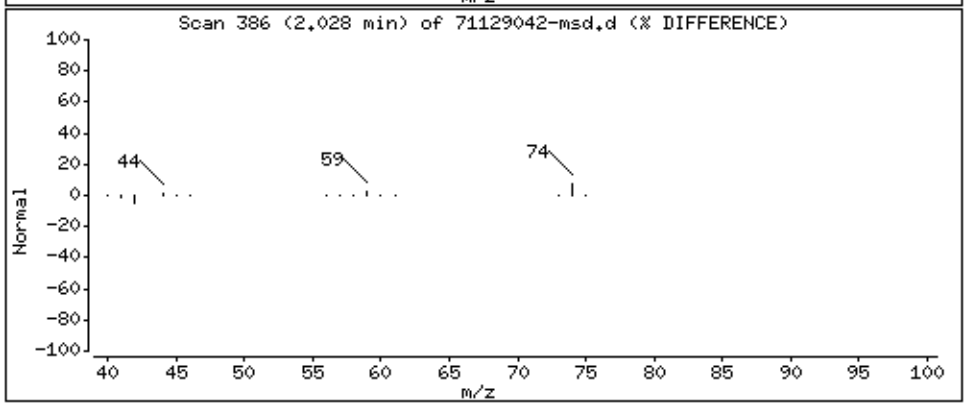












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

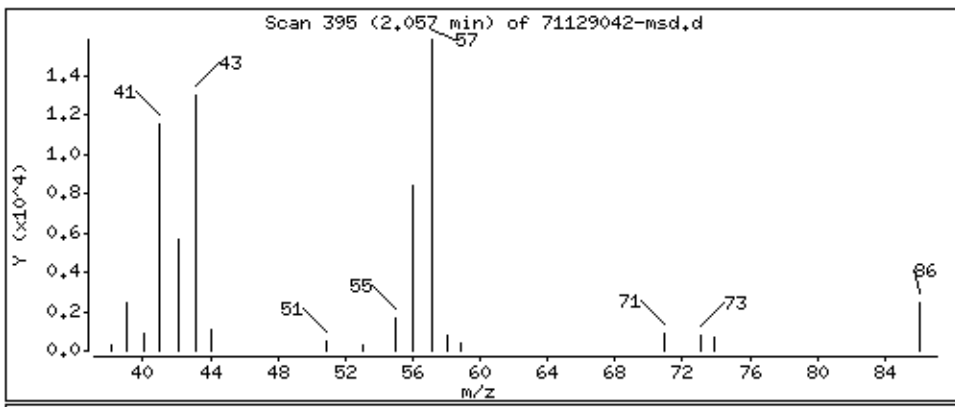
Column phase: RTX-VMS

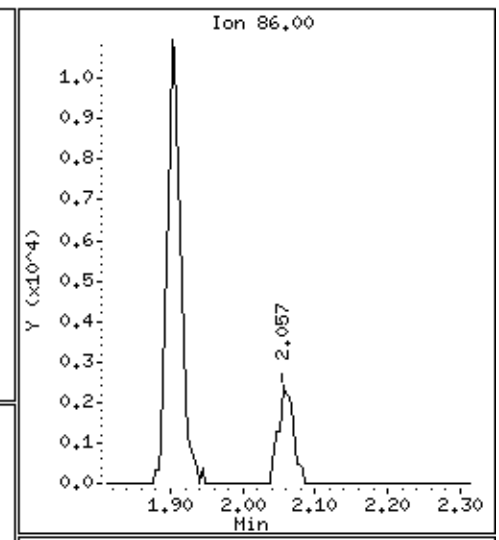
Column diameter: 0.18

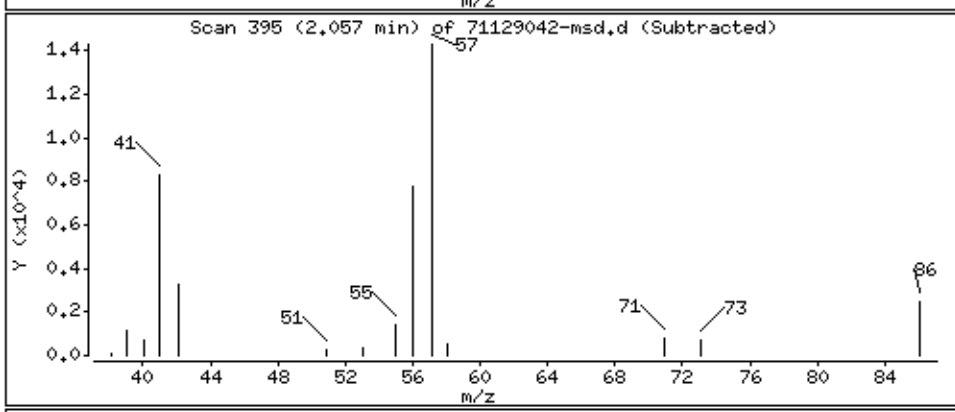
19 n-Hexane

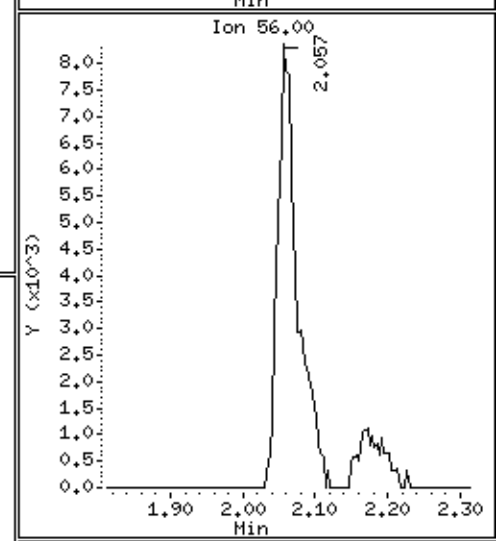
Concentration: 12.4 ug/L

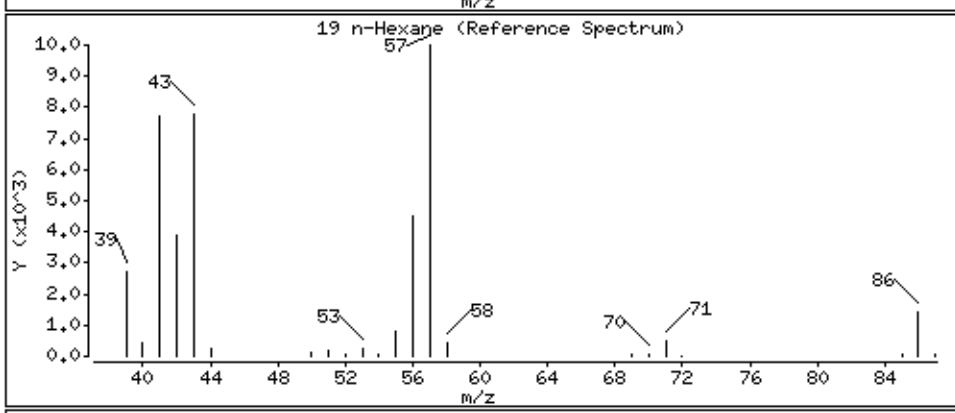
Review Code:

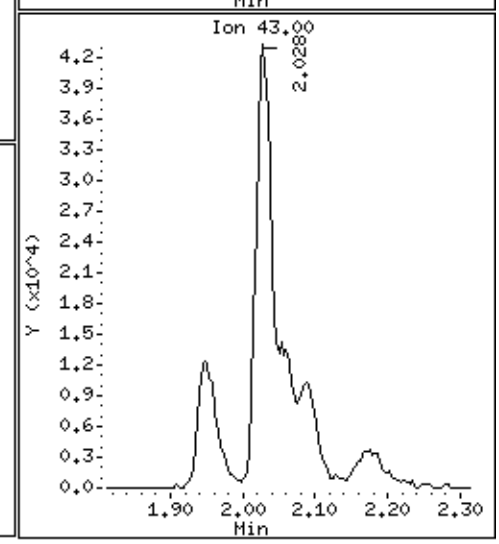


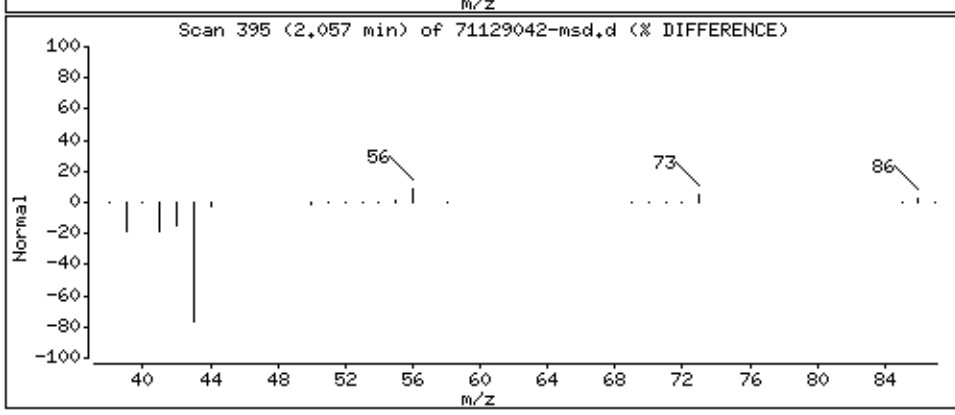












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

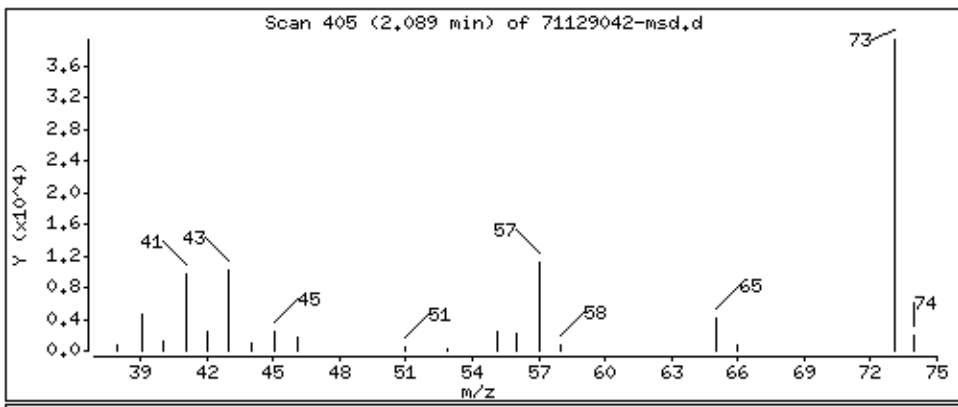
Column phase: RTX-VMS

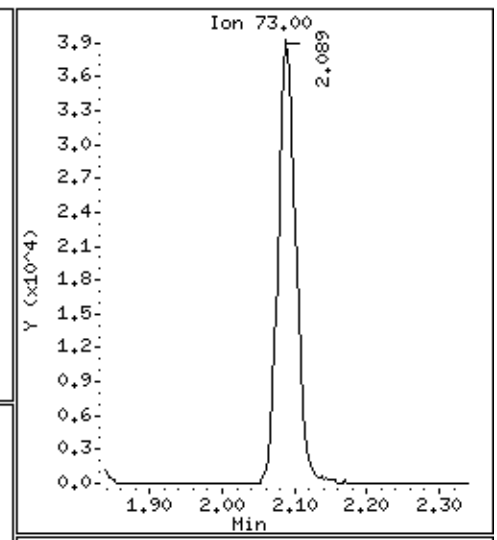
Column diameter: 0.18

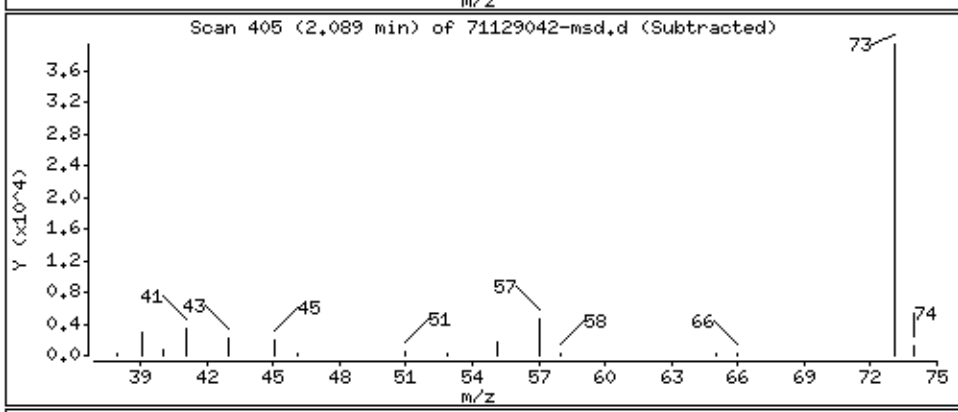
20 Methyl-tert-butyl ether

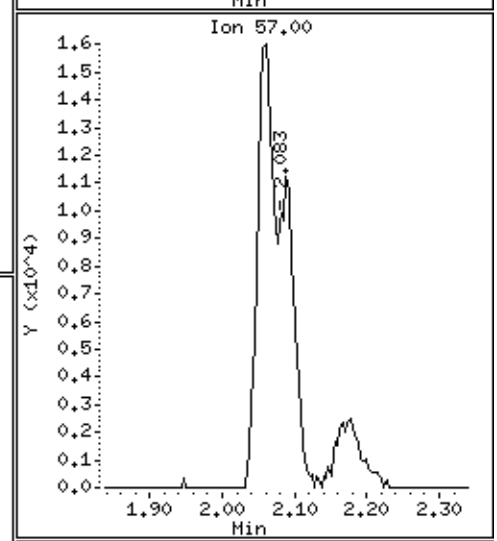
Concentration: 13.8 ug/L

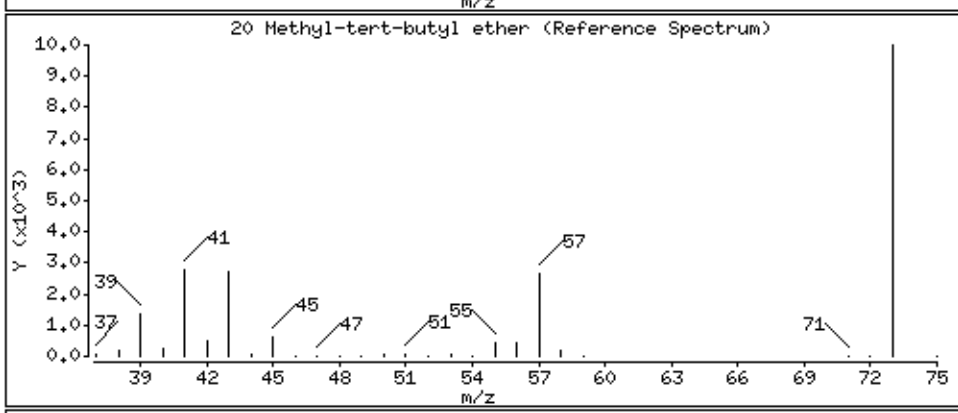
Review Code:

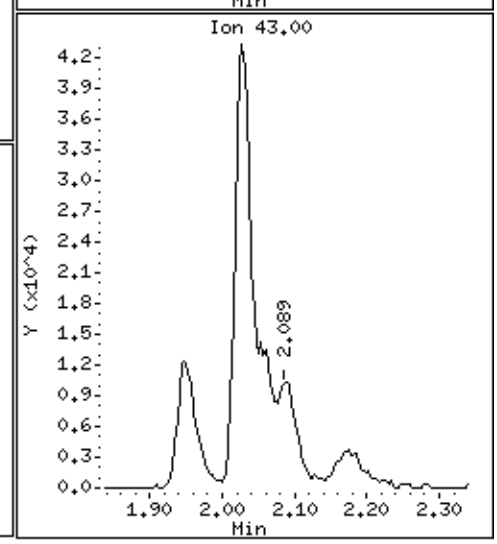


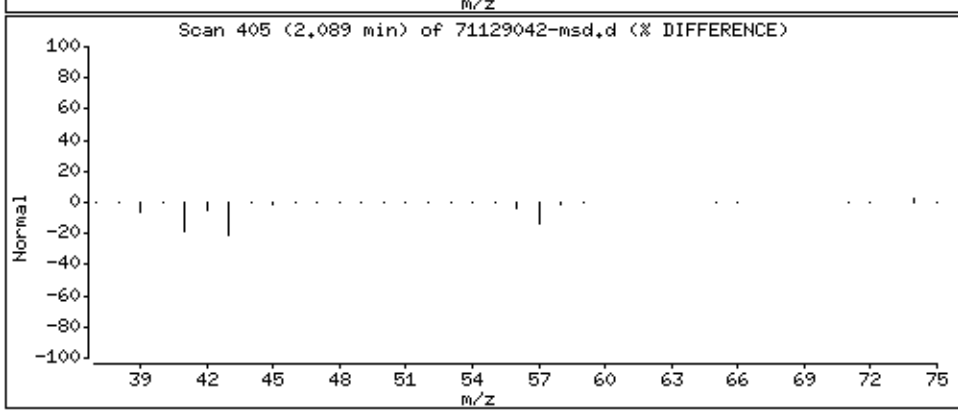












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

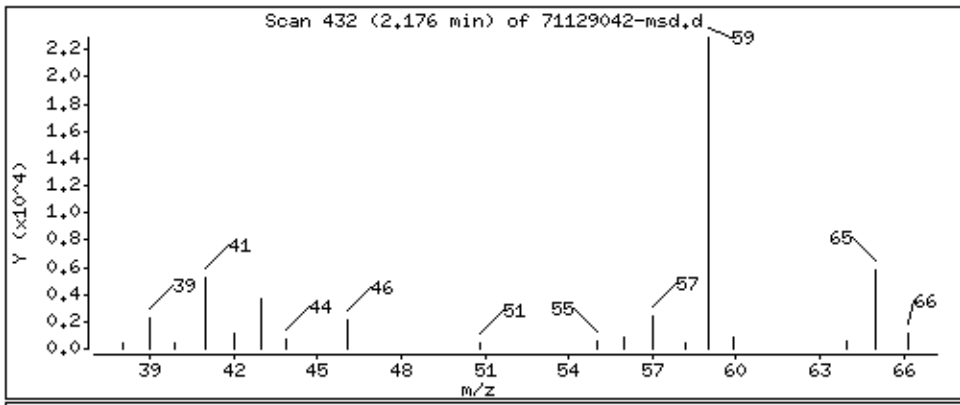
Column phase: RTX-VMS

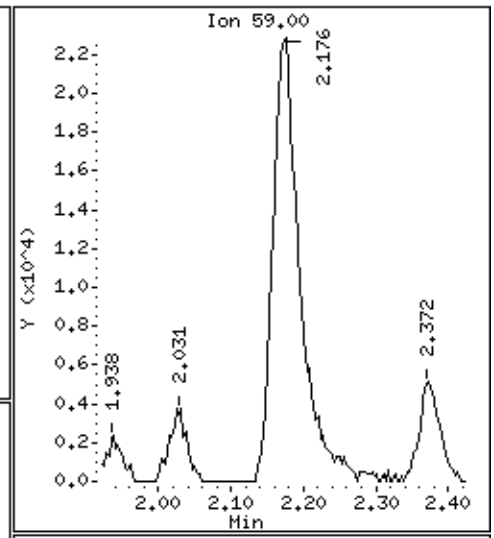
Column diameter: 0.18

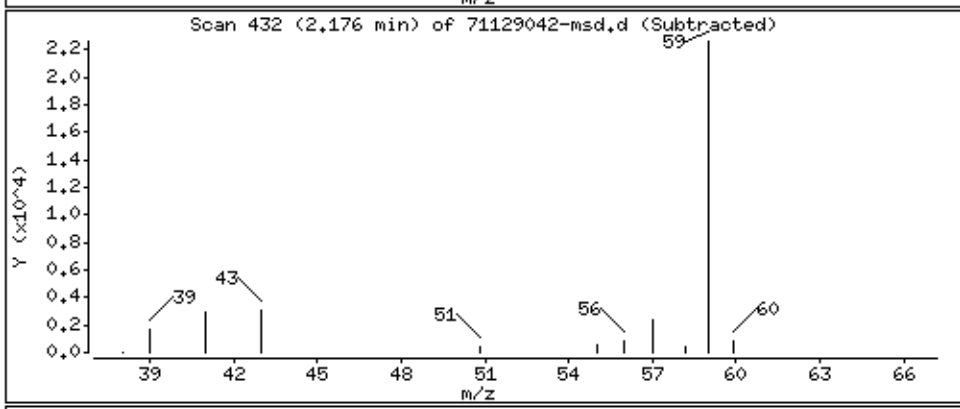
21 tert-Butyl Alcohol

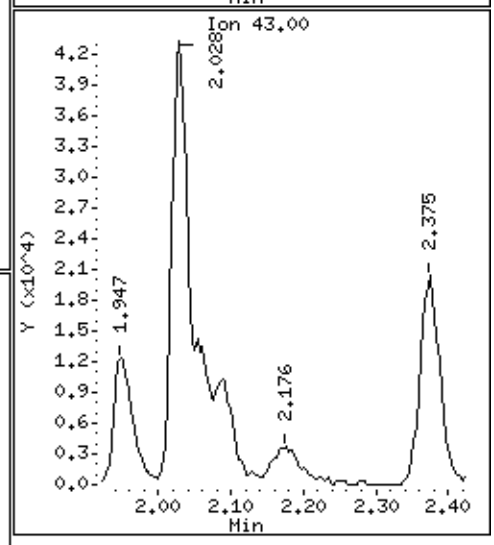
Concentration: 83.4 ug/L

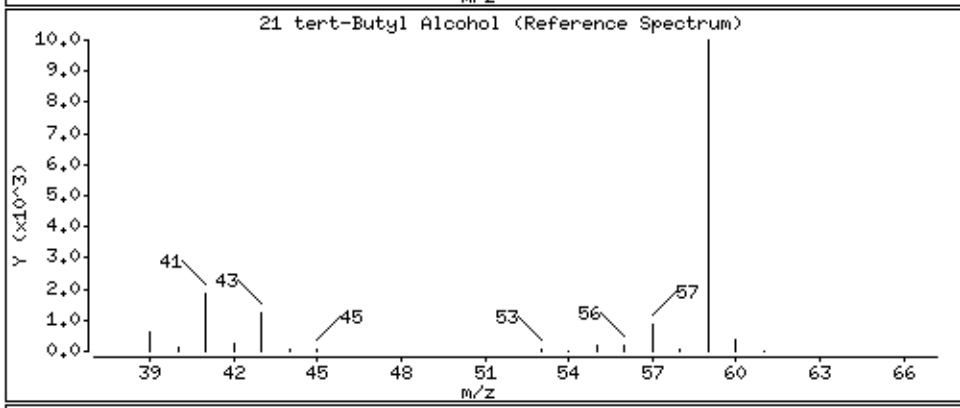
Review Code:

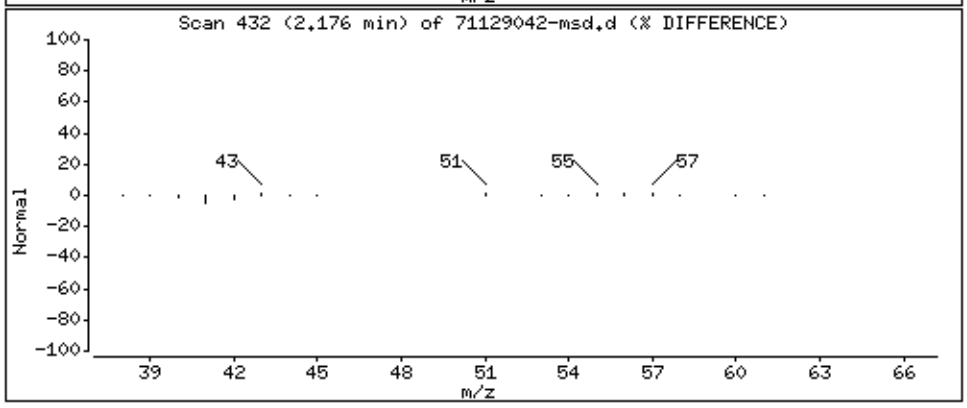












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

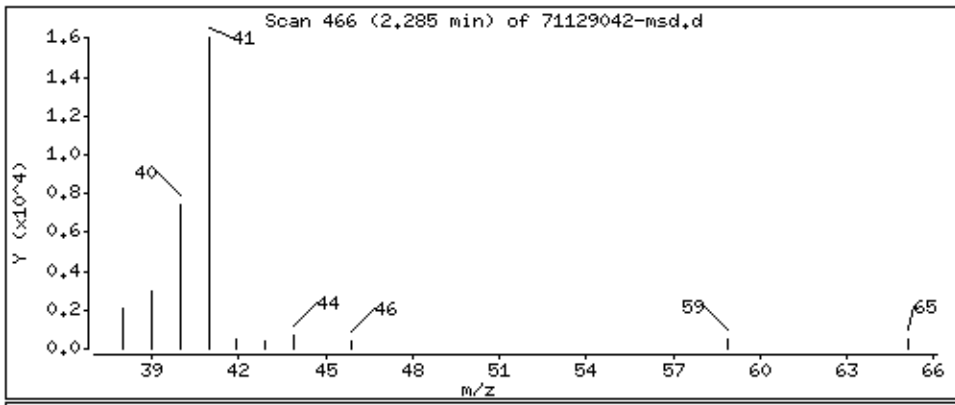
Column phase: RTX-VMS

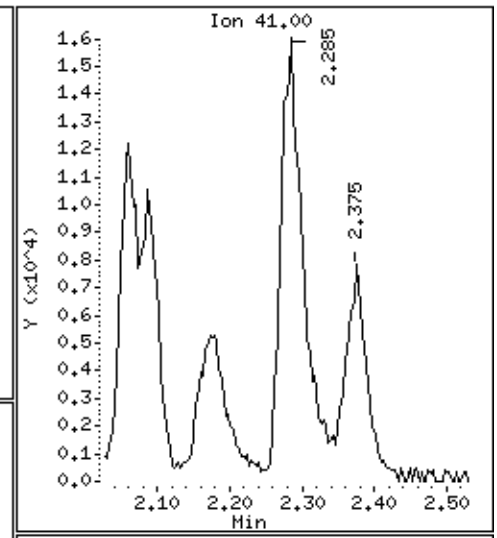
Column diameter: 0.18

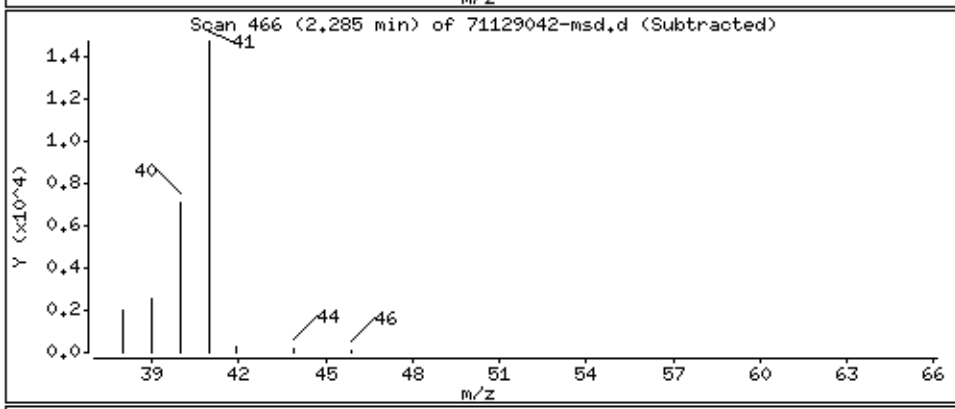
22 Acetonitrile

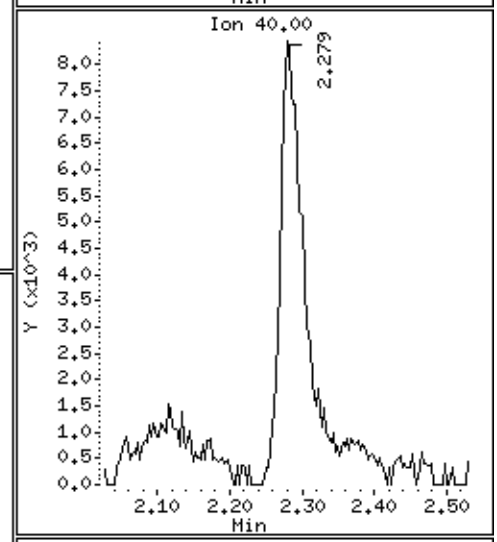
Concentration: 86.1 ug/L

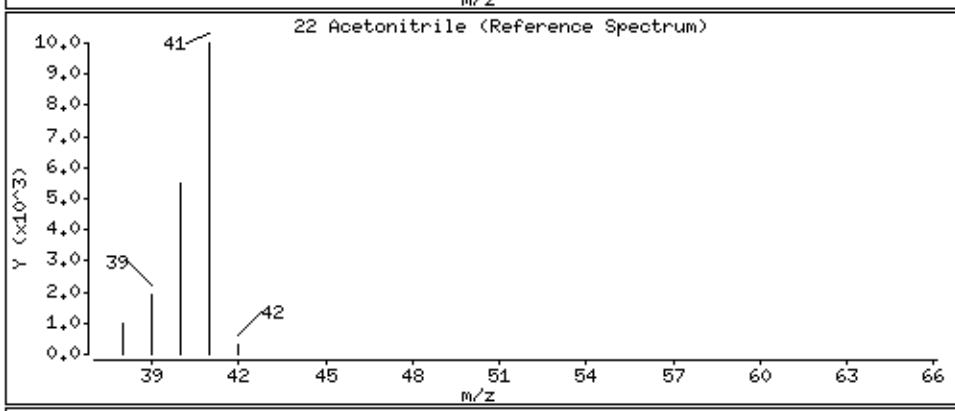
Review Code:

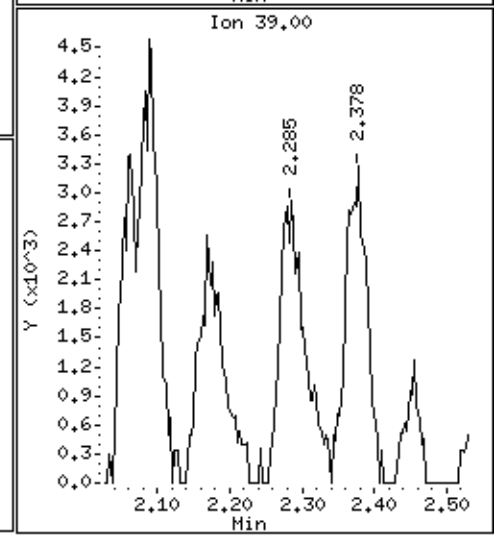


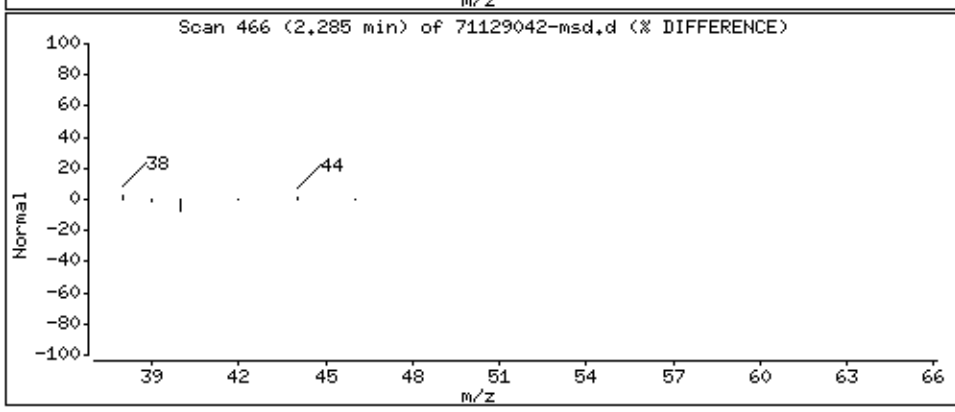












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

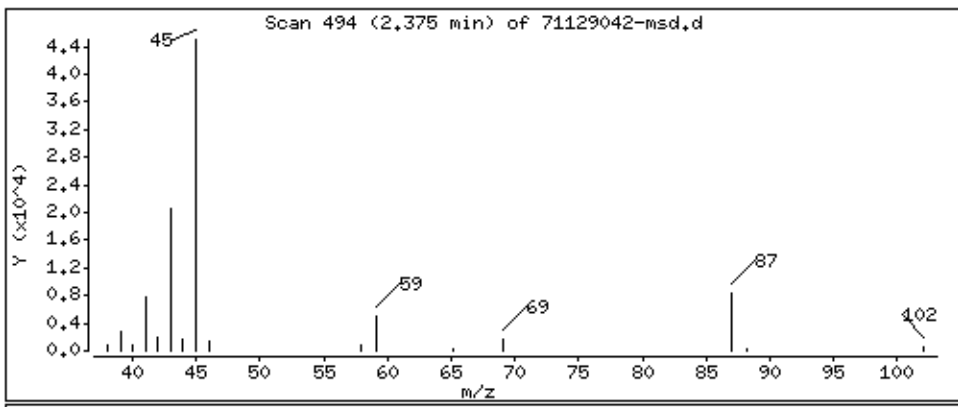
Column phase: RTX-VMS

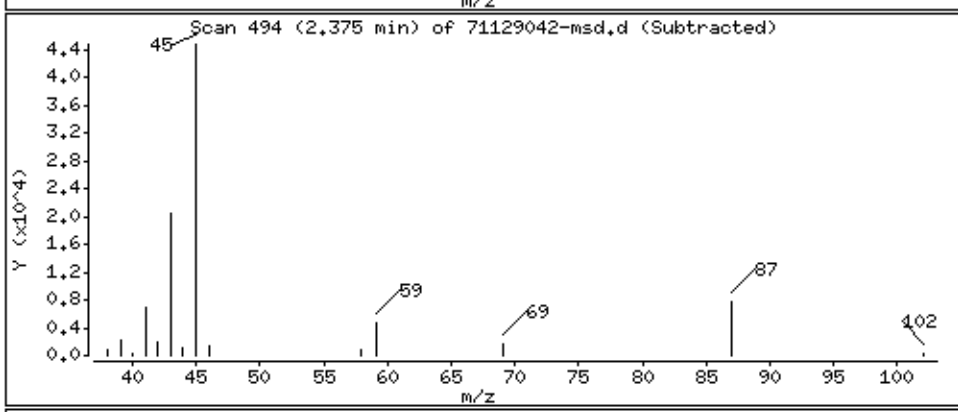
Column diameter: 0.18

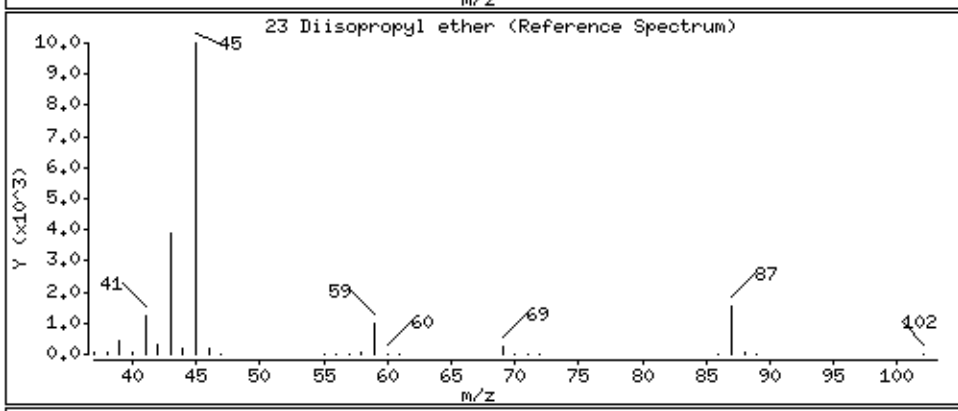
23 Diisopropyl ether

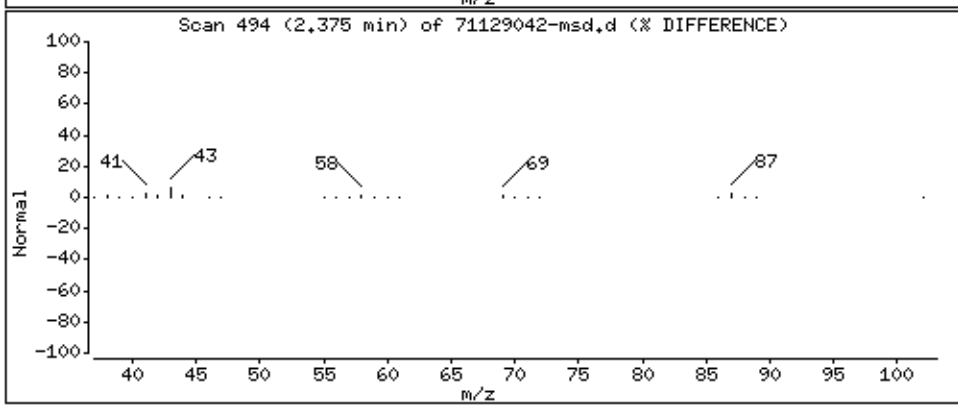
Concentration: 16.7 ug/L

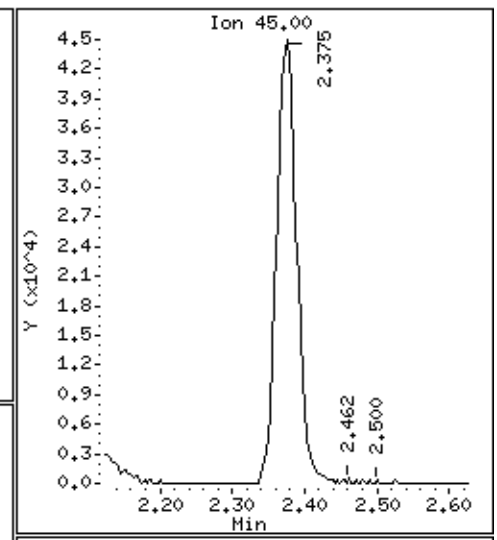
Review Code:

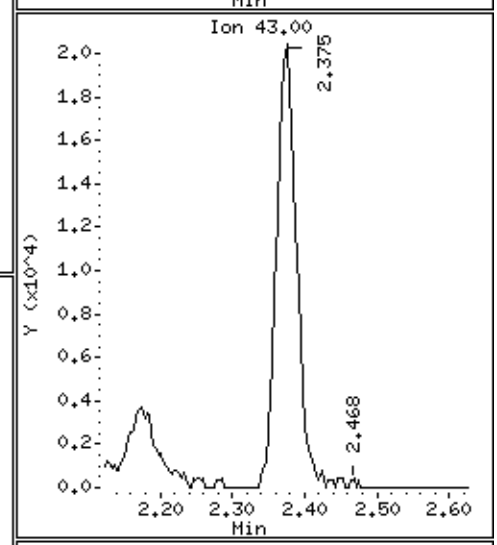


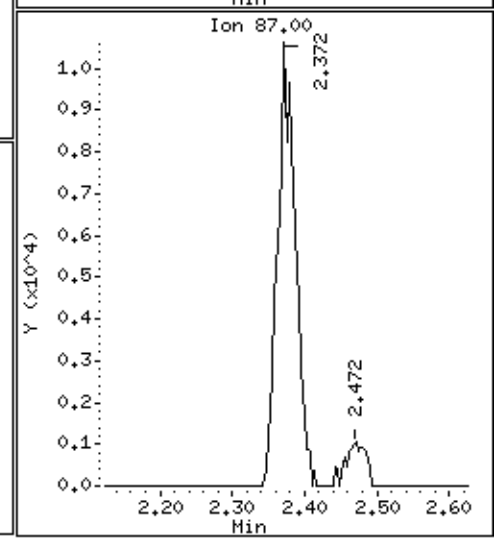












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

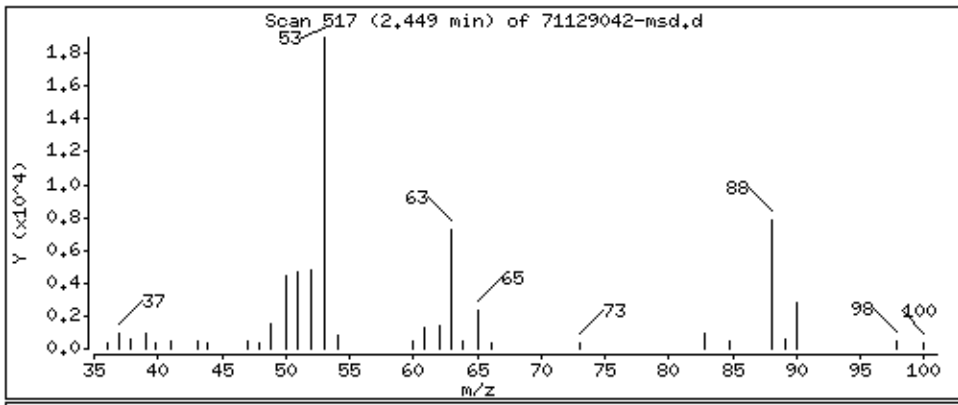
Column phase: RTX-VMS

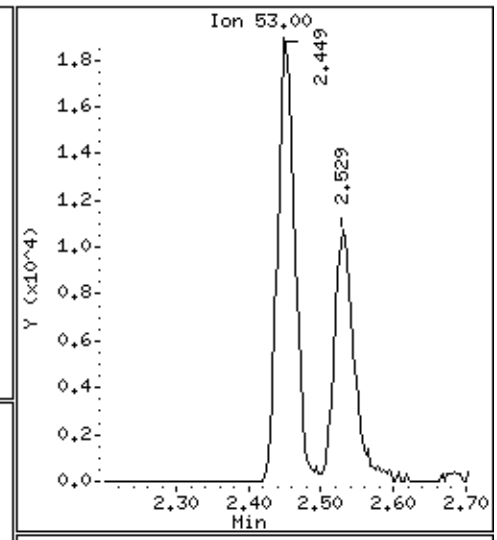
Column diameter: 0.18

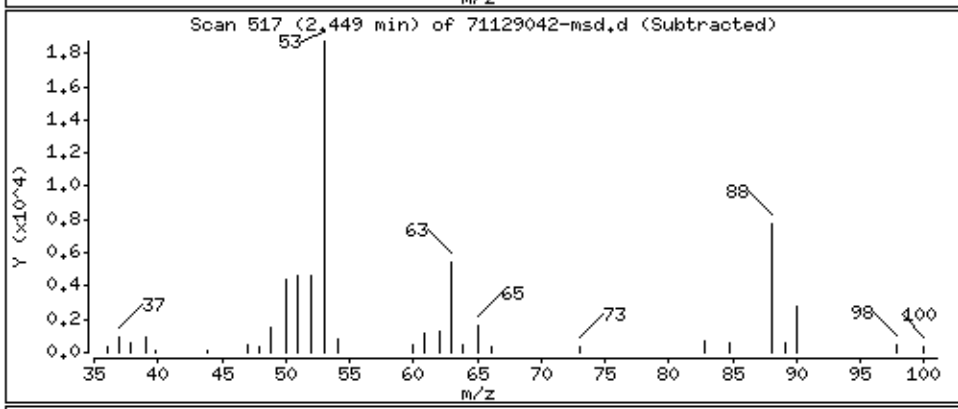
24 Chloroprene

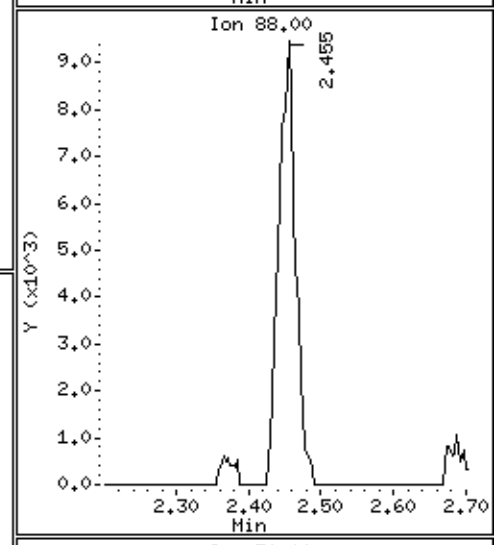
Concentration: 17.3 ug/L

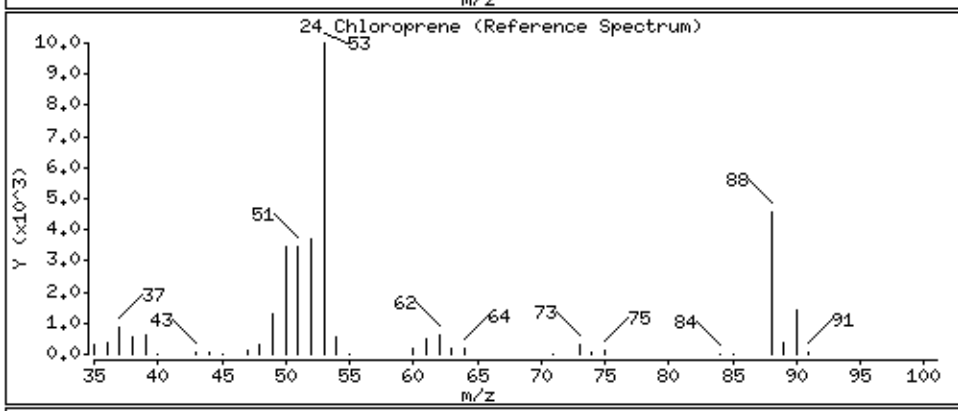
Review Code:

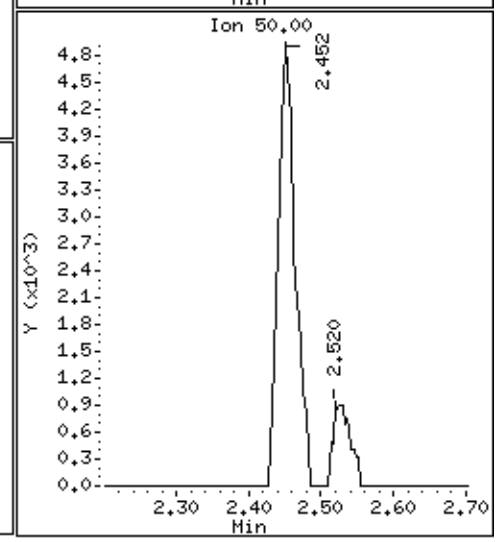


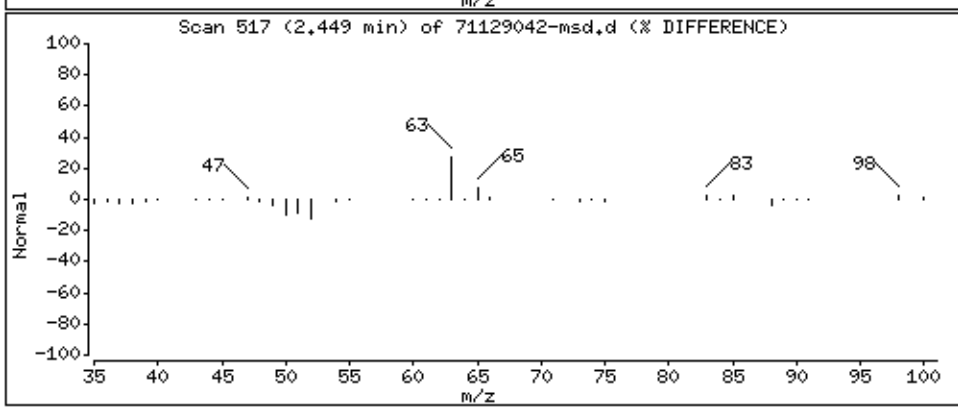












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

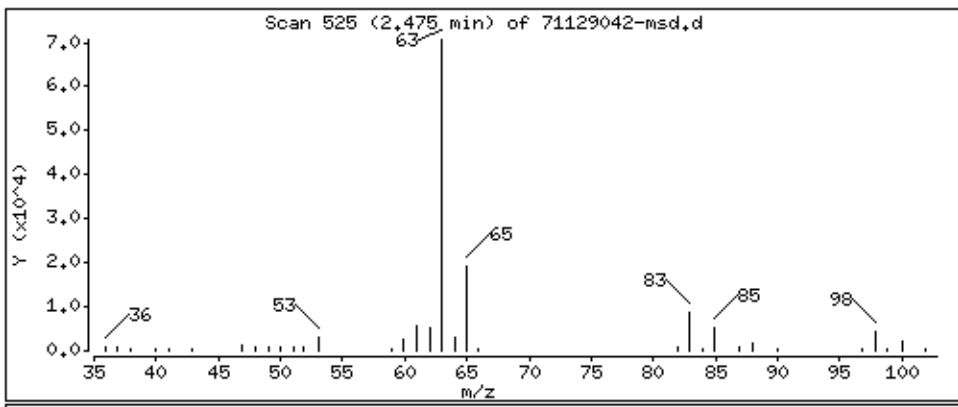
Column phase: RTX-VMS

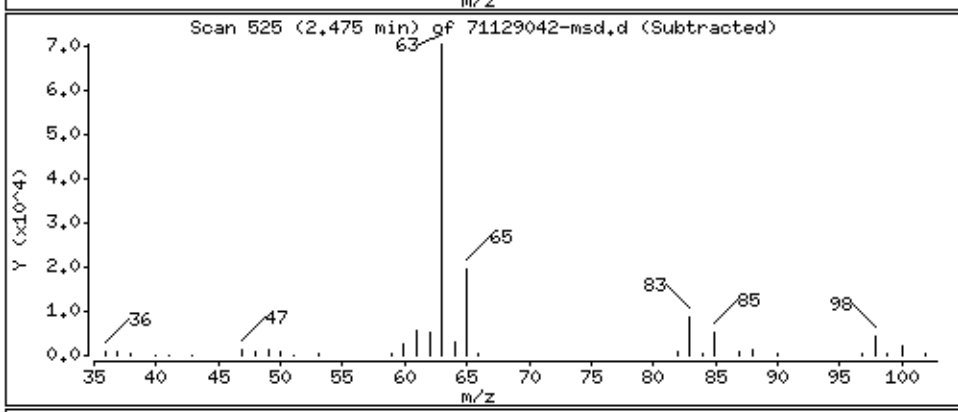
Column diameter: 0.18

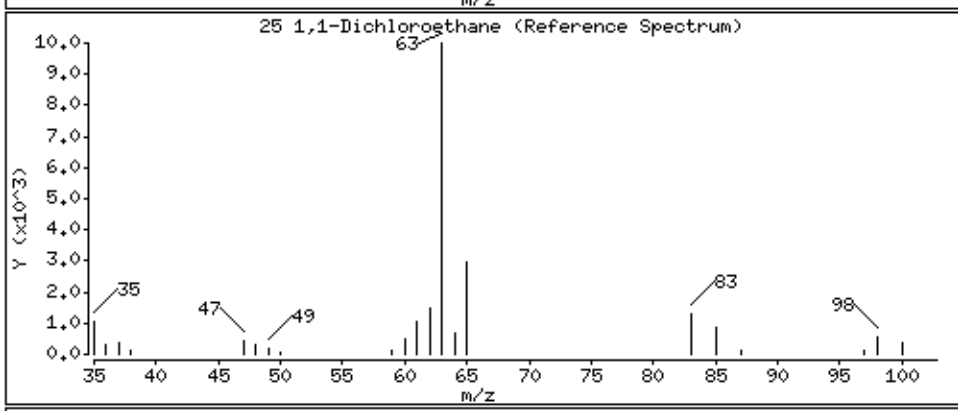
25 1,1-Dichloroethane

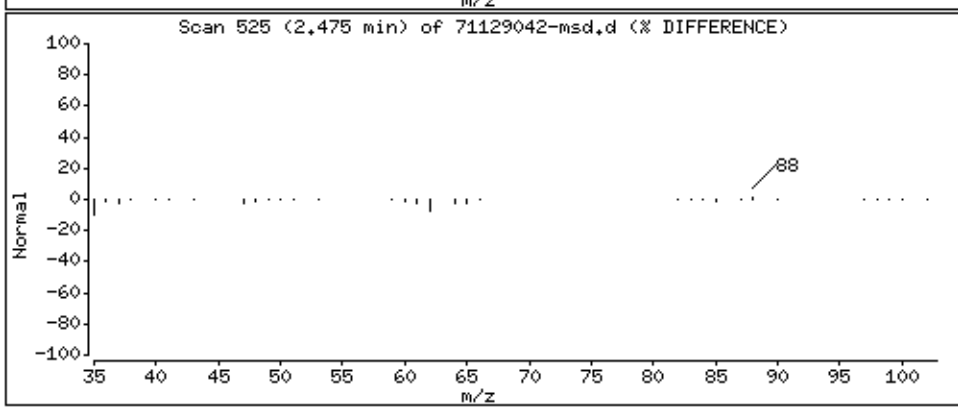
Concentration: 42.2 ug/L

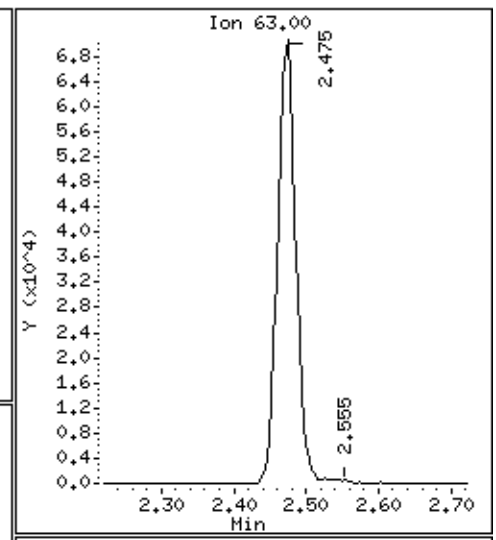
Review Code:

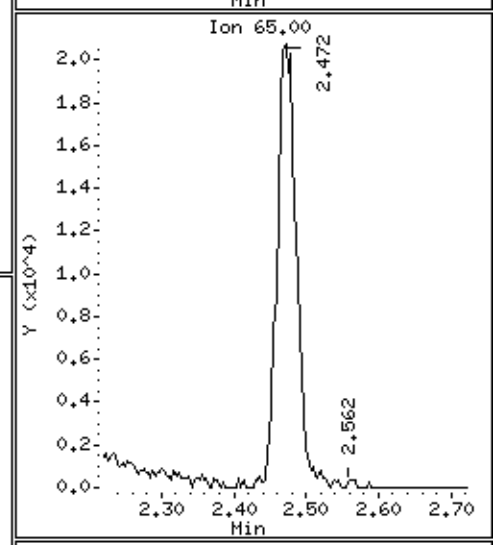


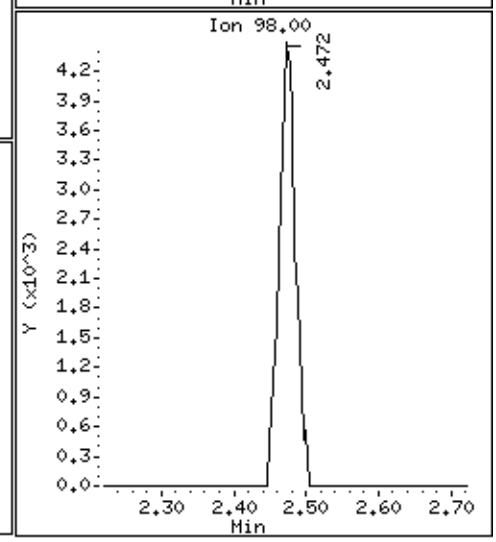












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

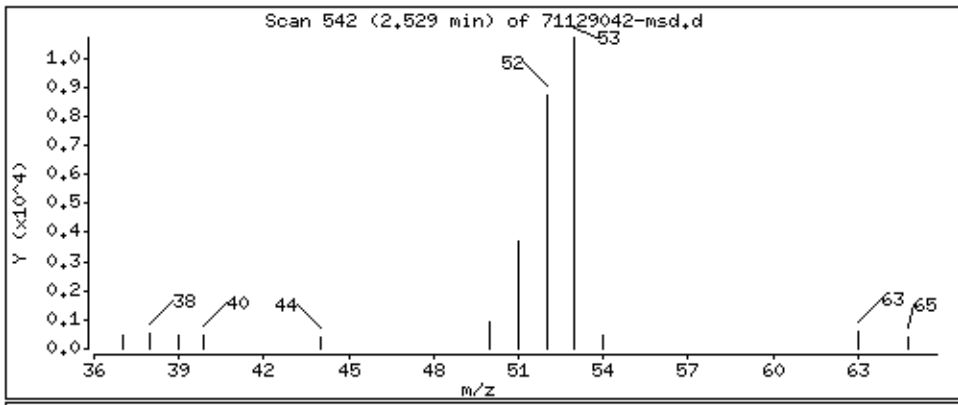
Column phase: RTX-VMS

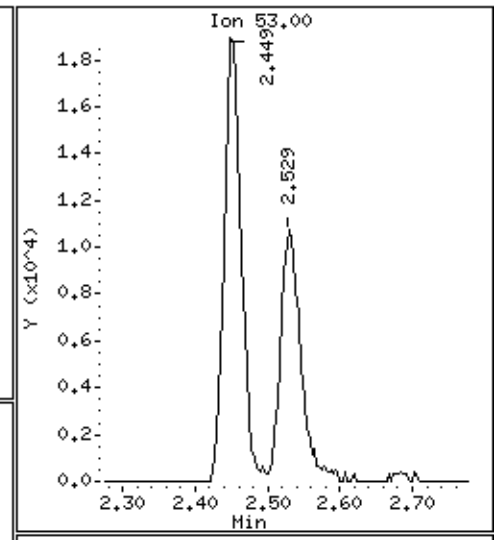
Column diameter: 0.18

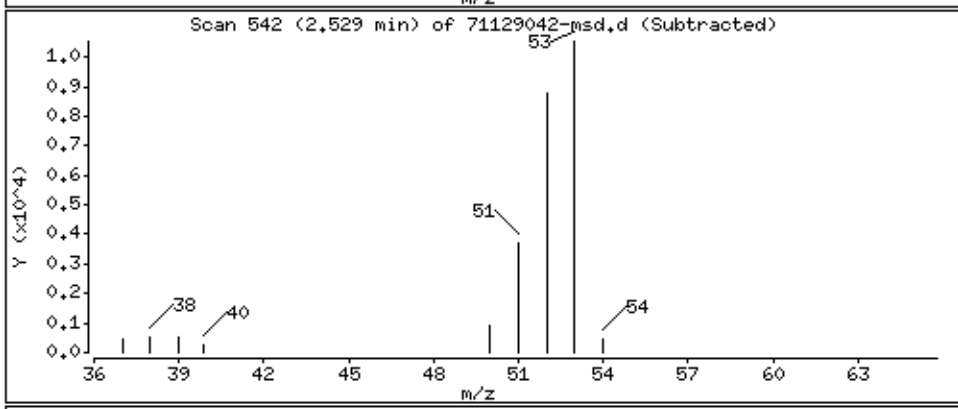
26 Acrylonitrile

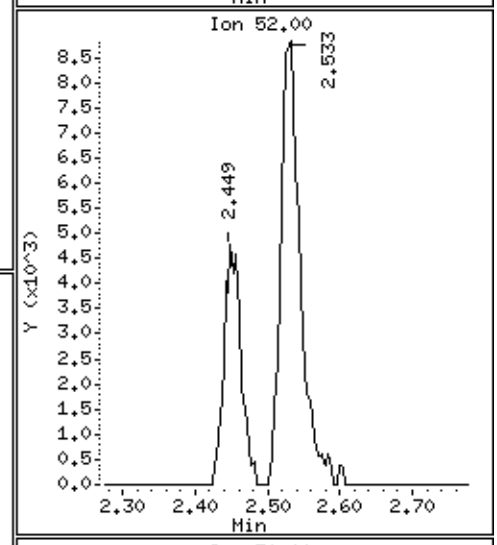
Concentration: 16.9 ug/L

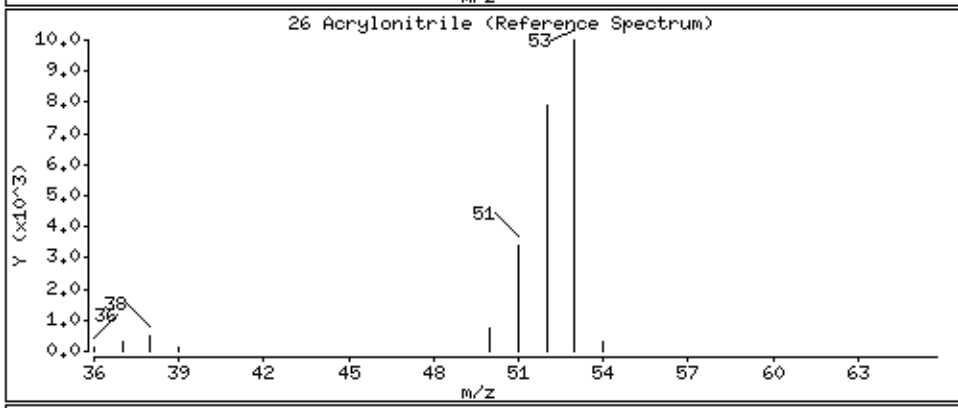
Review Code:

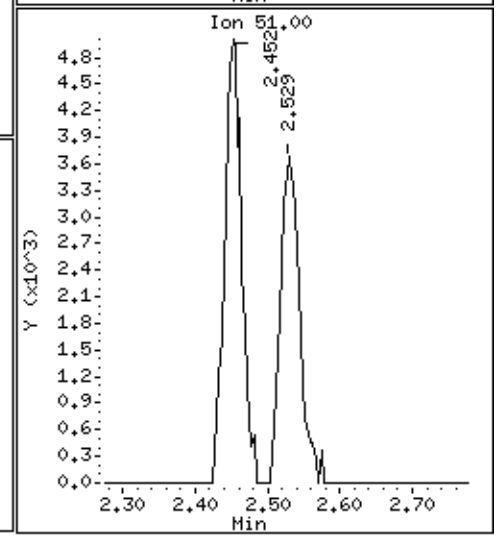


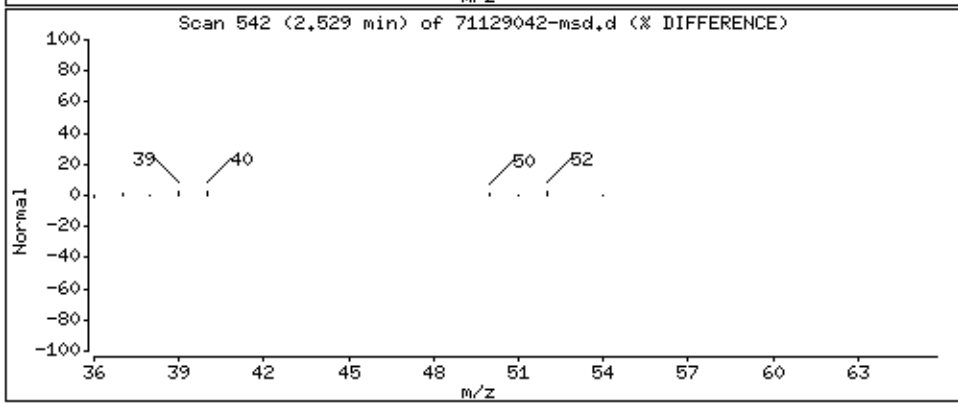












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

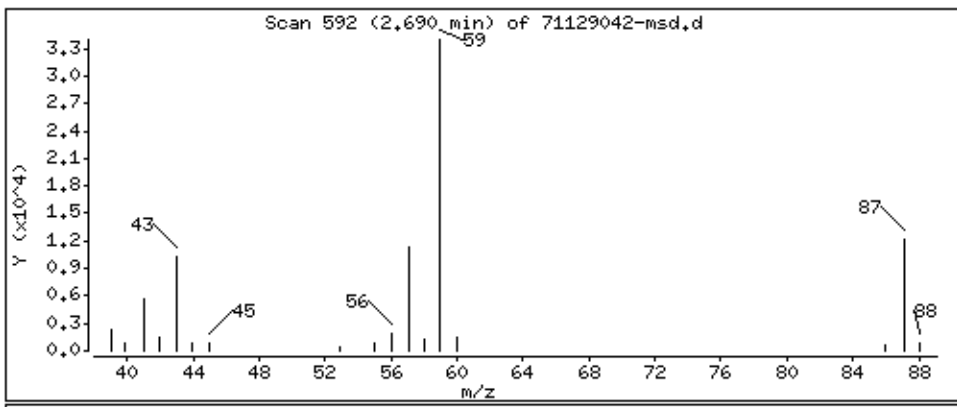
Column phase: RTX-VMS

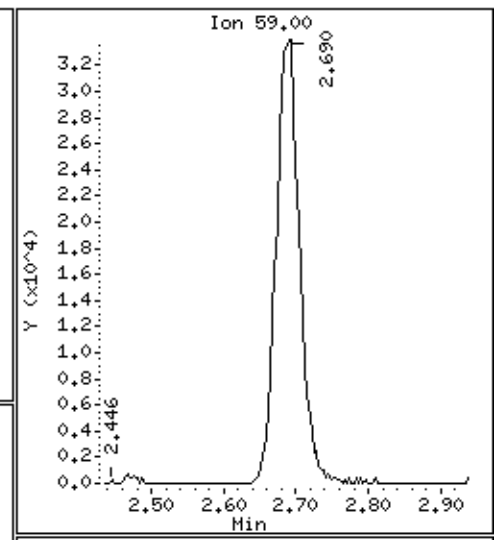
Column diameter: 0.18

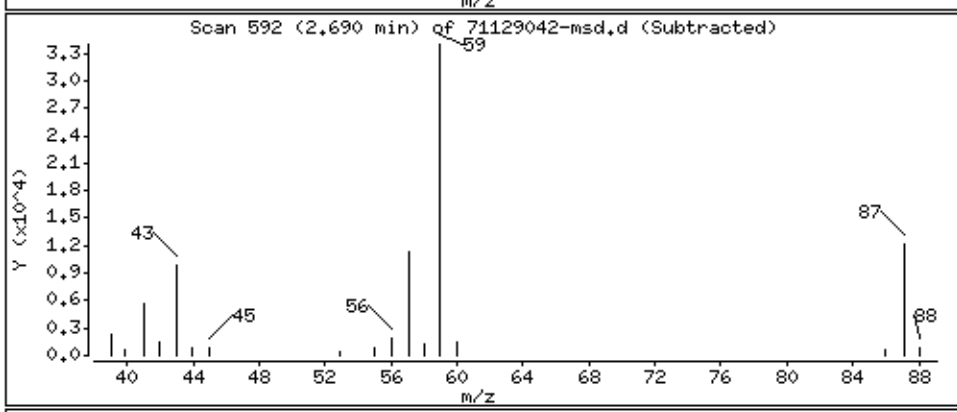
27 Ethyl-tert-butyl ether

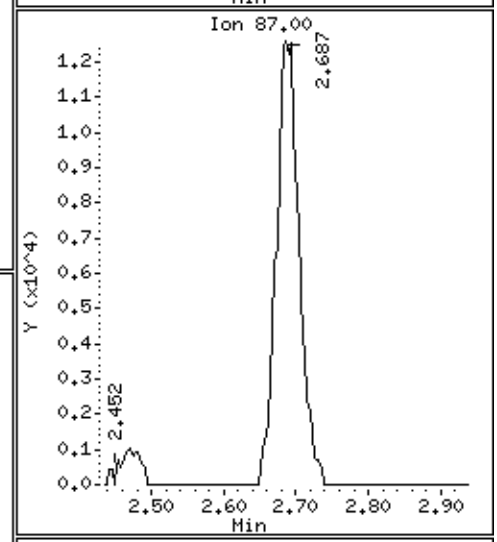
Concentration: 15.5 ug/L

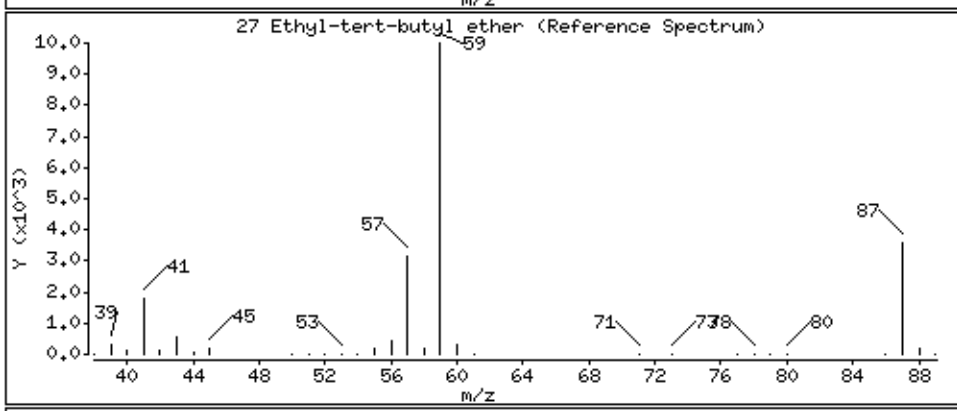
Review Code:

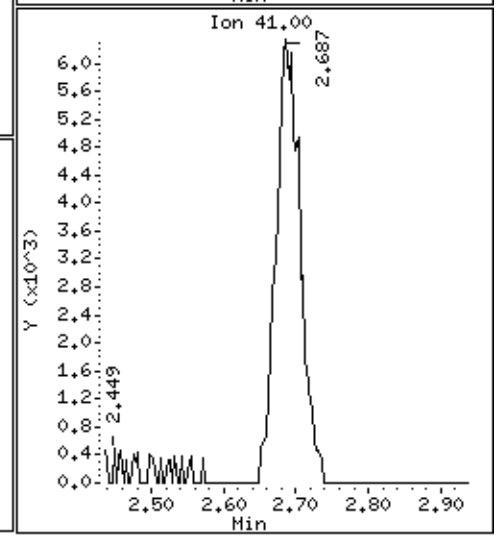


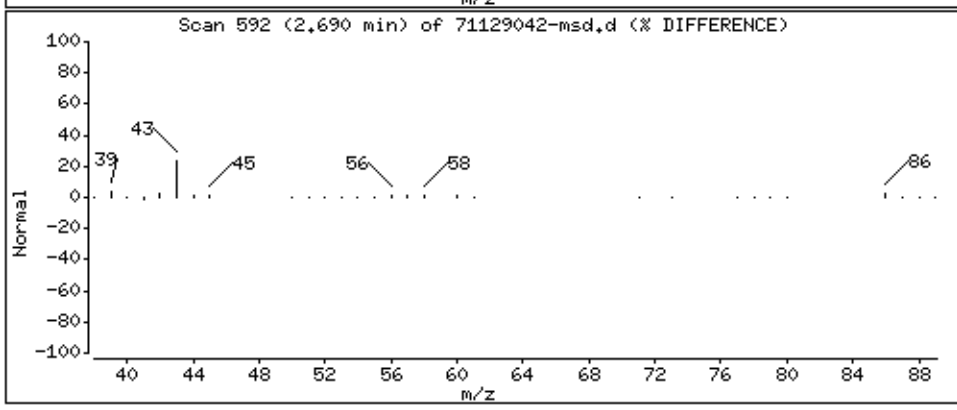












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

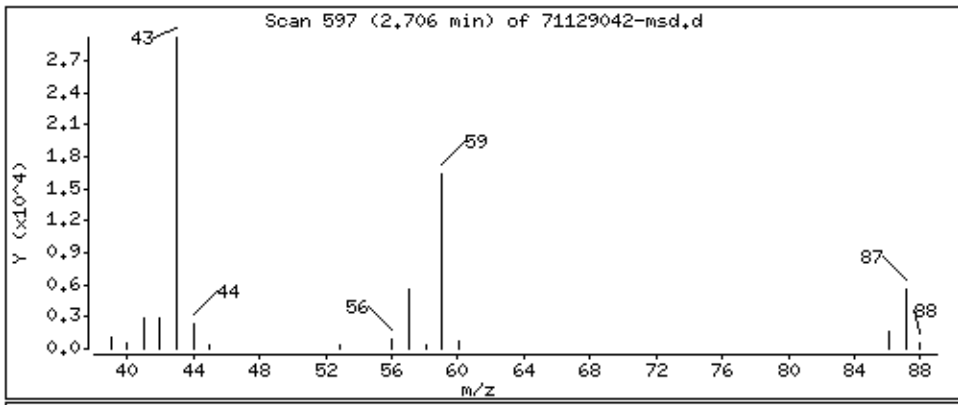
Column phase: RTX-VMS

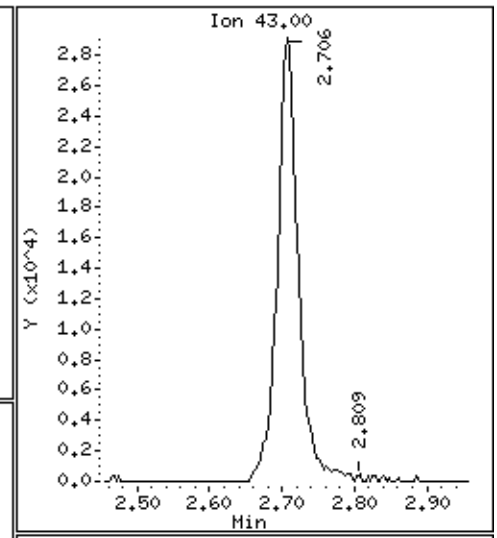
Column diameter: 0.18

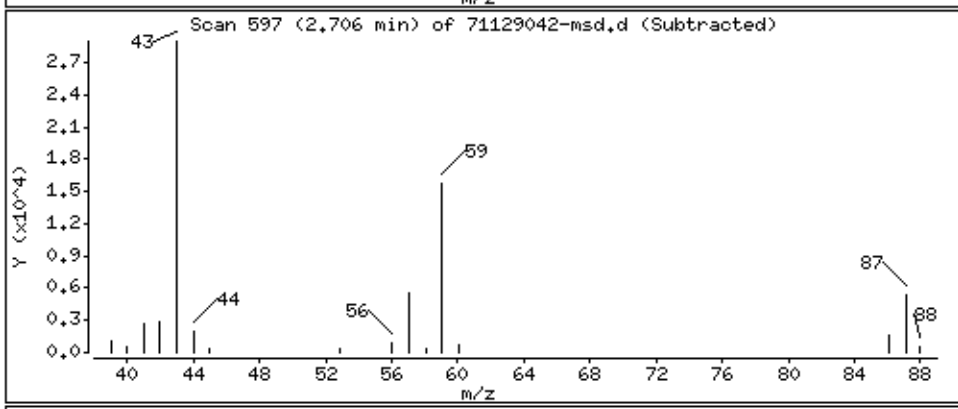
28 Vinyl acetate

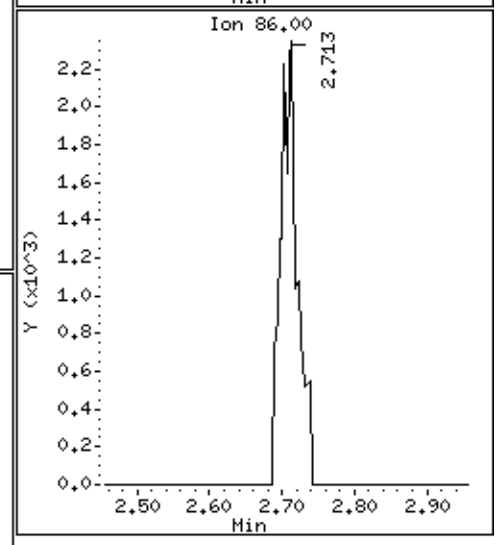
Concentration: 13.0 ug/L

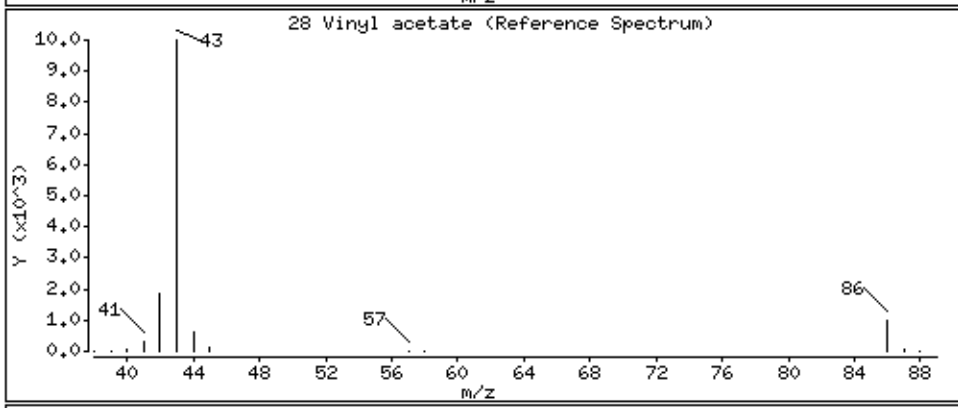
Review Code:

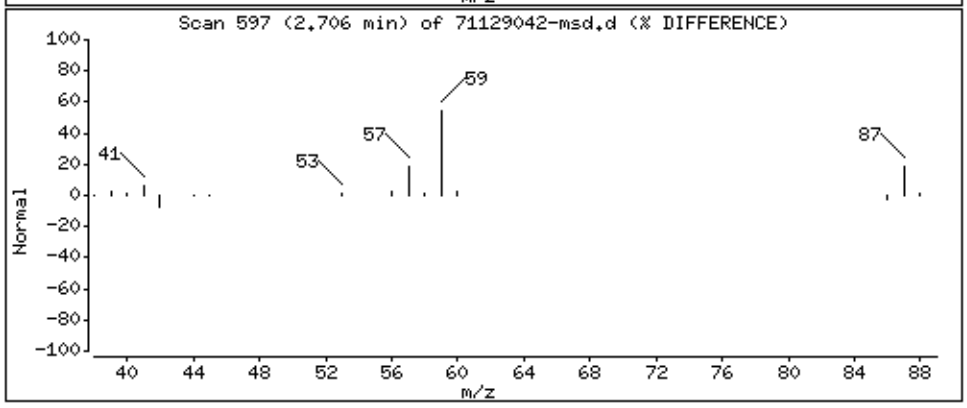












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

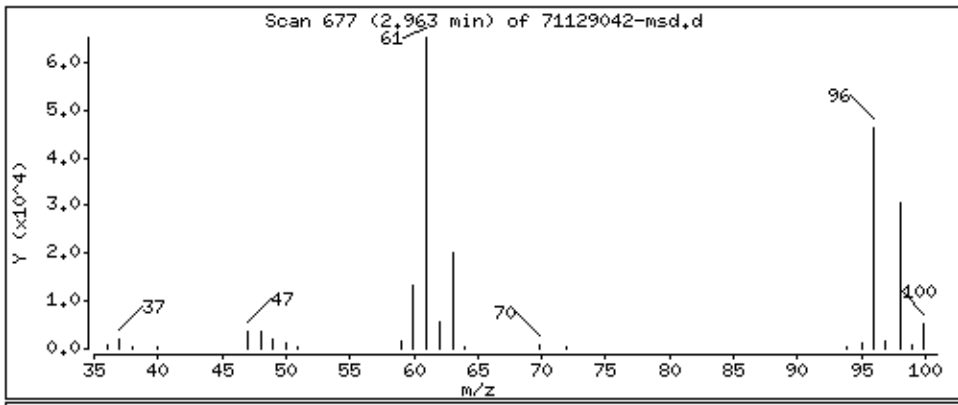
Column phase: RTX-VMS

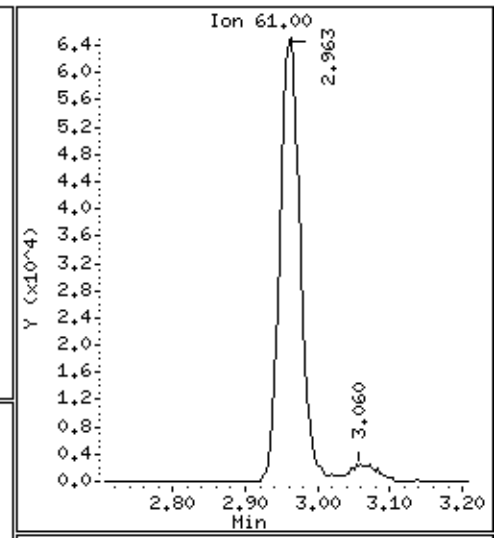
Column diameter: 0.18

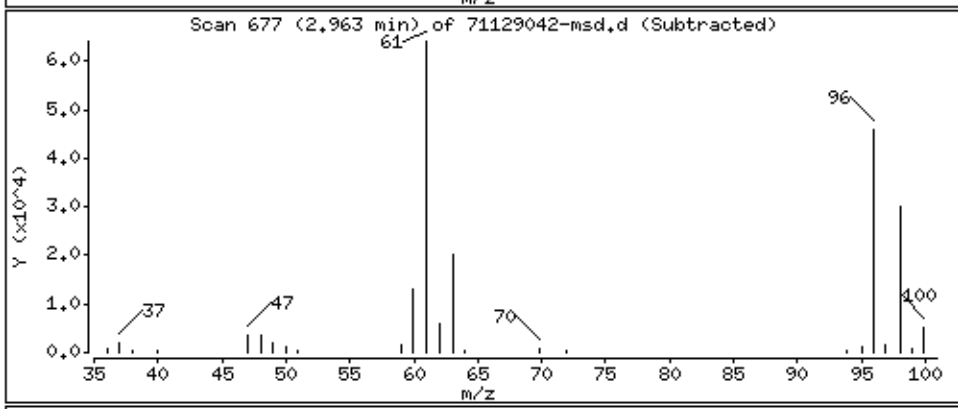
29 cis-1,2-Dichloroethene

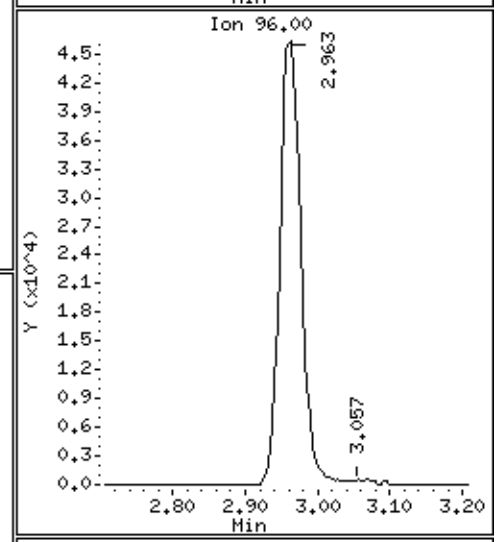
Concentration: 56.2 ug/L

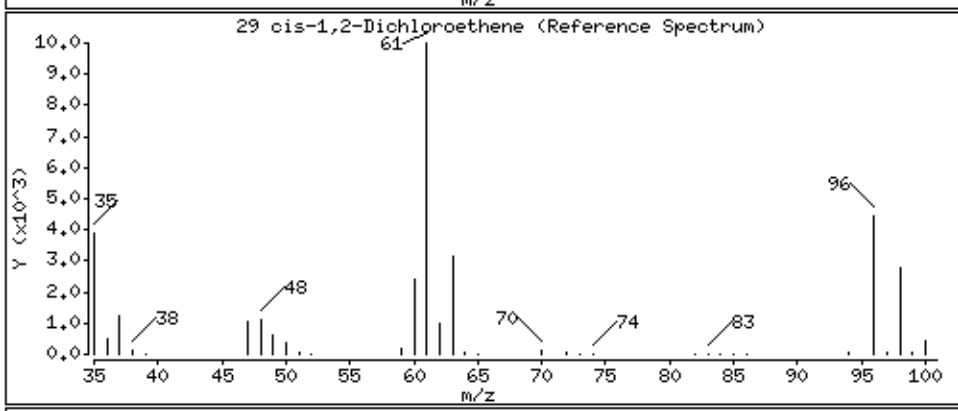
Review Code:

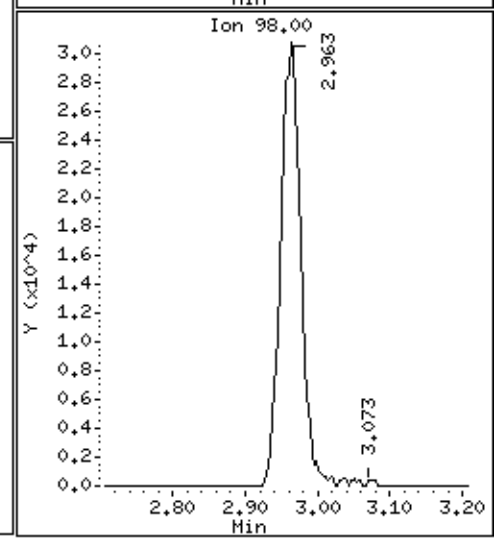


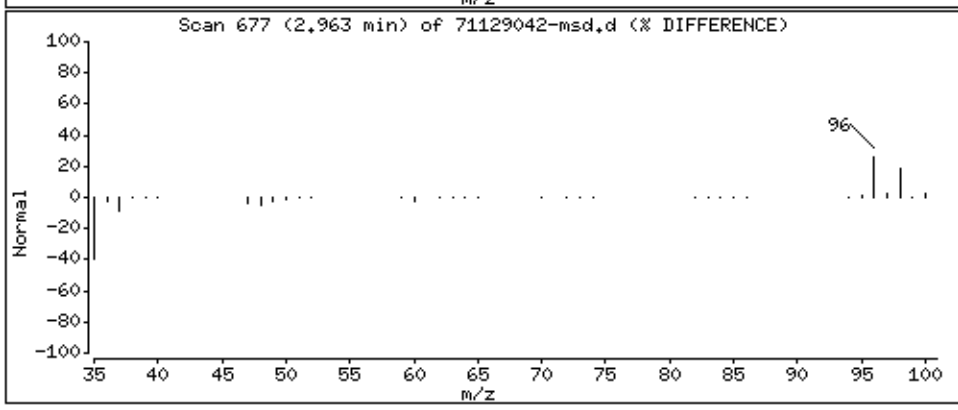












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

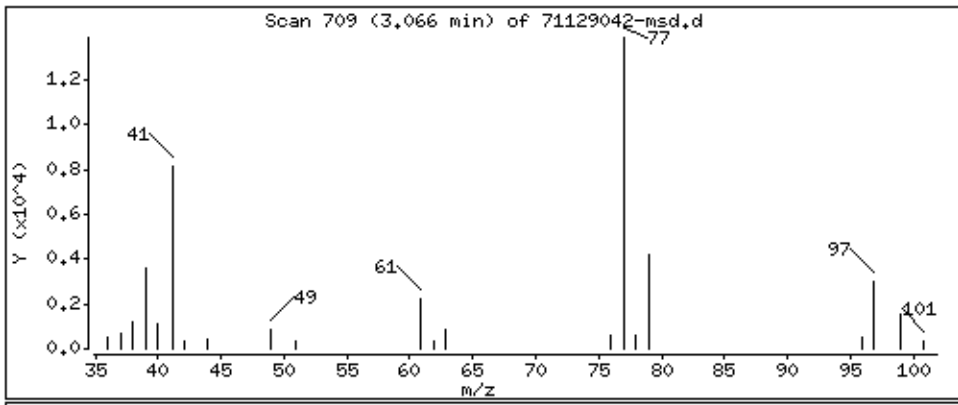
Column phase: RTX-VMS

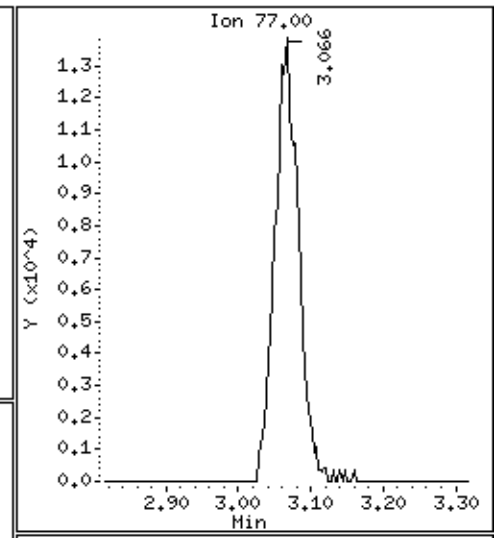
Column diameter: 0.18

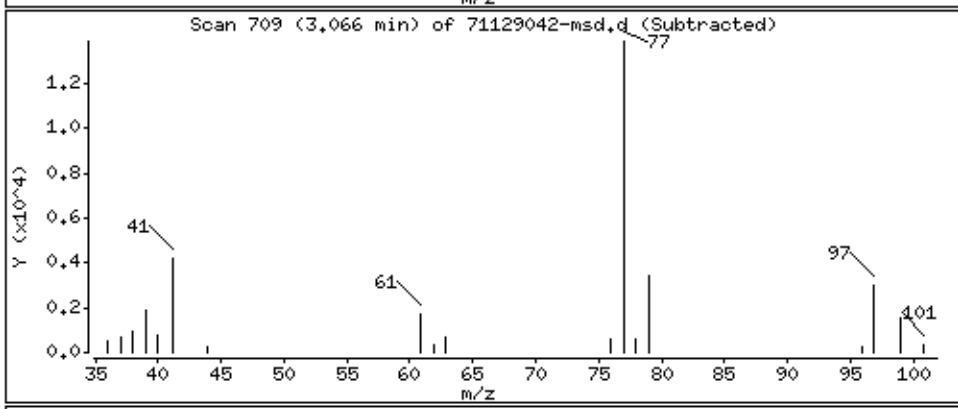
30 2,2-Dichloropropane

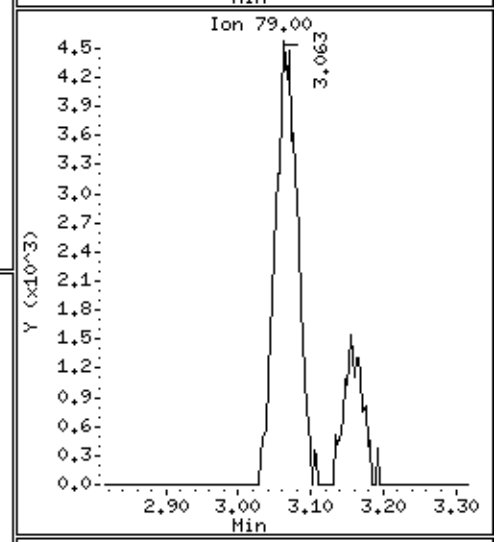
Concentration: 14.1 ug/L

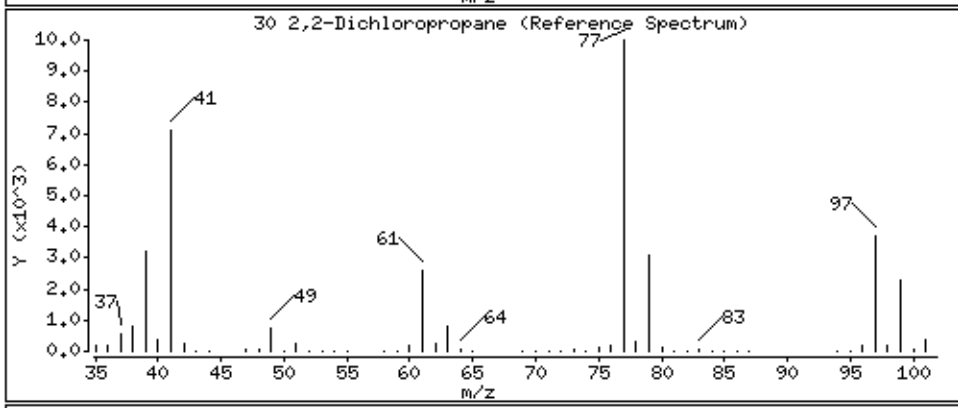
Review Code:

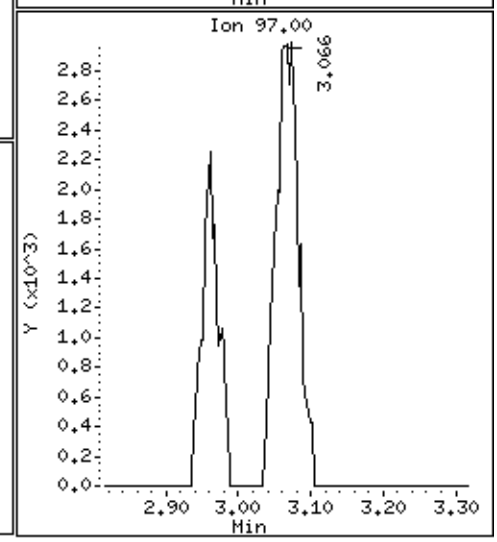


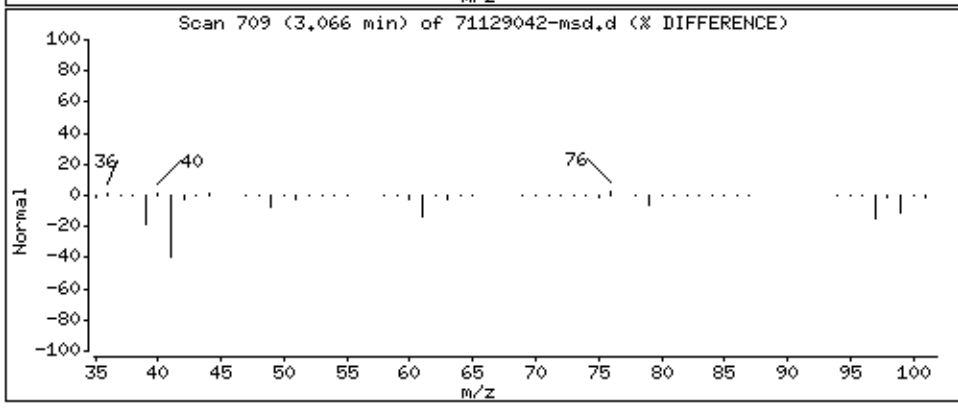












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

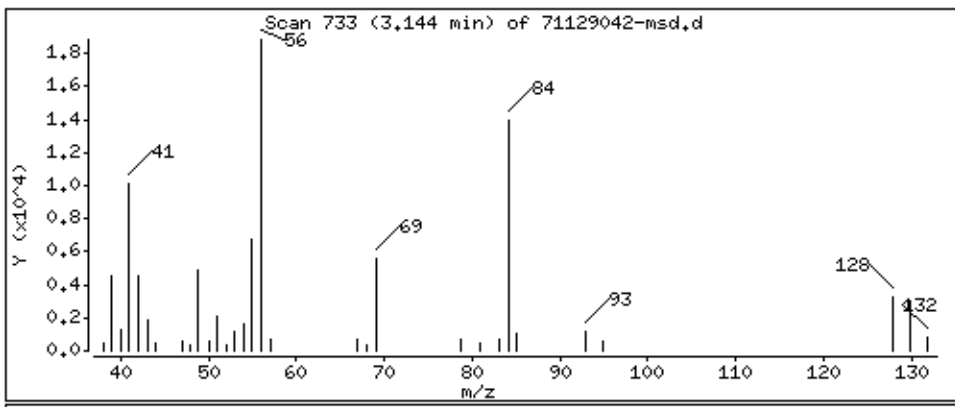
Column phase: RTX-VMS

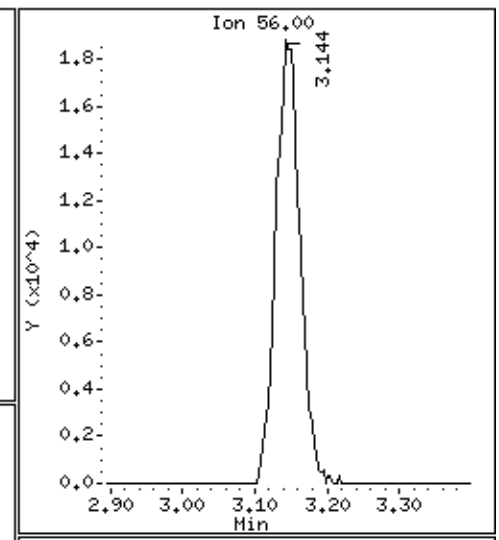
Column diameter: 0.18

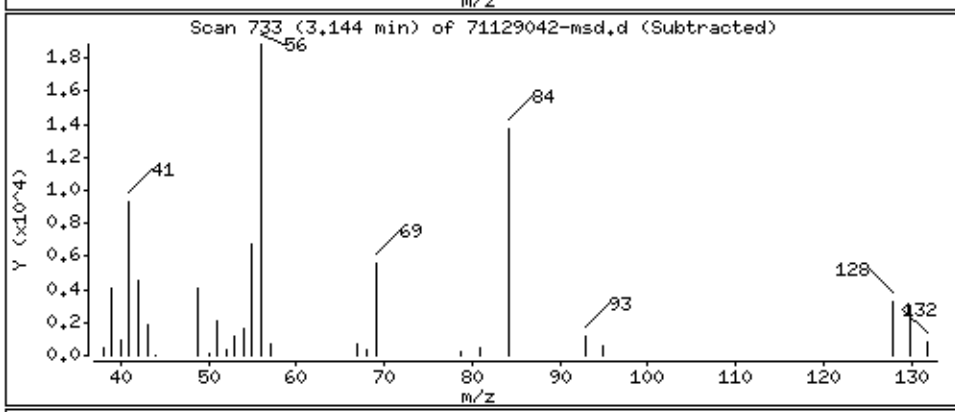
31 Cyclohexane

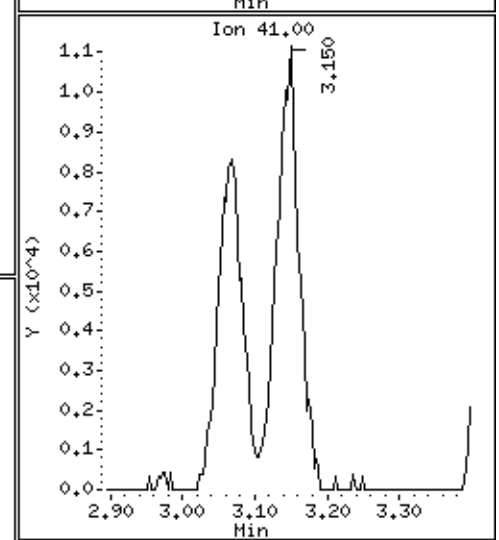
Concentration: 16.4 ug/L

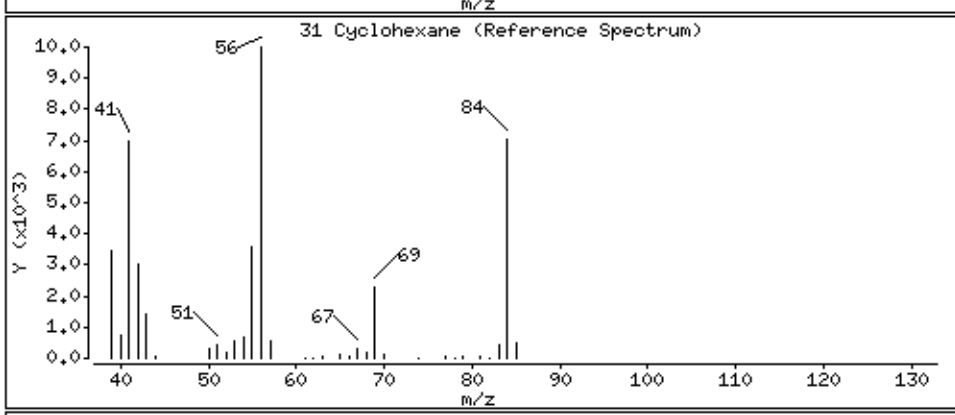
Review Code:

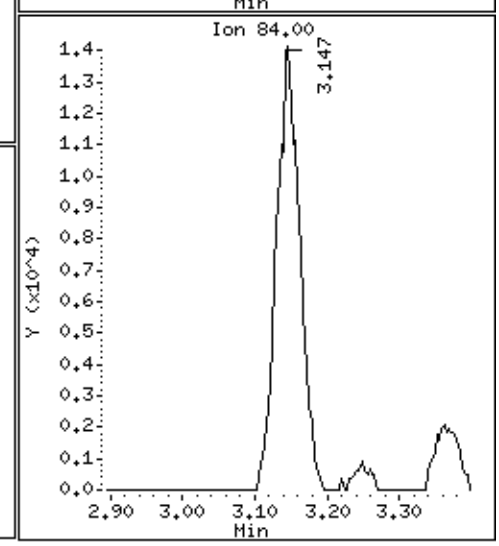


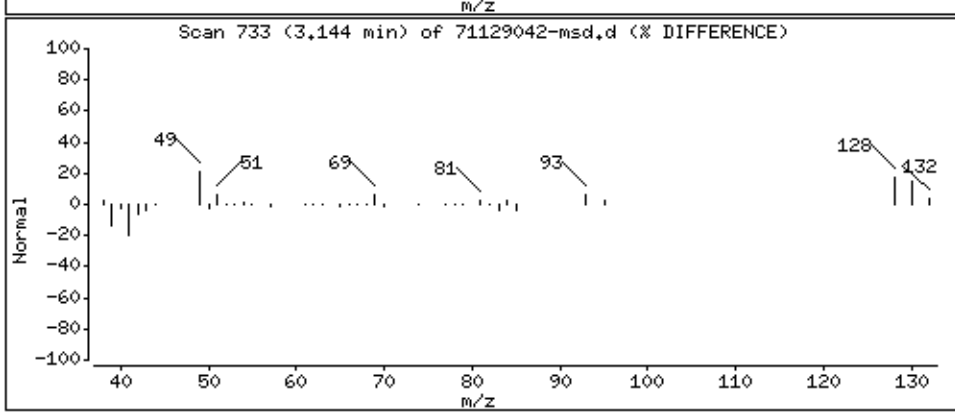












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

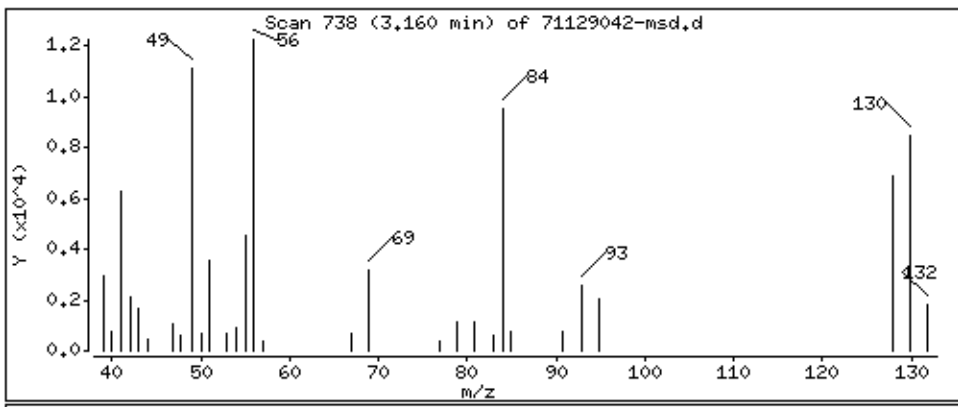
Column phase: RTX-VMS

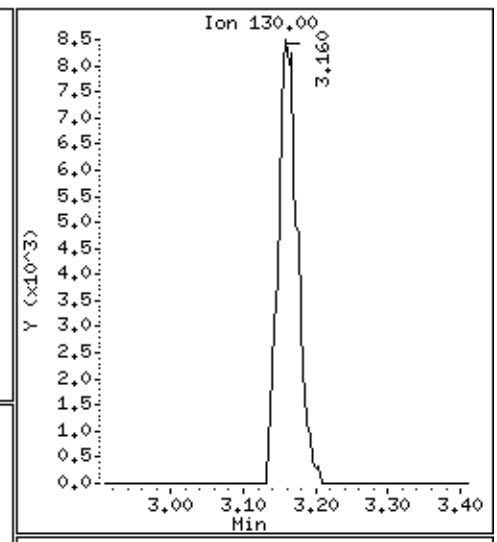
Column diameter: 0.18

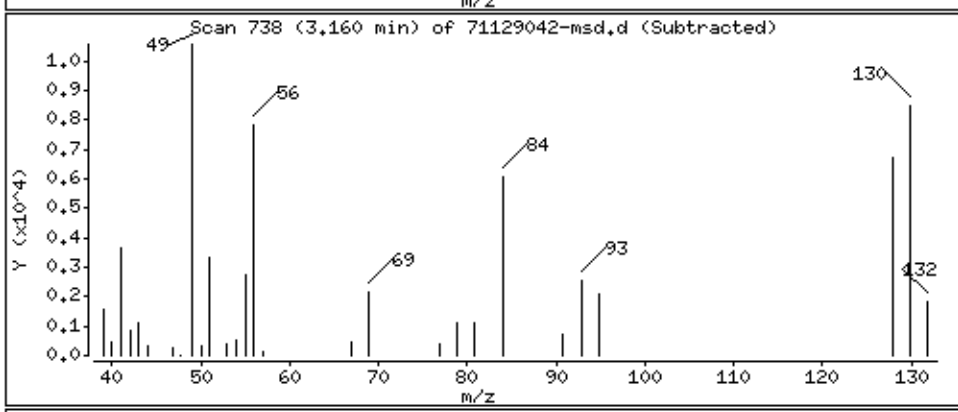
32 Bromochloromethane

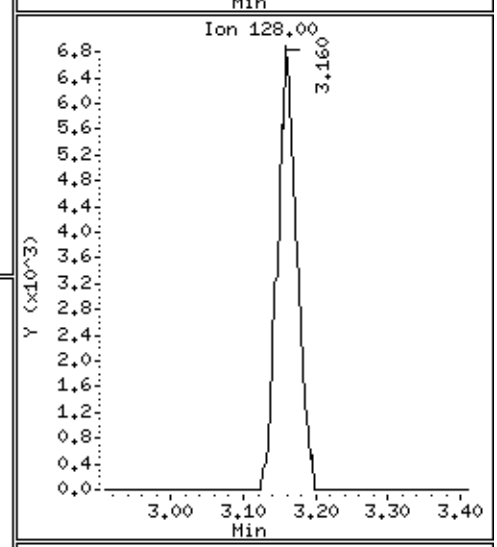
Concentration: 14.3 ug/L

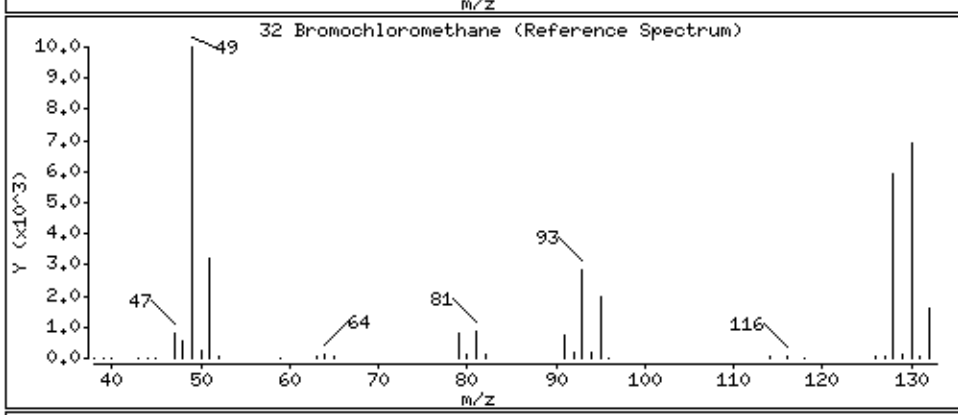
Review Code:

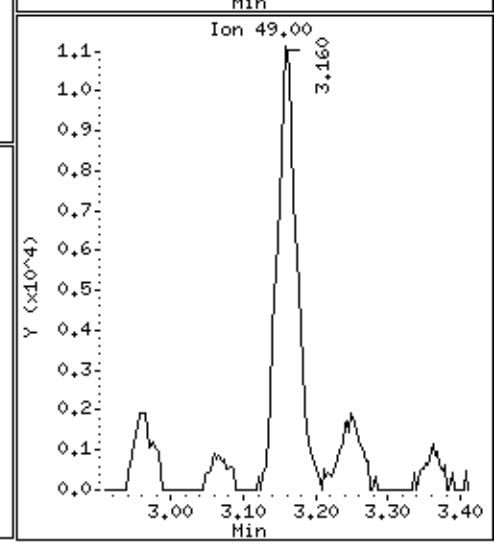


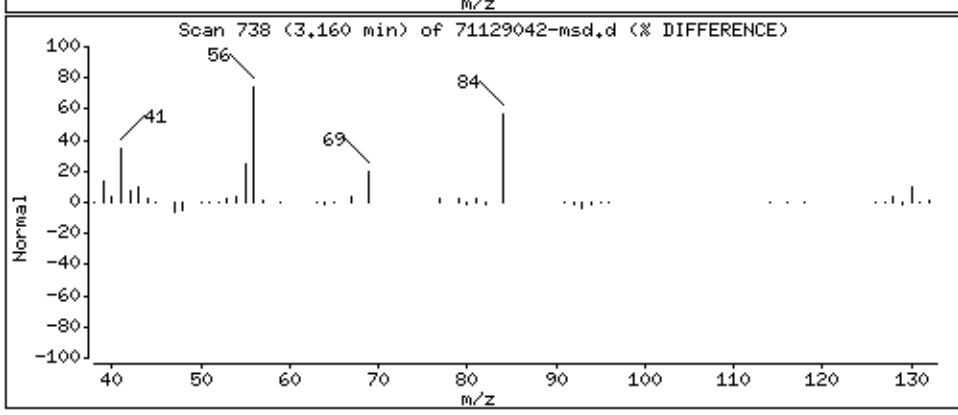












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

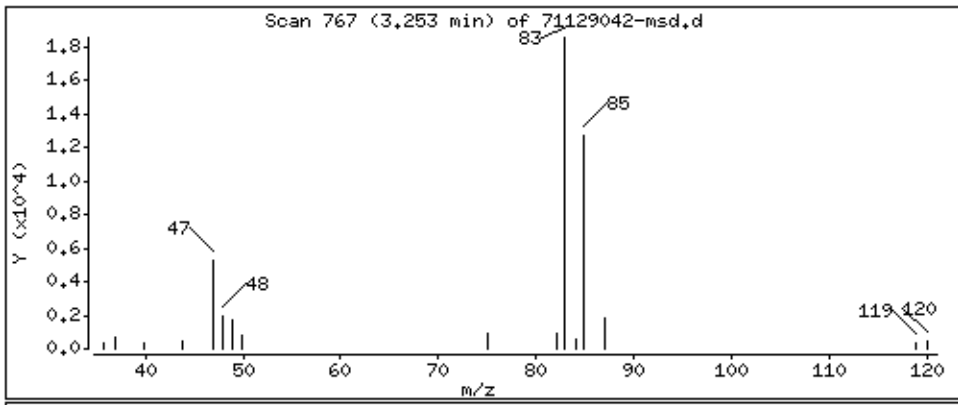
Column phase: RTX-VMS

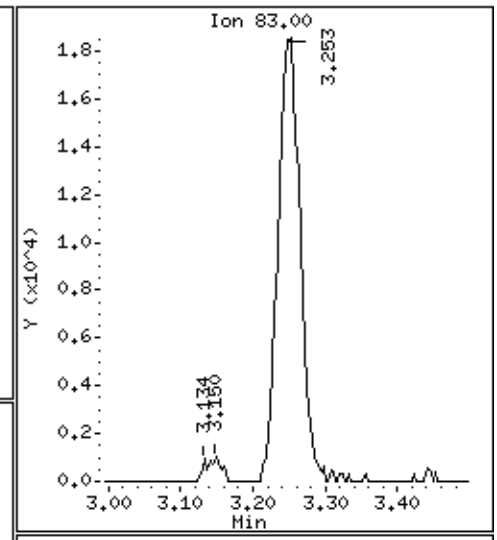
Column diameter: 0.18

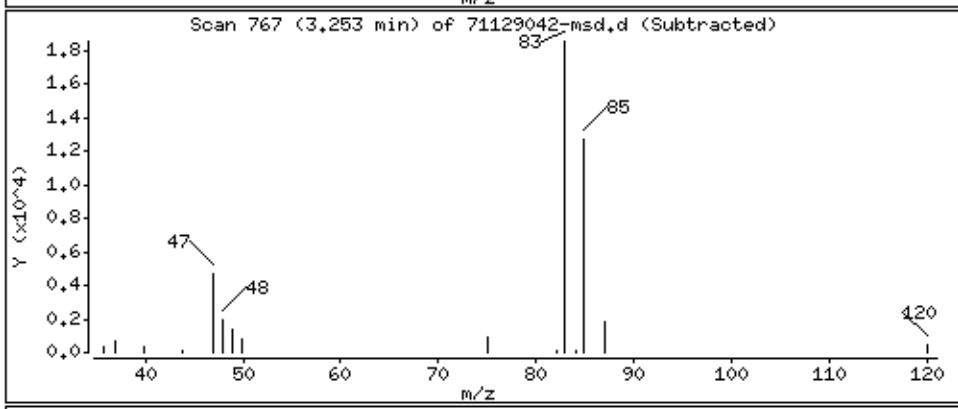
33 Chloroform

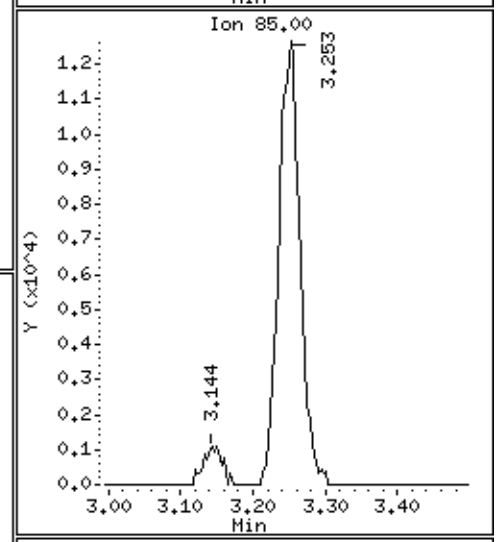
Concentration: 14.1 ug/L

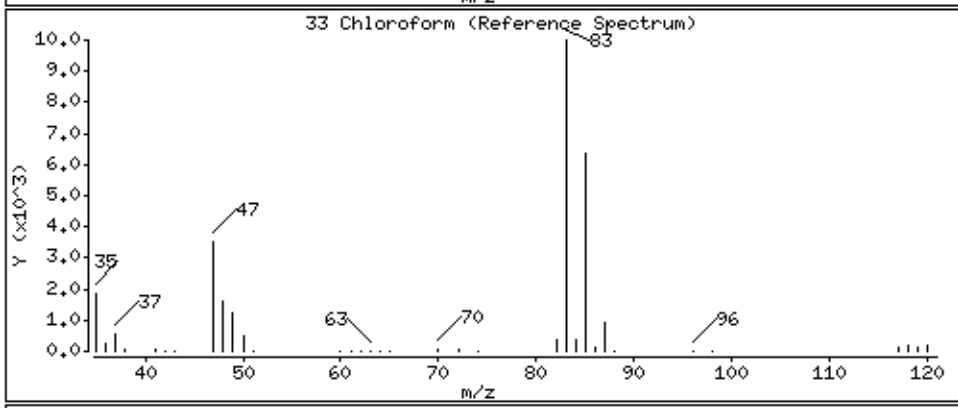
Review Code:

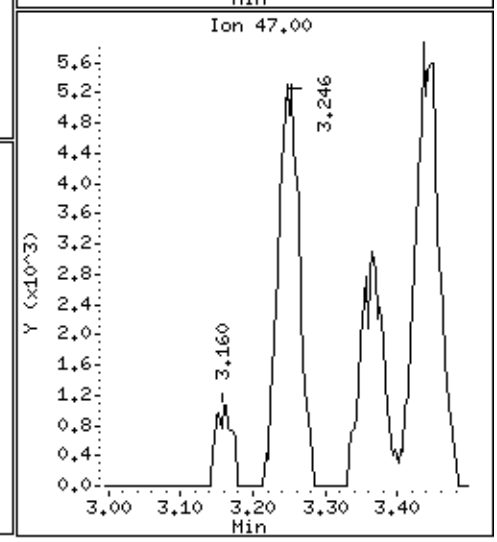


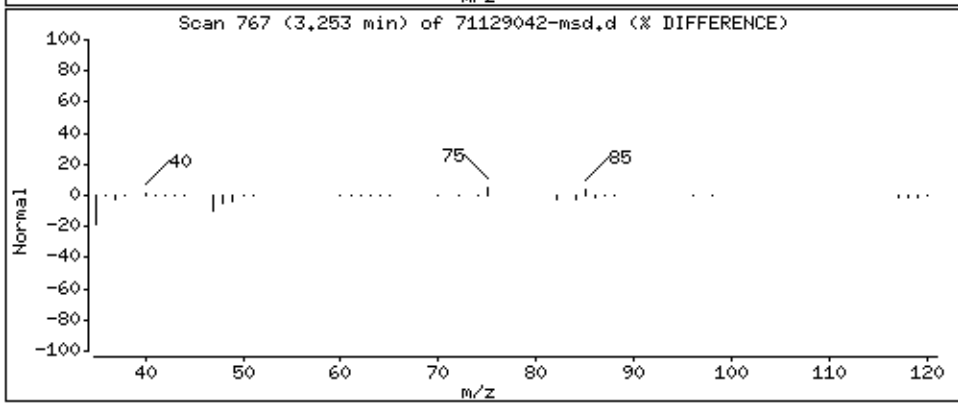












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

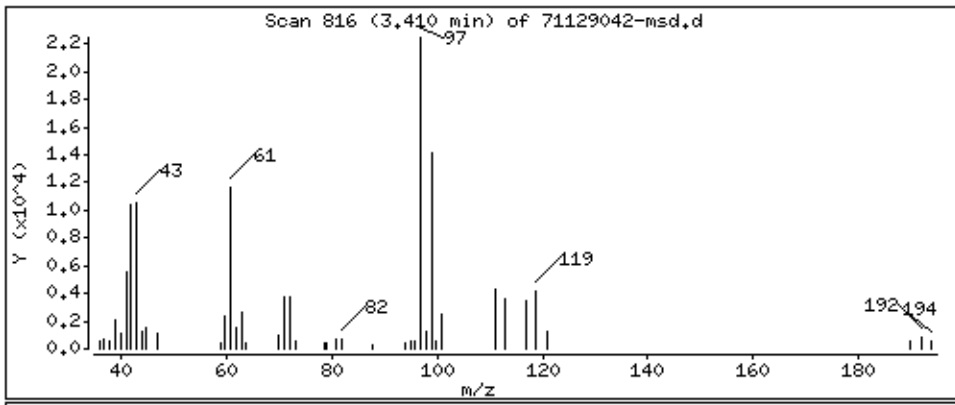
Column phase: RTX-VMS

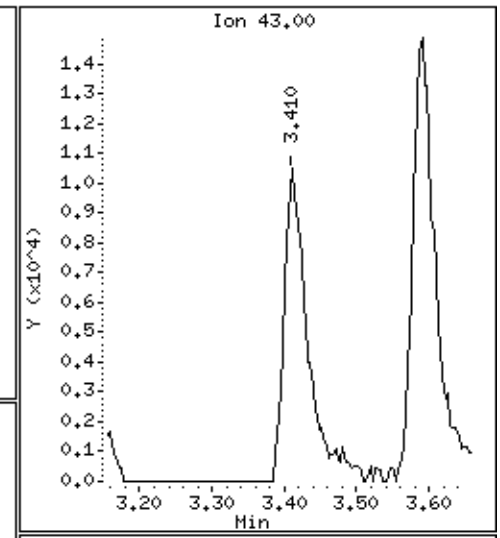
Column diameter: 0.18

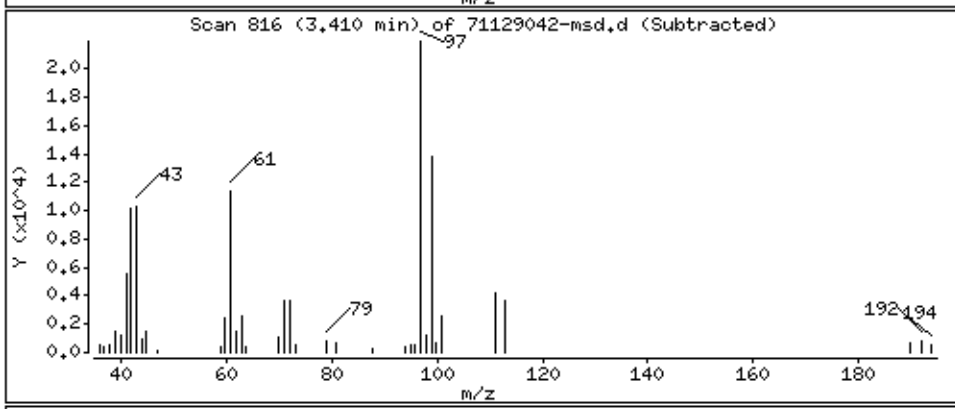
34 Ethyl acetate

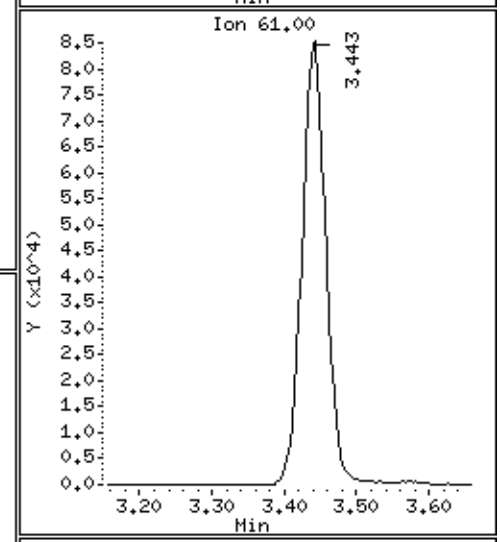
Concentration: 15.7 ug/L

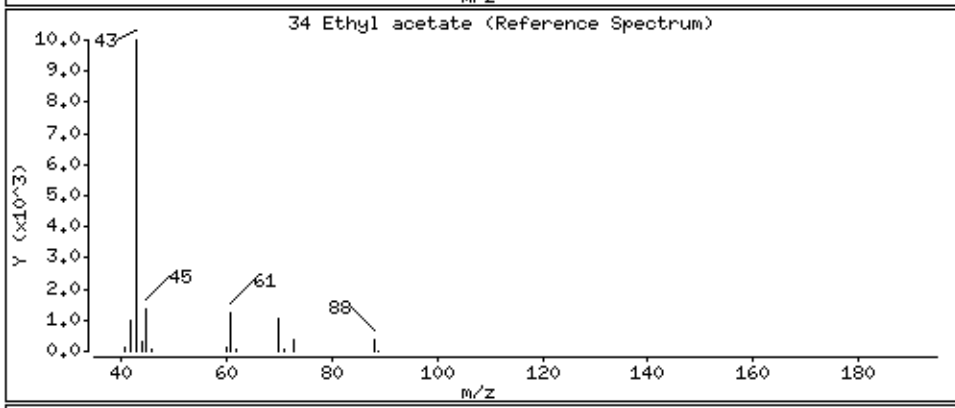
Review Code:

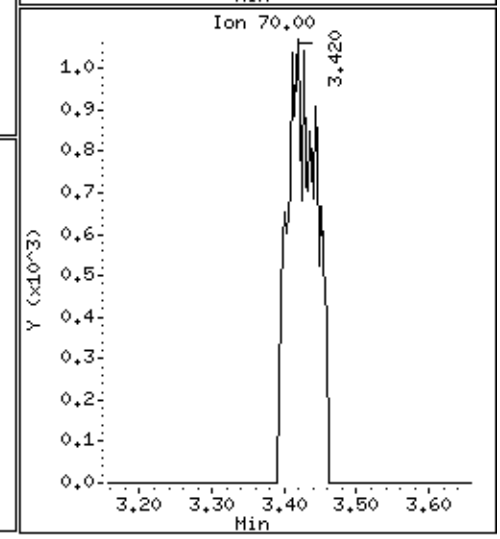


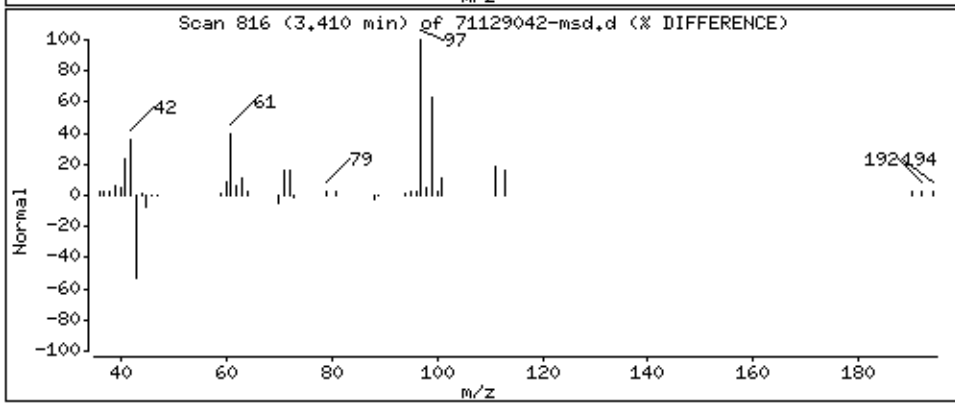












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

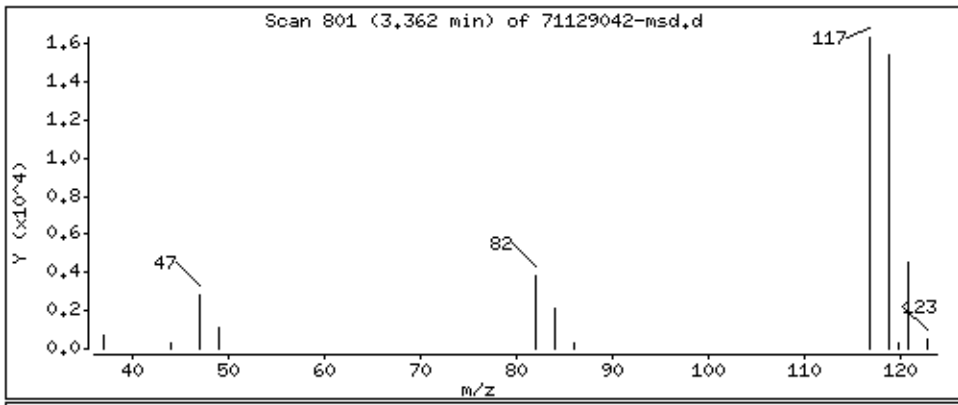
Column phase: RTX-VMS

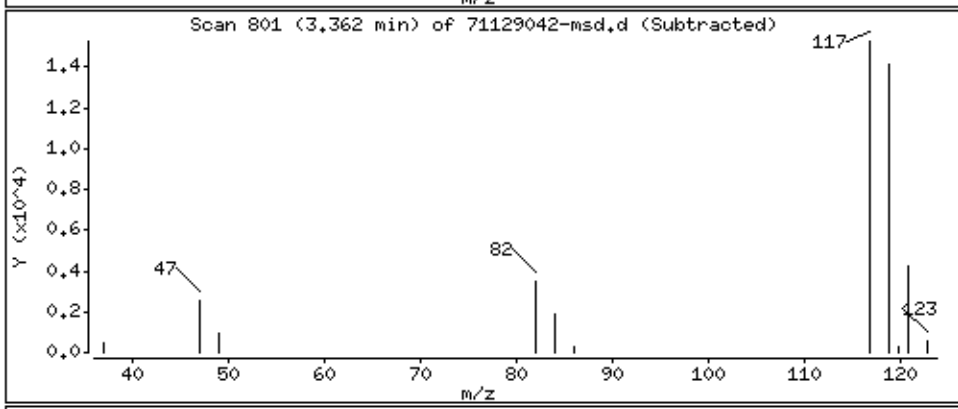
Column diameter: 0.18

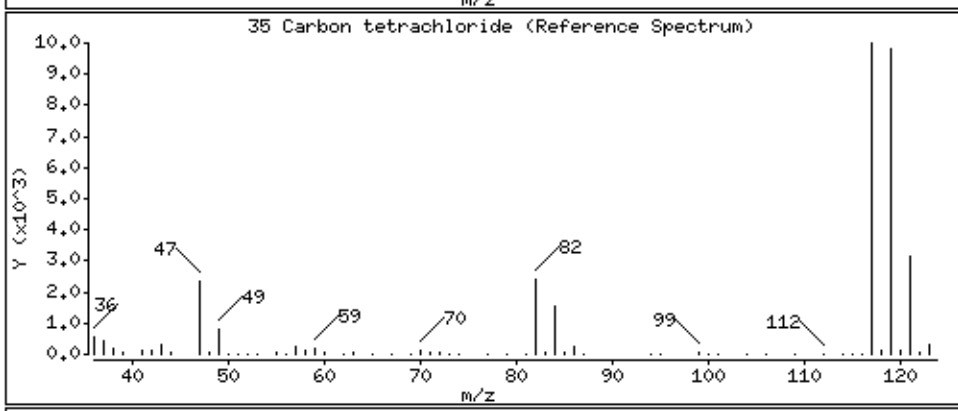
35 Carbon tetrachloride

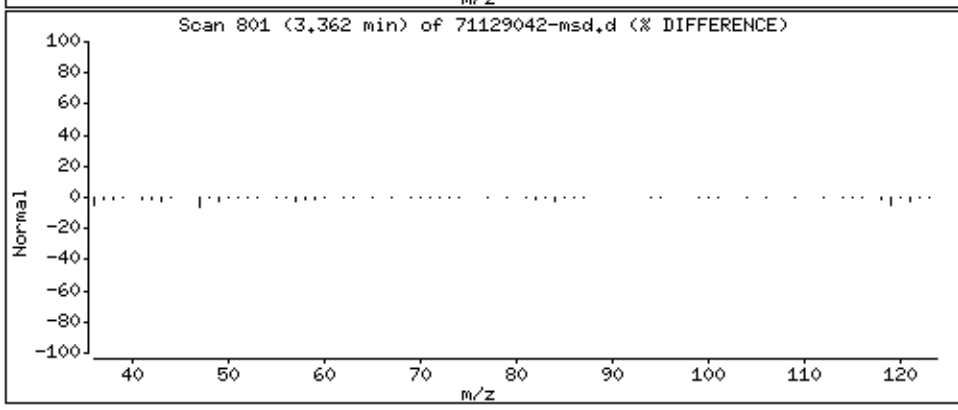
Concentration: 15.5 ug/L

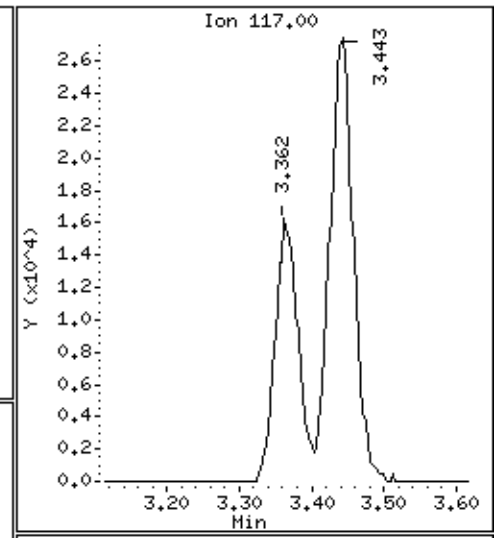
Review Code:

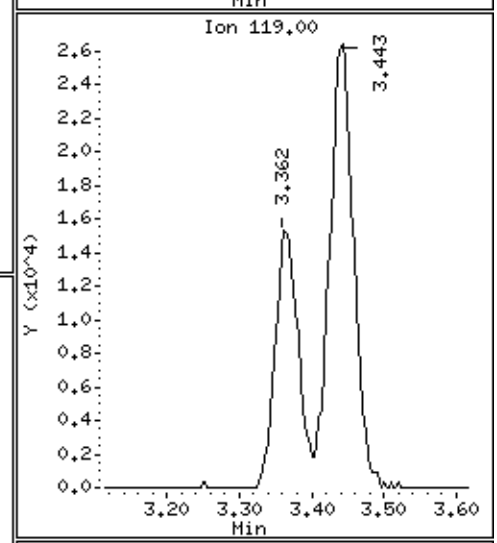


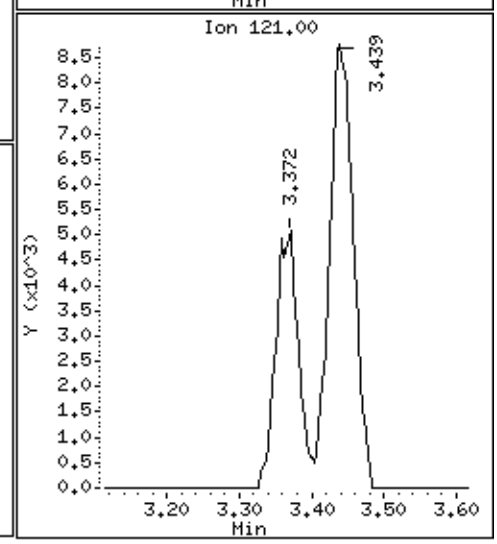












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

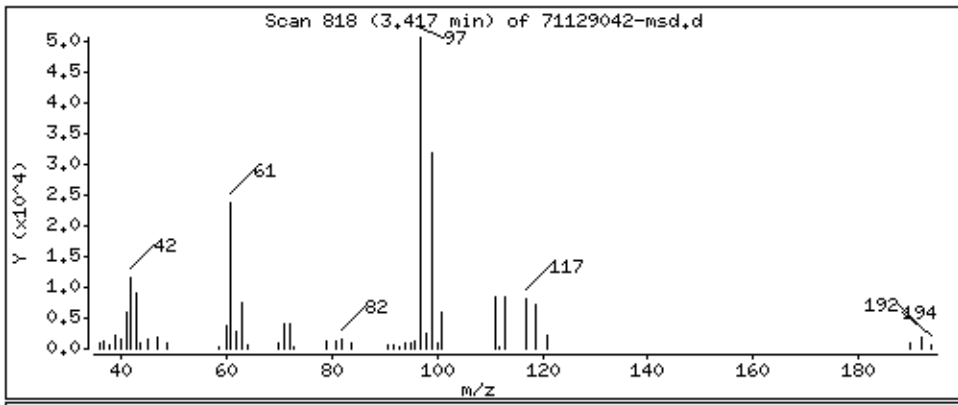
Column phase: RTX-VMS

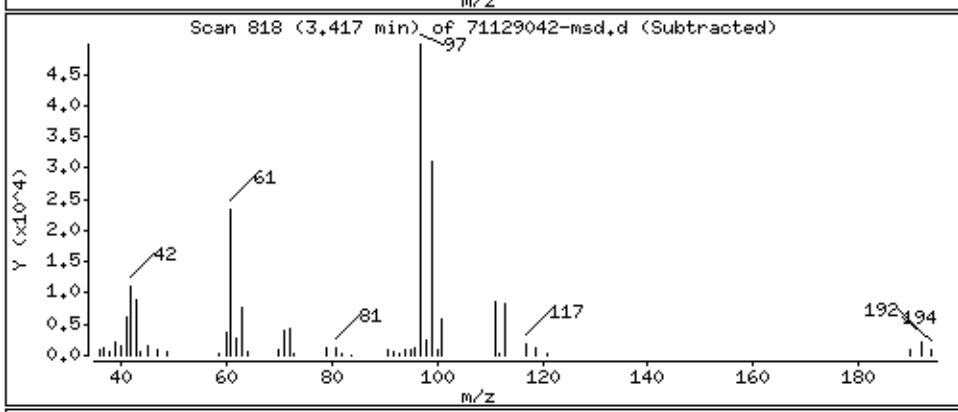
Column diameter: 0.18

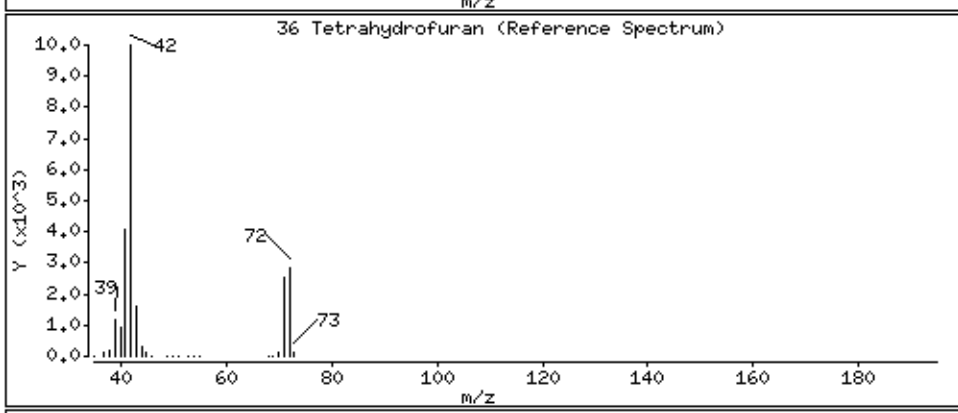
36 Tetrahydrofuran

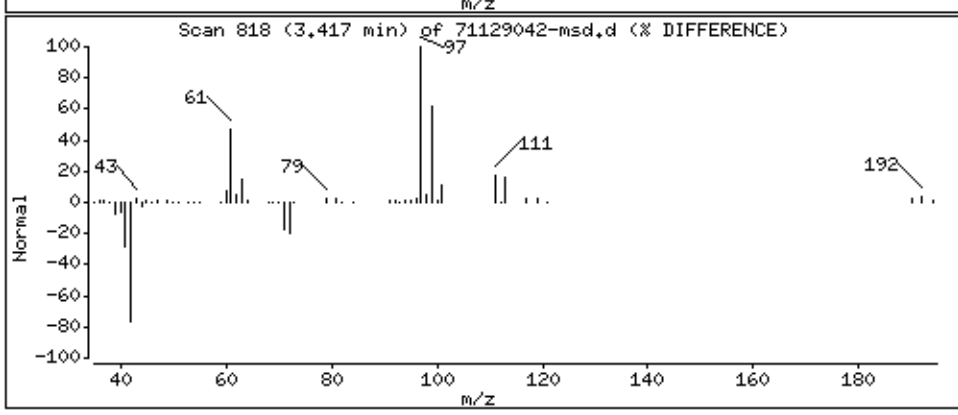
Concentration: 20.5 ug/L

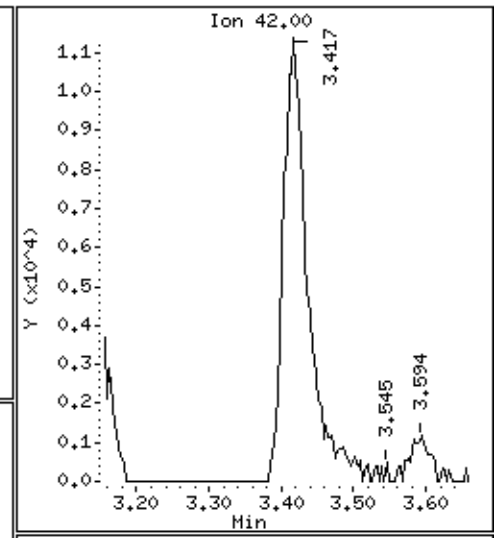
Review Code:

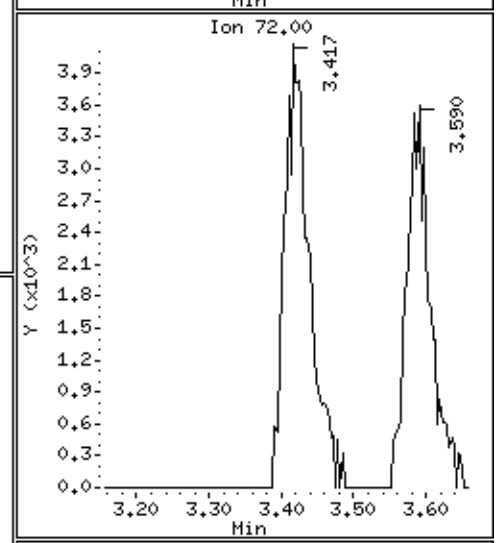


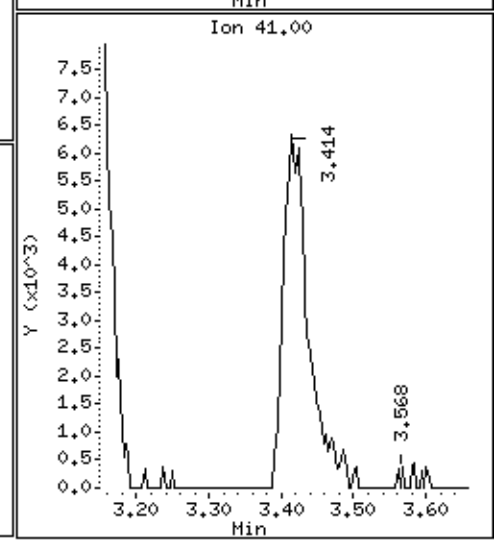












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

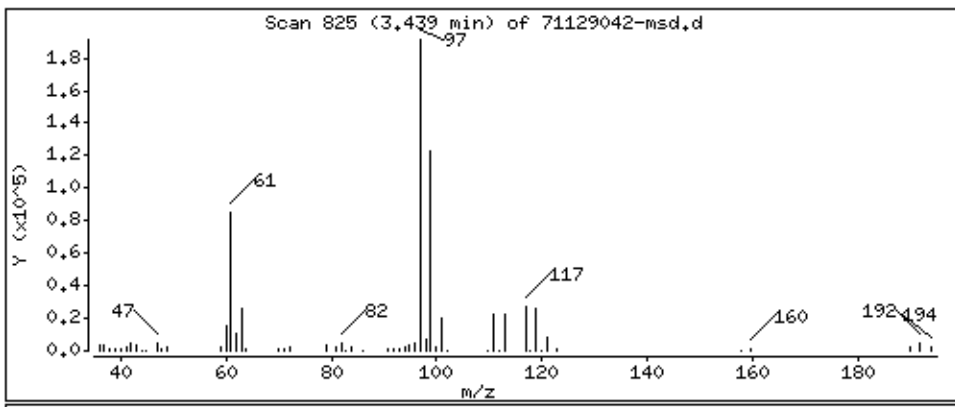
Column phase: RTX-VMS

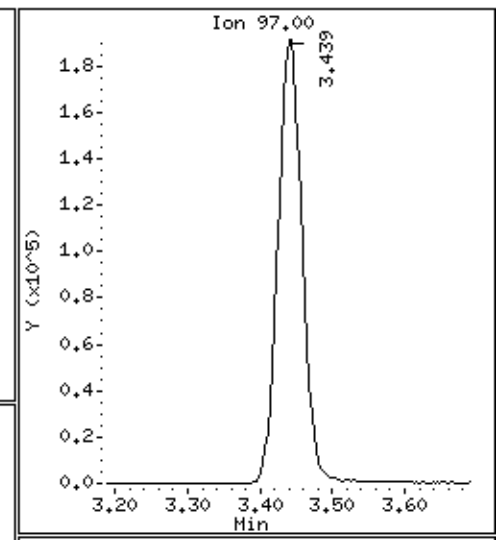
Column diameter: 0.18

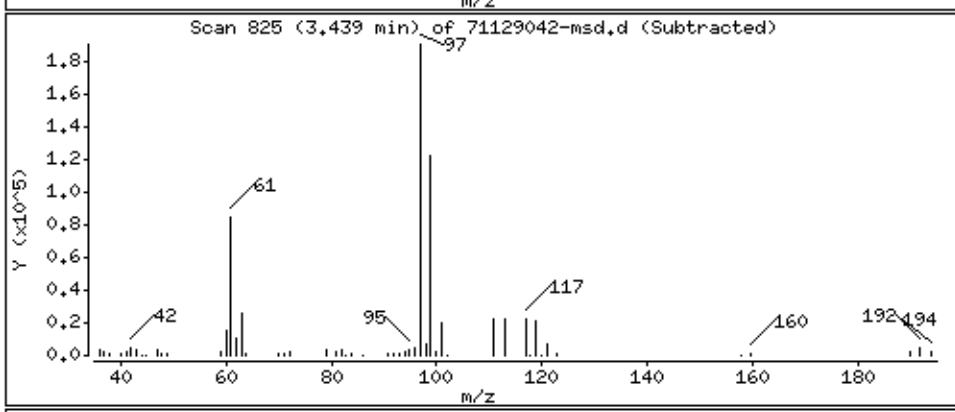
38 1,1,1-Trichloroethane

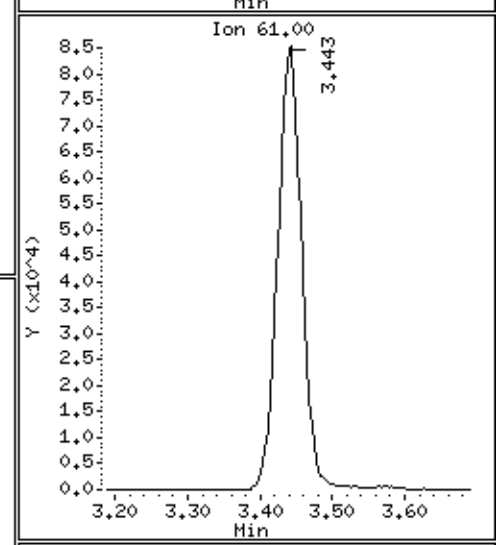
Concentration: 182 ug/L

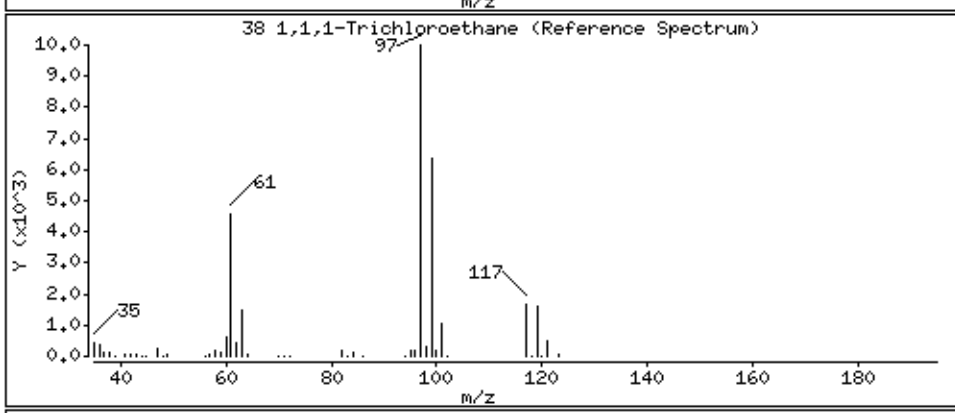
Review Code:

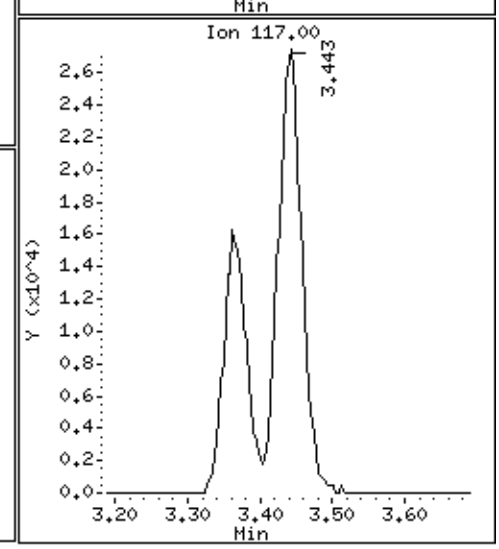


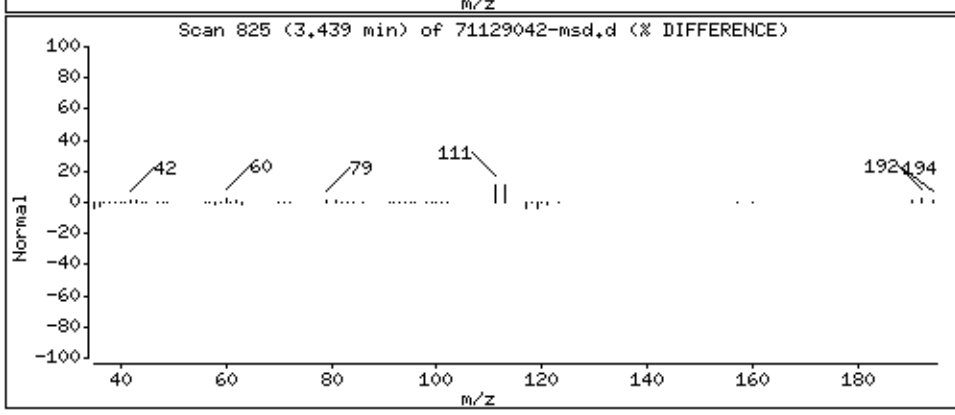












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

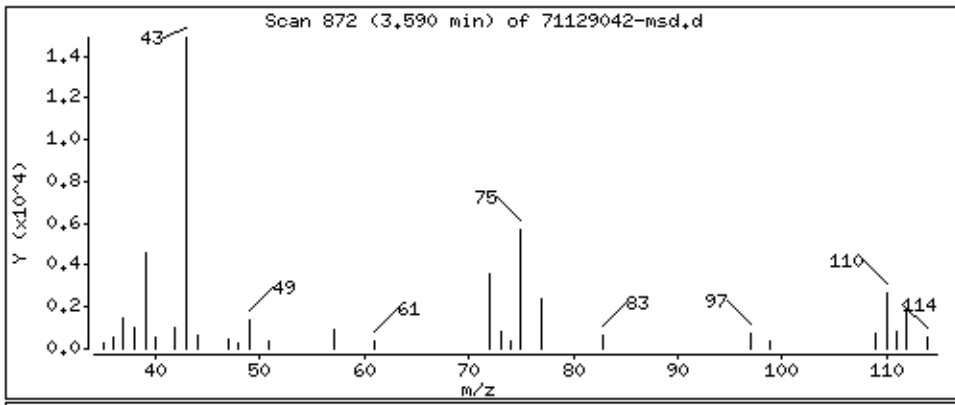
Column phase: RTX-VMS

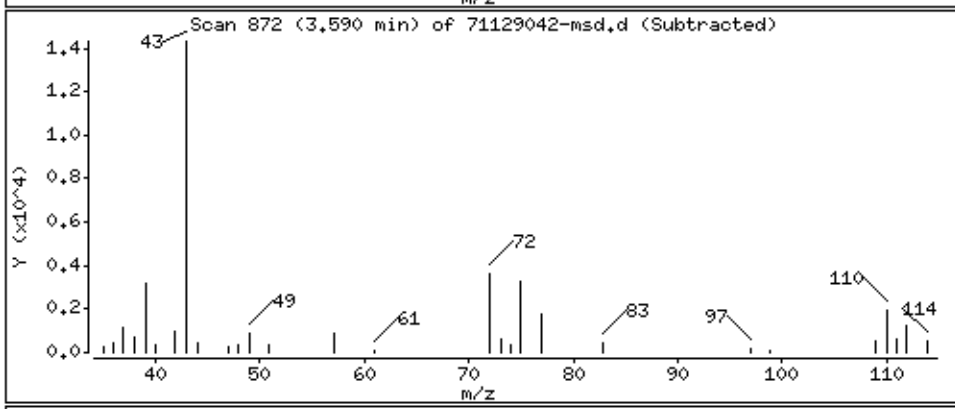
Column diameter: 0.18

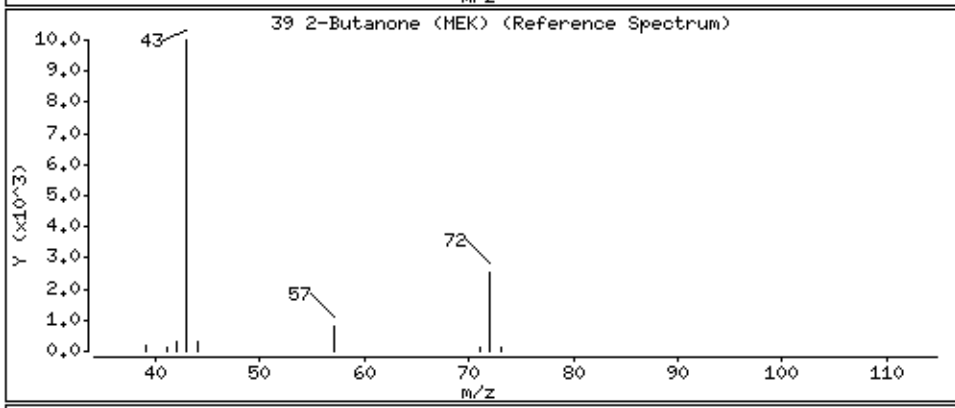
39 2-Butanone (MEK)

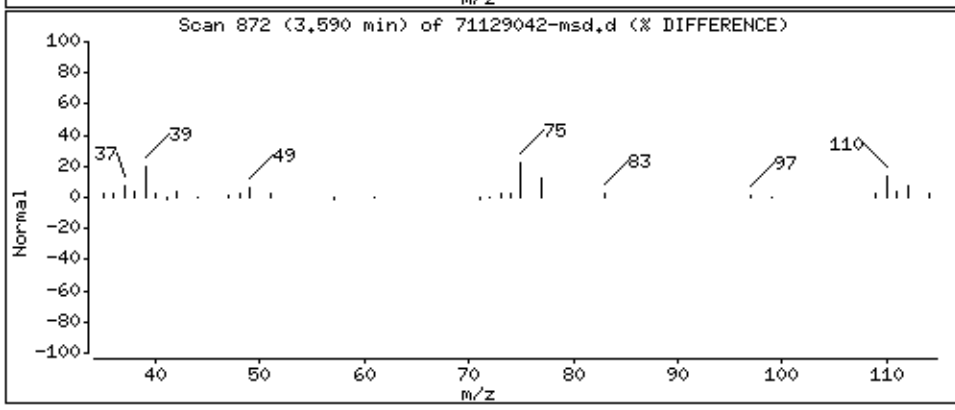
Concentration: 17.1 ug/L

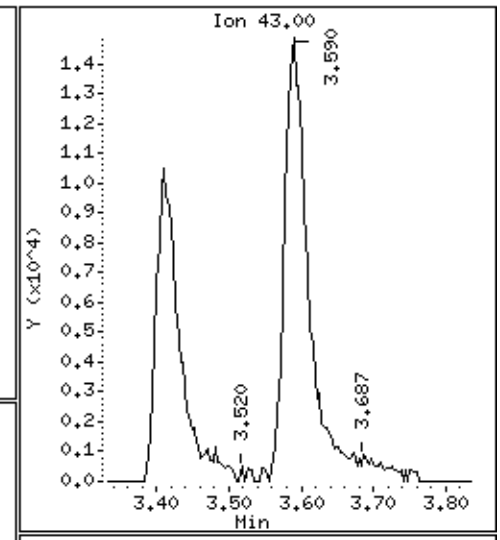
Review Code:

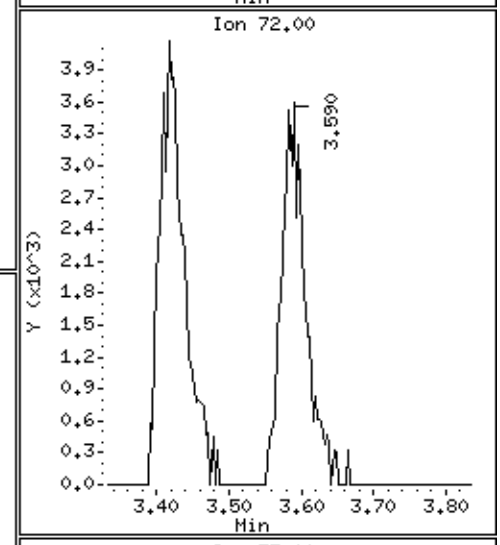


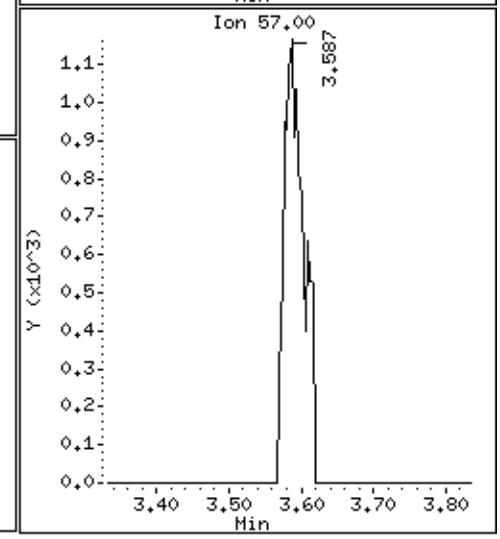












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

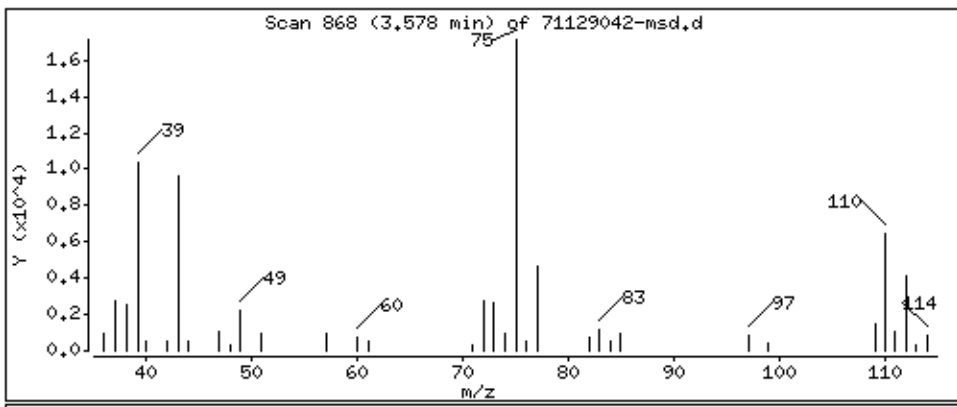
Column phase: RTX-VMS

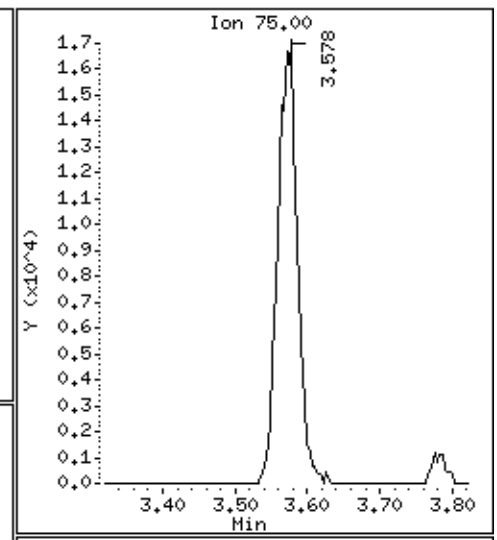
Column diameter: 0.18

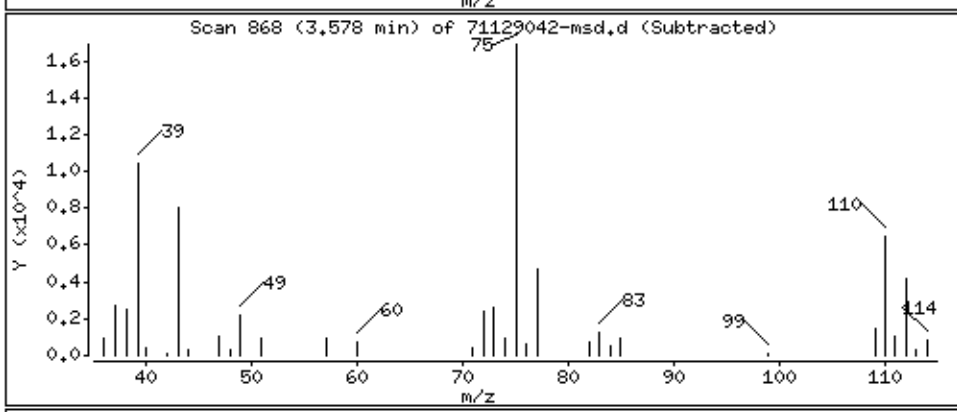
40 1,1-Dichloropropene

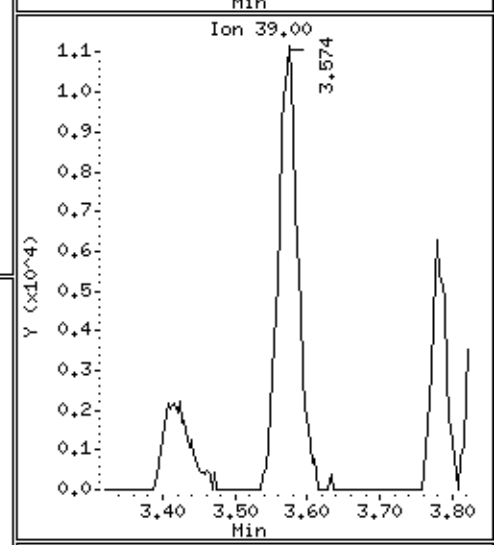
Concentration: 14.4 ug/L

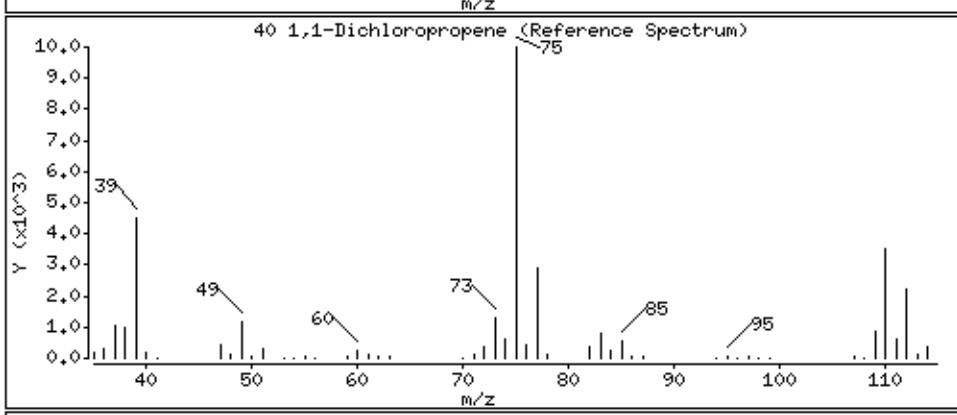
Review Code: LT

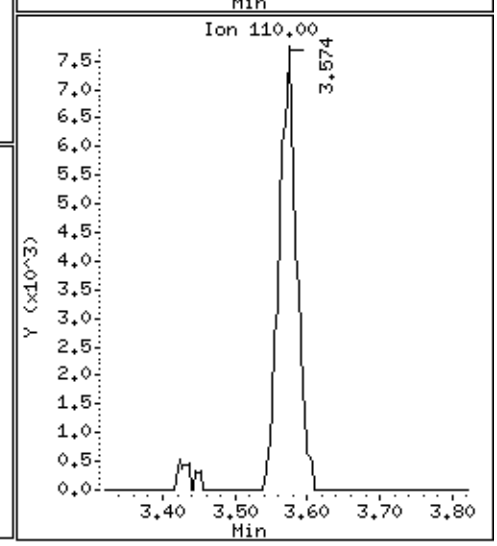


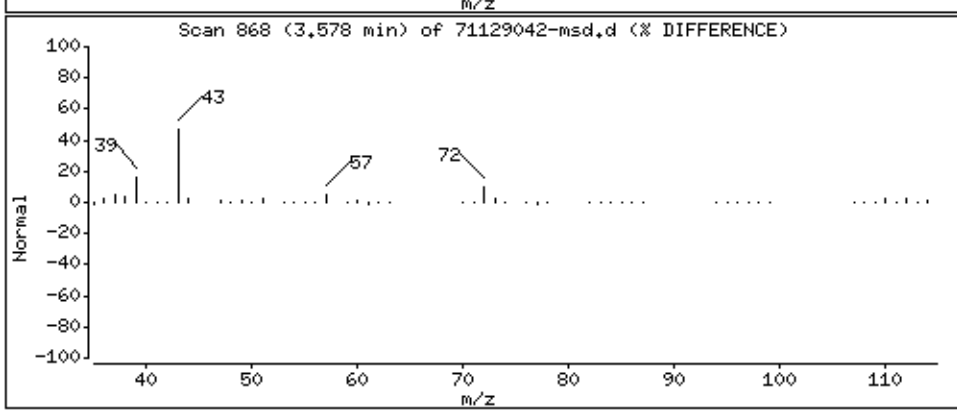












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

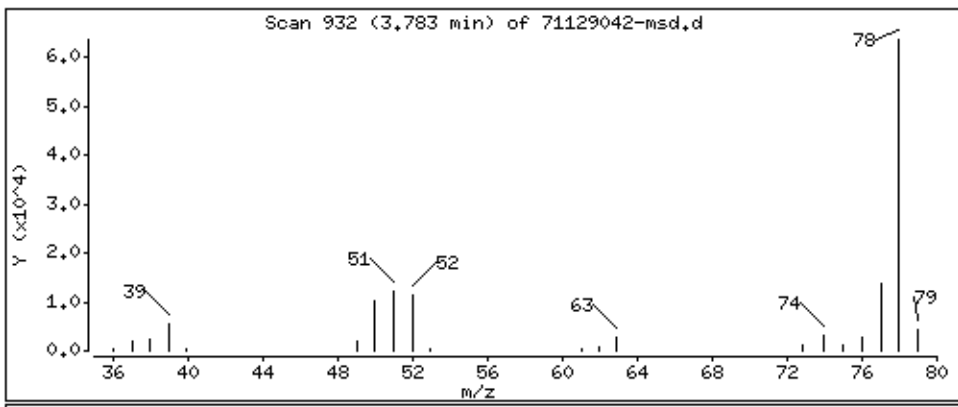
Column phase: RTX-VMS

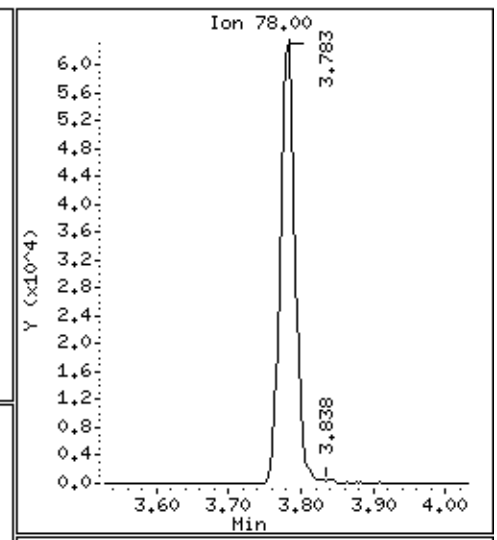
Column diameter: 0.18

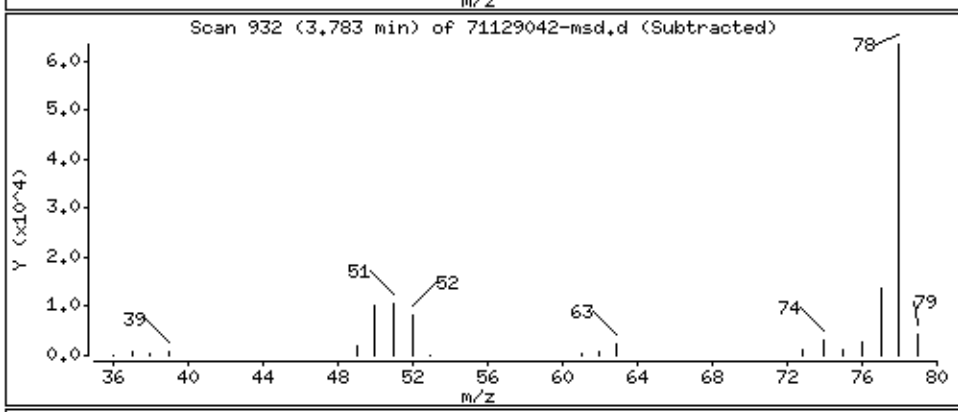
41 Benzene

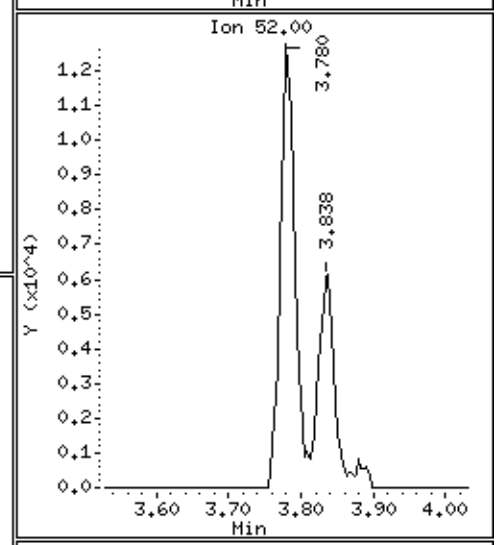
Concentration: 13.6 ug/L

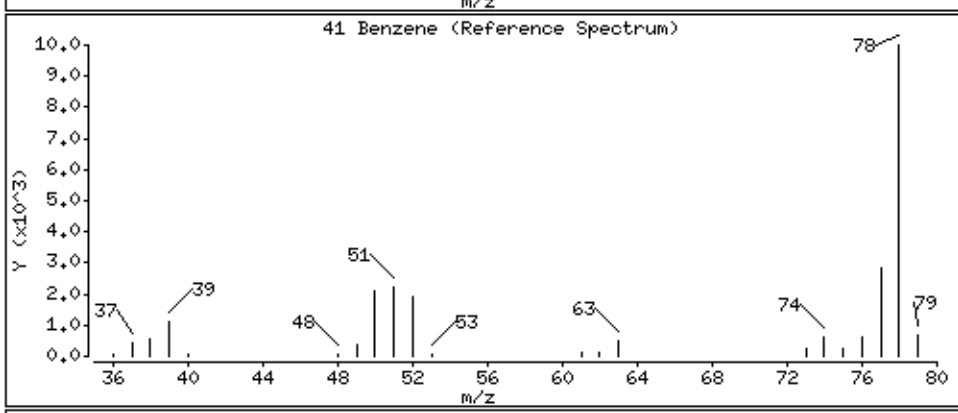
Review Code:

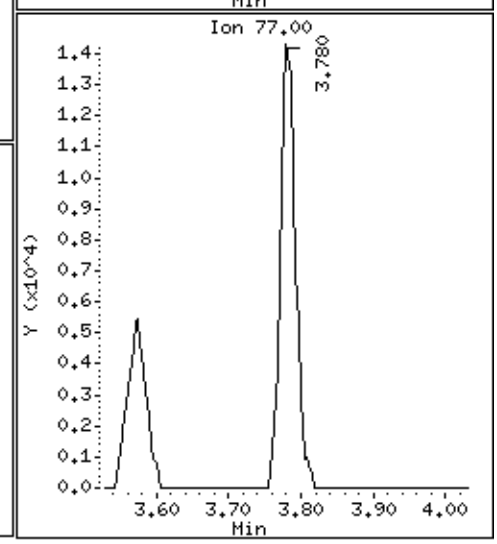


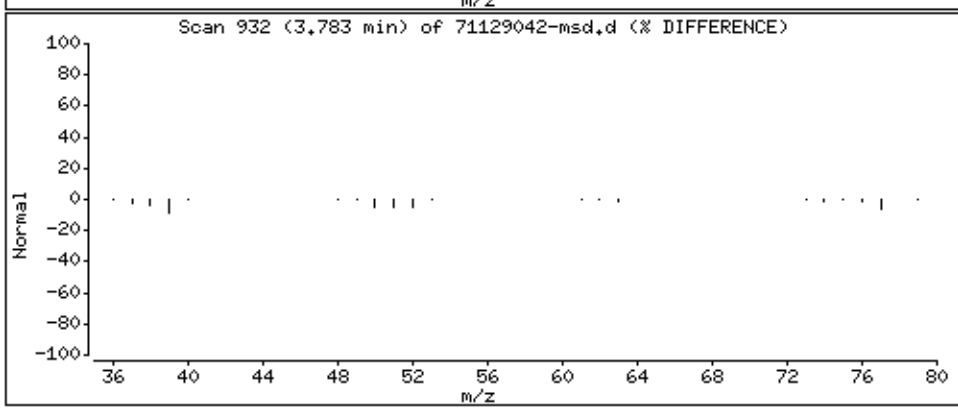












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

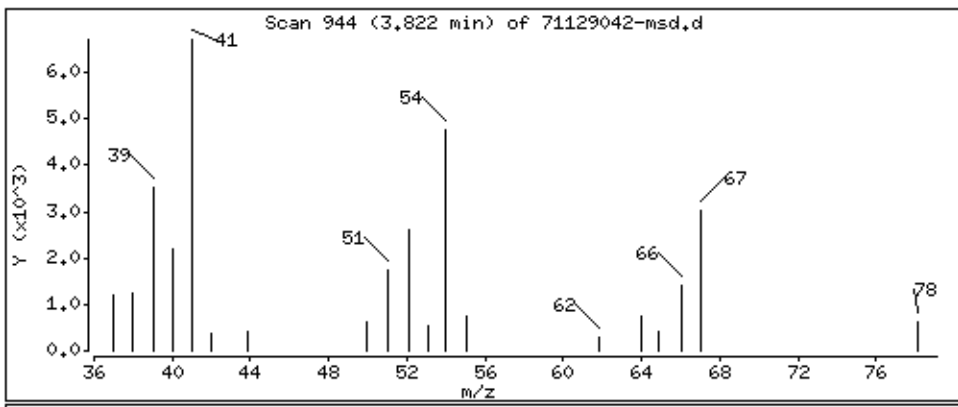
Column phase: RTX-VMS

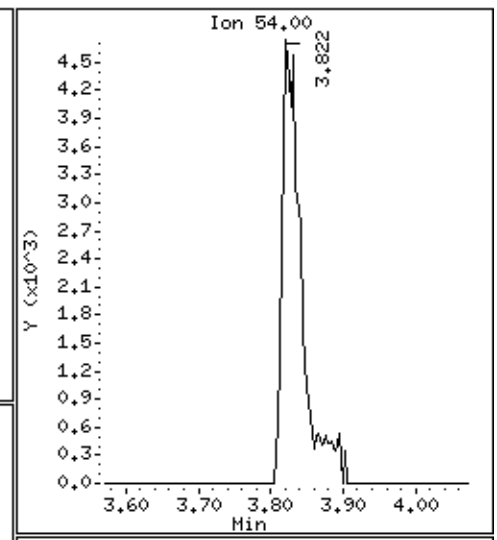
Column diameter: 0.18

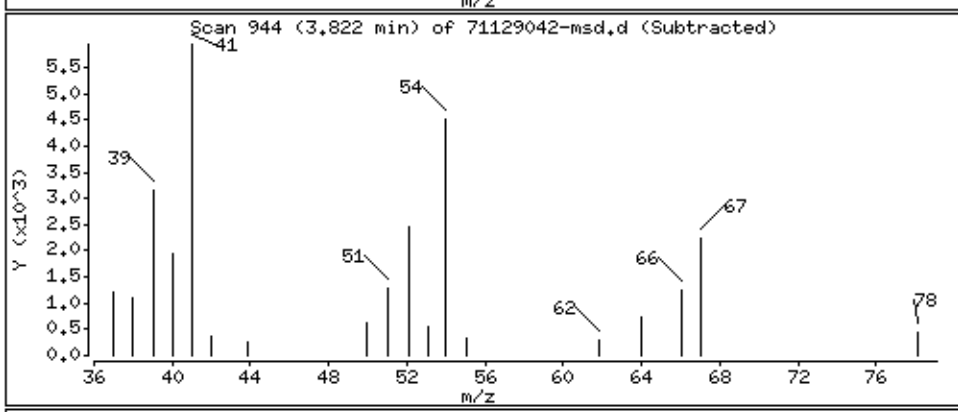
42 Propionitrile

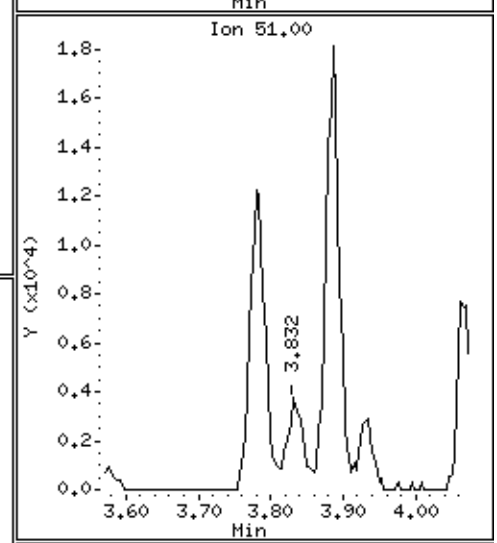
Concentration: 16.3 ug/L

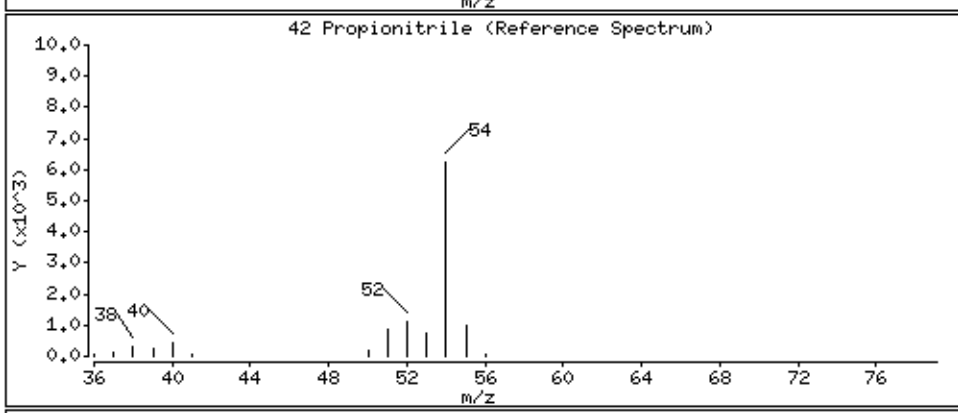
Review Code: LT

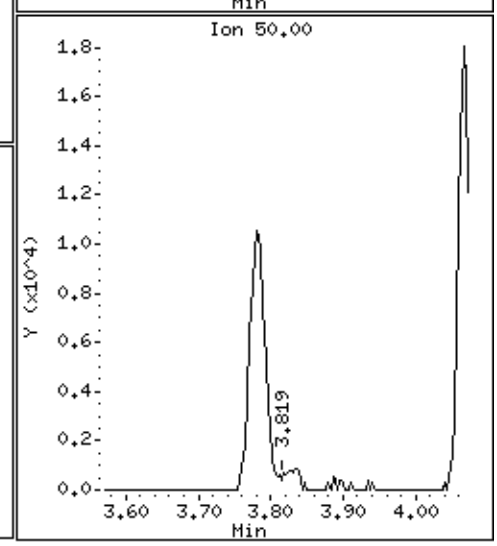


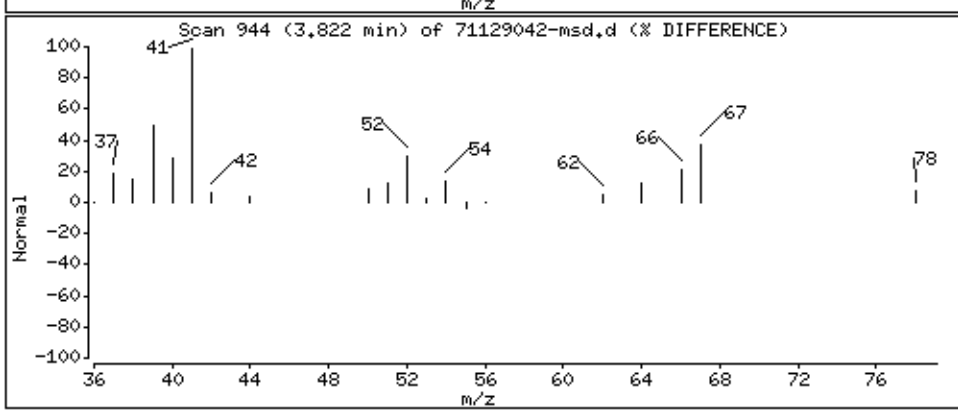












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

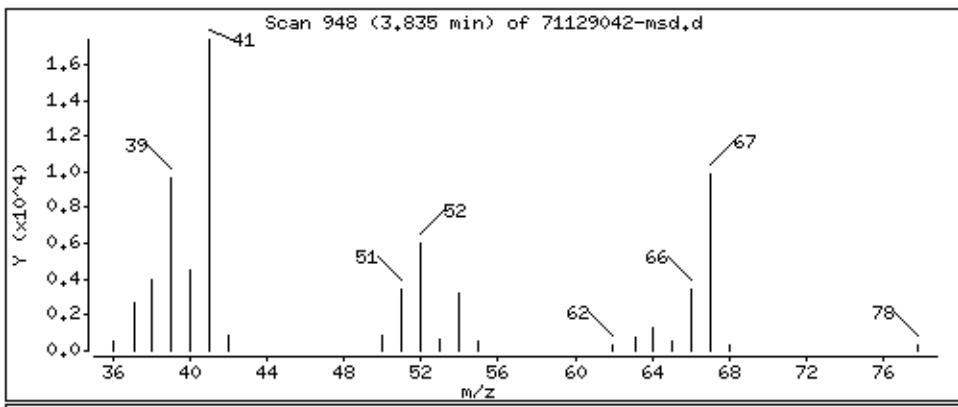
Column phase: RTX-VMS

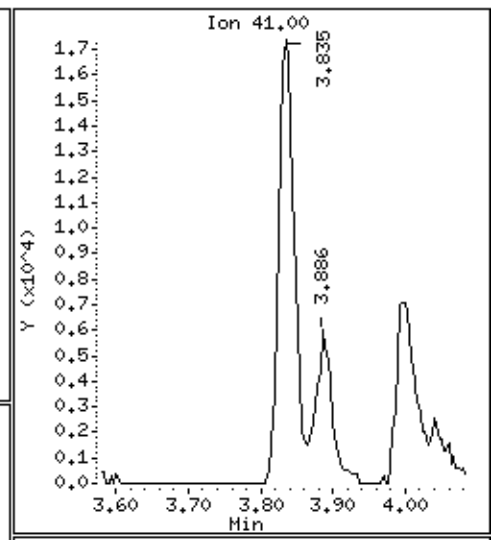
Column diameter: 0.18

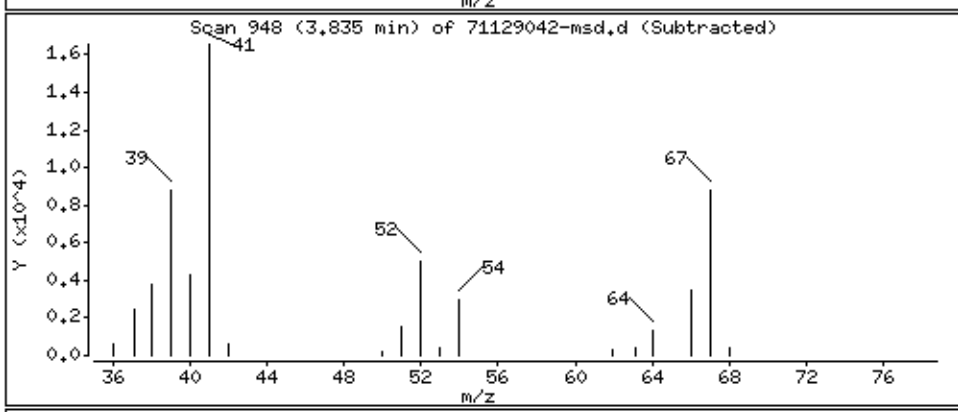
43 Methacrylonitrile

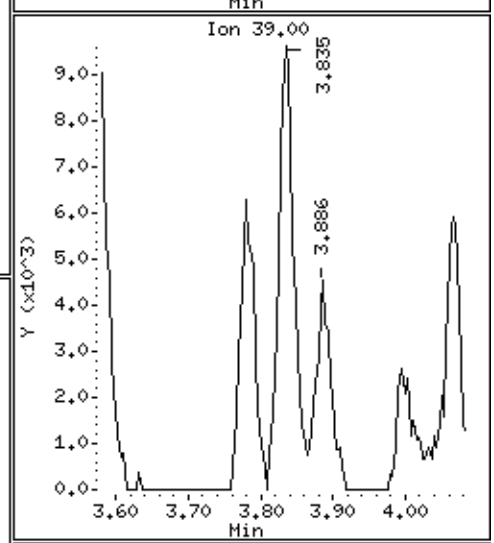
Concentration: 16.6 ug/L

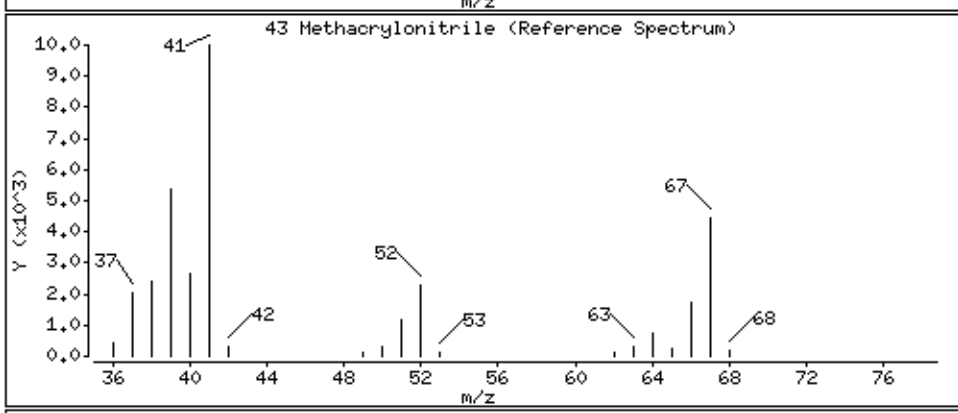
Review Code:

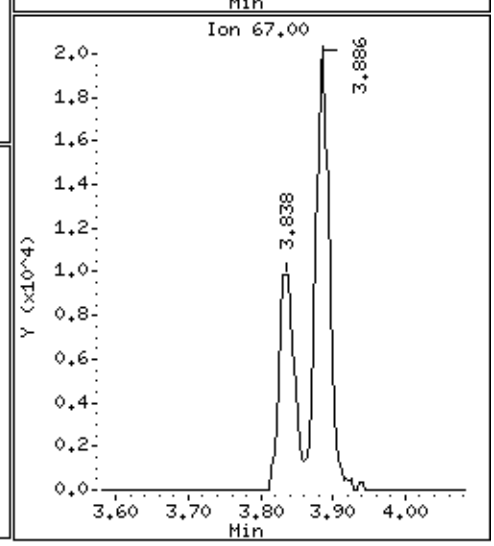


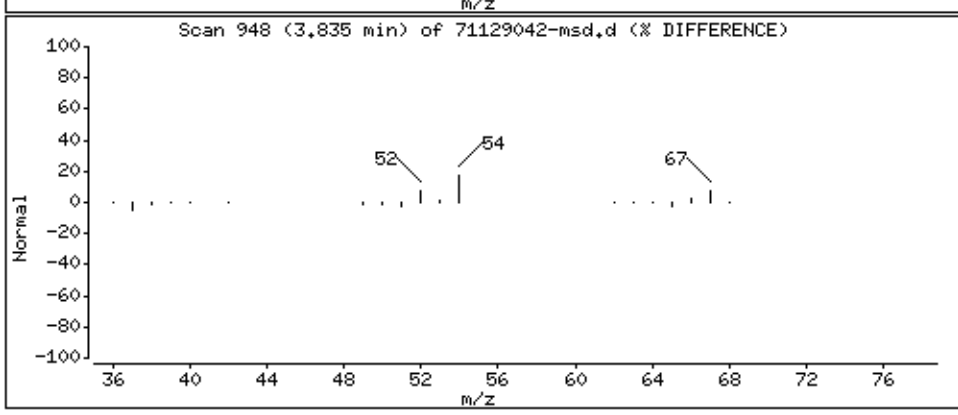












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

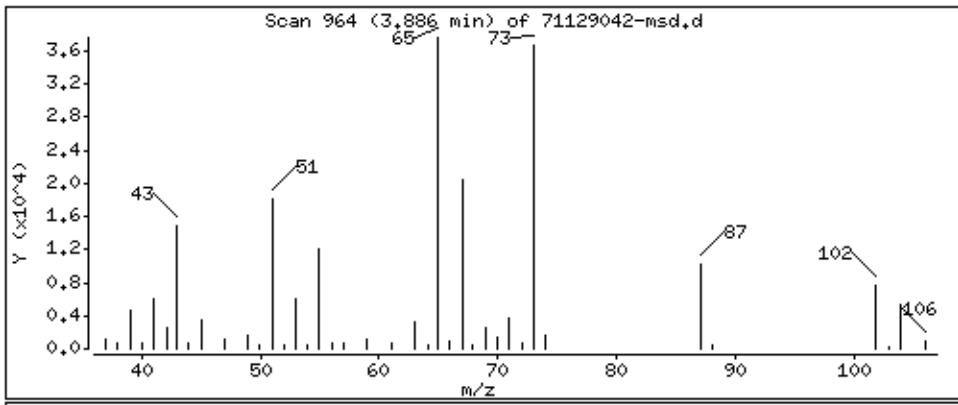
Column phase: RTX-VMS

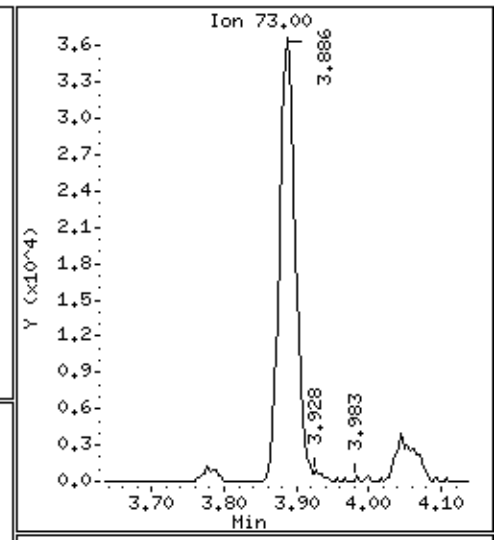
Column diameter: 0.18

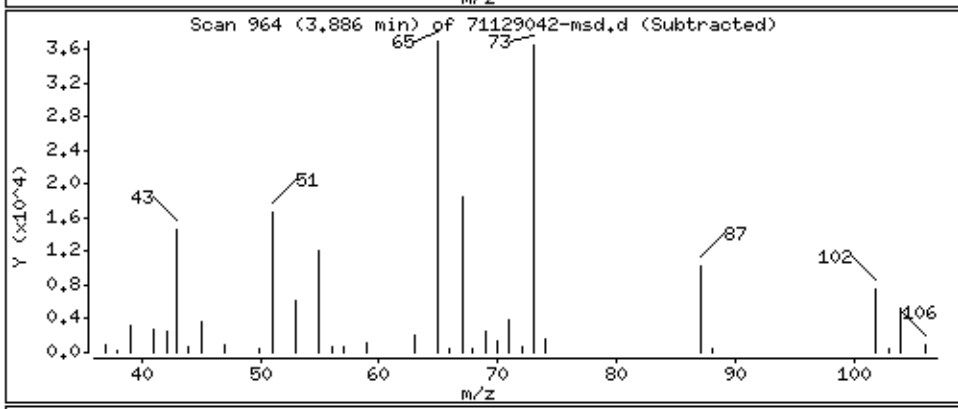
44 tert-Amylmethyl ether

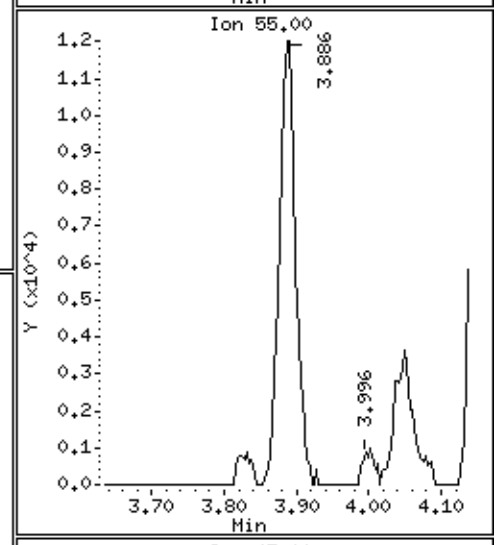
Concentration: 13.4 ug/L

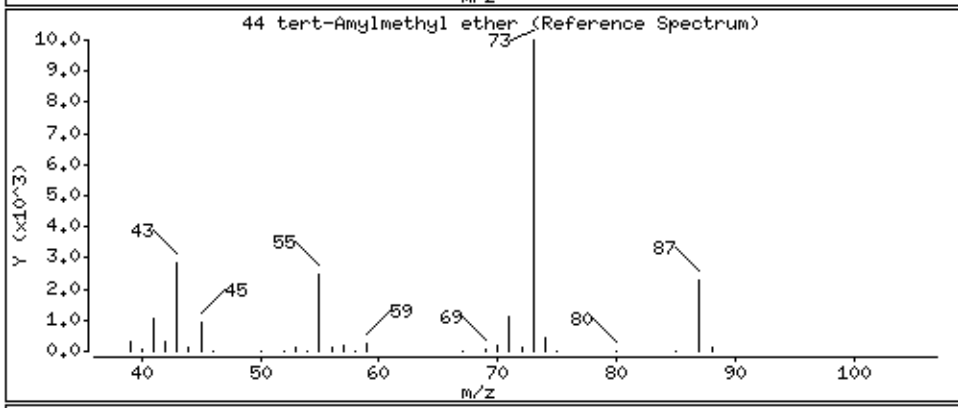
Review Code:

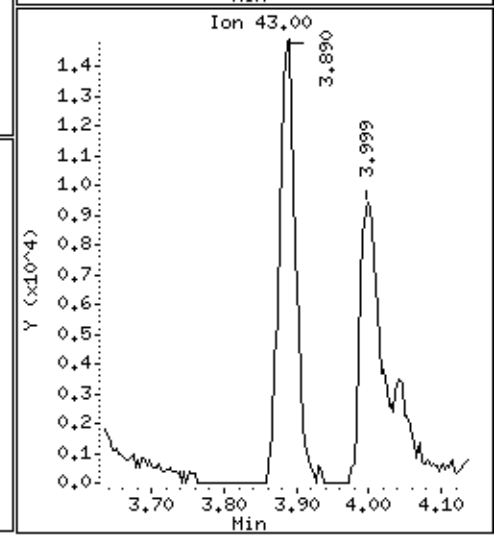


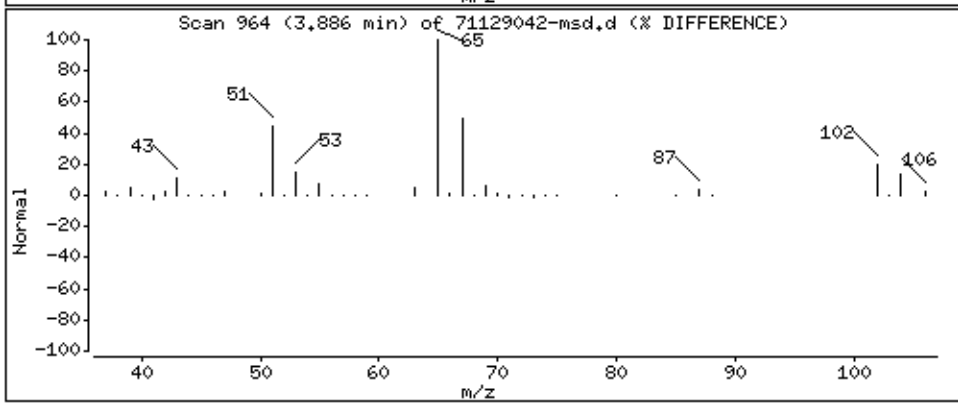












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

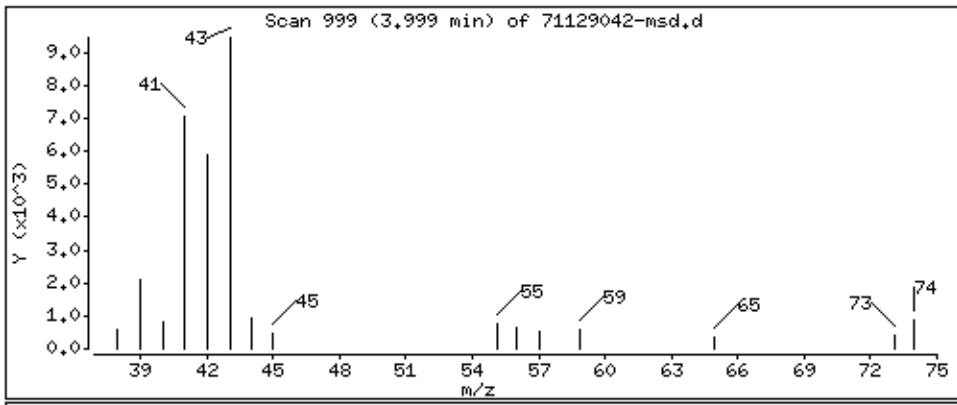
Column phase: RTX-VMS

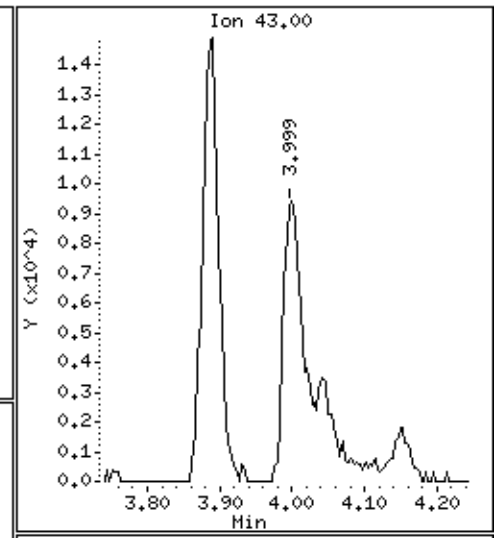
Column diameter: 0.18

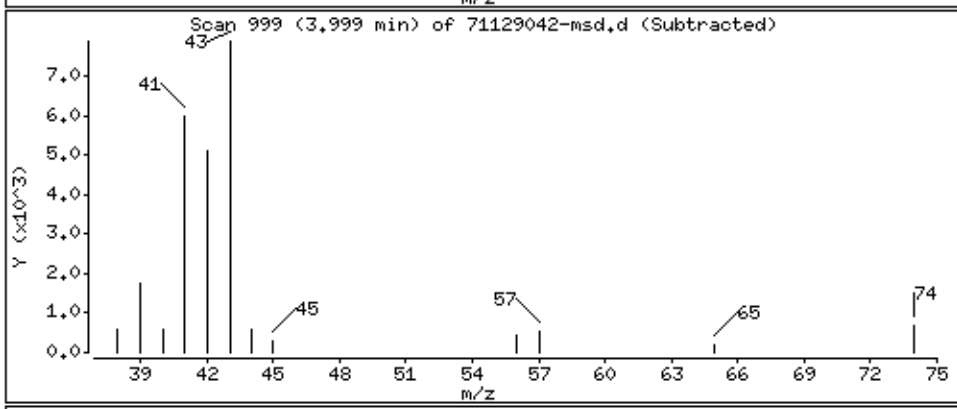
45 Isobutanol

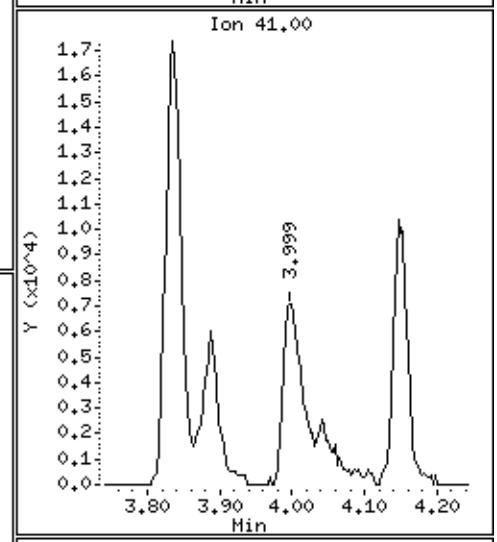
Concentration: 86.2 ug/L

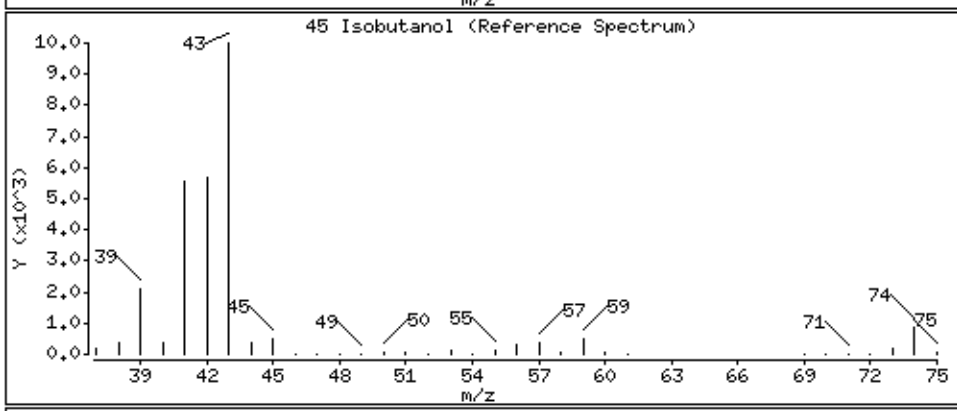
Review Code: GT

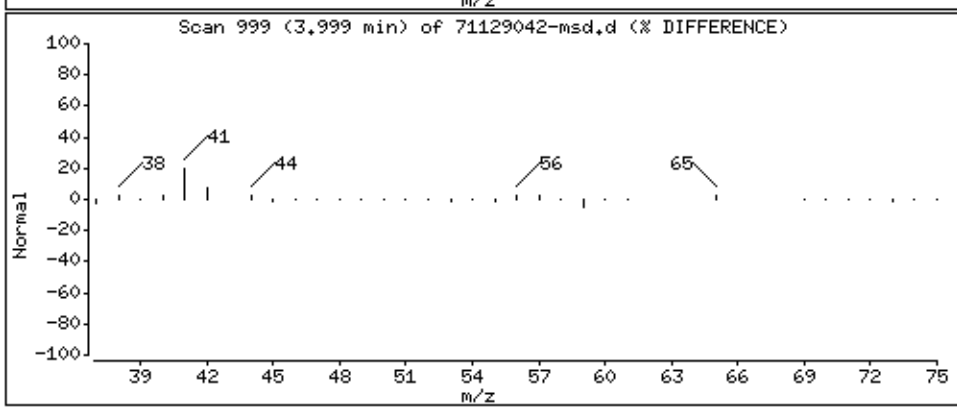


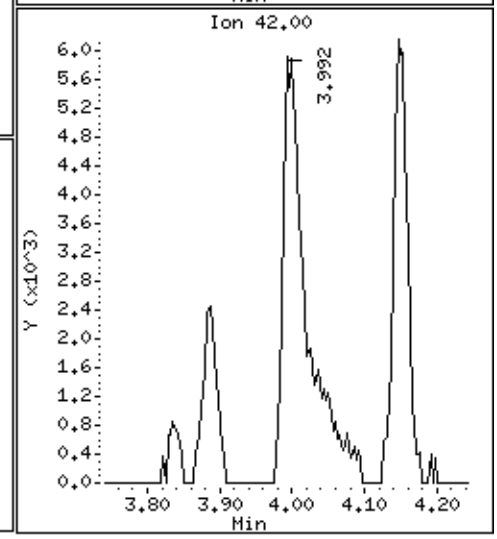












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

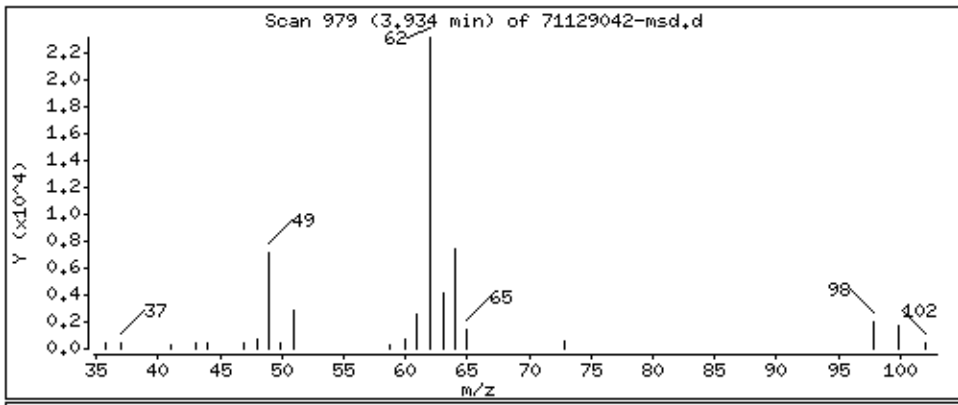
Column phase: RTX-VMS

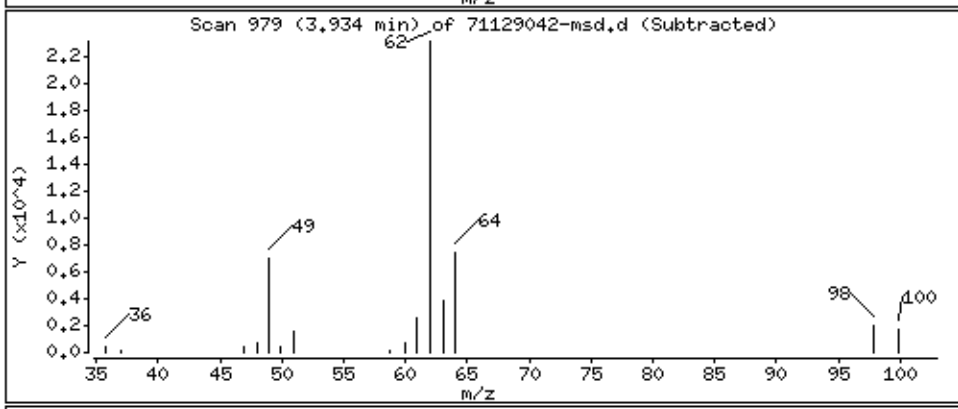
Column diameter: 0.18

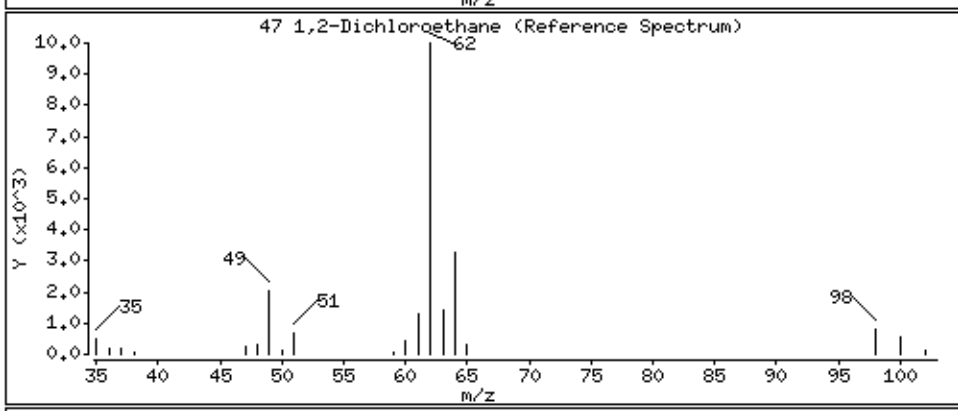
47 1,2-Dichloroethane

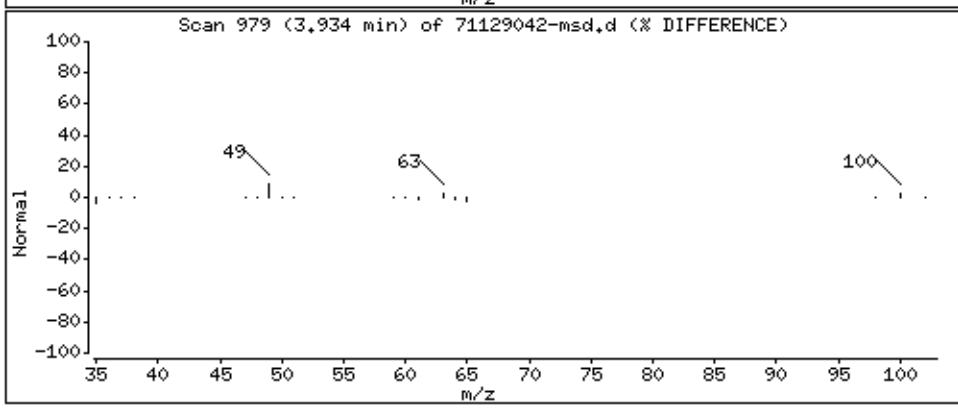
Concentration: 15.6 ug/L

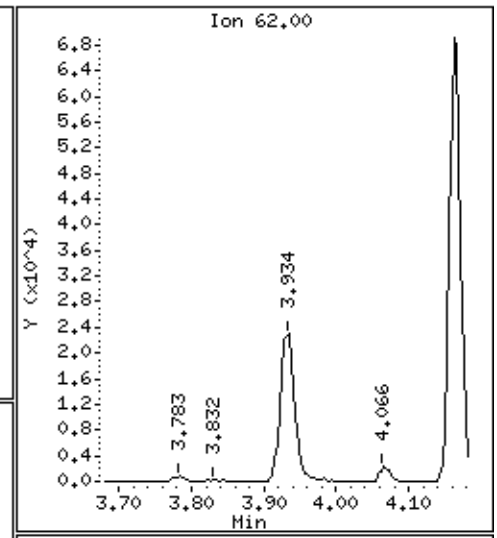
Review Code:

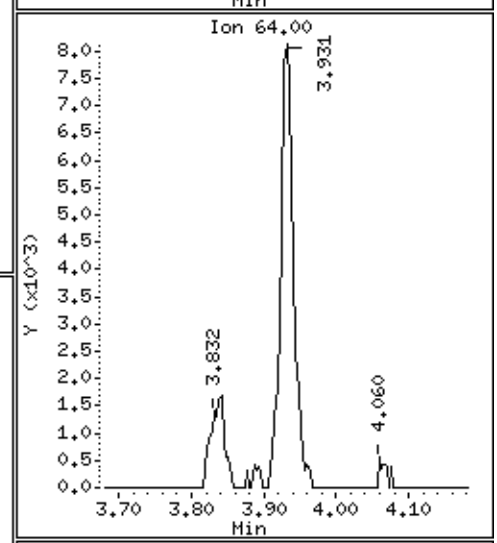


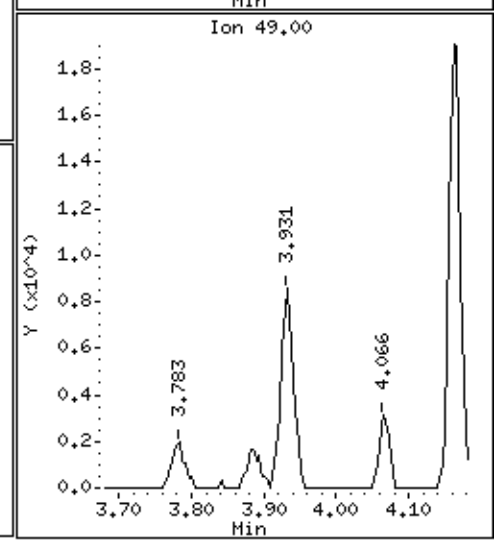












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

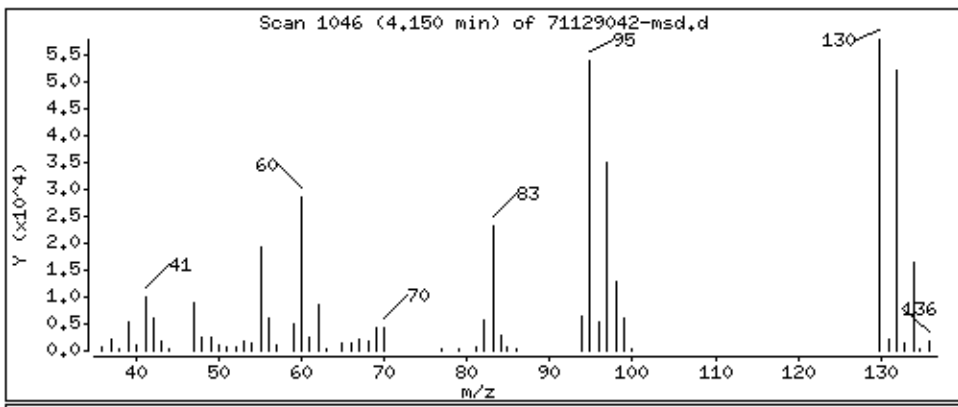
Column phase: RTX-VMS

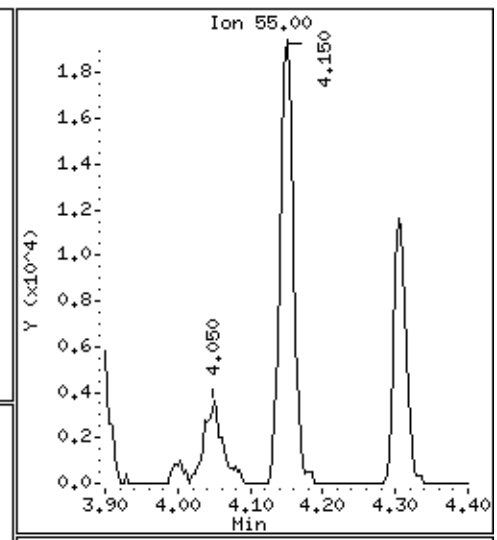
Column diameter: 0.18

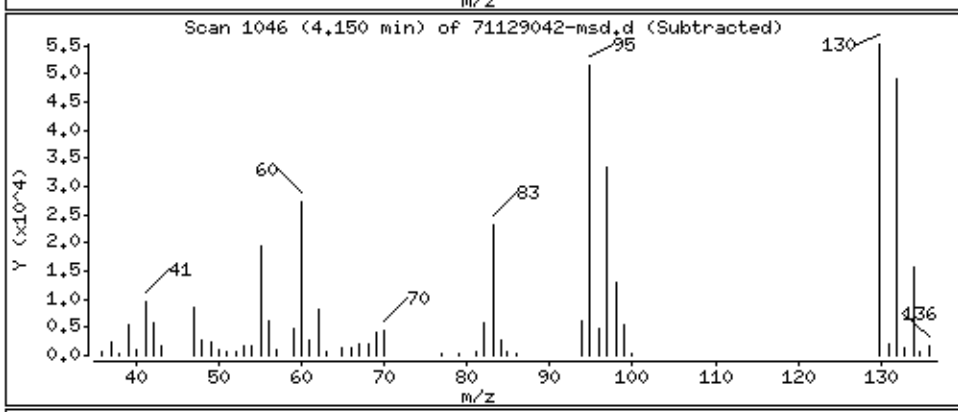
49 Methylcyclohexane

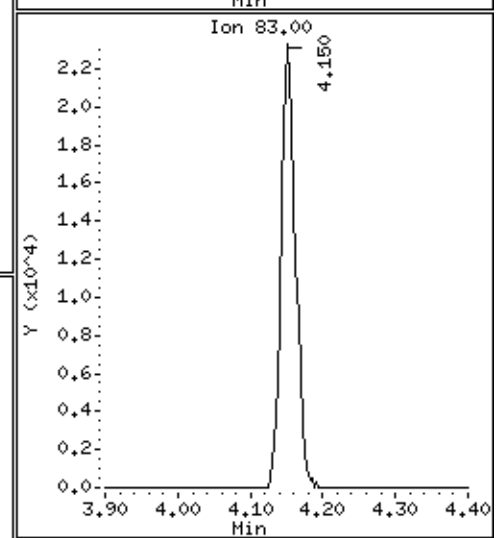
Concentration: 16.0 ug/L

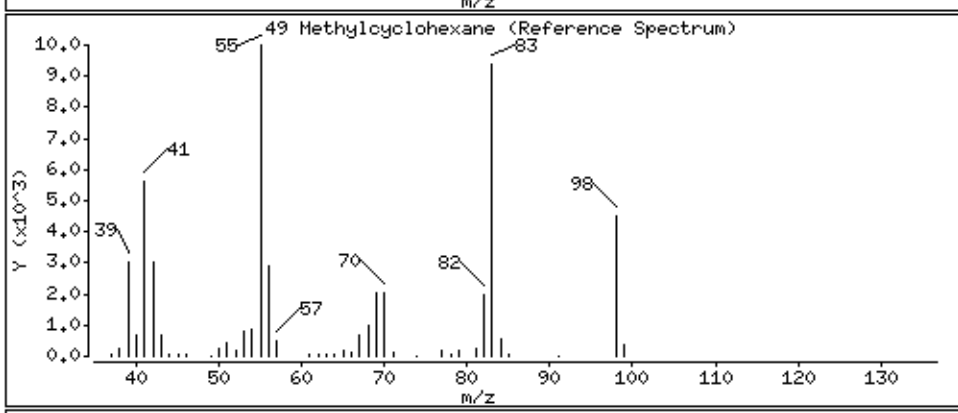
Review Code:

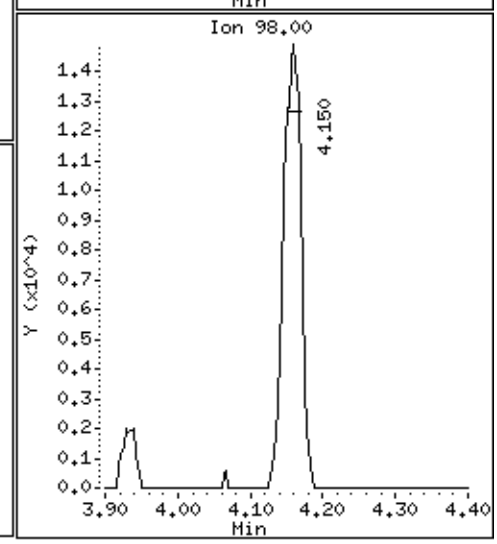


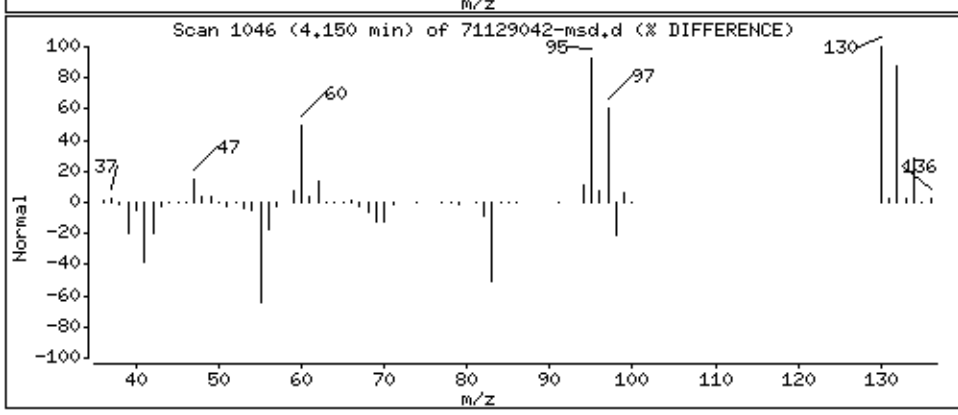












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

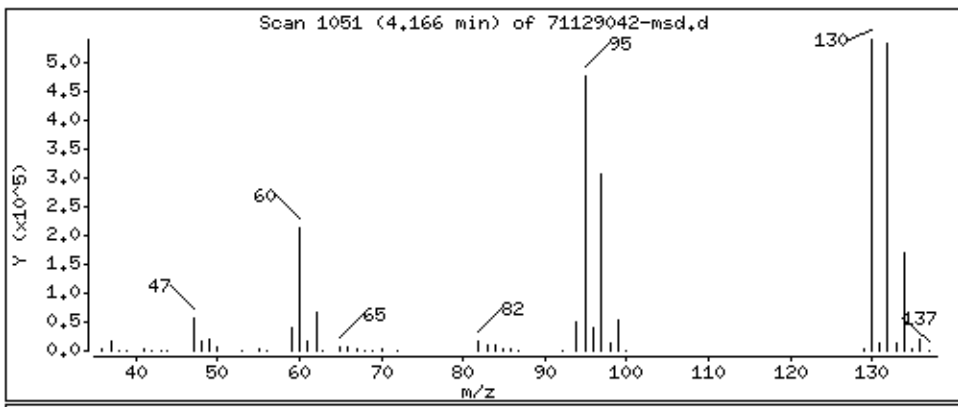
Column phase: RTX-VMS

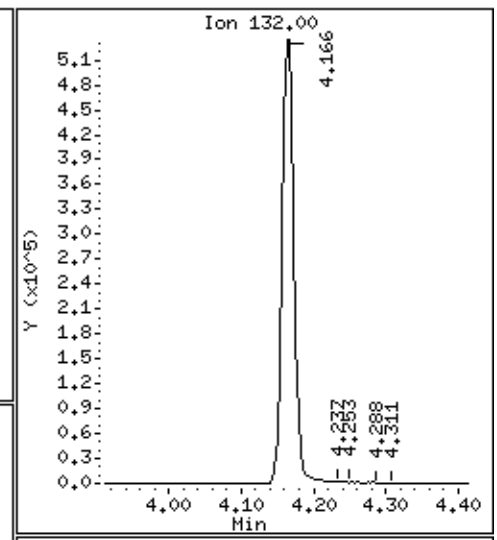
Column diameter: 0.18

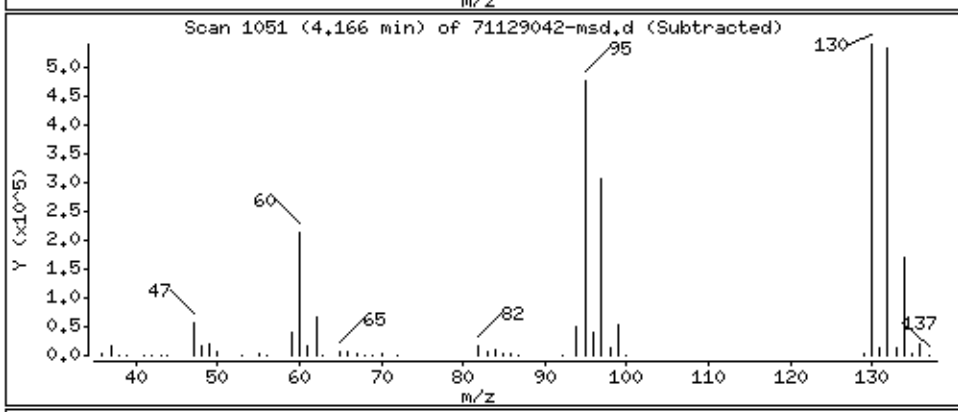
50 Trichloroethene

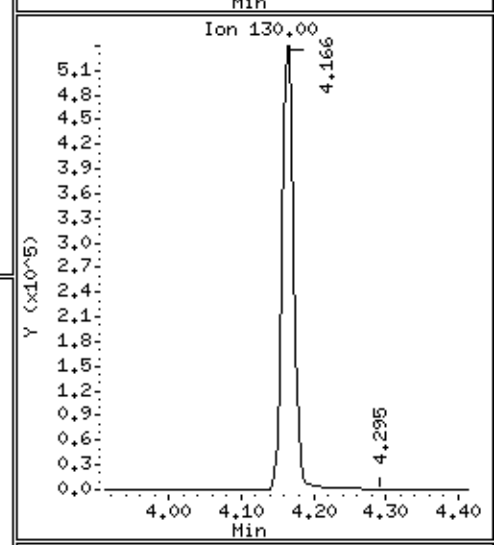
Concentration: 323 ug/L

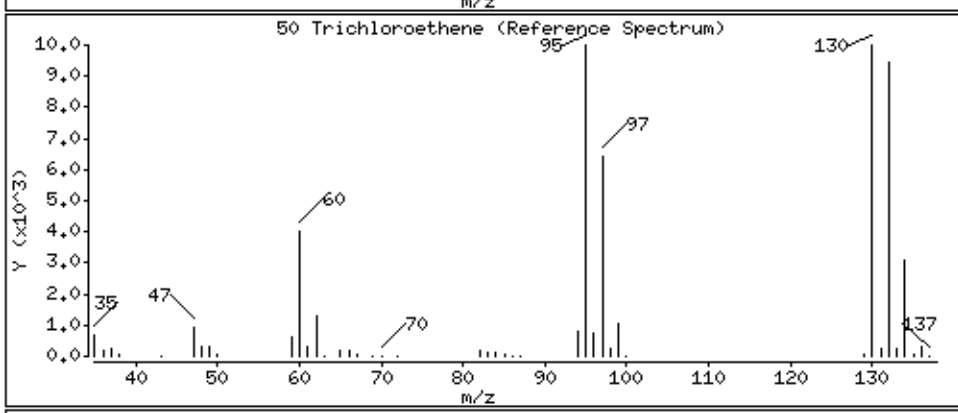
Review Code:

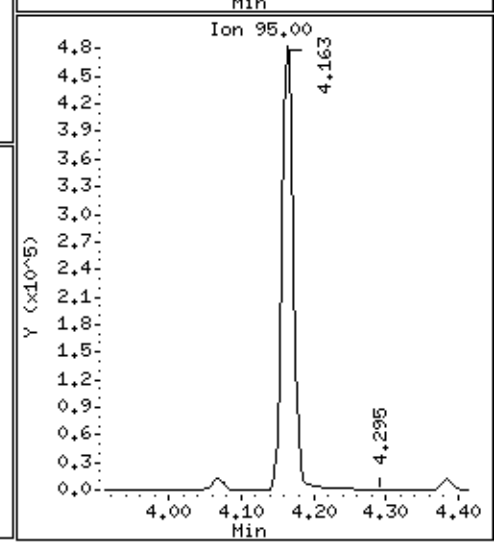


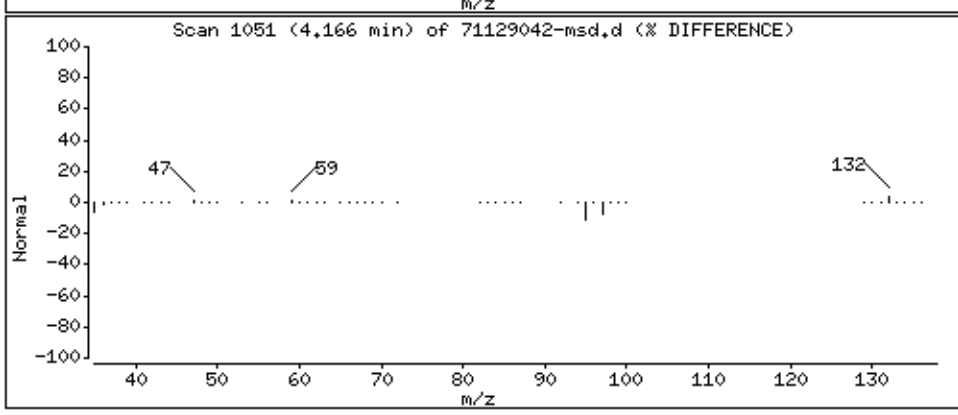












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

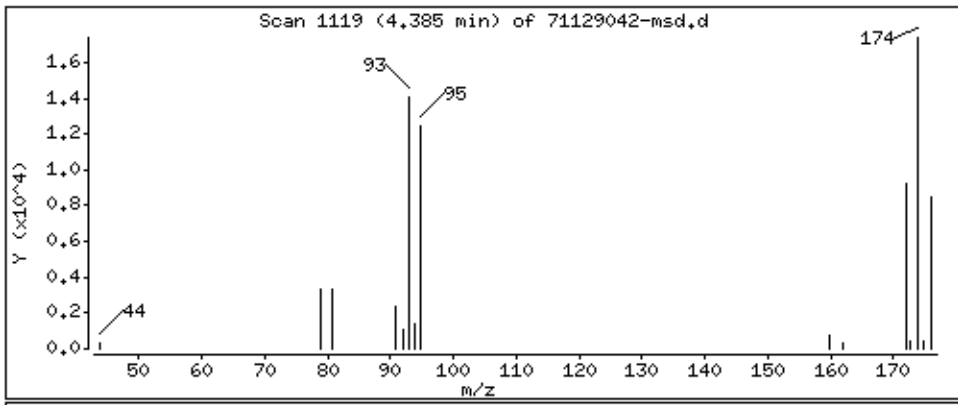
Column phase: RTX-VMS

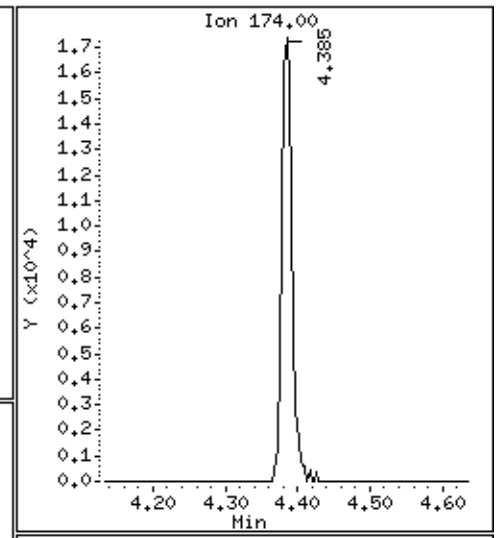
Column diameter: 0.18

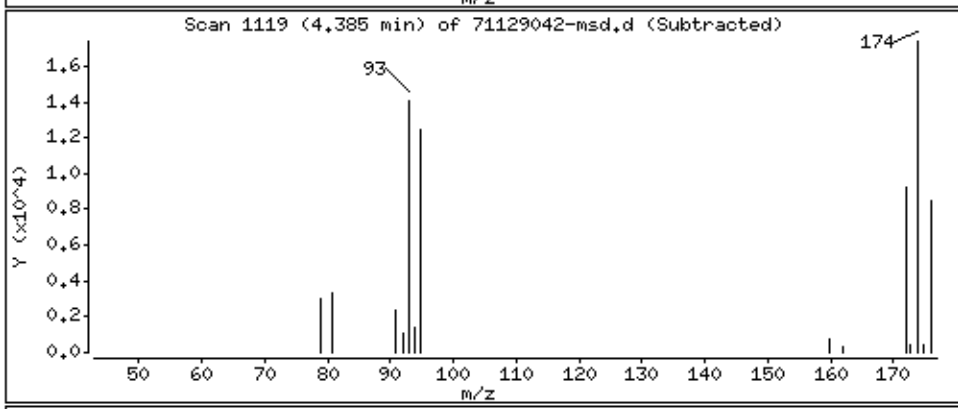
51 Dibromomethane

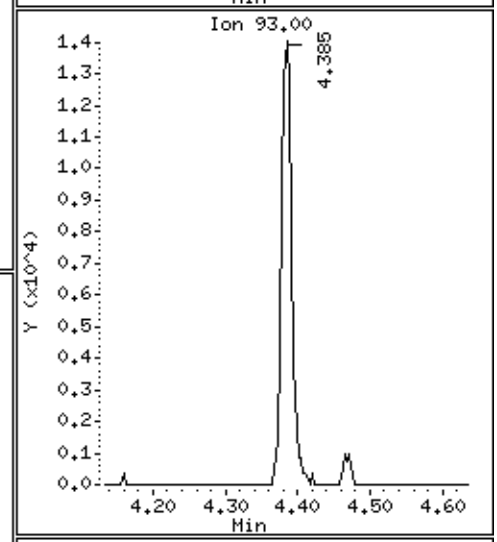
Concentration: 13.3 ug/L

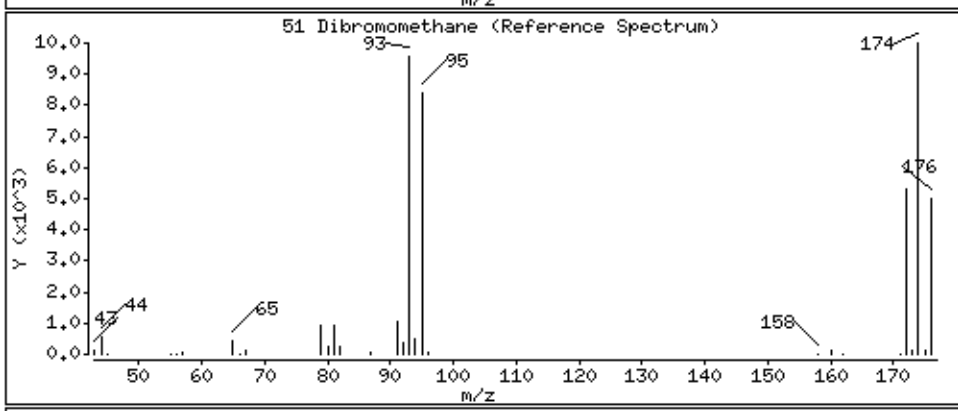
Review Code:

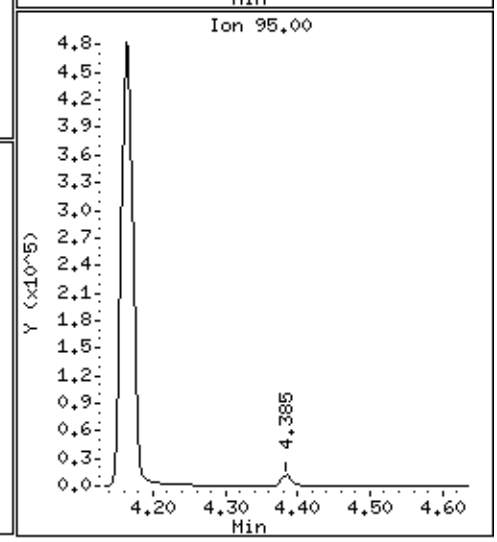


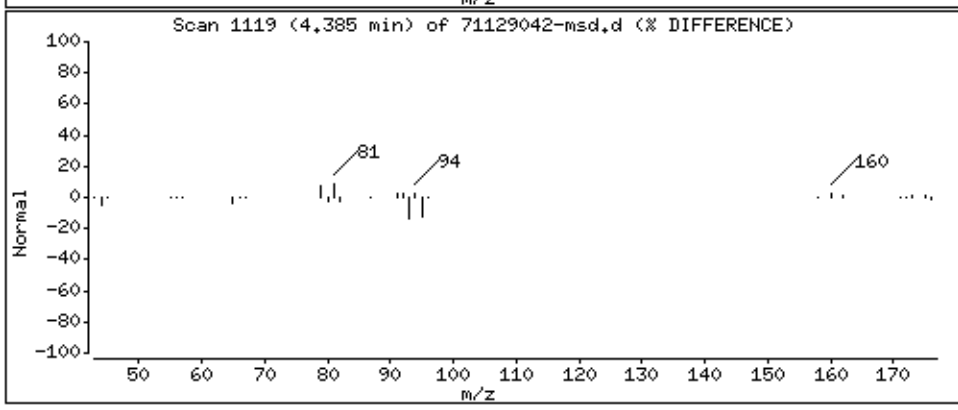












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

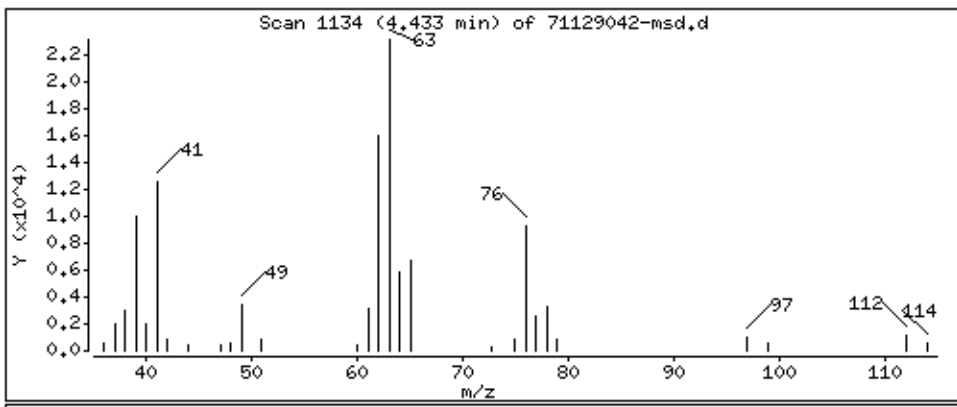
Column phase: RTX-VMS

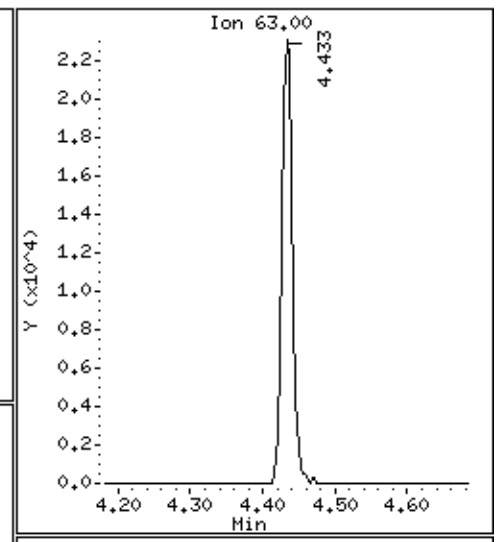
Column diameter: 0.18

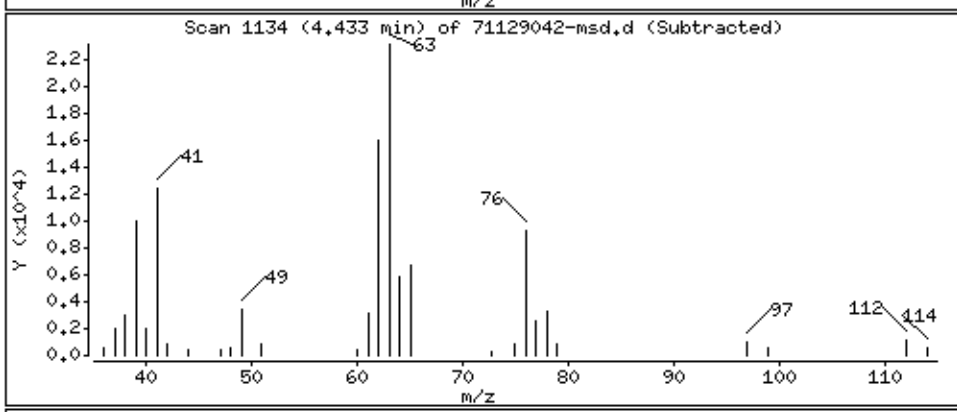
52 1,2-Dichloropropane

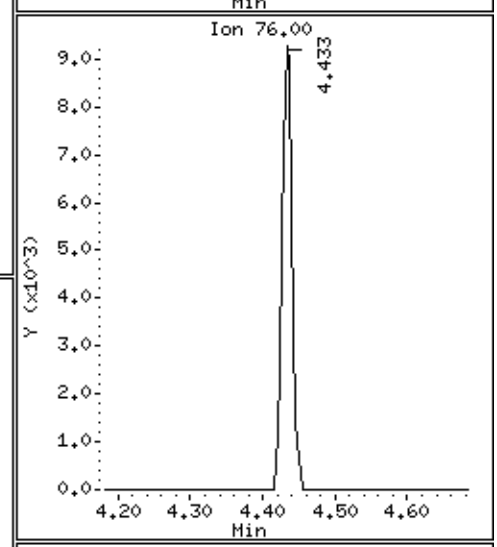
Concentration: 15.2 ug/L

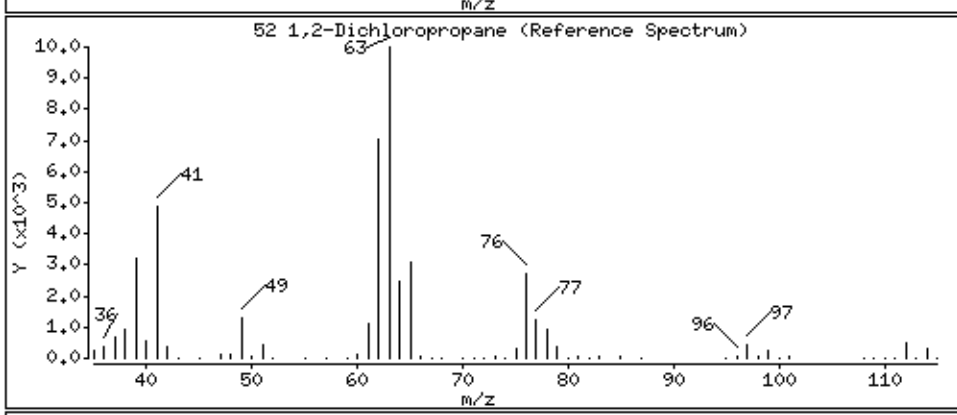
Review Code:

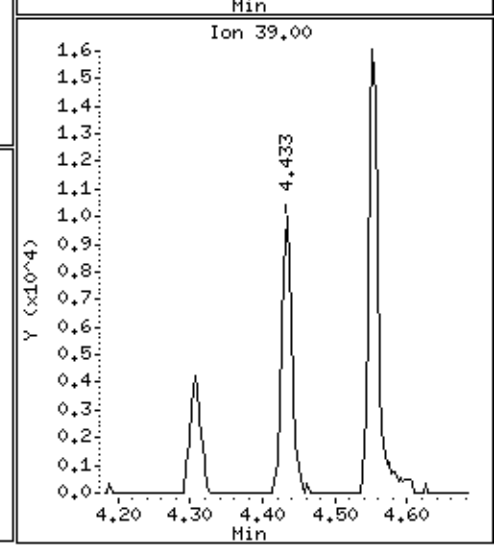


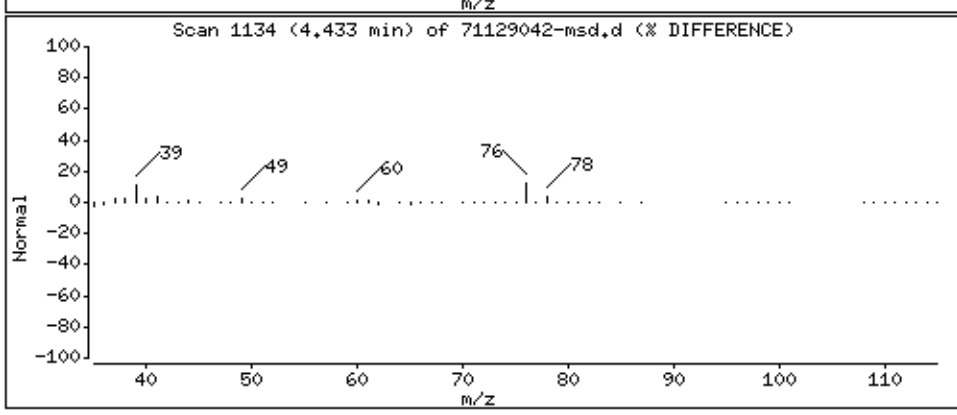












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

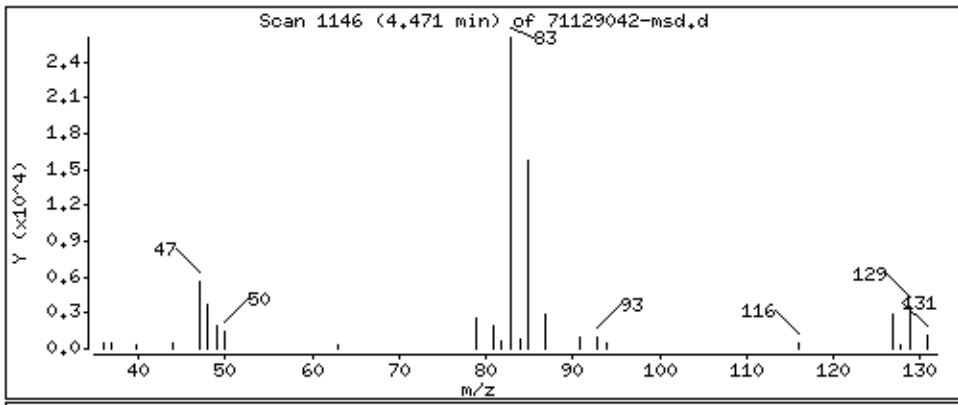
Column phase: RTX-VMS

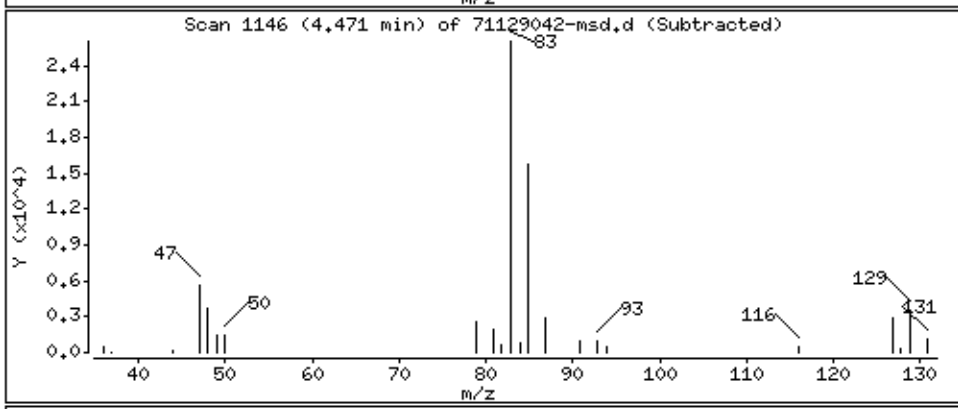
Column diameter: 0.18

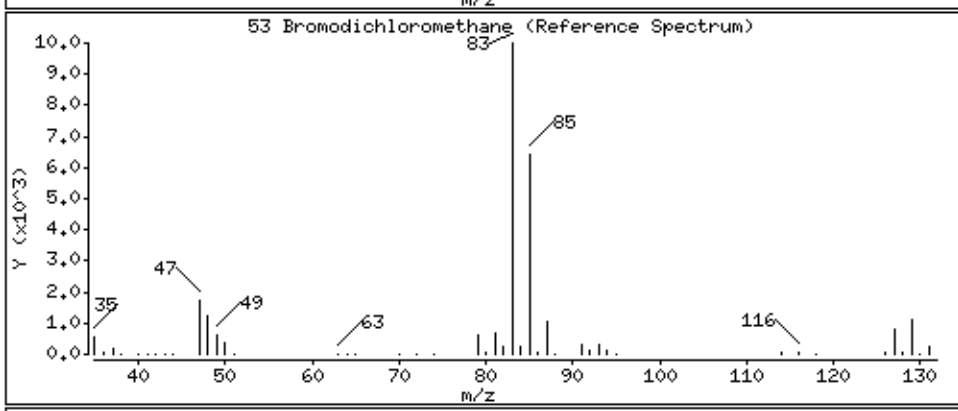
53 Bromodichloromethane

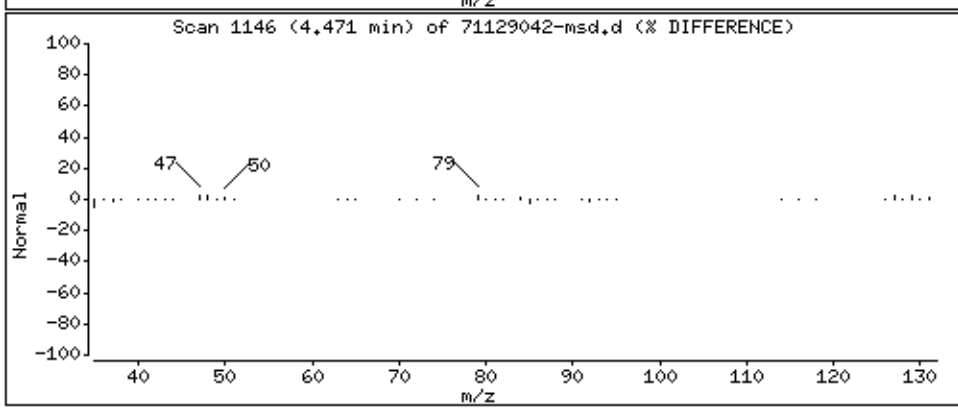
Concentration: 14.6 ug/L

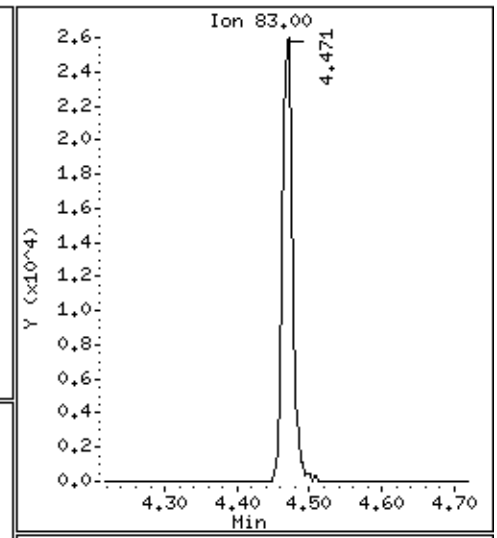
Review Code:

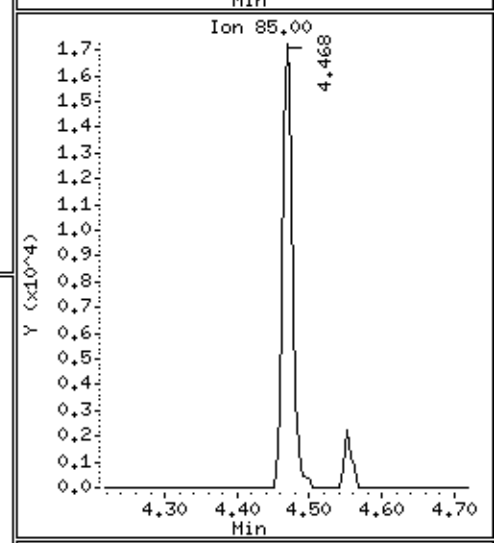


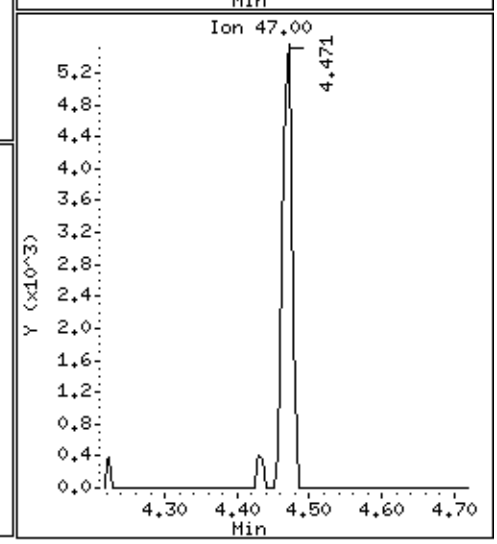












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

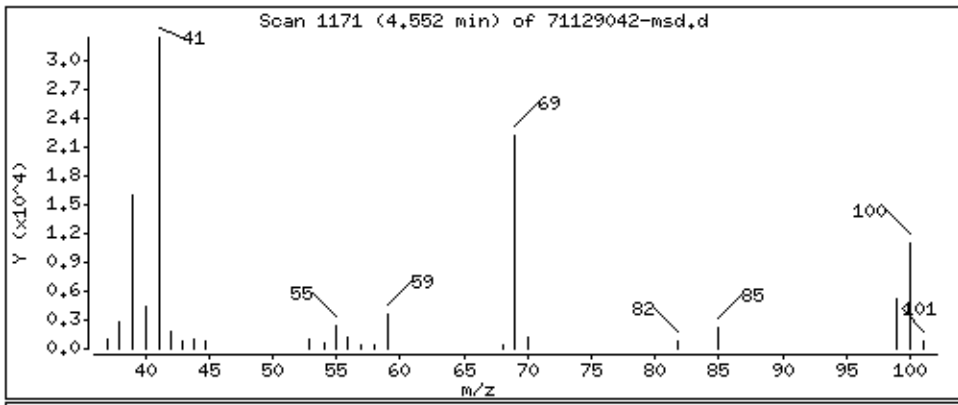
Column phase: RTX-VMS

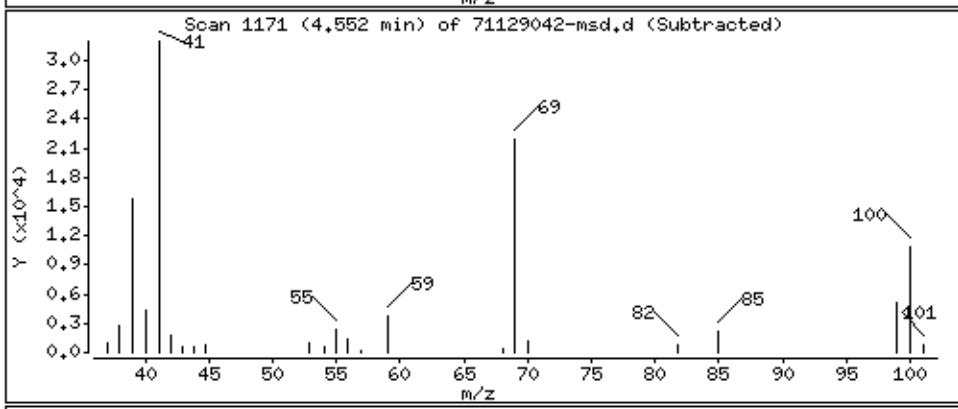
Column diameter: 0.18

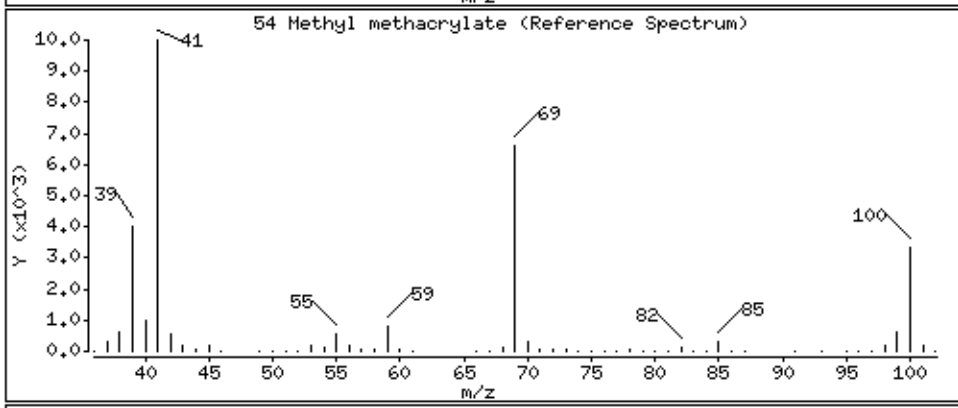
54 Methyl methacrylate

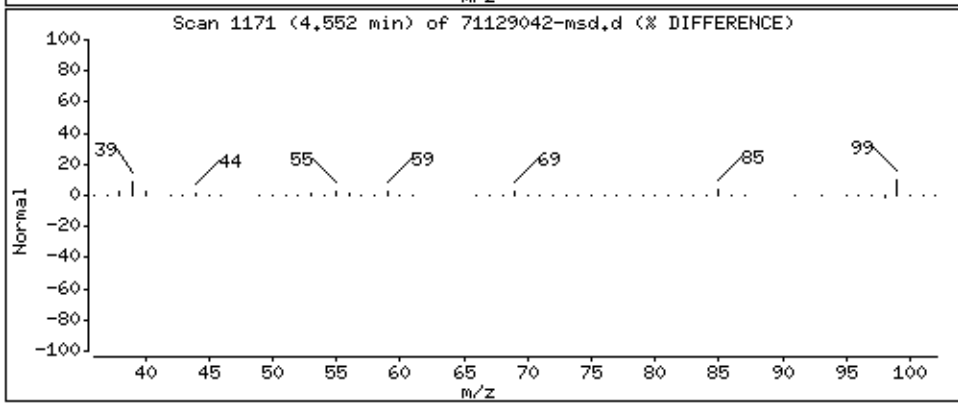
Concentration: 14.1 ug/L

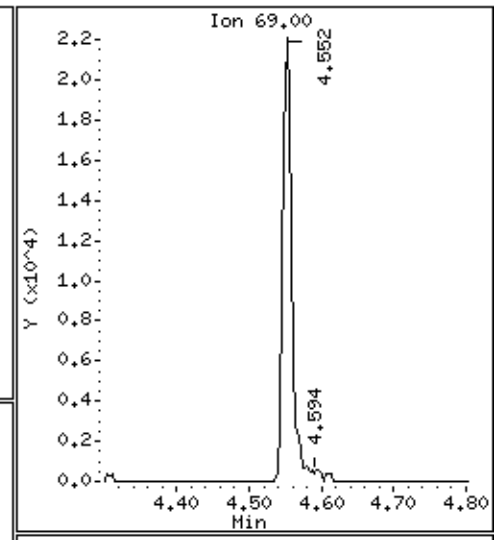
Review Code:

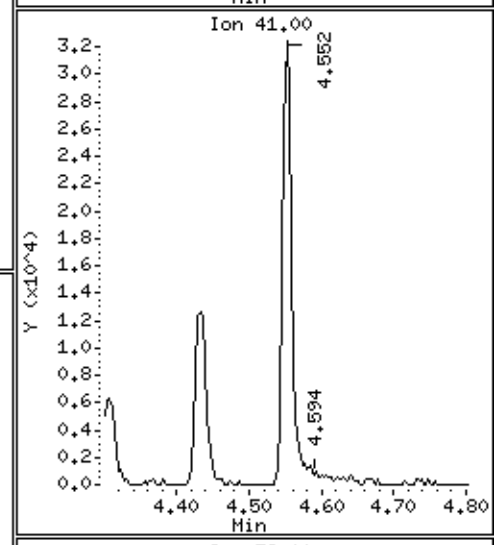


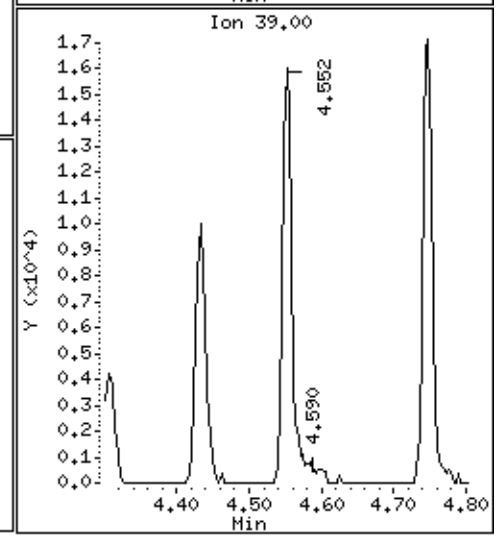












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

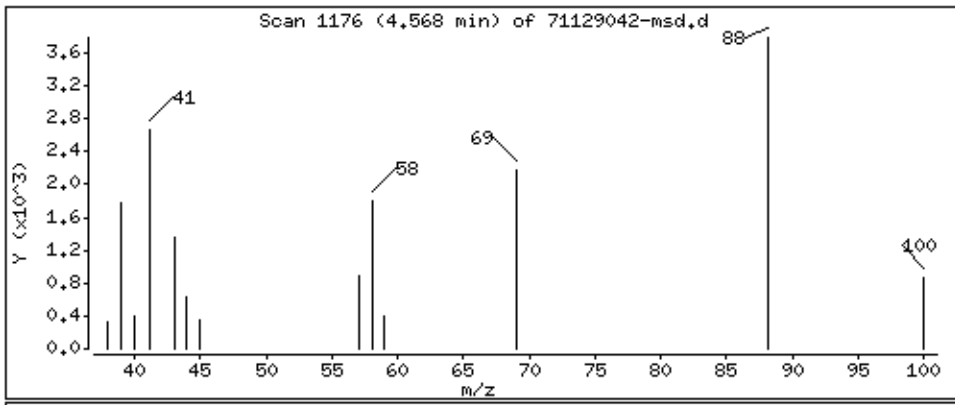
Column phase: RTX-VMS

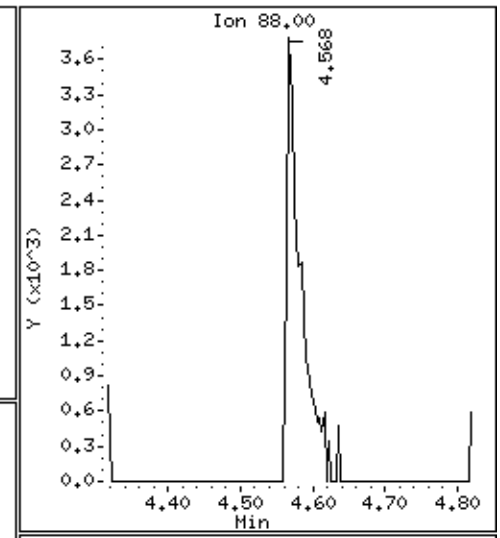
Column diameter: 0.18

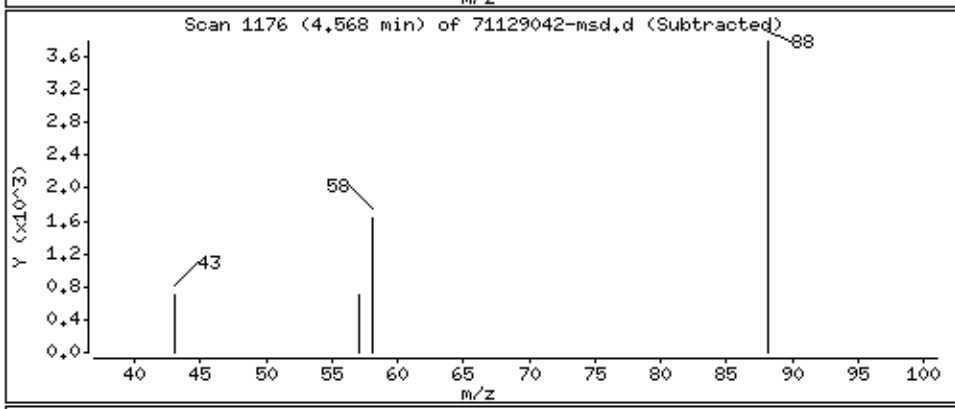
55 1,4-Dioxane (p-Dioxane)

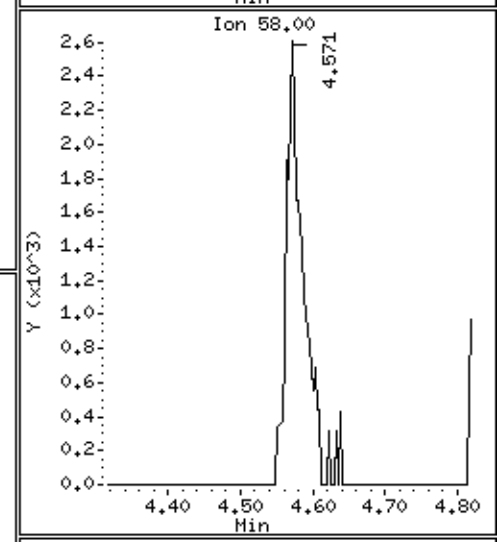
Concentration: 174 ug/L

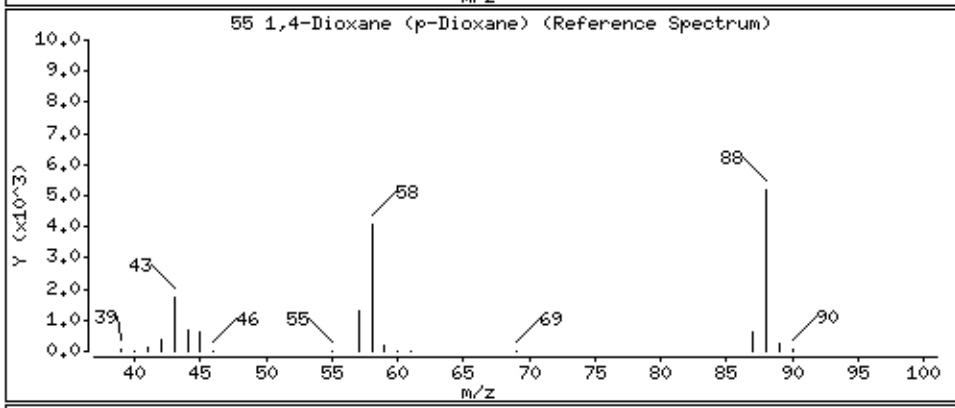
Review Code:

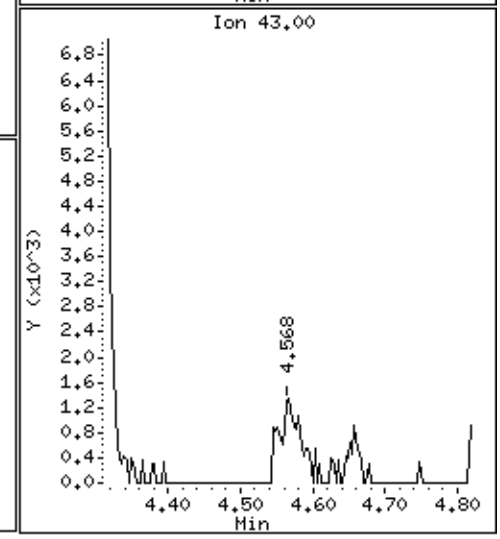


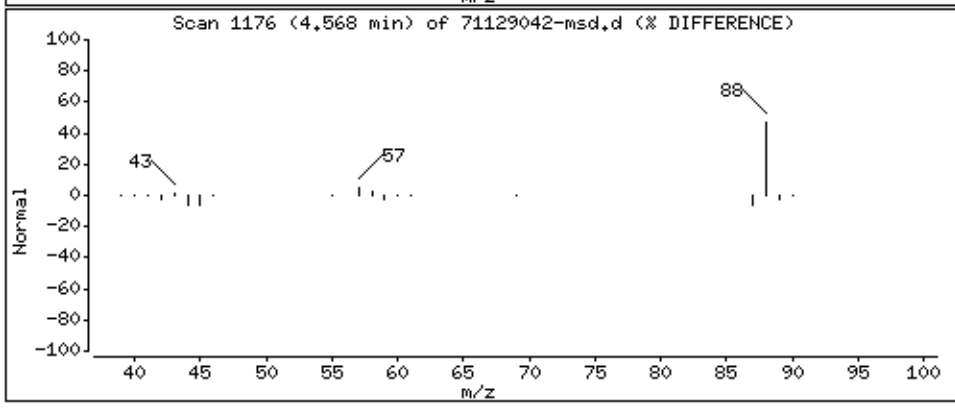












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

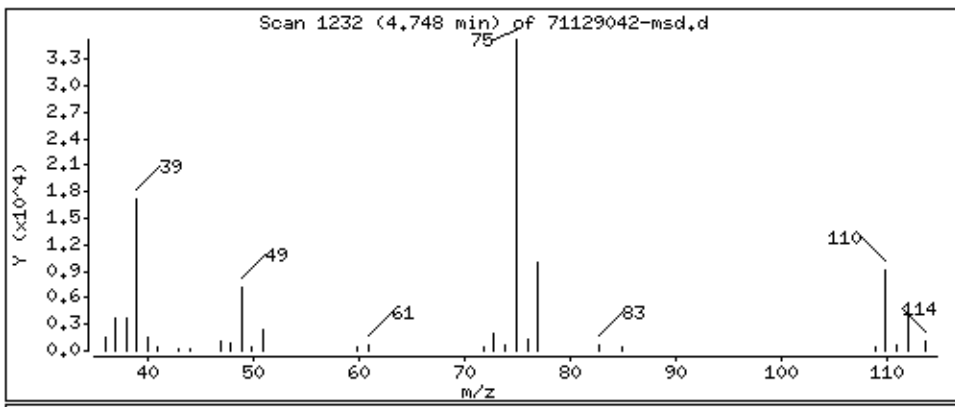
Column phase: RTX-VMS

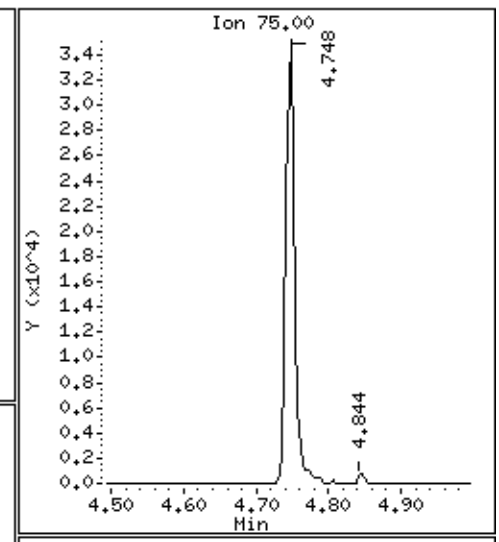
Column diameter: 0.18

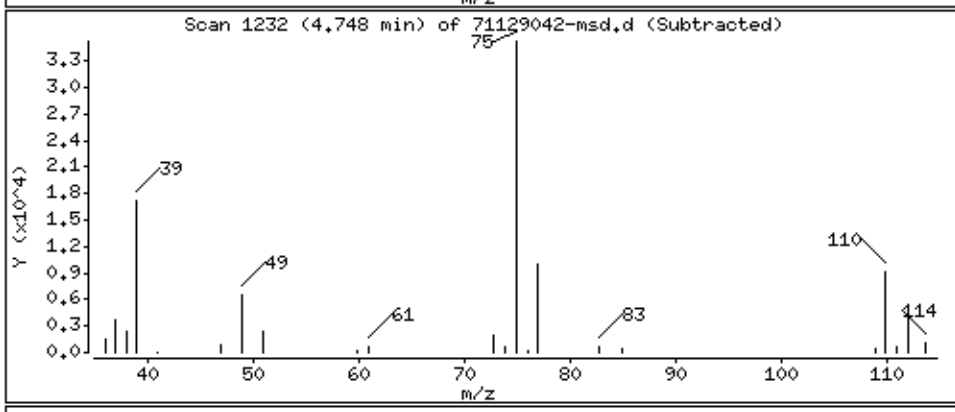
57 cis-1,3-Dichloropropene

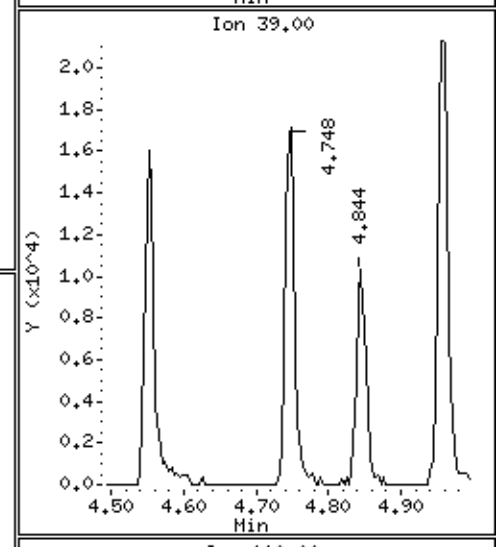
Concentration: 13.8 ug/L

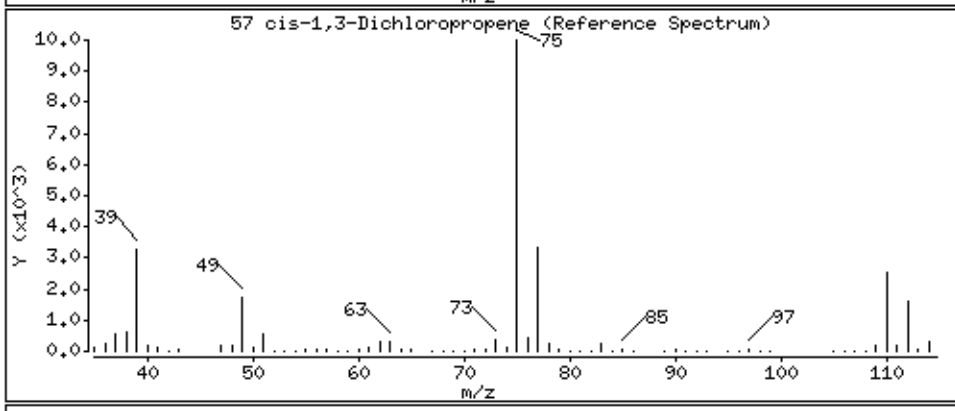
Review Code:

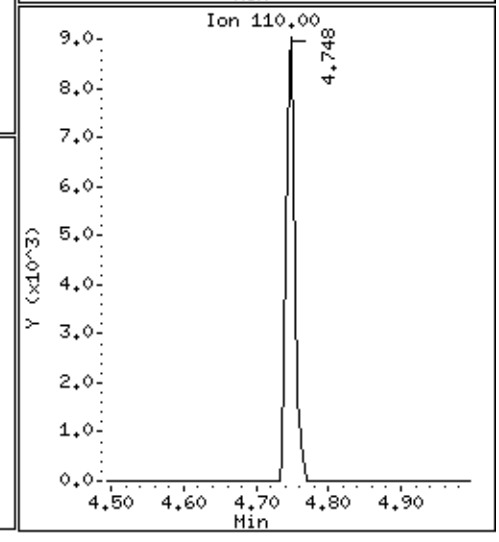


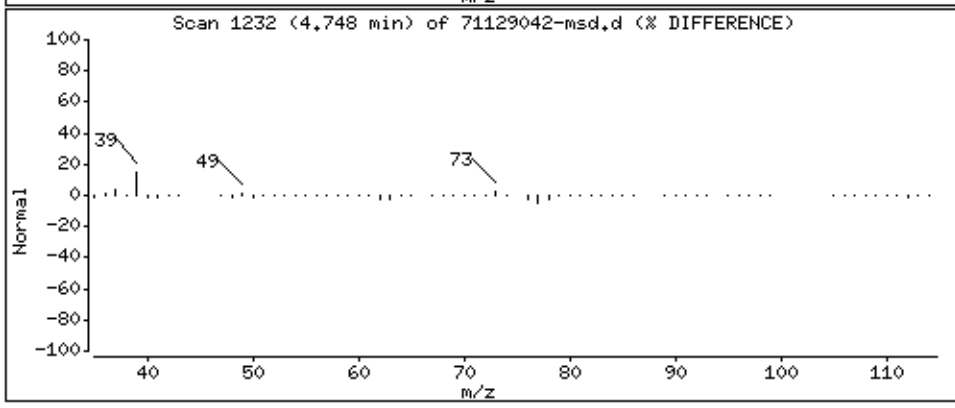












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

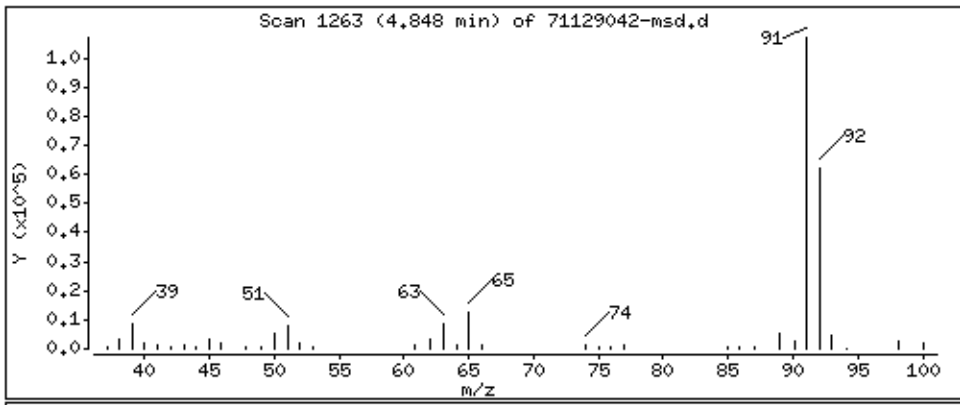
Column phase: RTX-VMS

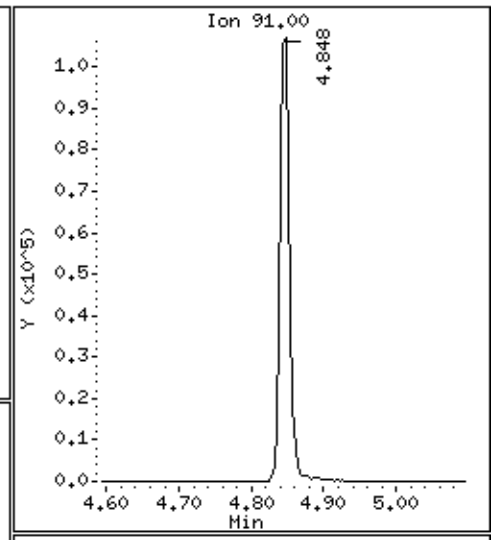
Column diameter: 0.18

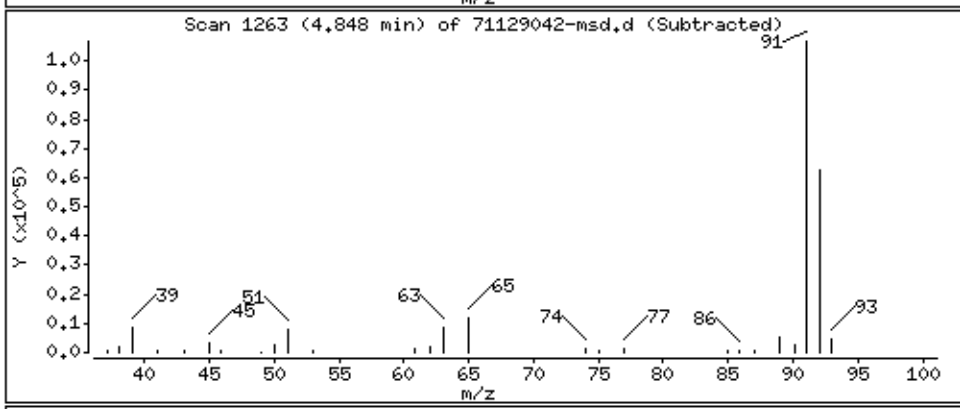
59 Toluene

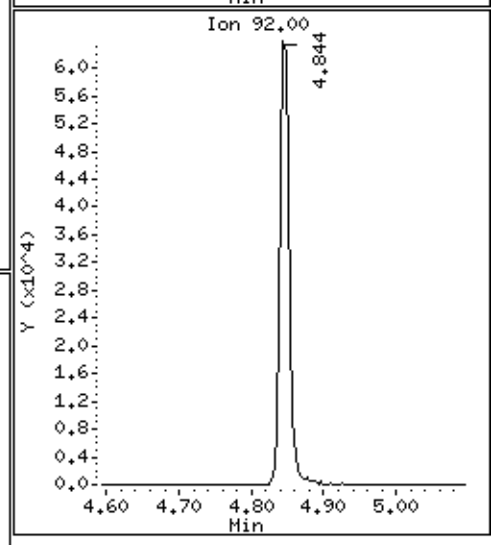
Concentration: 14.1 ug/L

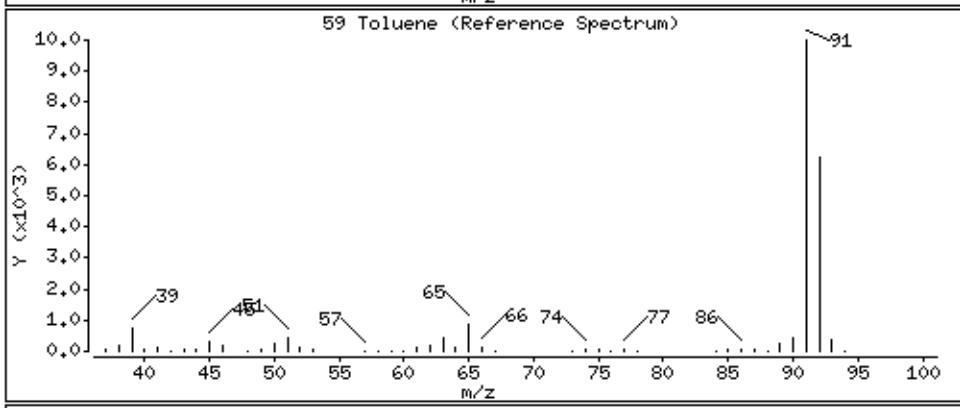
Review Code:

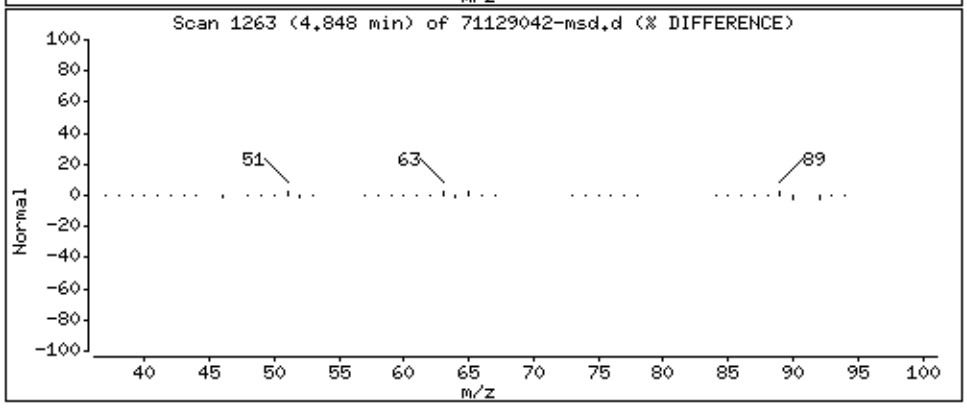












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

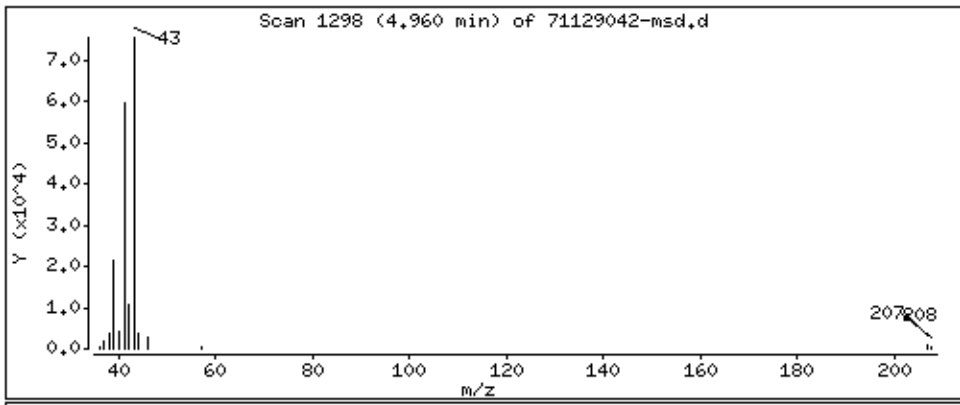
Column phase: RTX-VMS

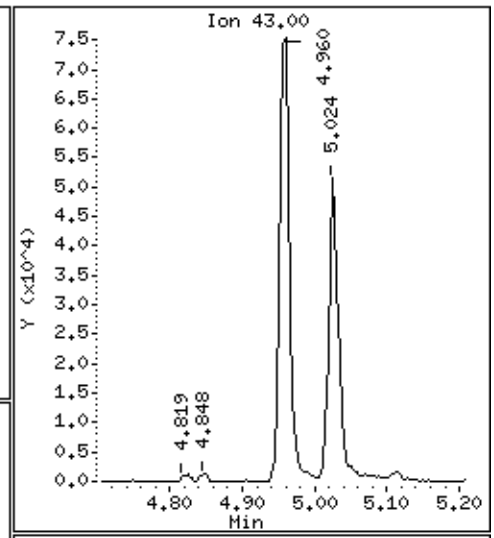
Column diameter: 0.18

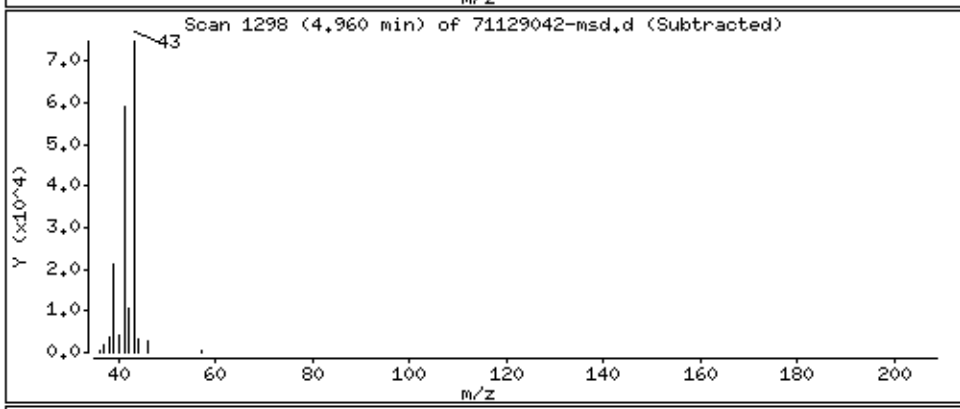
60 2-Nitropropane

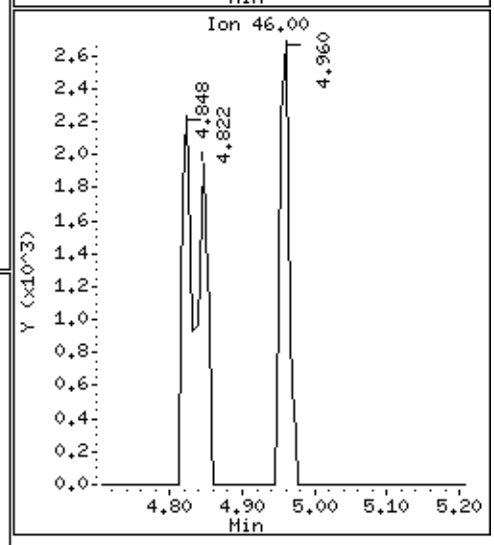
Concentration: 84.1 ug/L

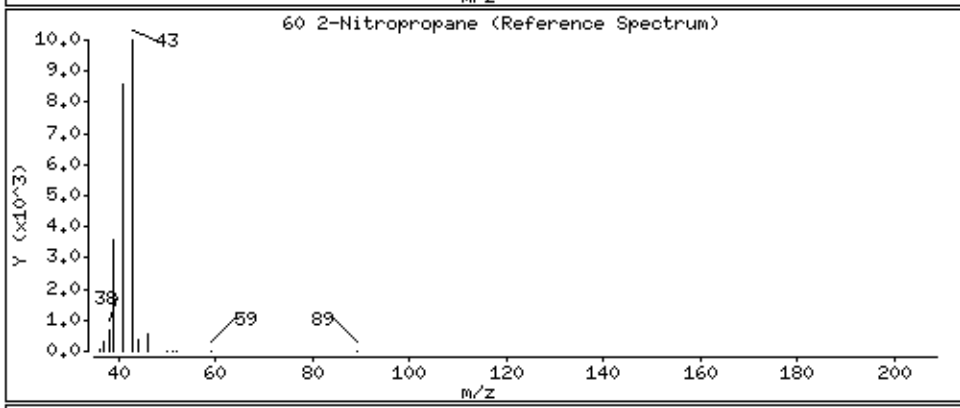
Review Code:

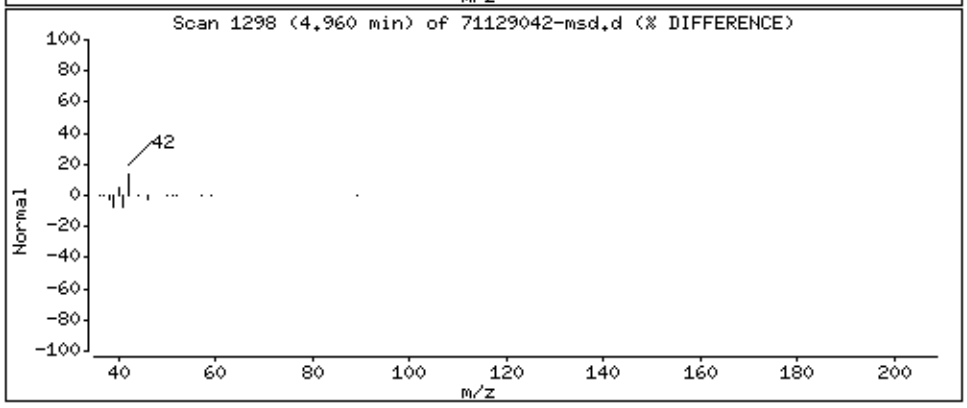












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

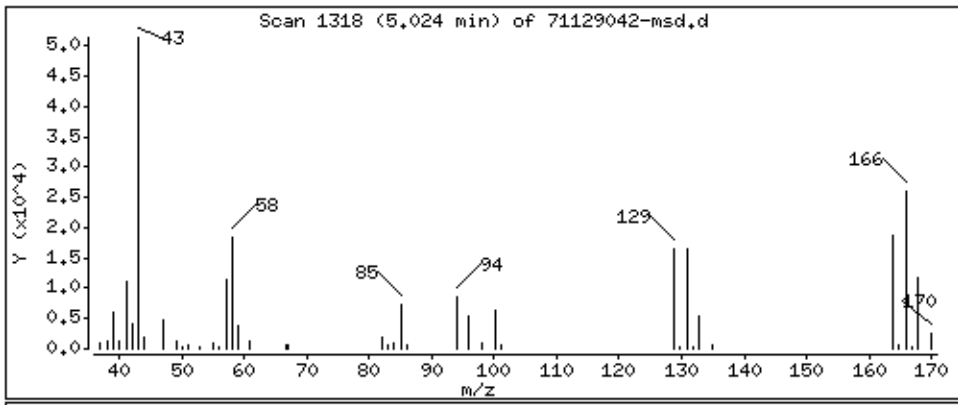
Column phase: RTX-VMS

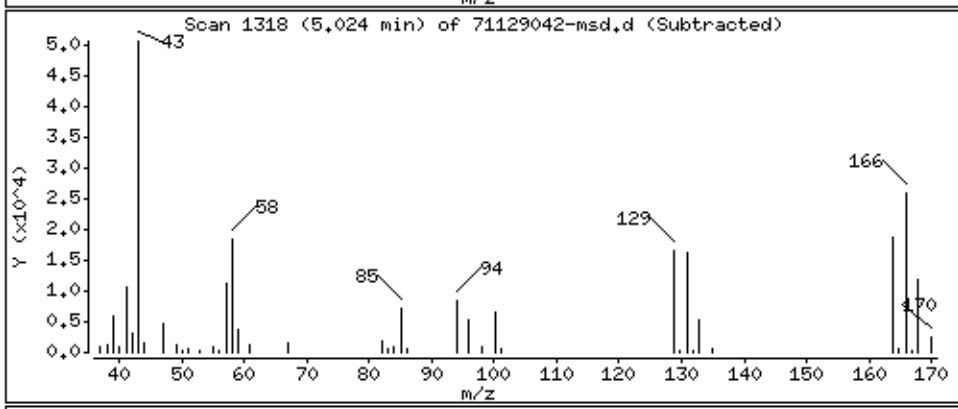
Column diameter: 0.18

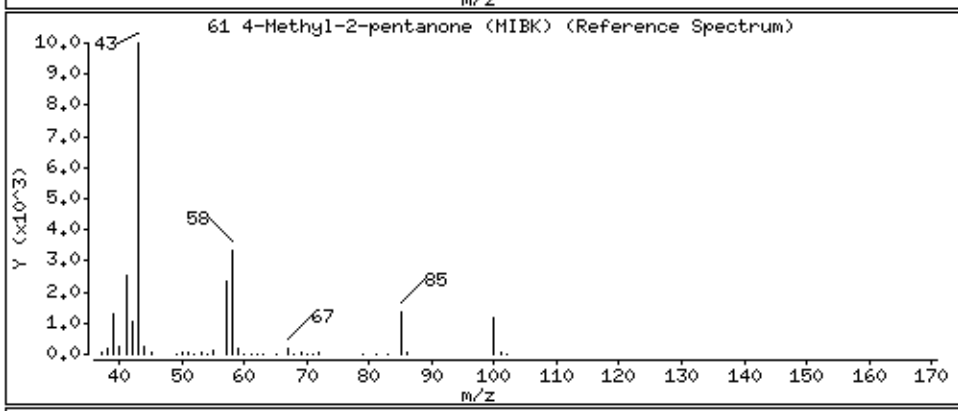
61 4-Methyl-2-pentanone (MIBK)

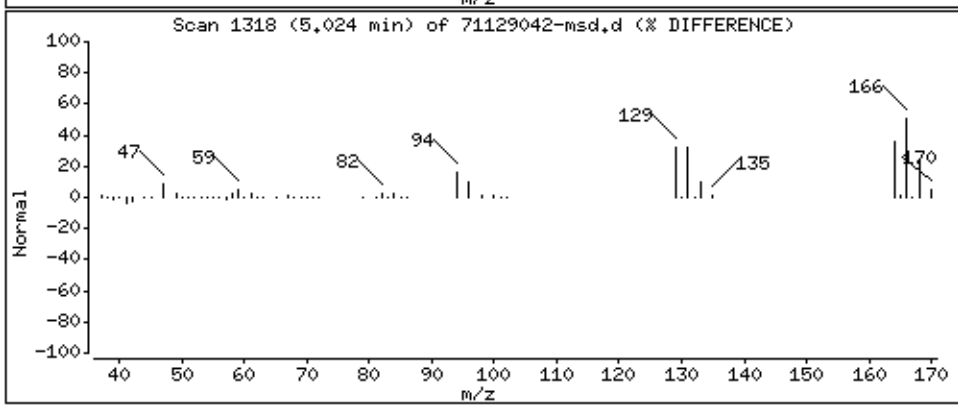
Concentration: 17.6 ug/L

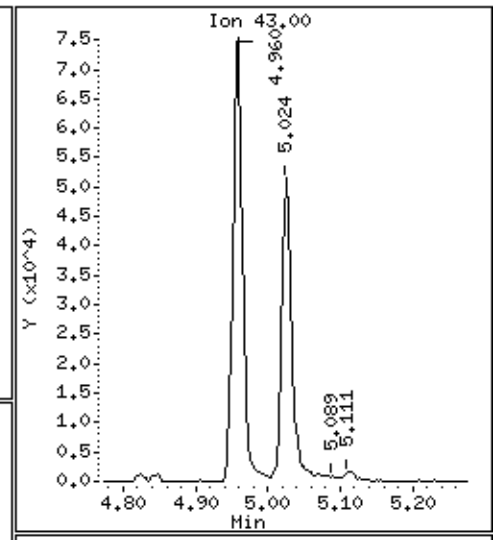
Review Code:

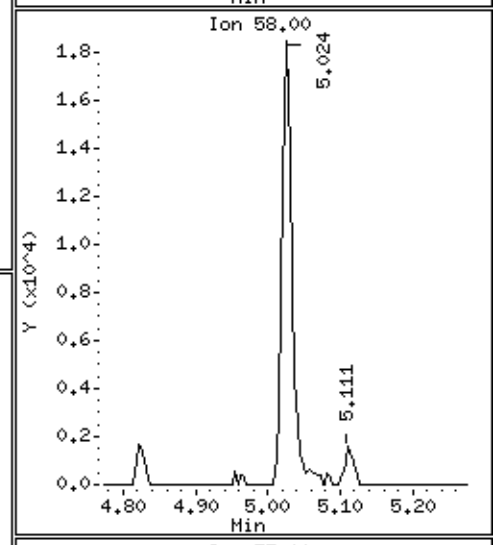


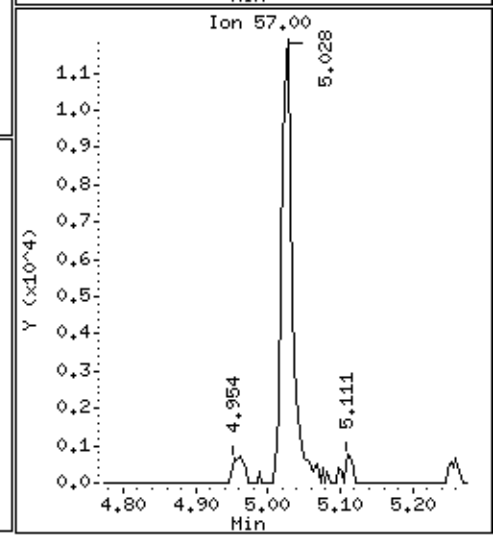












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

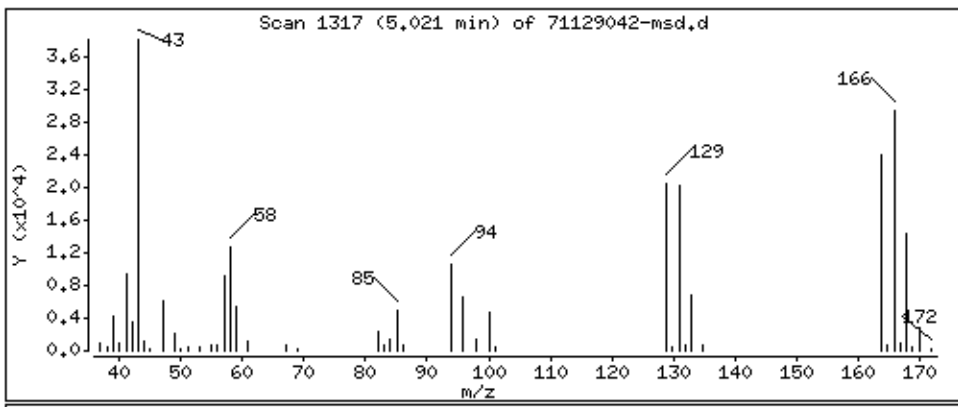
Column phase: RTX-VMS

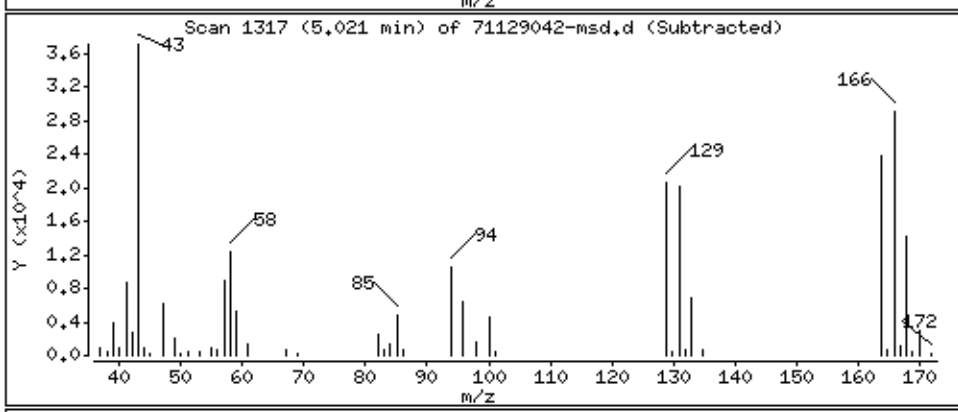
Column diameter: 0.18

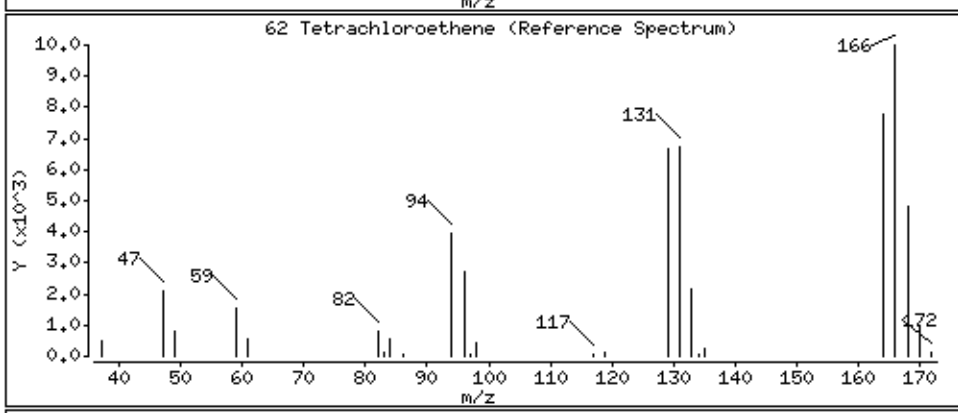
62 Tetrachloroethene

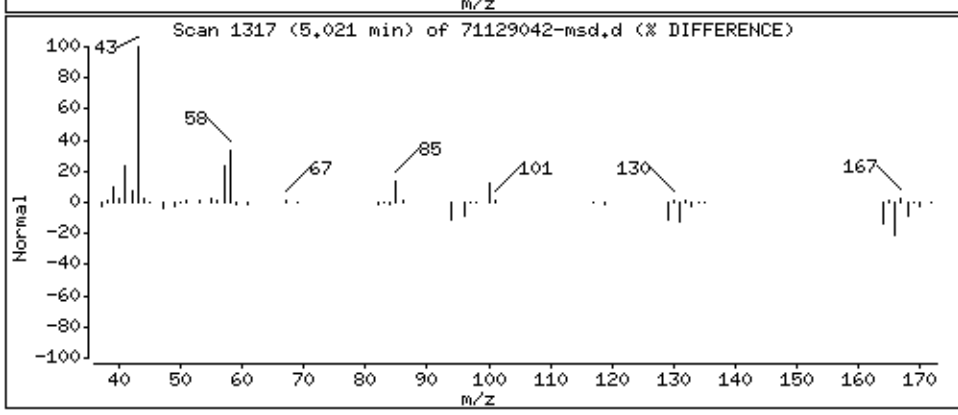
Concentration: 14.6 ug/L

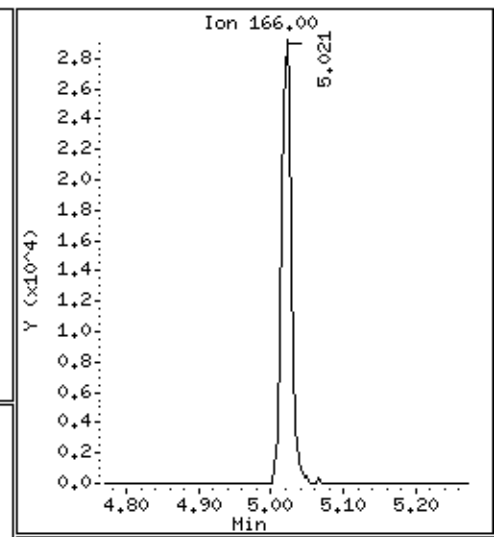
Review Code:

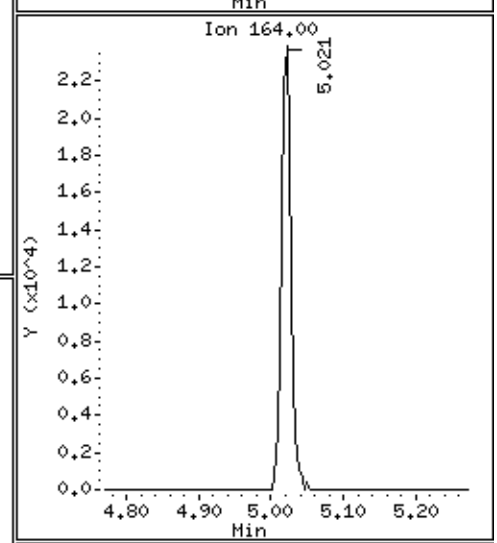


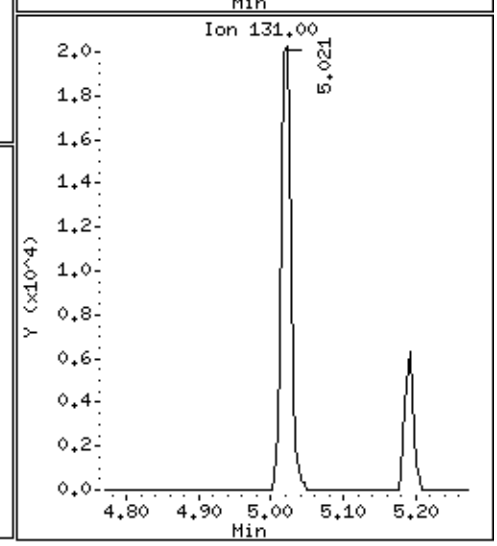












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

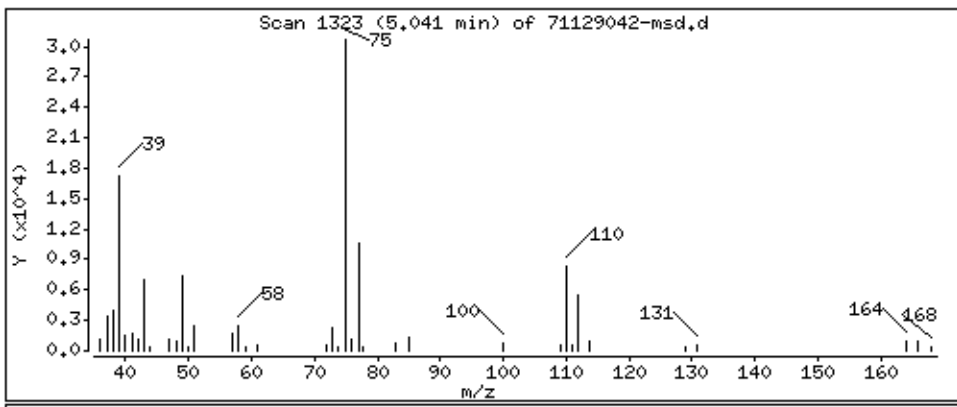
Column phase: RTX-VMS

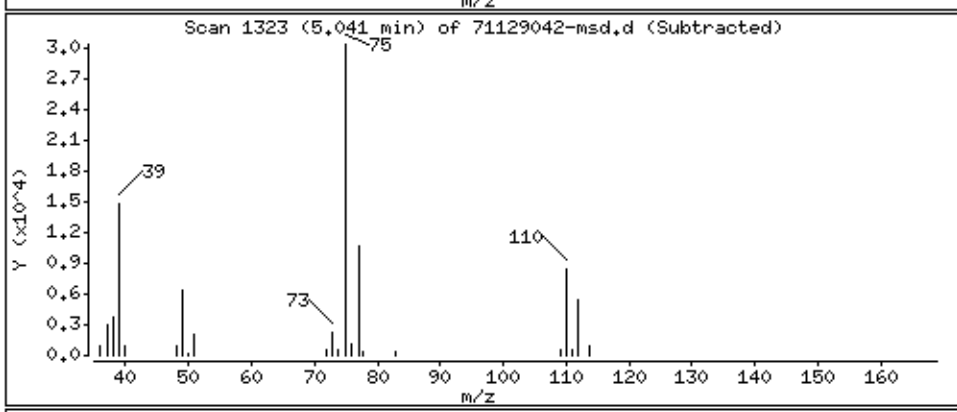
Column diameter: 0.18

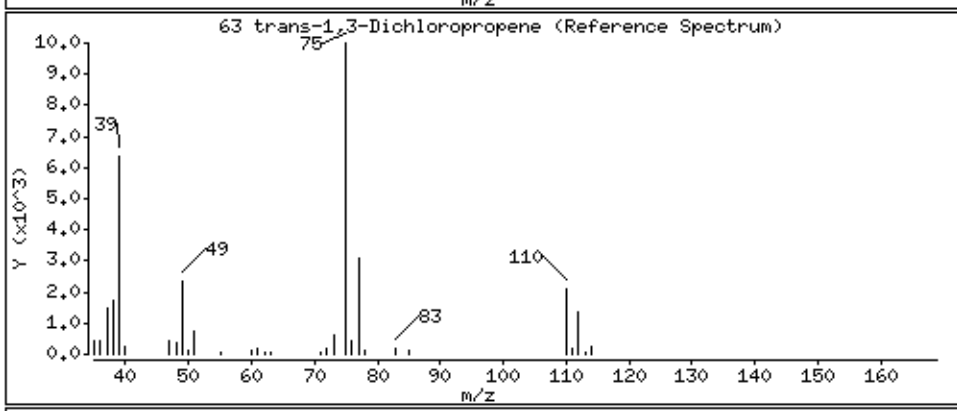
63 trans-1,3-Dichloropropene

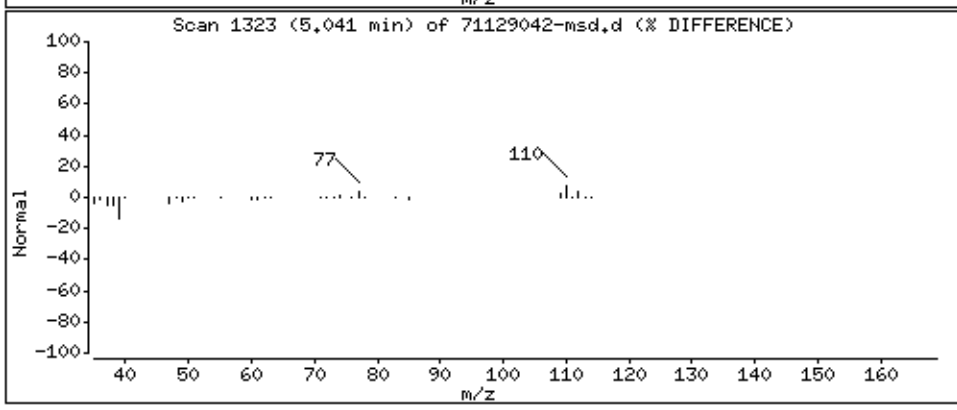
Concentration: 13.4 ug/L

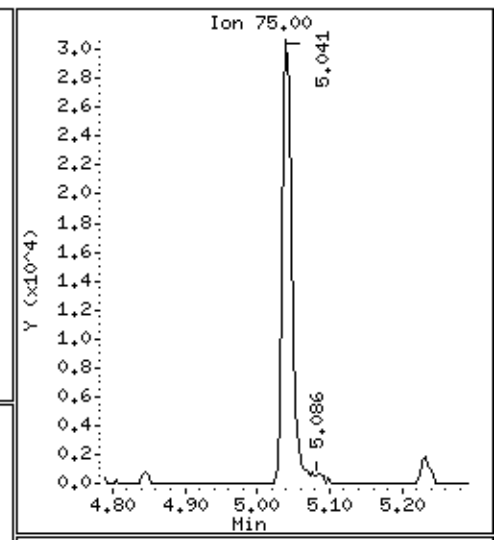
Review Code:

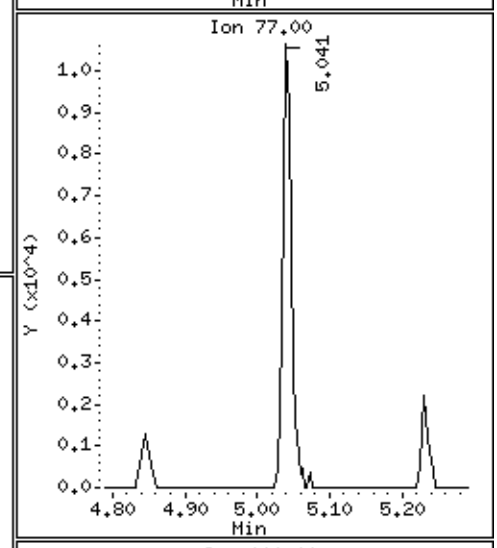


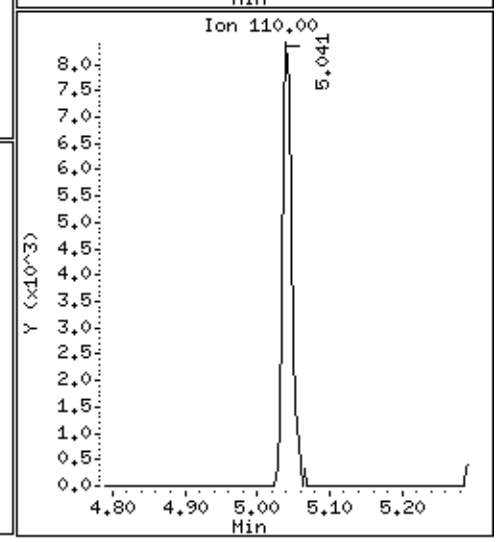












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

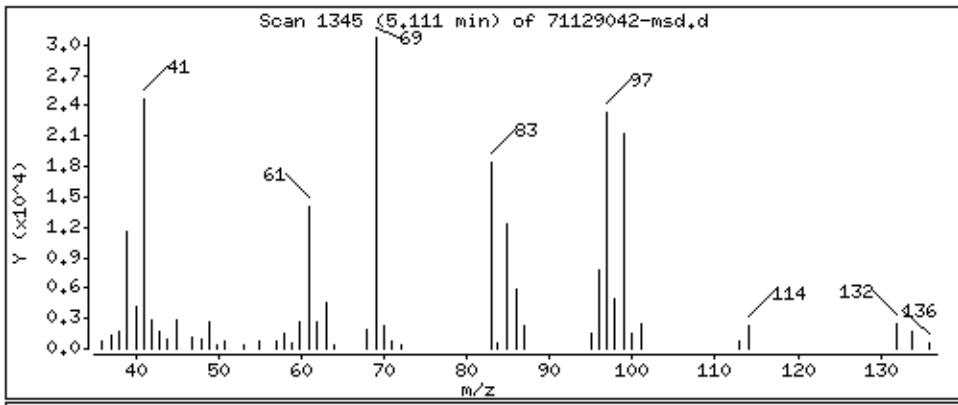
Column phase: RTX-VMS

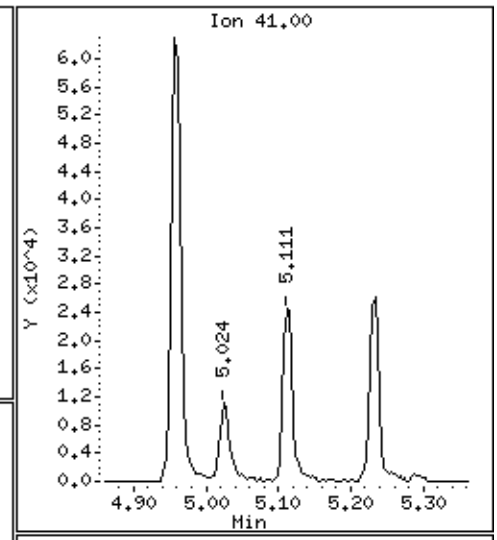
Column diameter: 0.18

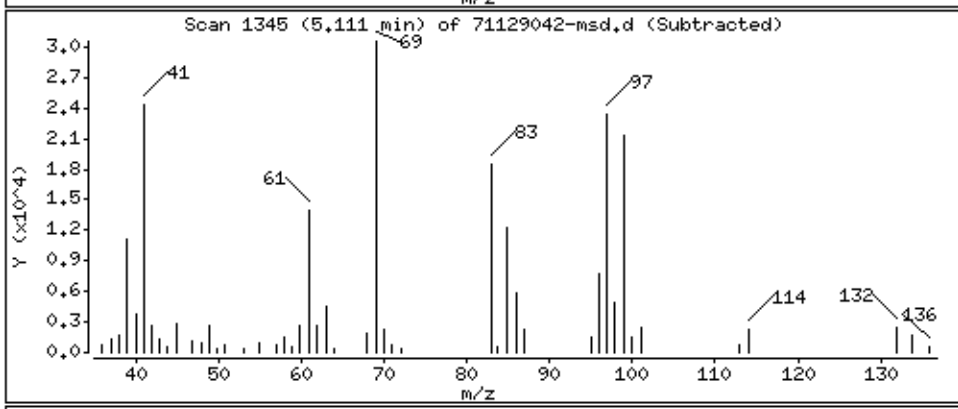
64 Ethyl methacrylate

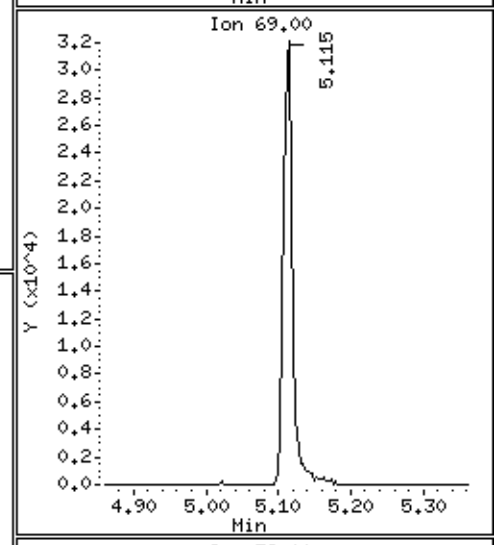
Concentration: 16.7 ug/L

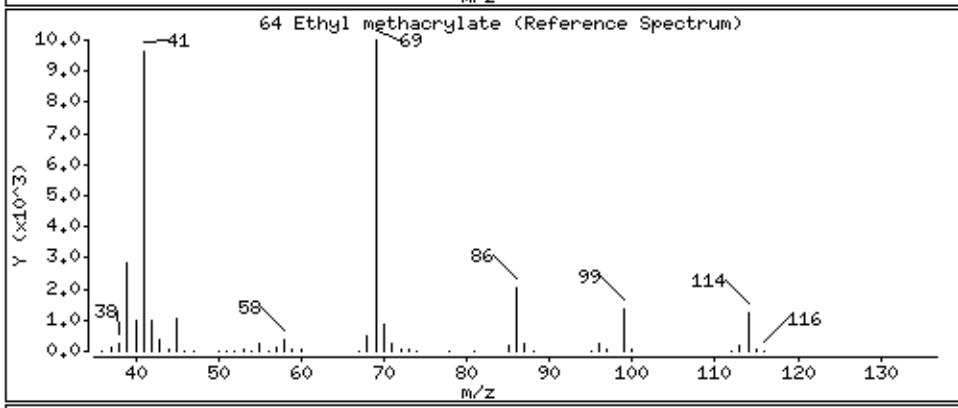
Review Code:

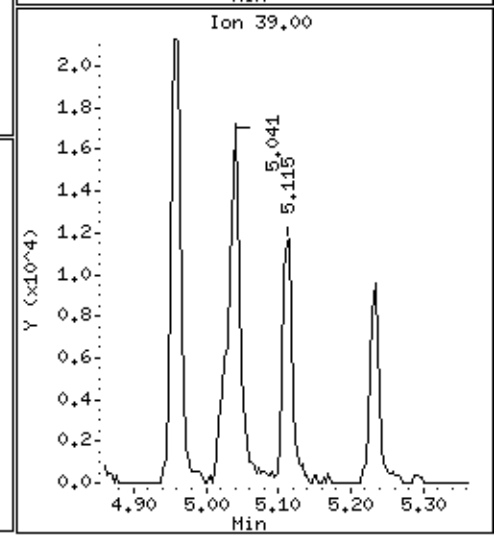


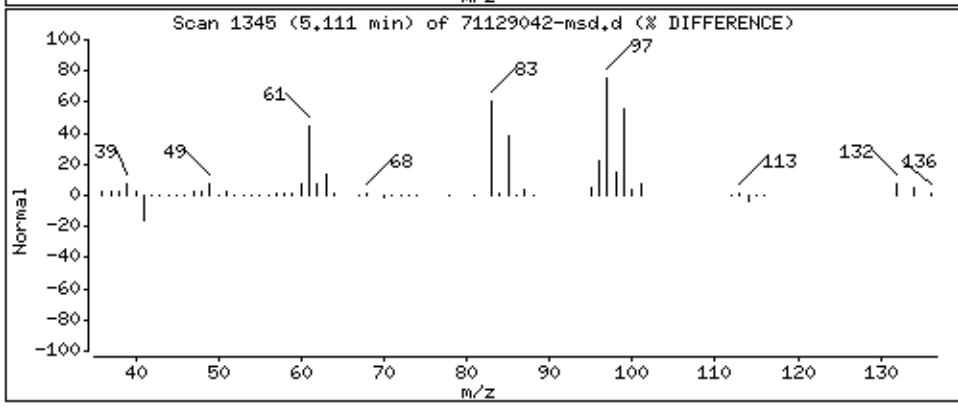












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

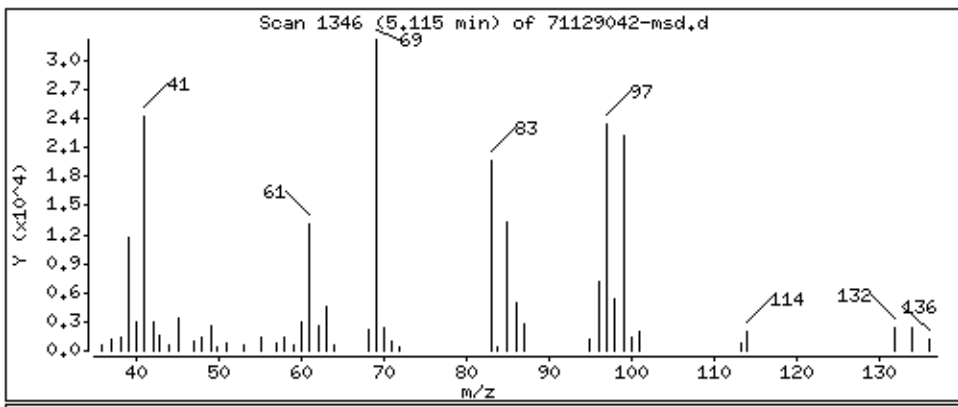
Column phase: RTX-VMS

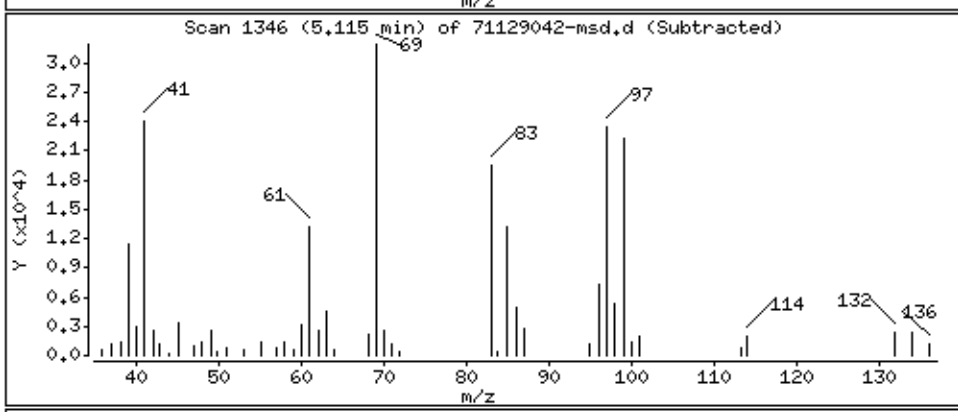
Column diameter: 0.18

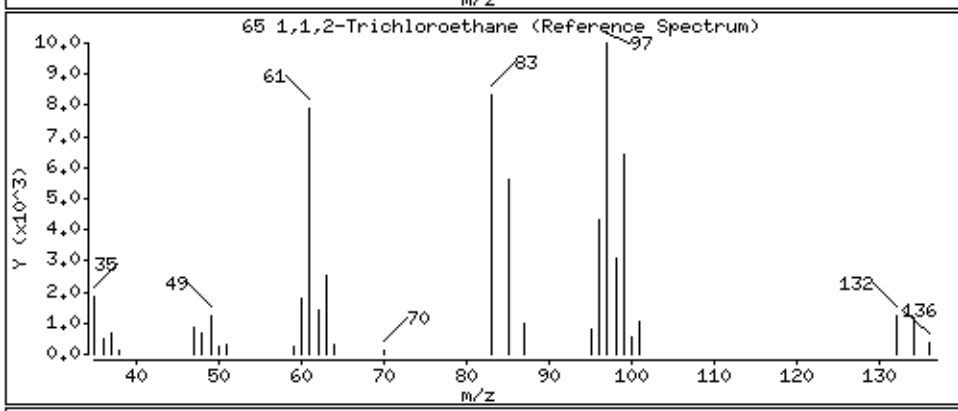
65 1,1,2-Trichloroethane

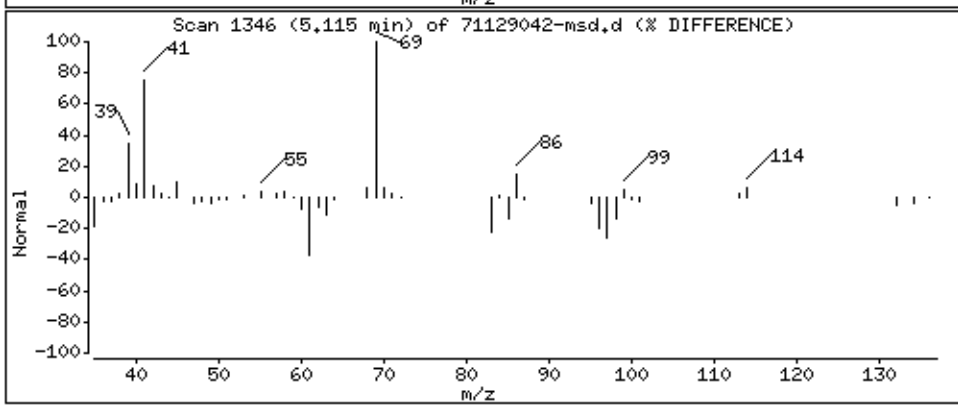
Concentration: 14.2 ug/L

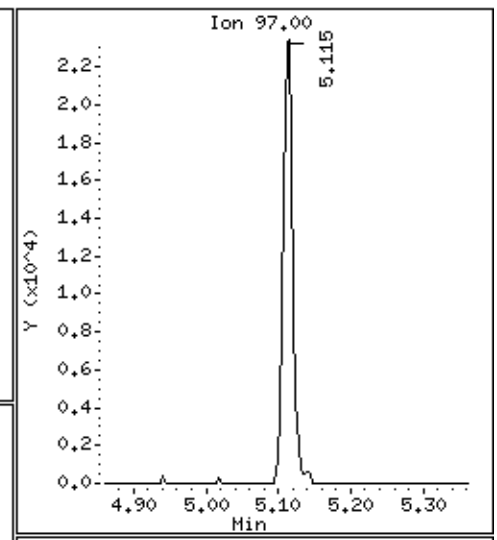
Review Code:

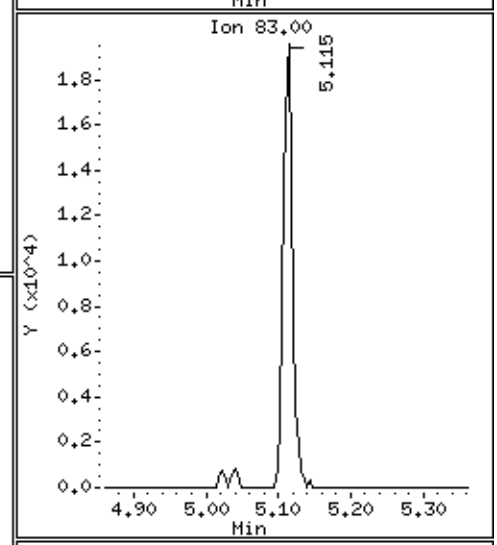


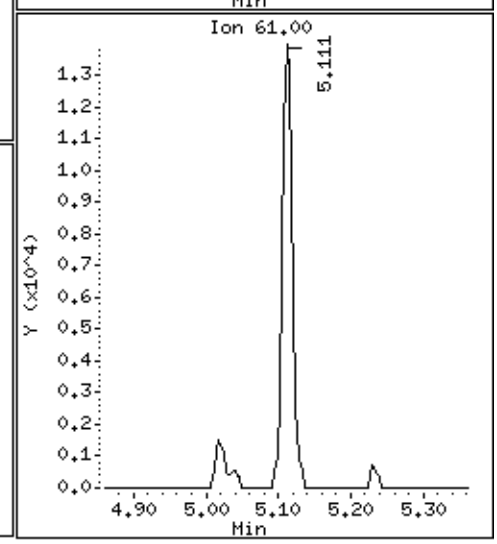












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

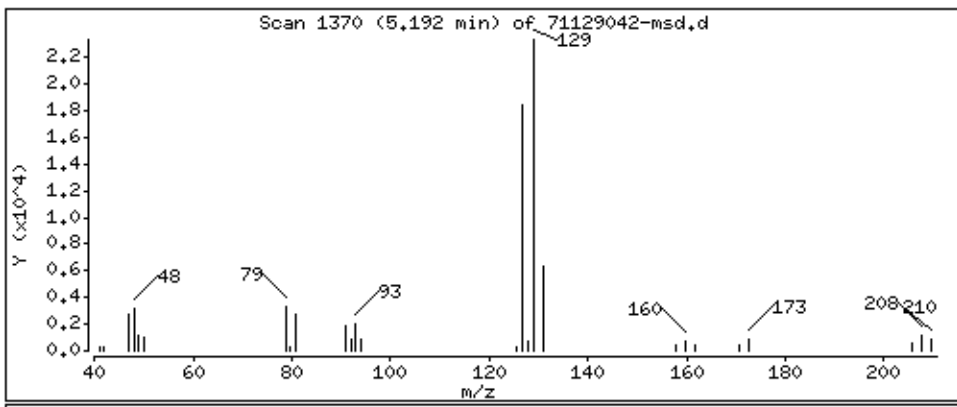
Column phase: RTX-VMS

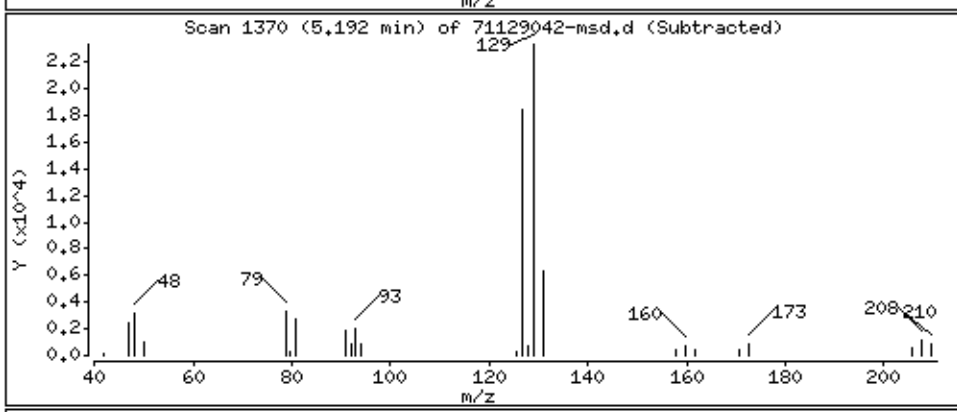
Column diameter: 0.18

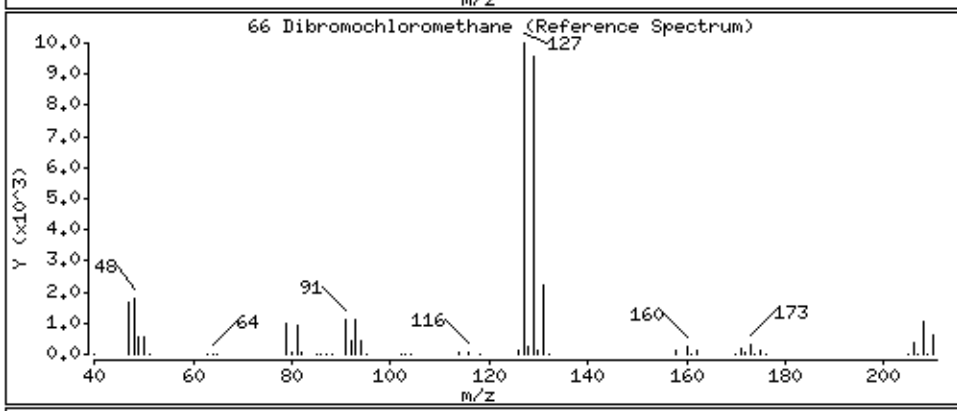
66 Dibromochloromethane

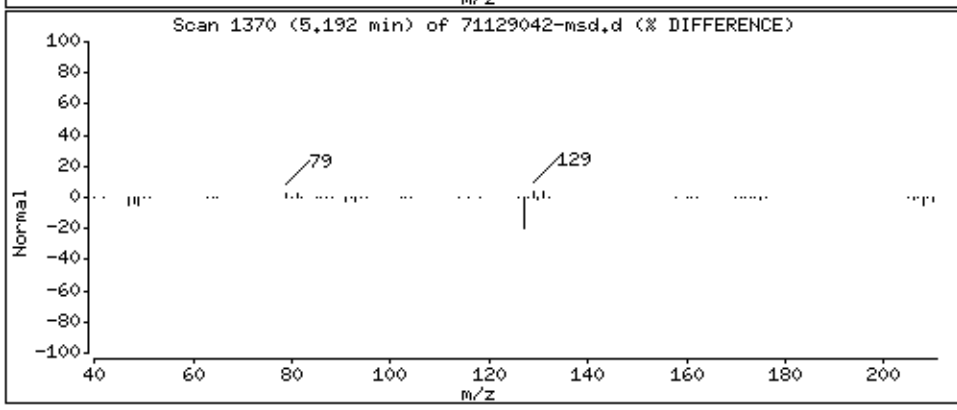
Concentration: 13.1 ug/L

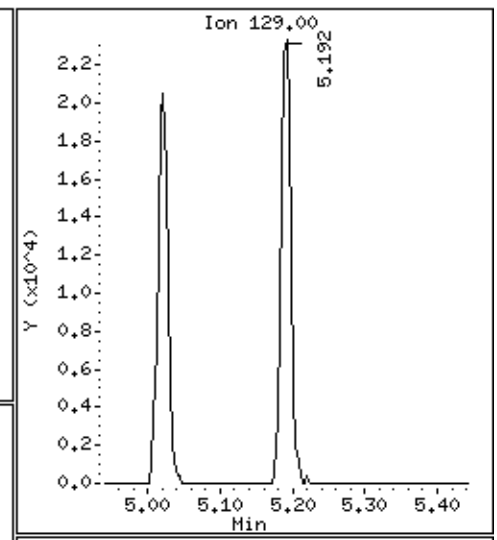
Review Code:

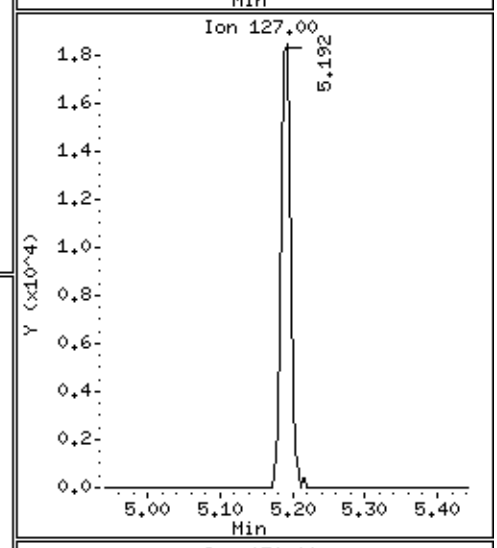


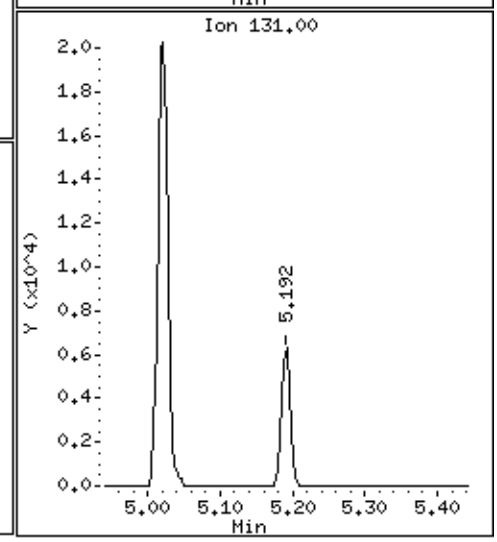












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

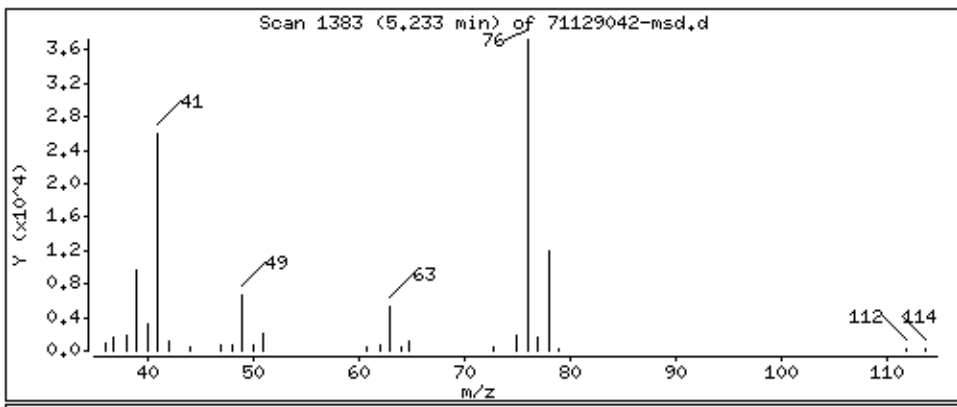
Column phase: RTX-VMS

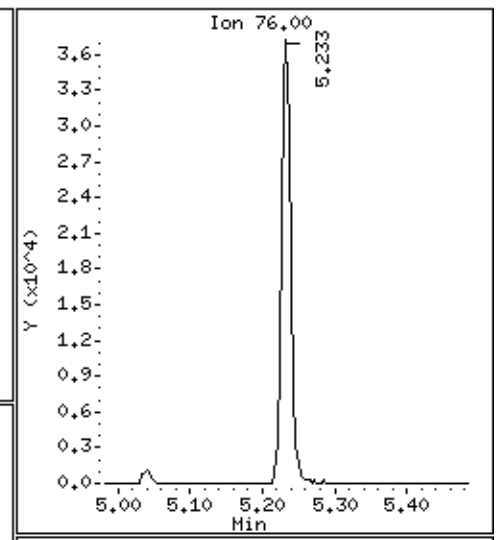
Column diameter: 0.18

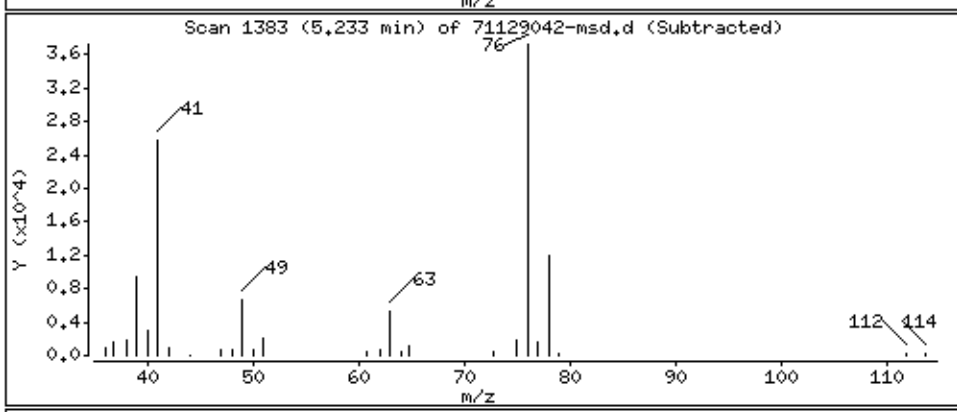
67 1,3-Dichloropropane

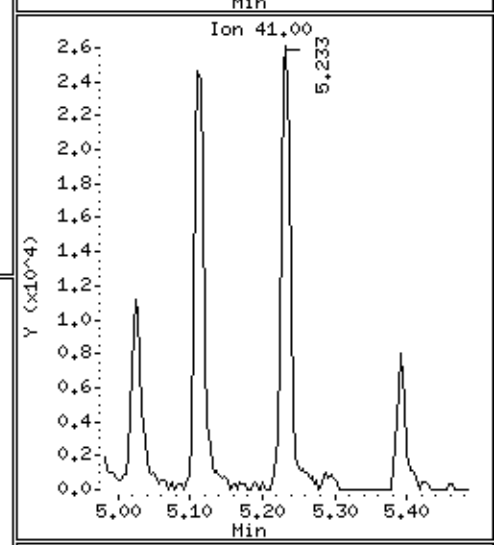
Concentration: 12.7 ug/L

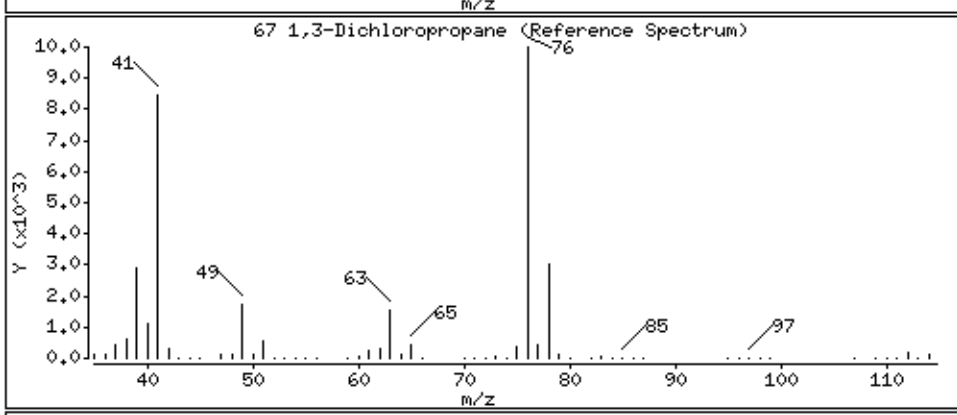
Review Code:

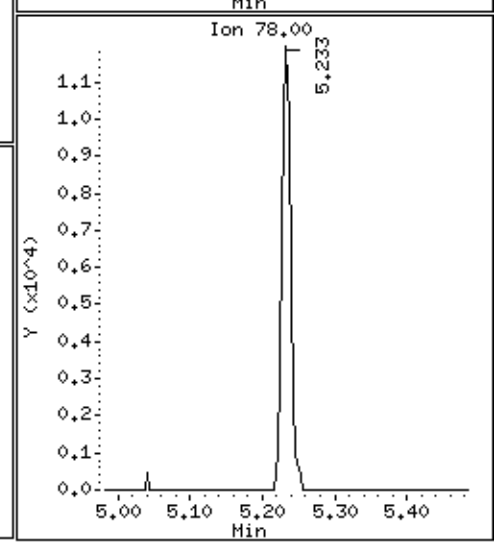


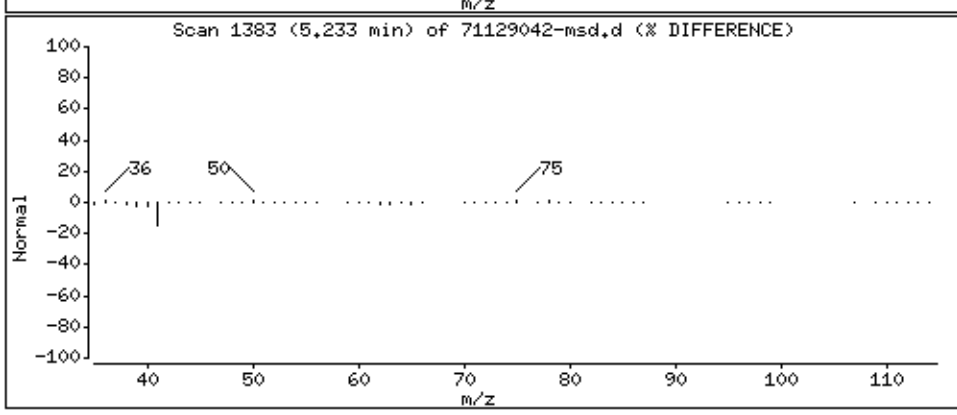












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

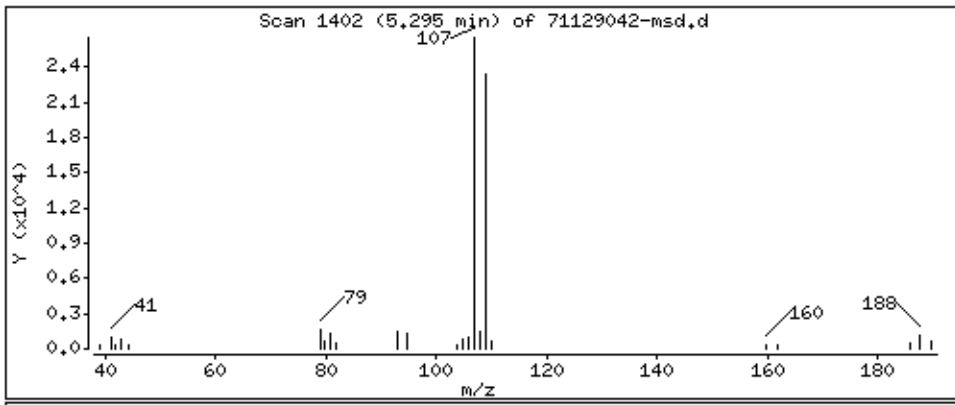
Column phase: RTX-VMS

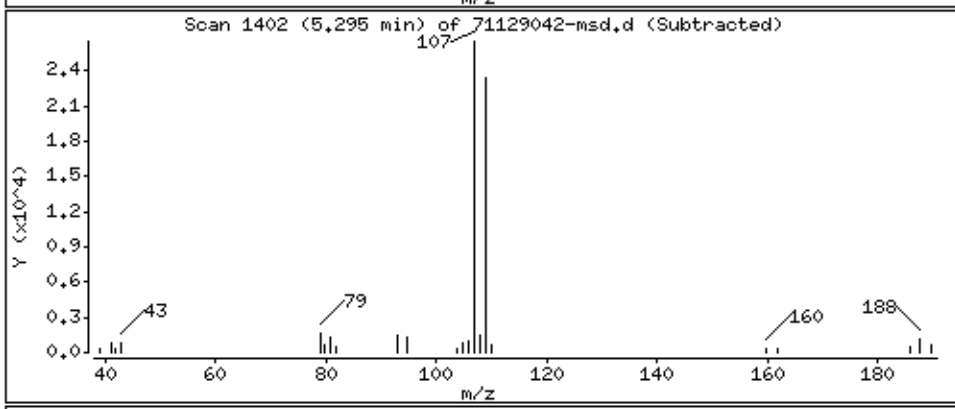
Column diameter: 0.18

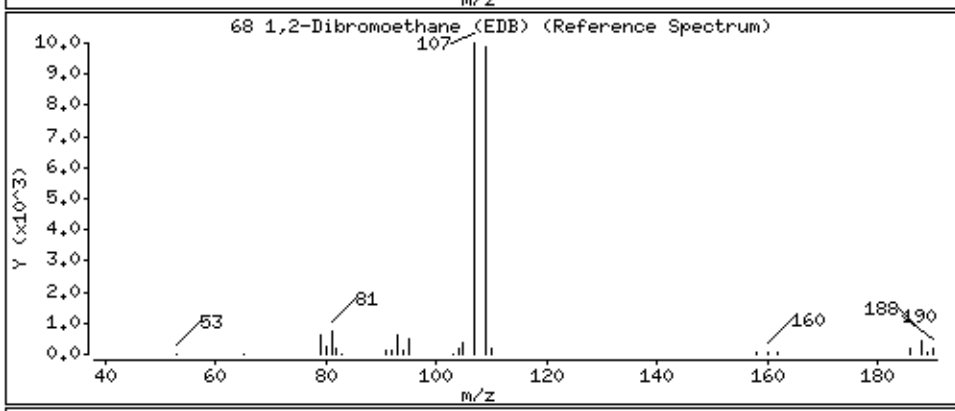
68 1,2-Dibromoethane (EDB)

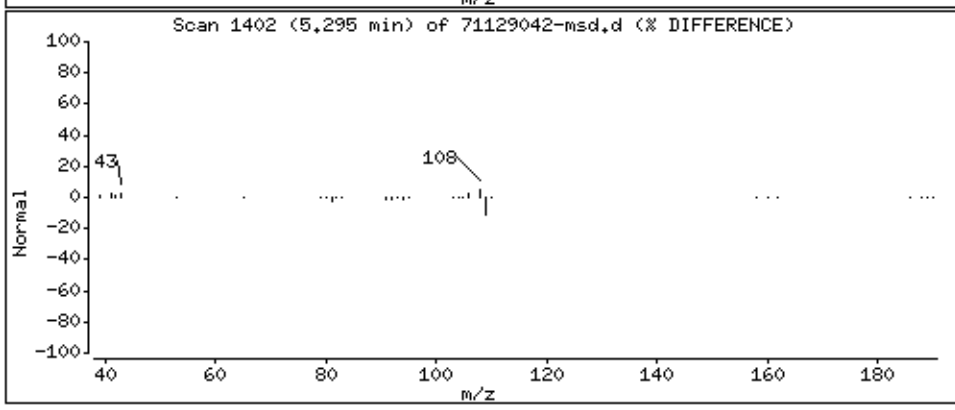
Concentration: 13.5 ug/L

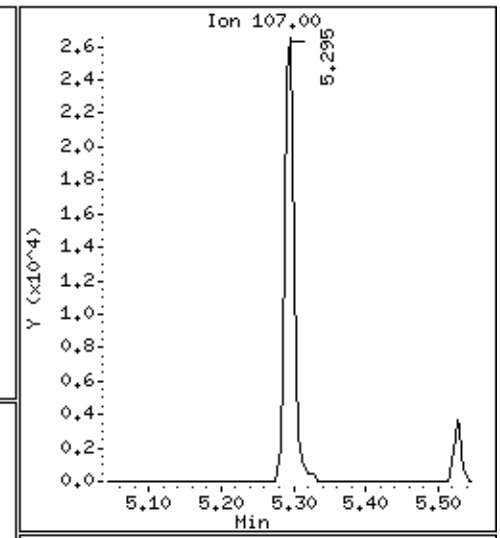
Review Code:

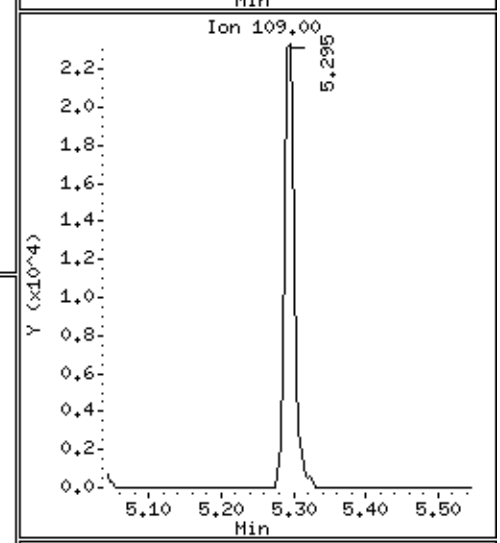


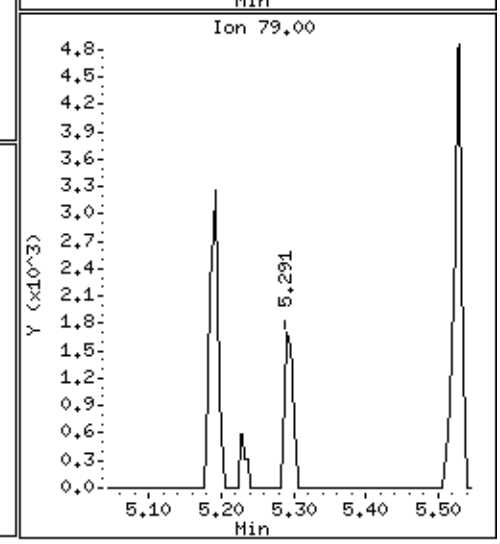












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

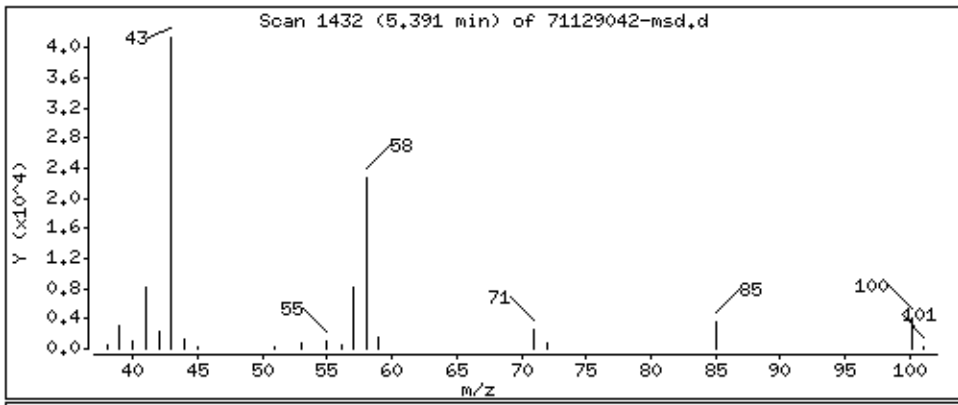
Column phase: RTX-VMS

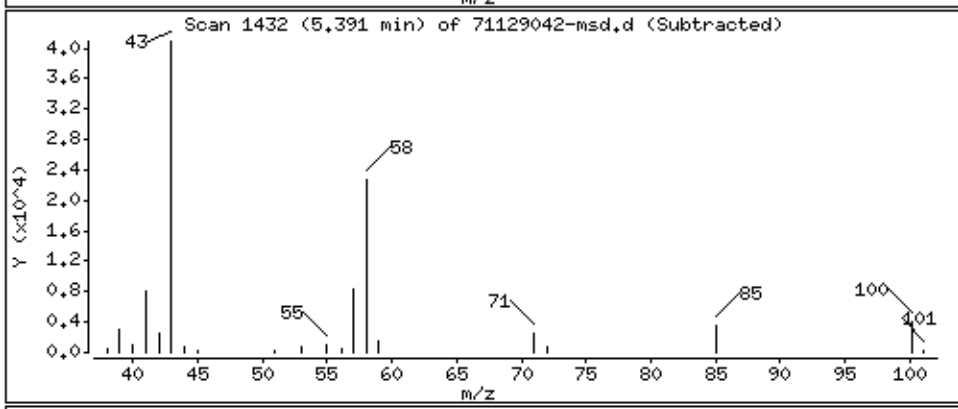
Column diameter: 0.18

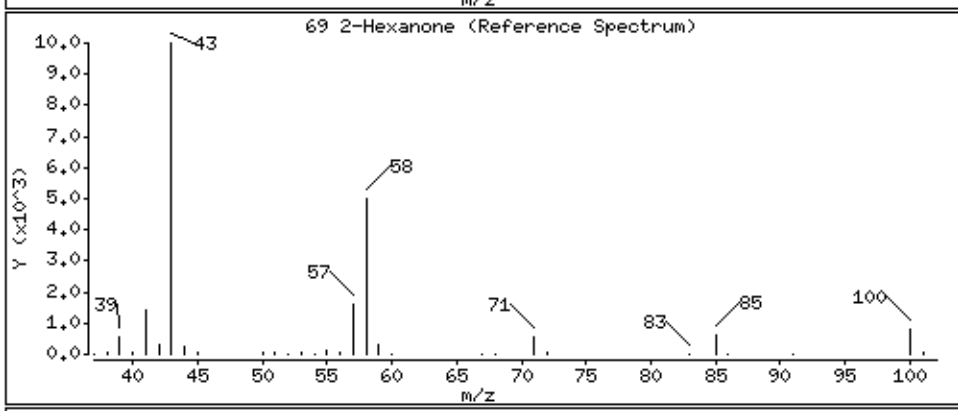
69 2-Hexanone

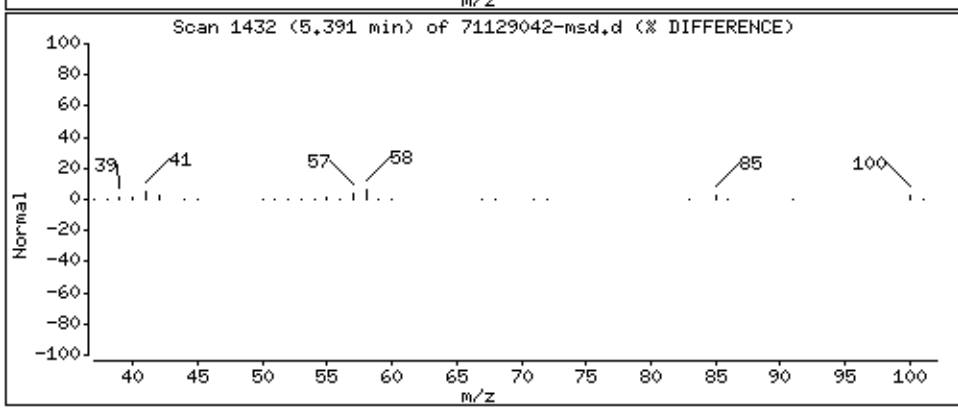
Concentration: 15.5 ug/L

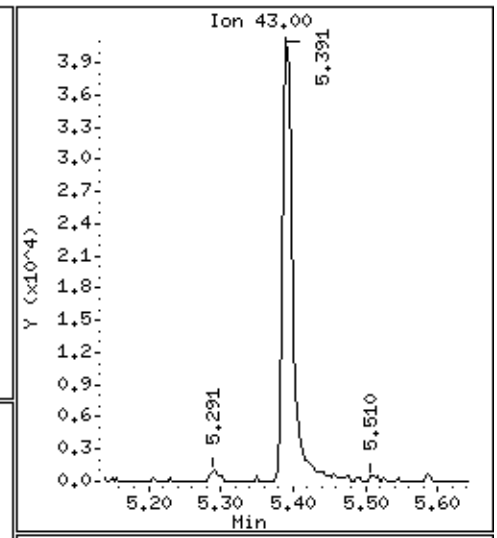
Review Code:

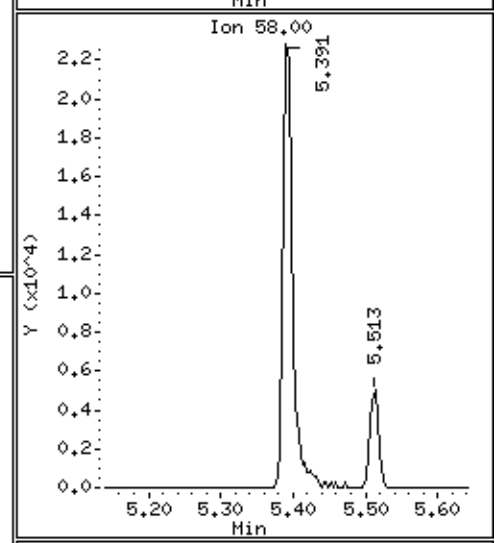


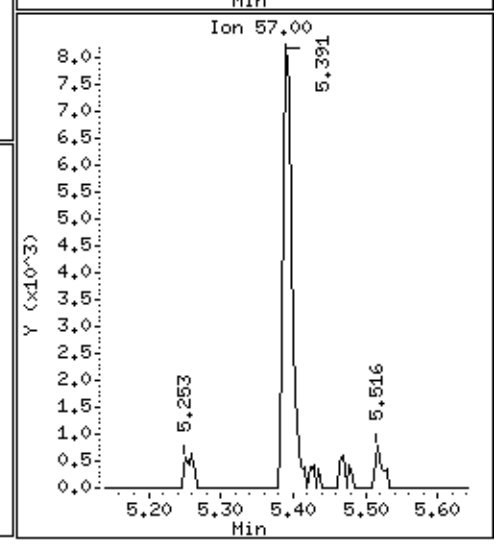












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

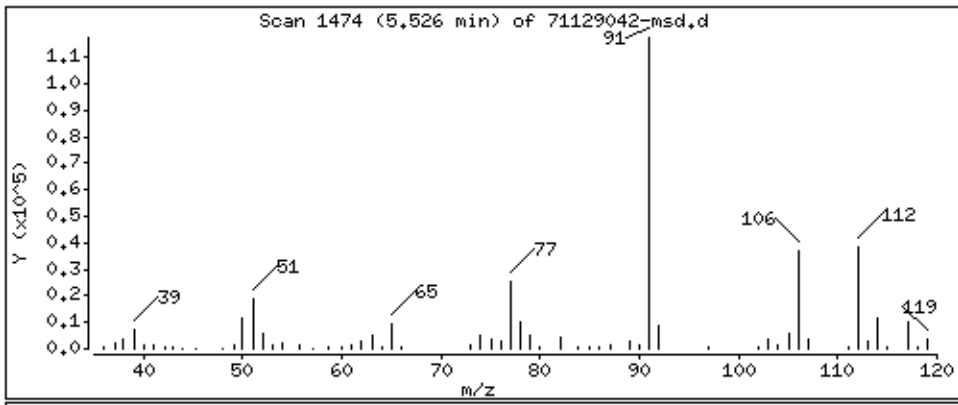
Column phase: RTX-VMS

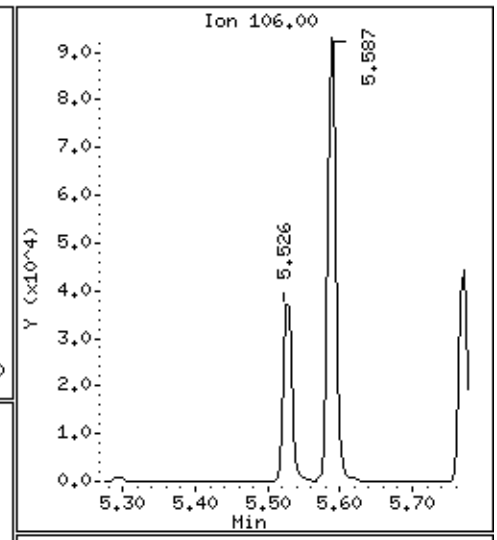
Column diameter: 0.18

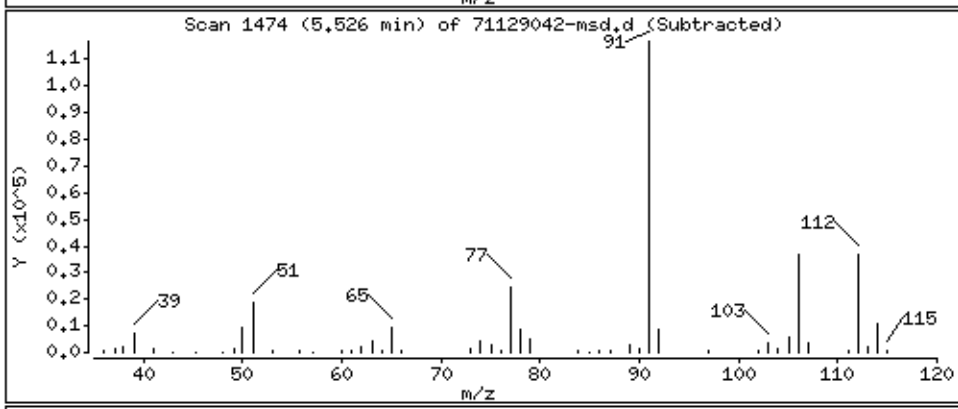
71 Ethylbenzene

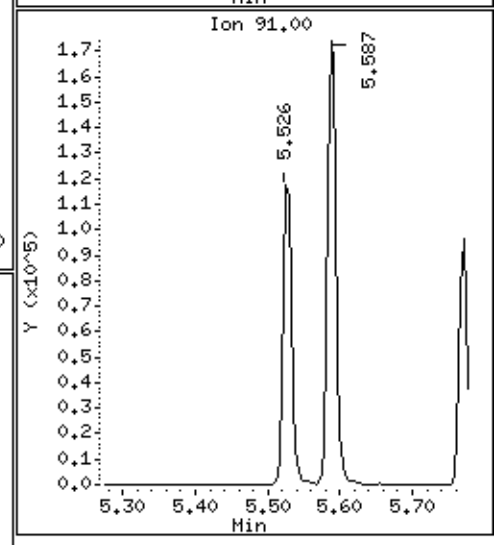
Concentration: 14.4 ug/L

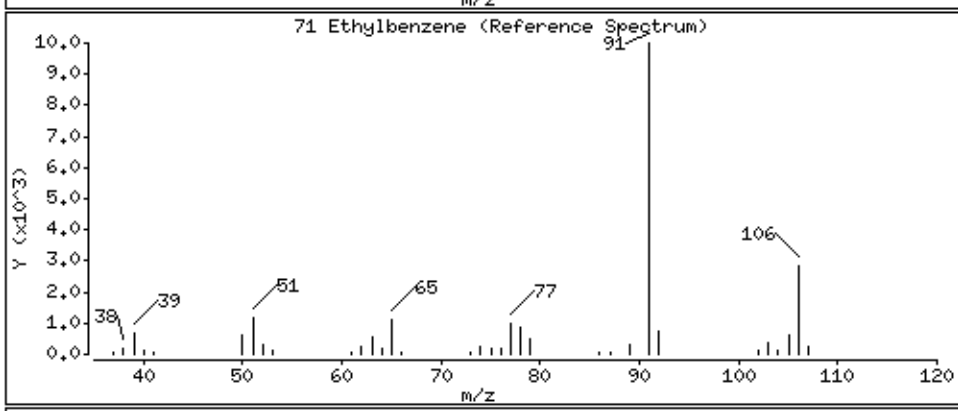
Review Code:

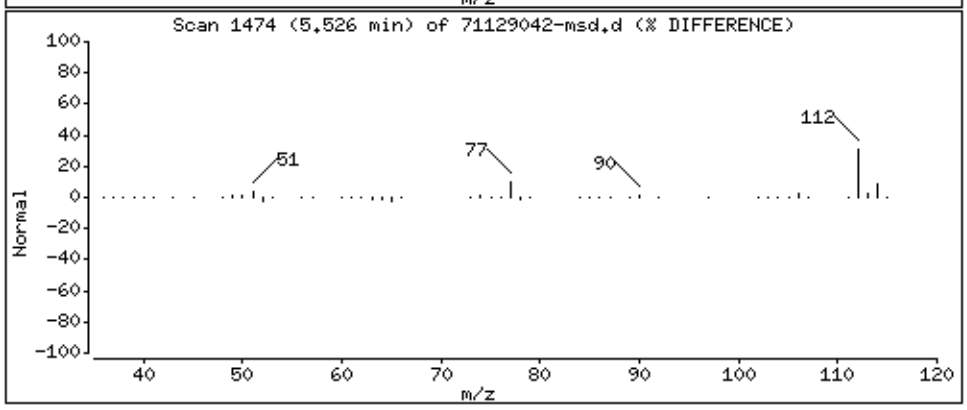












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

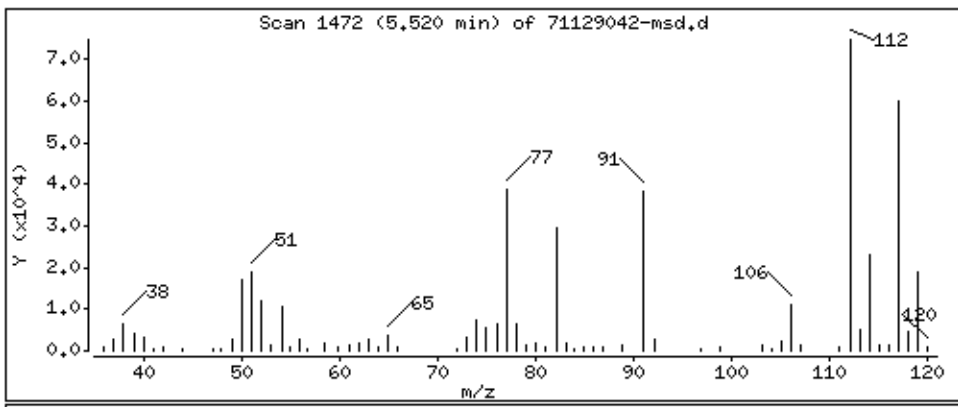
Column phase: RTX-VMS

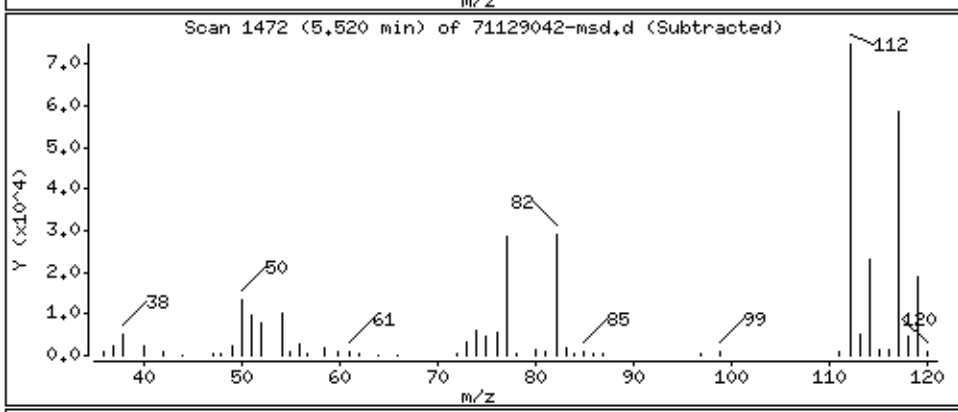
Column diameter: 0.18

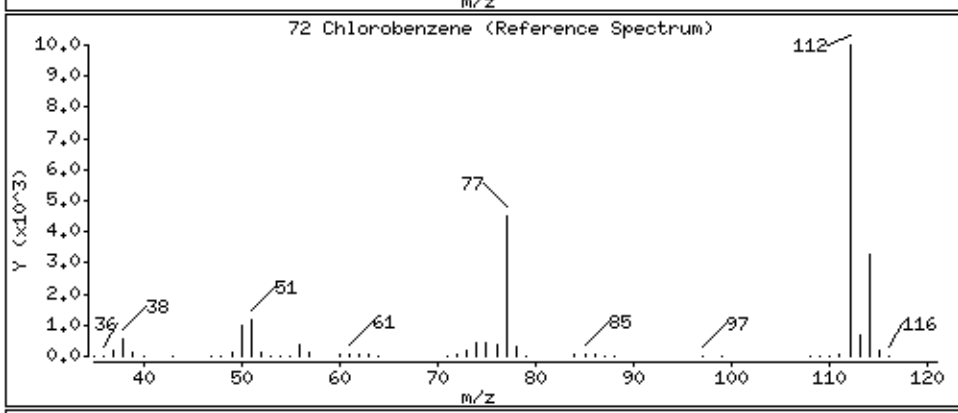
72 Chlorobenzene

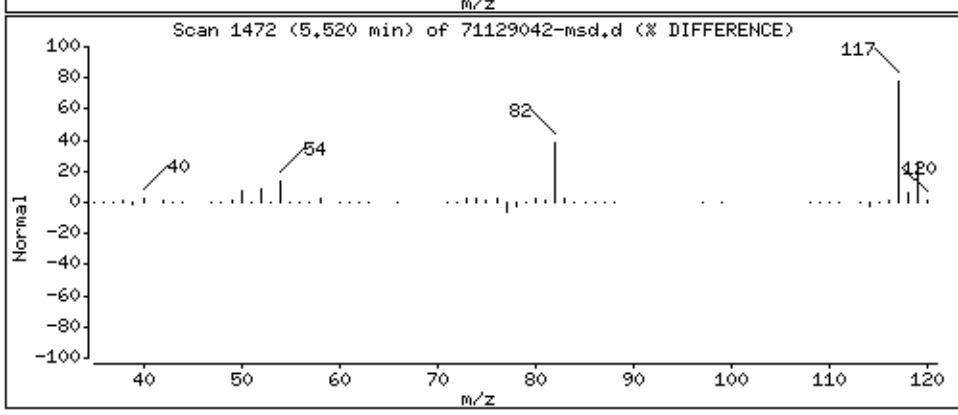
Concentration: 14.8 ug/L

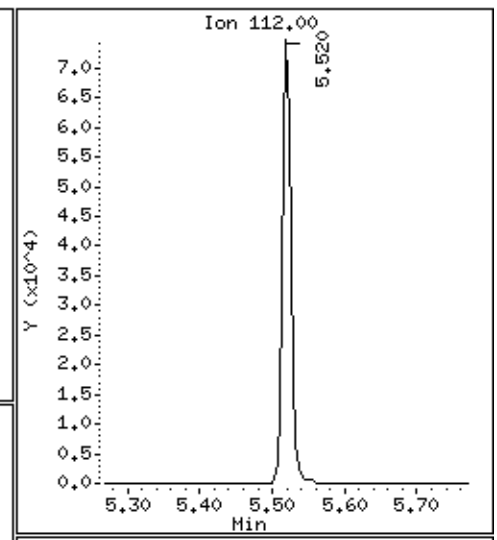
Review Code:

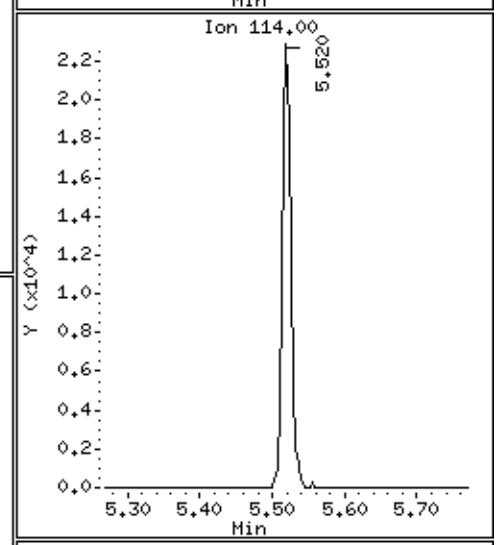


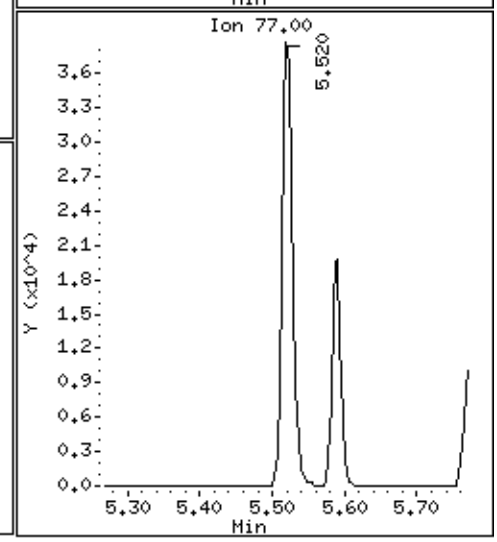












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

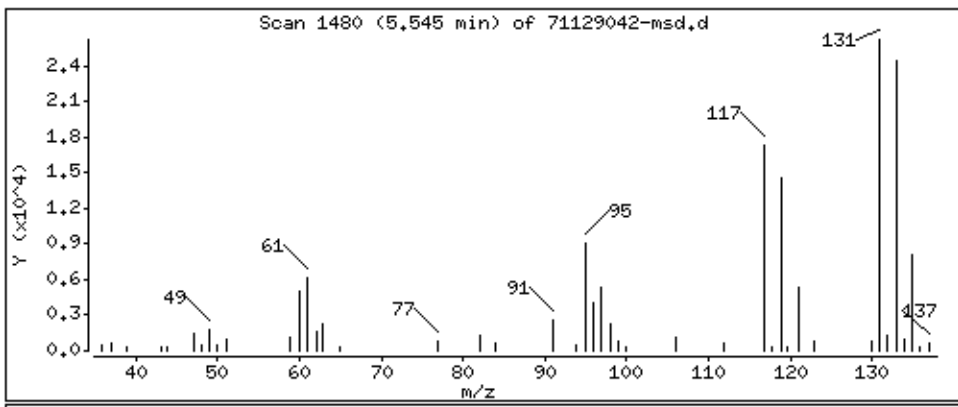
Column phase: RTX-VMS

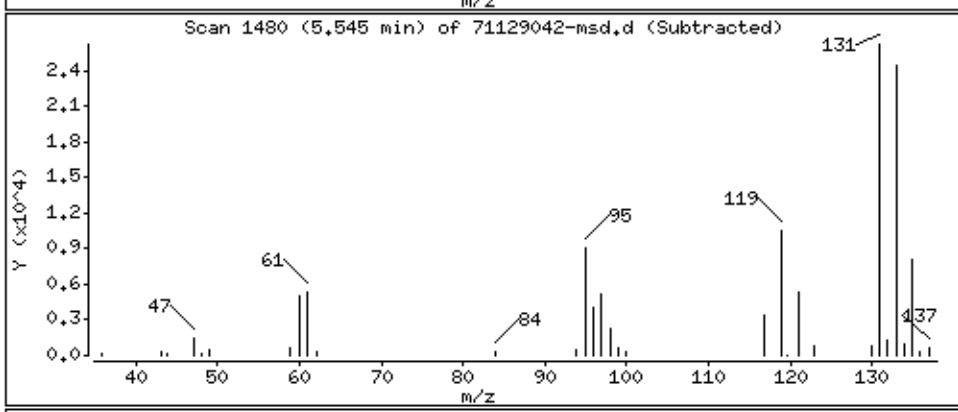
Column diameter: 0.18

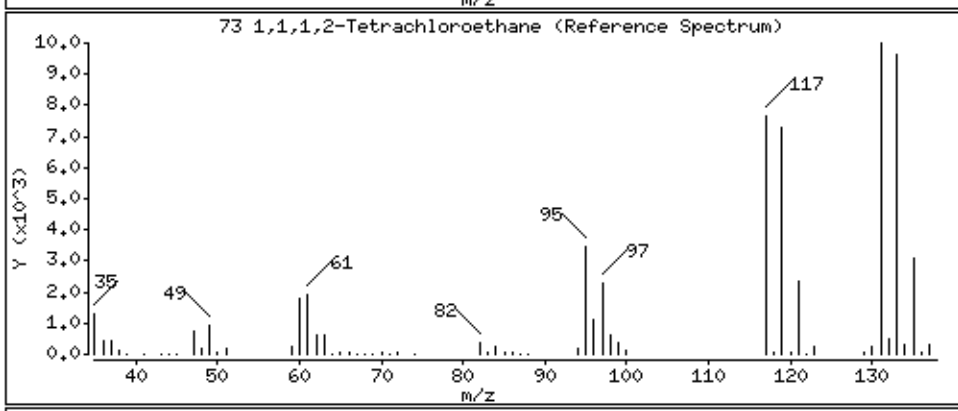
73 1,1,1,2-Tetrachloroethane

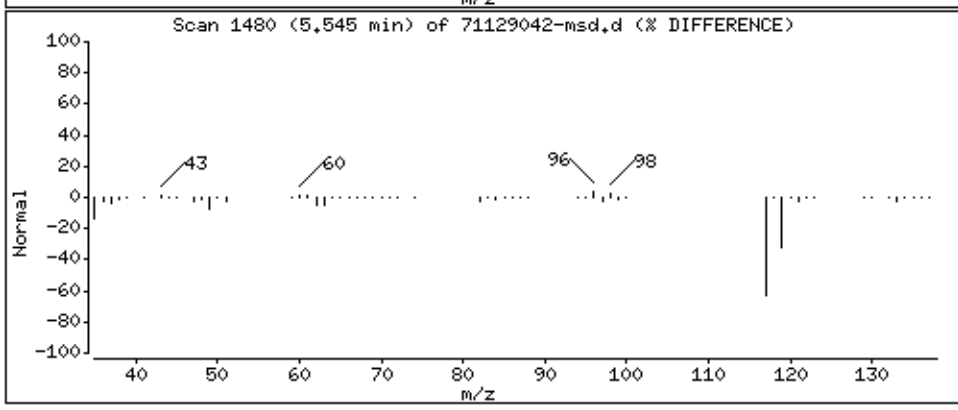
Concentration: 14.8 ug/L

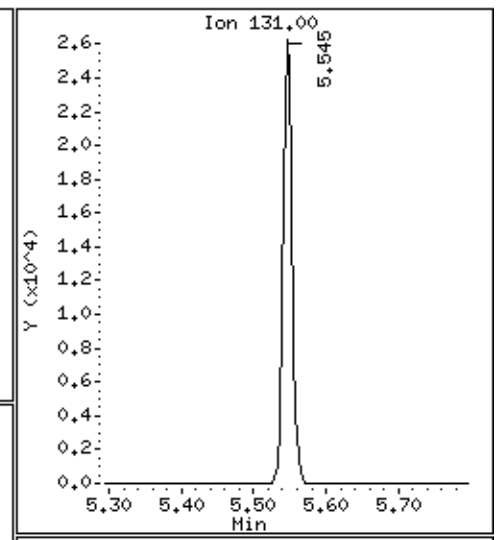
Review Code:

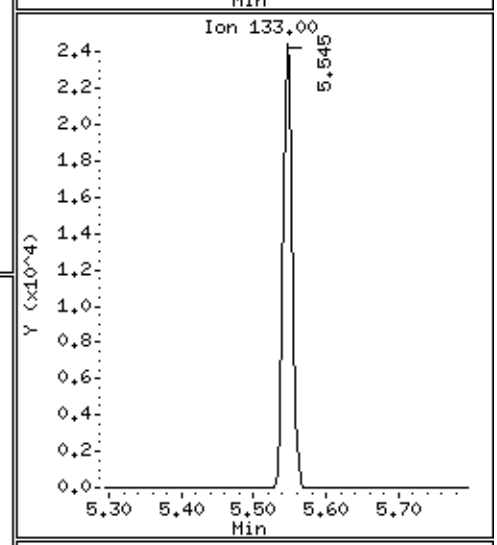


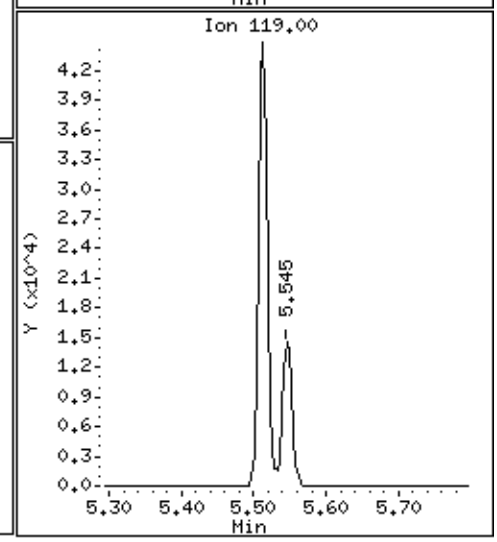












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

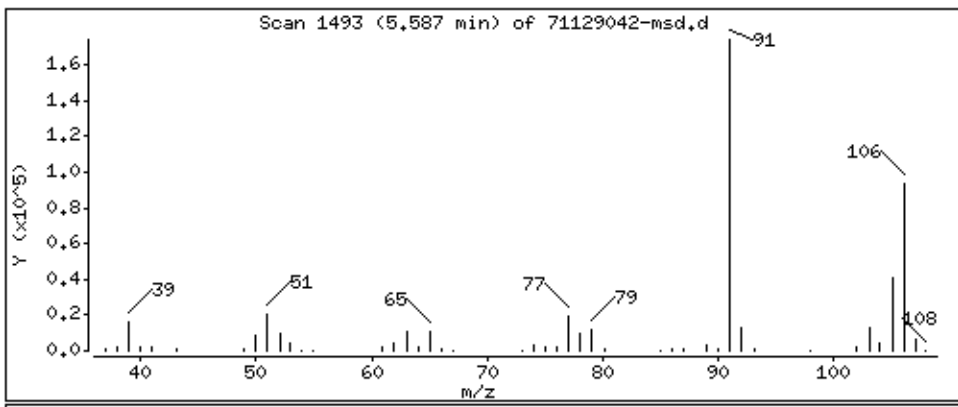
Column phase: RTX-VMS

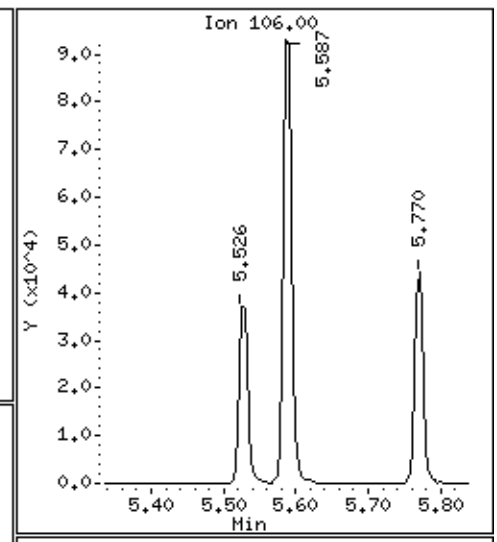
Column diameter: 0.18

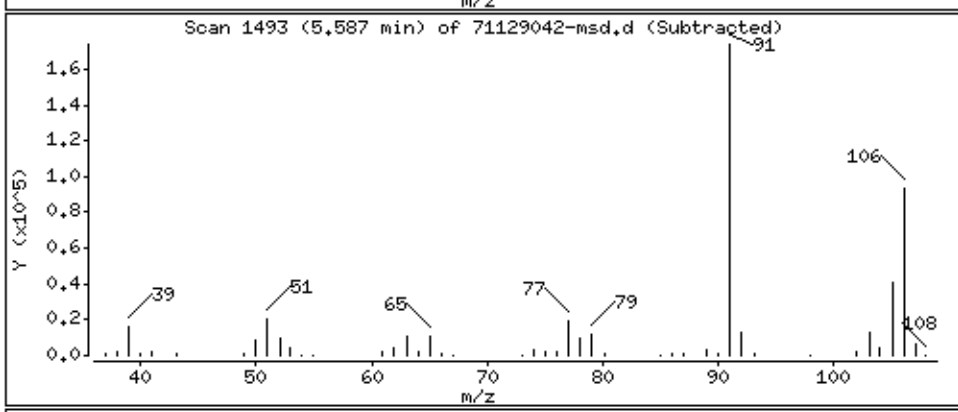
74 m&p-Xylene

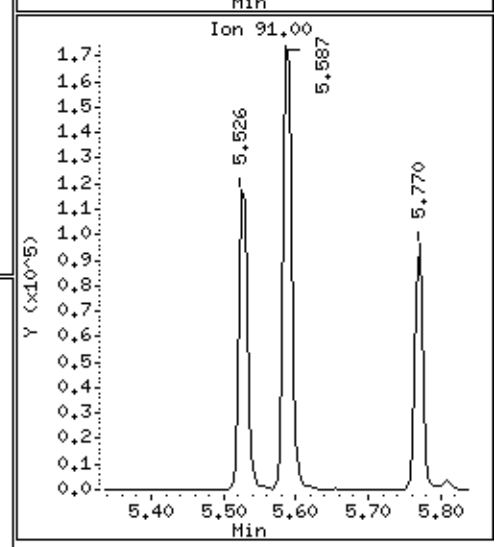
Concentration: 28.4 ug/L

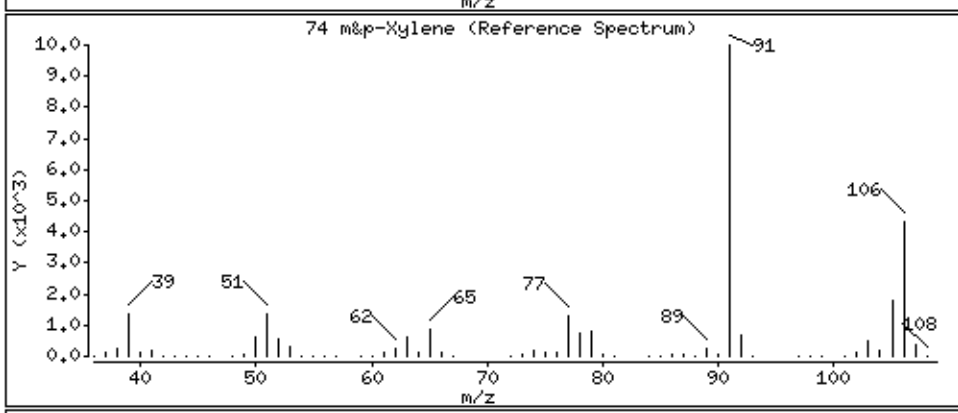
Review Code:

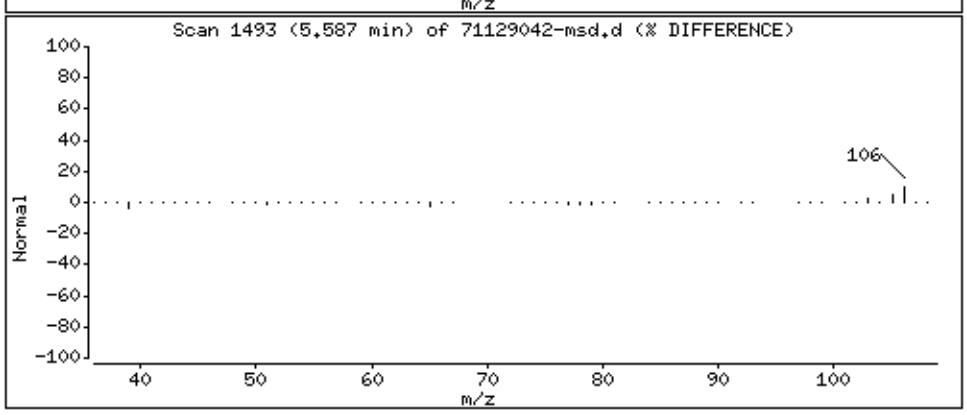












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

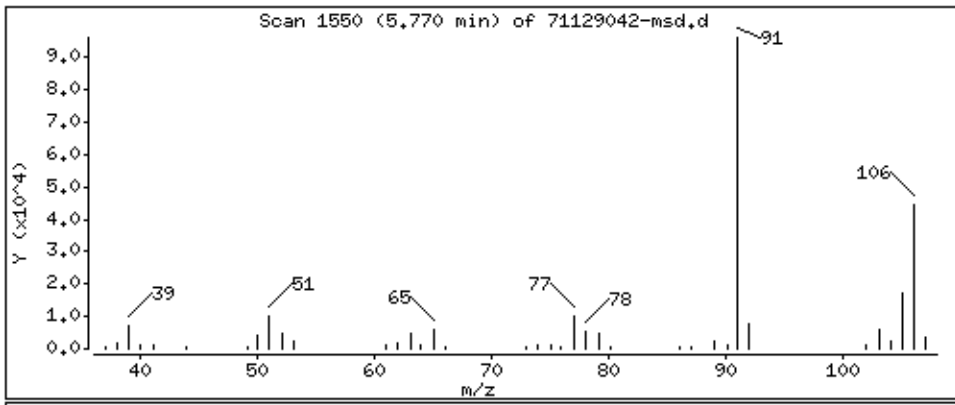
Column phase: RTX-VMS

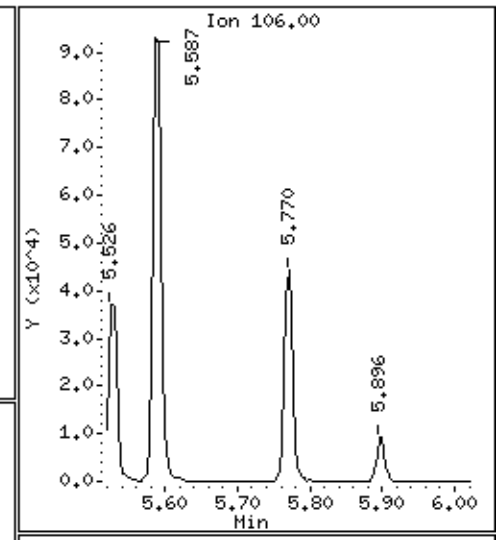
Column diameter: 0.18

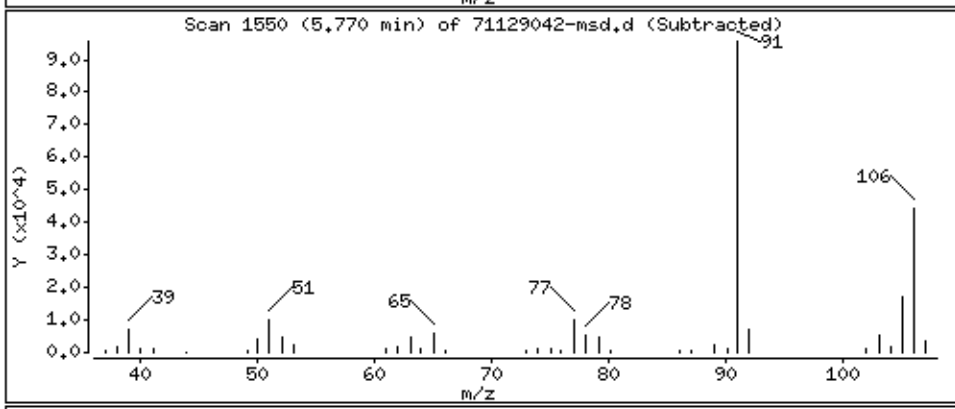
75 o-Xylene

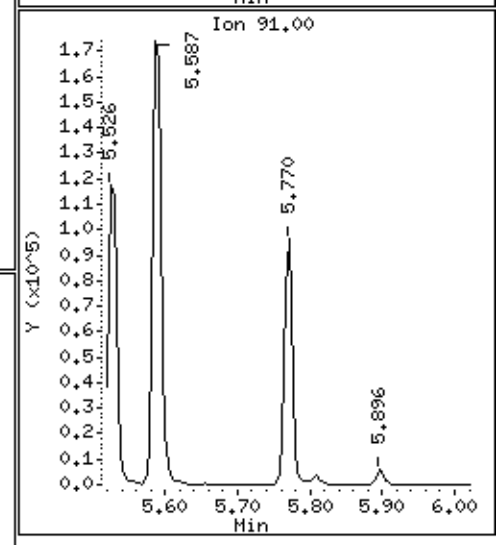
Concentration: 14.0 ug/L

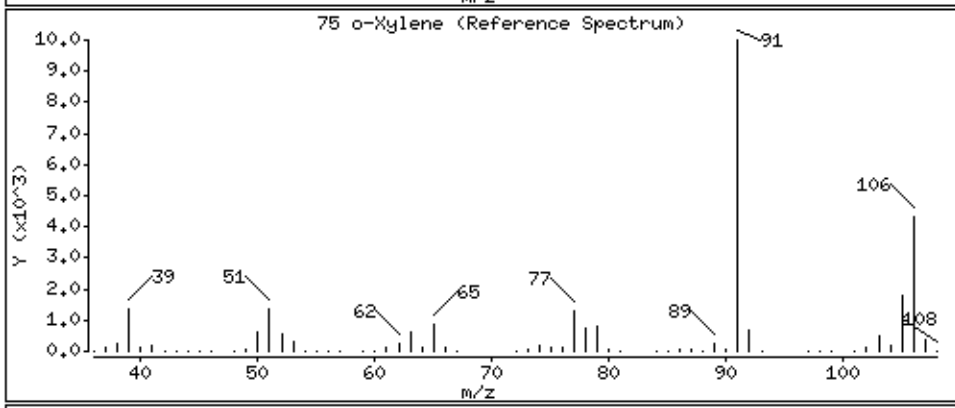
Review Code:

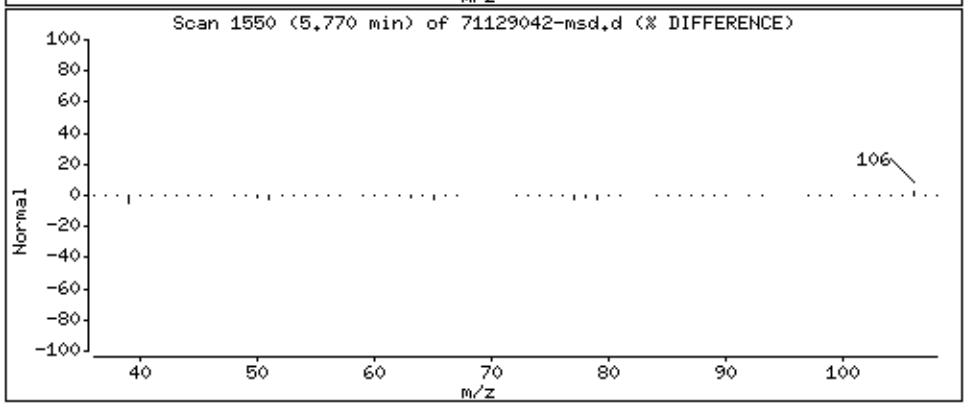












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

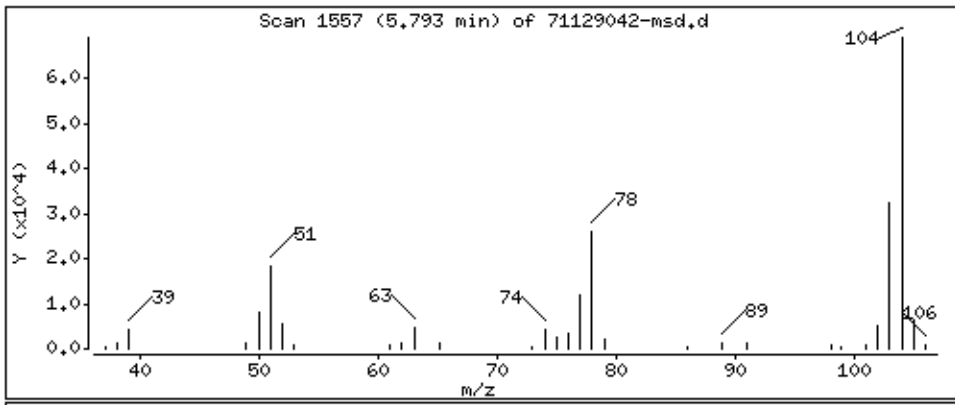
Column phase: RTX-VMS

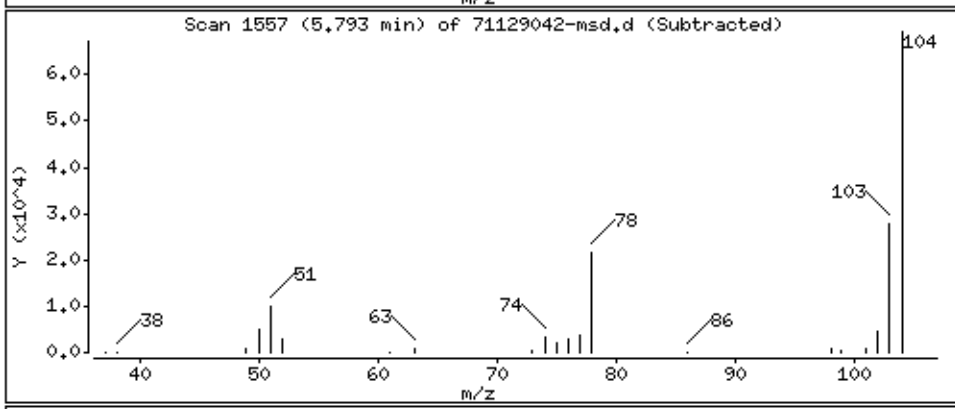
Column diameter: 0.18

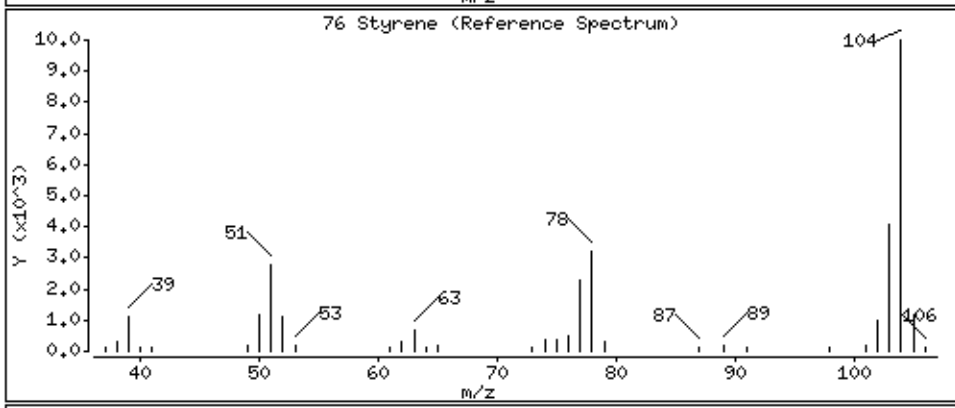
76 Styrene

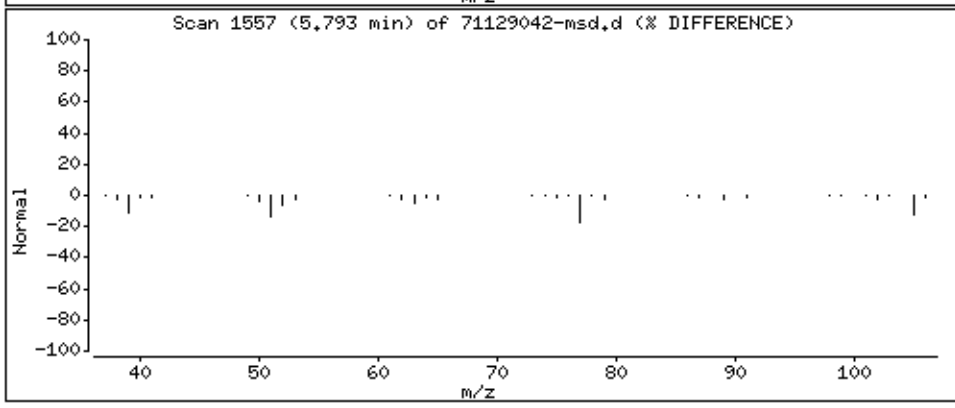
Concentration: 14.8 ug/L

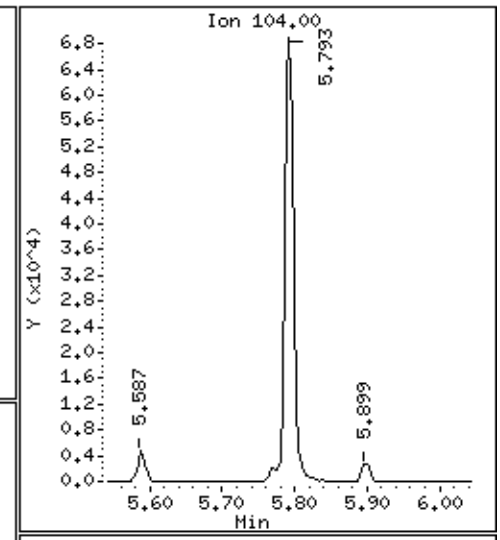
Review Code:

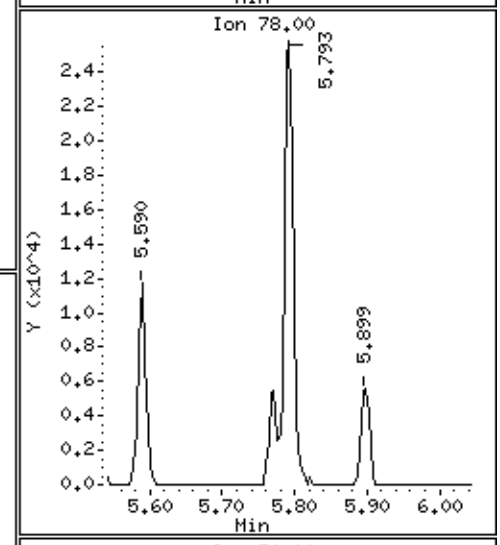


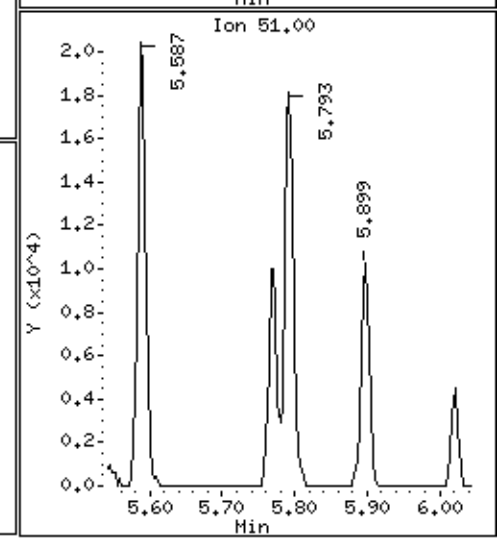












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

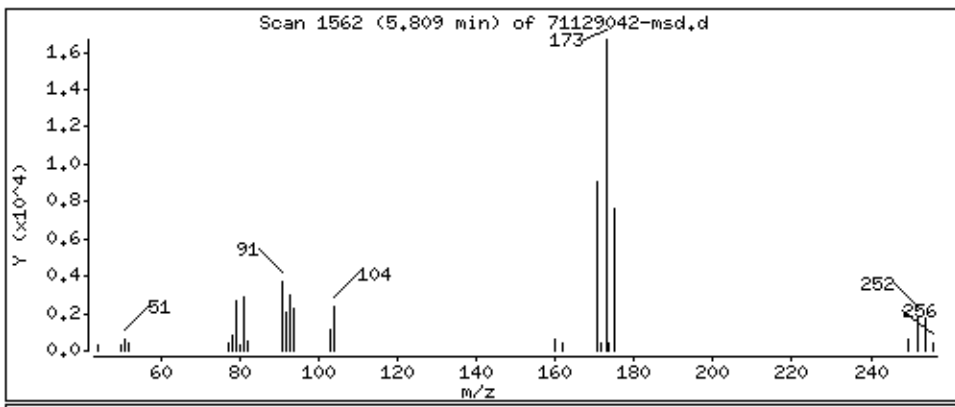
Column phase: RTX-VMS

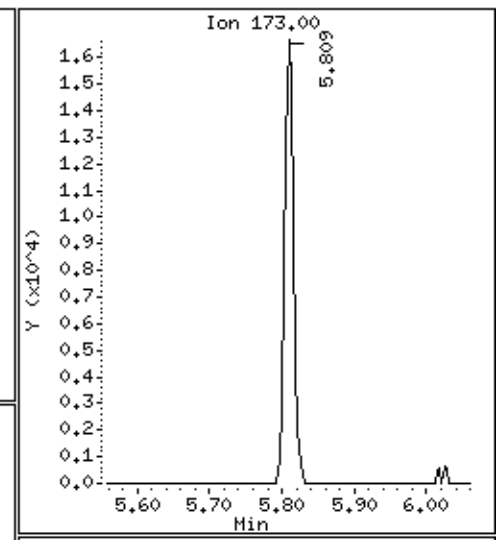
Column diameter: 0.18

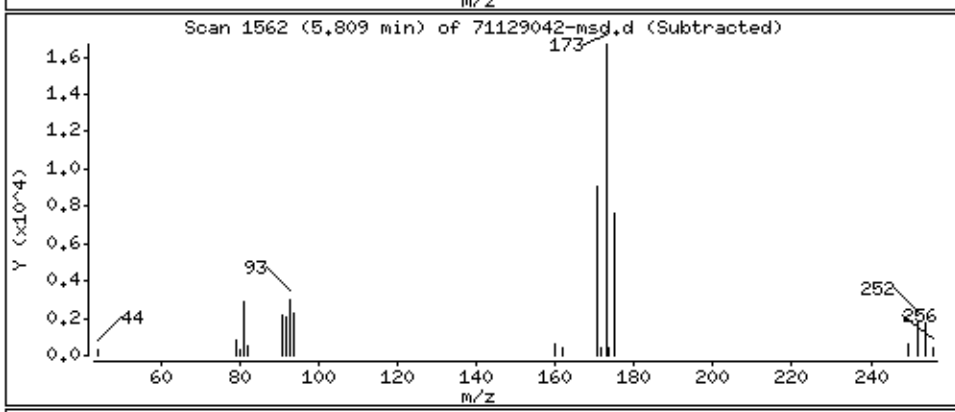
77 Bromoform

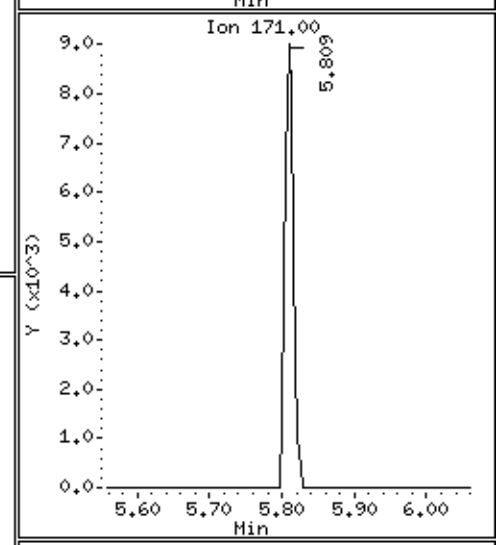
Concentration: 10.8 ug/L

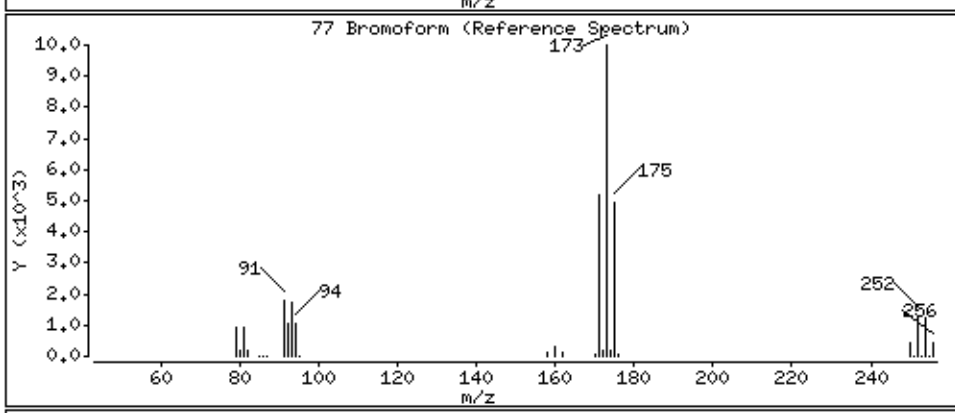
Review Code:

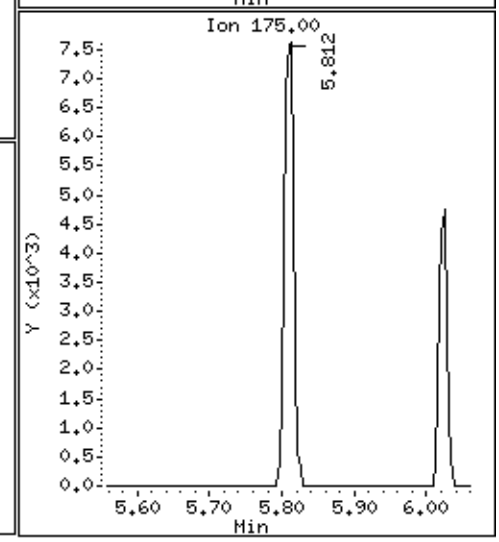


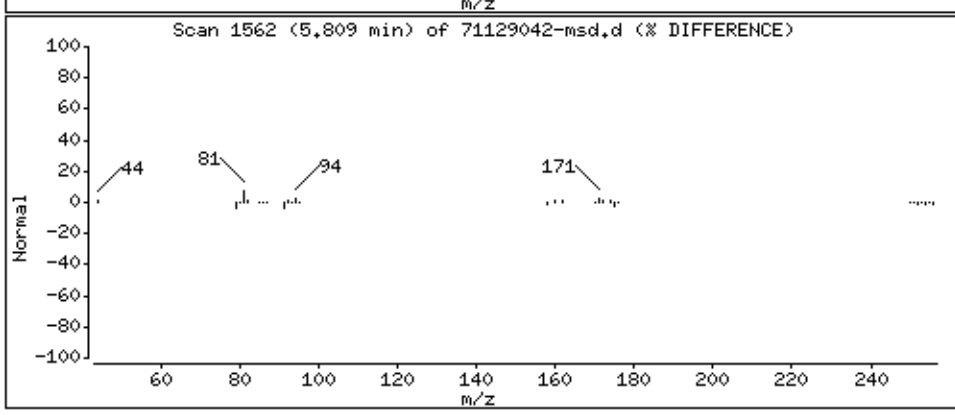












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

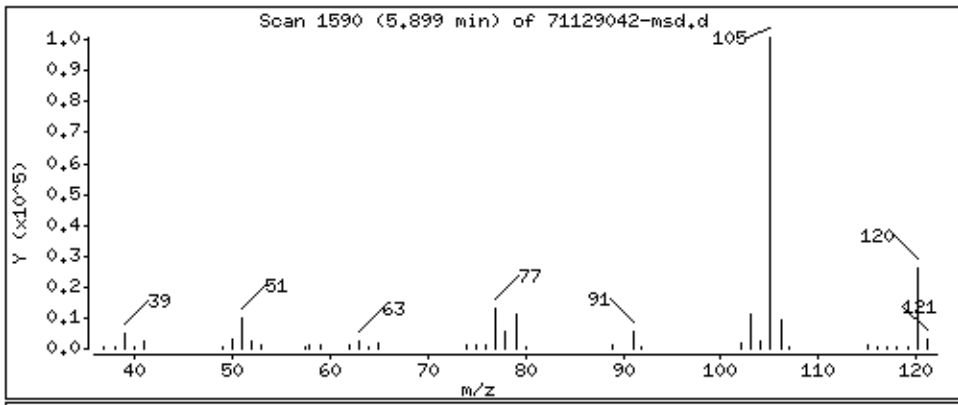
Column phase: RTX-VMS

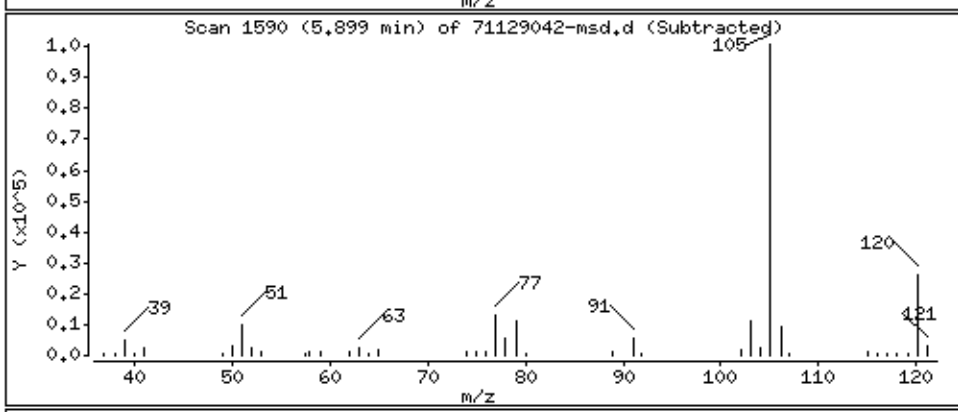
Column diameter: 0.18

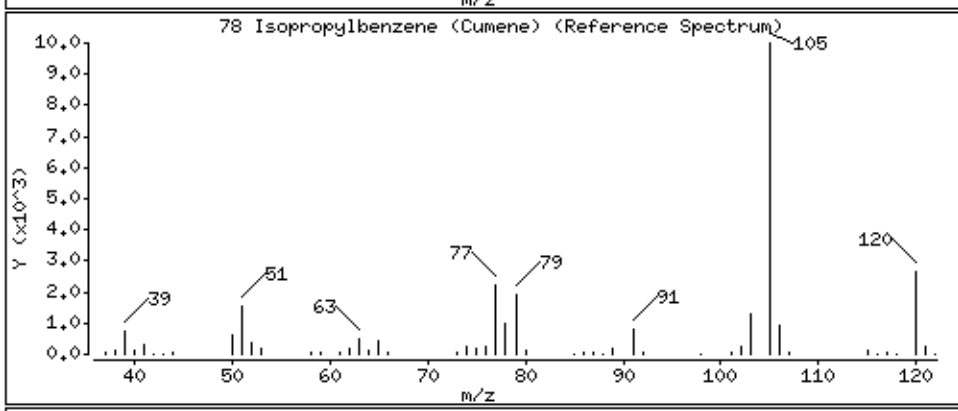
78 Isopropylbenzene (Cumene)

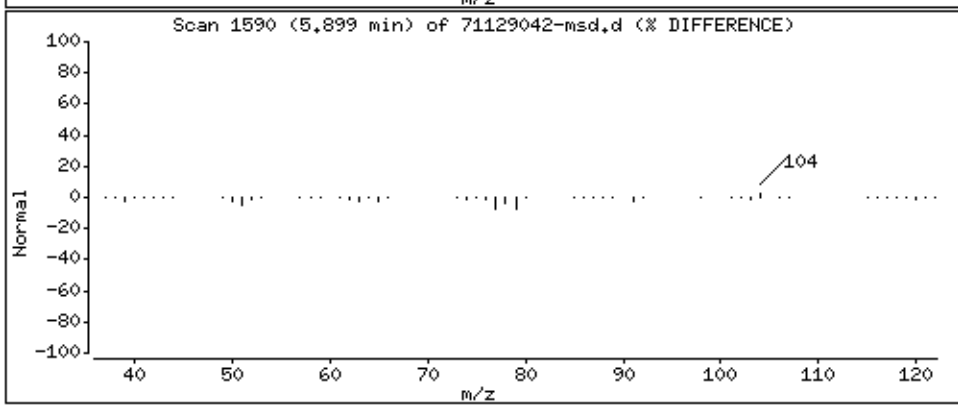
Concentration: 15.5 ug/L

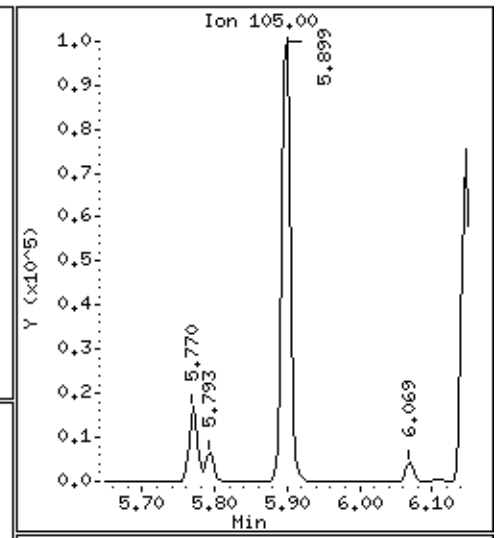
Review Code:

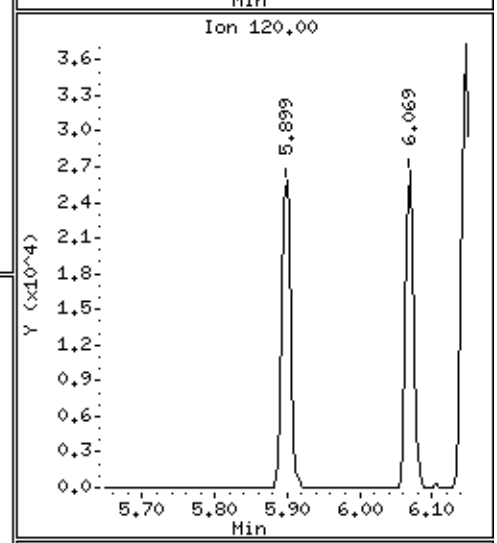


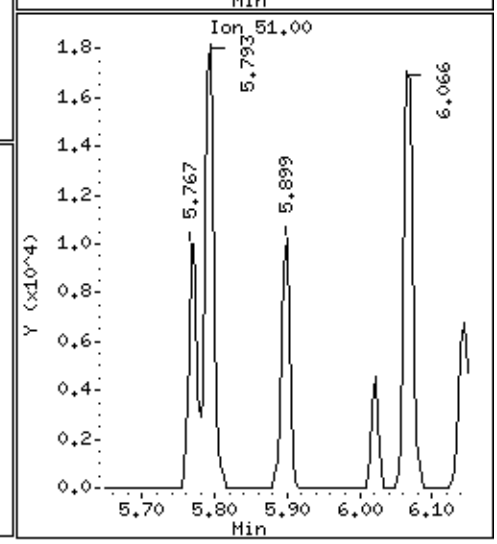












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

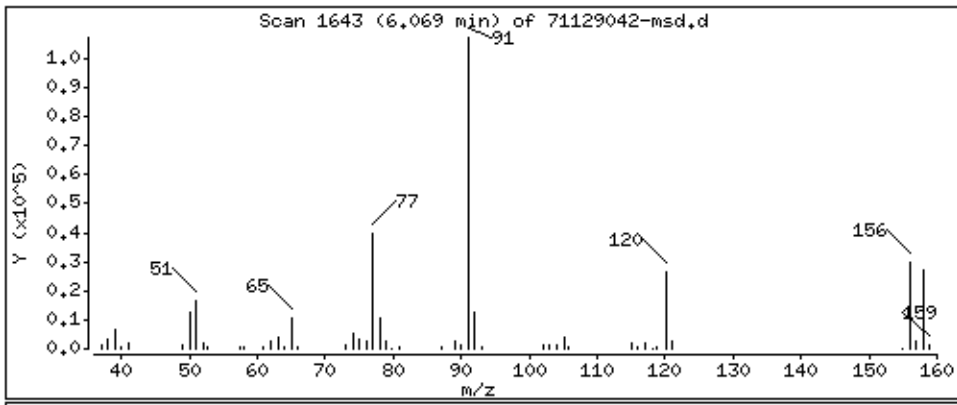
Column phase: RTX-VMS

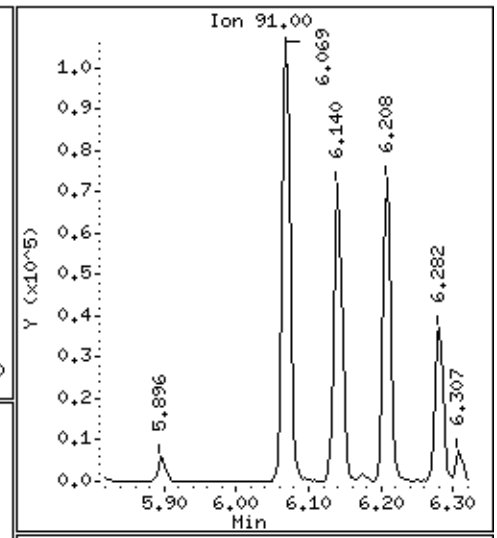
Column diameter: 0.18

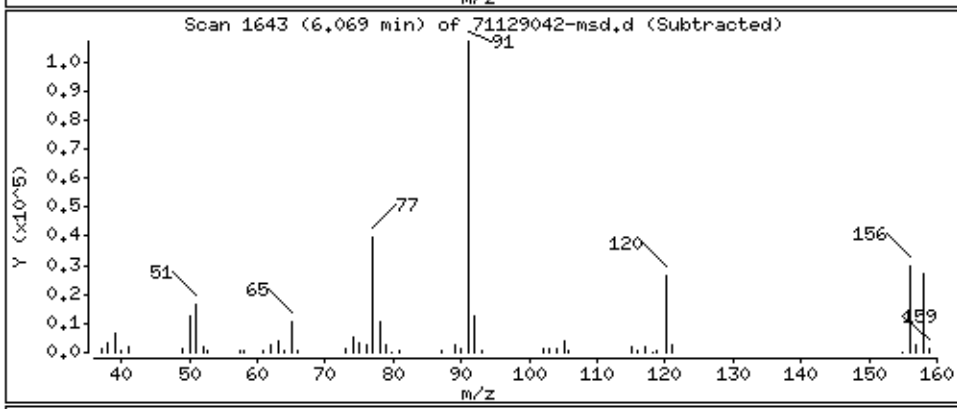
80 n-Propylbenzene

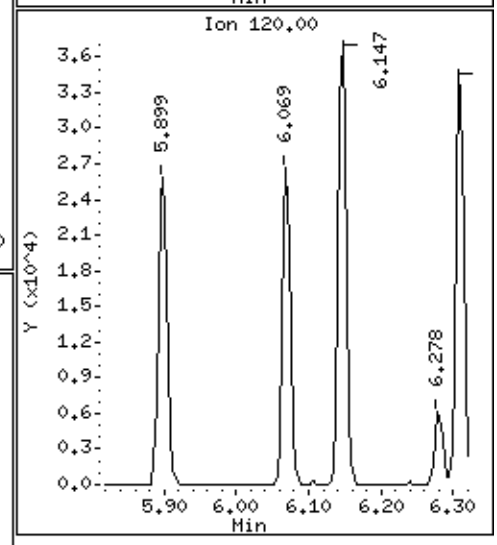
Concentration: 14.0 ug/L

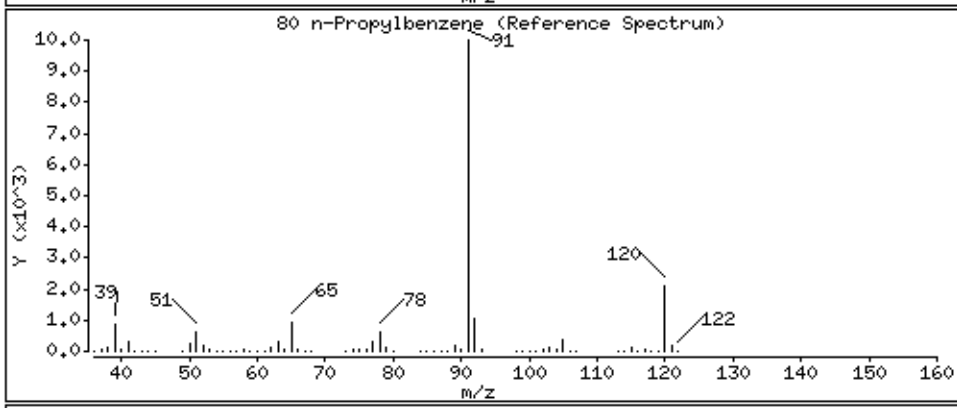
Review Code:

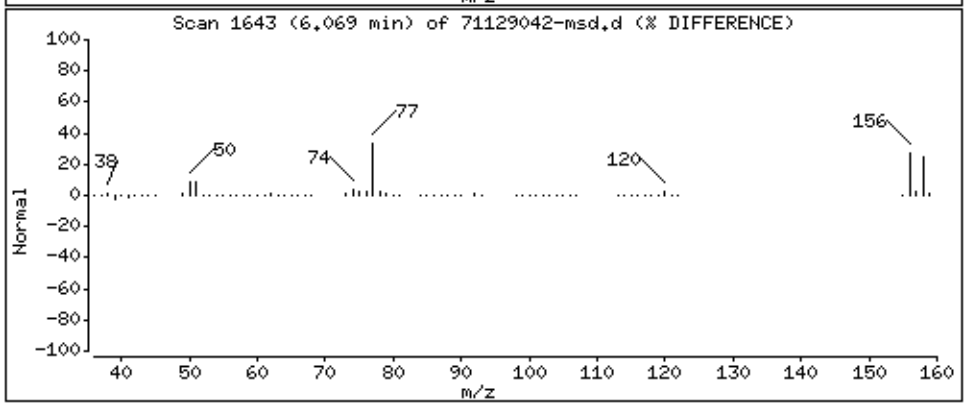












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

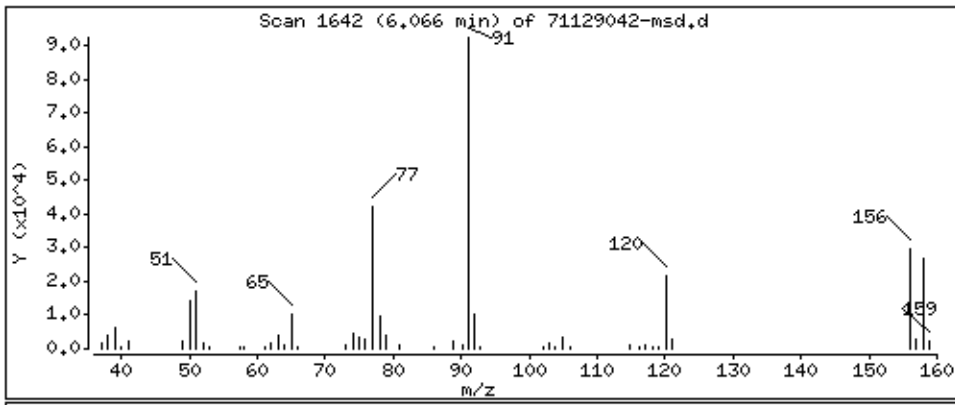
Column phase: RTX-VMS

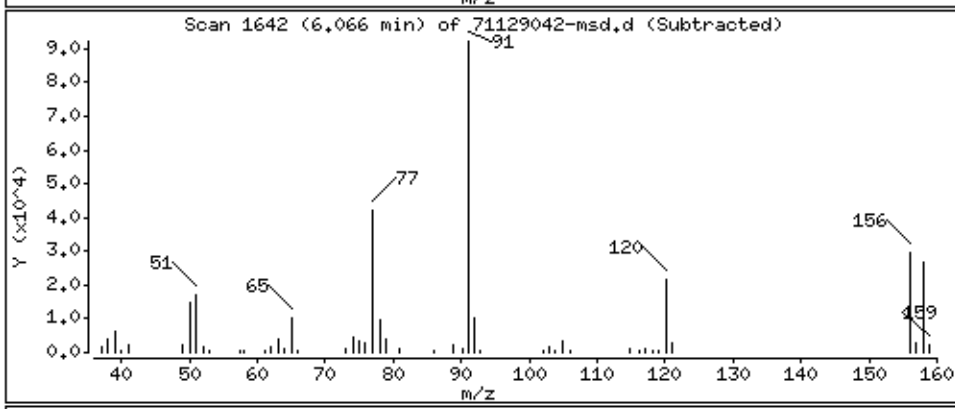
Column diameter: 0.18

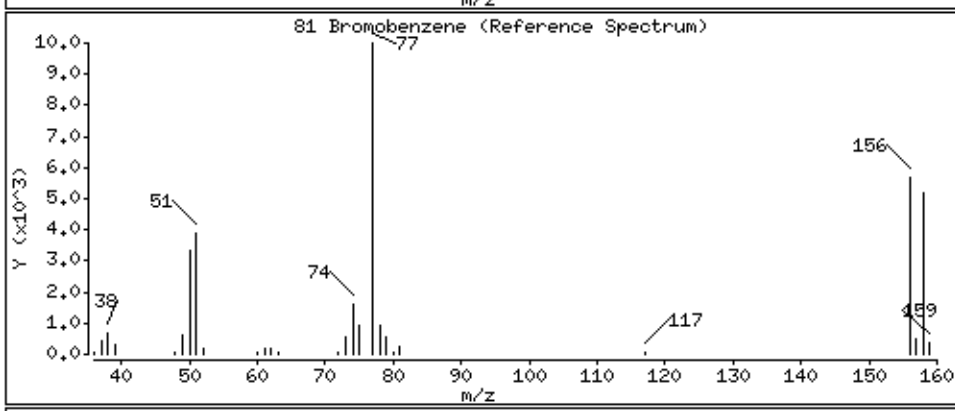
81 Bromobenzene

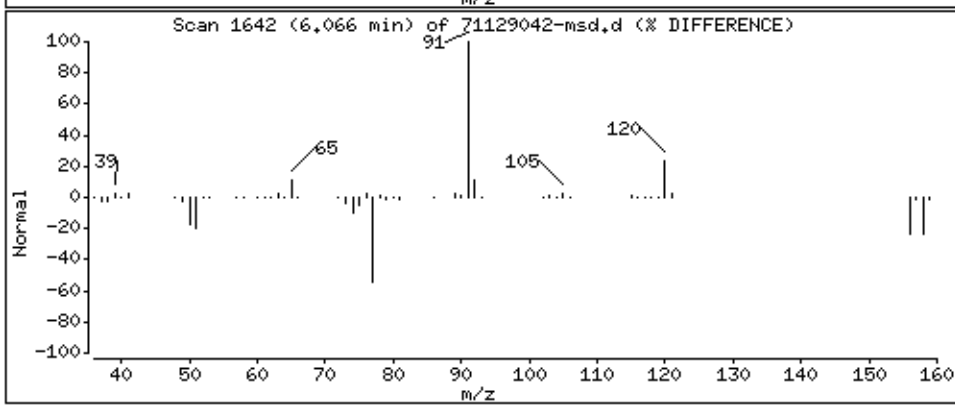
Concentration: 12.9 ug/L

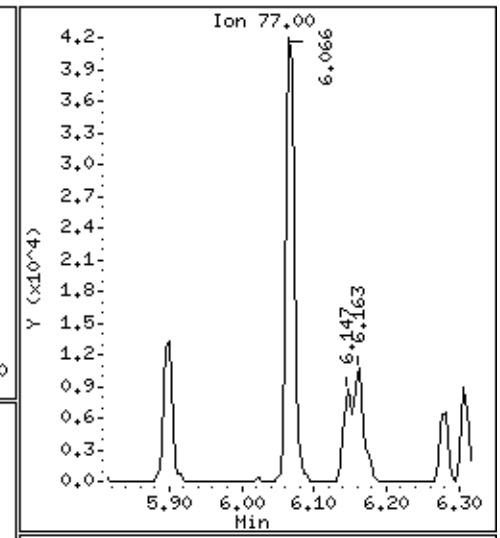
Review Code:

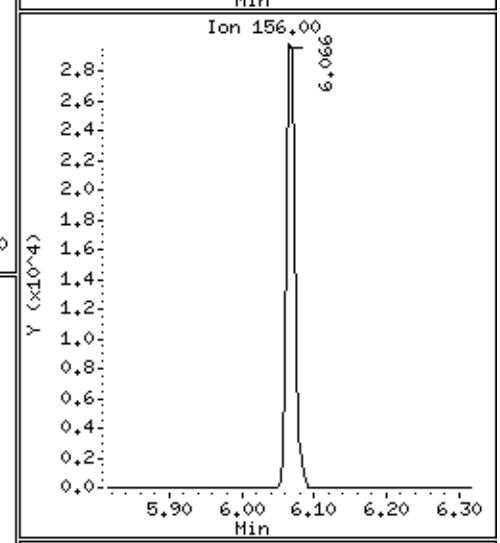


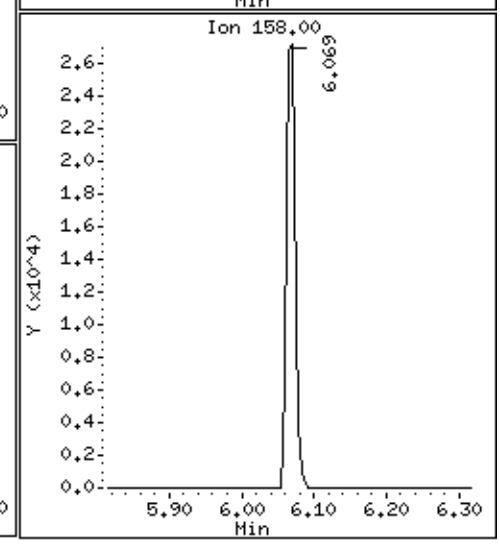












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

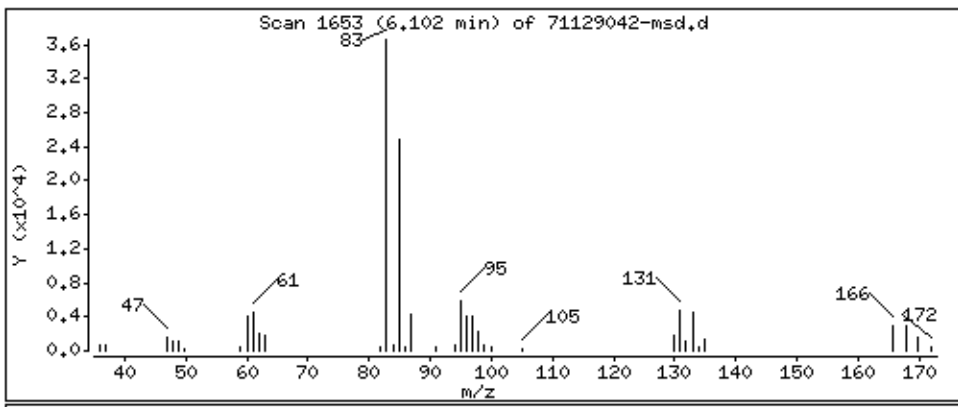
Column phase: RTX-VMS

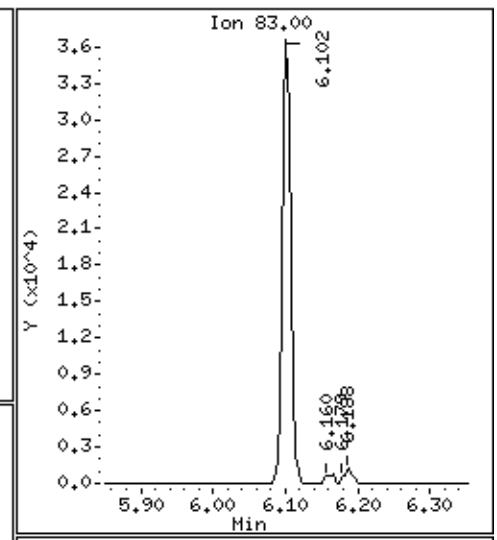
Column diameter: 0.18

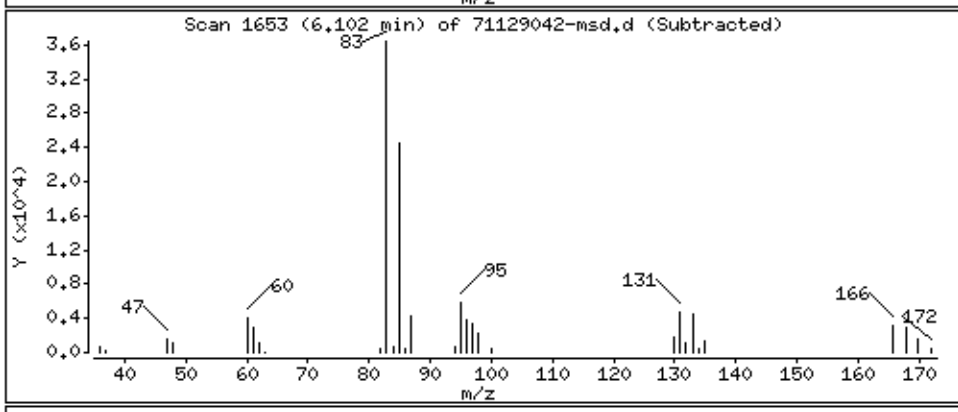
82 1,1,2,2-Tetrachloroethane

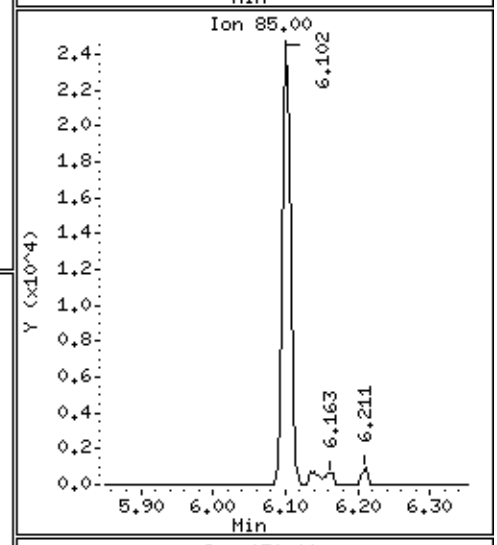
Concentration: 13.0 ug/L

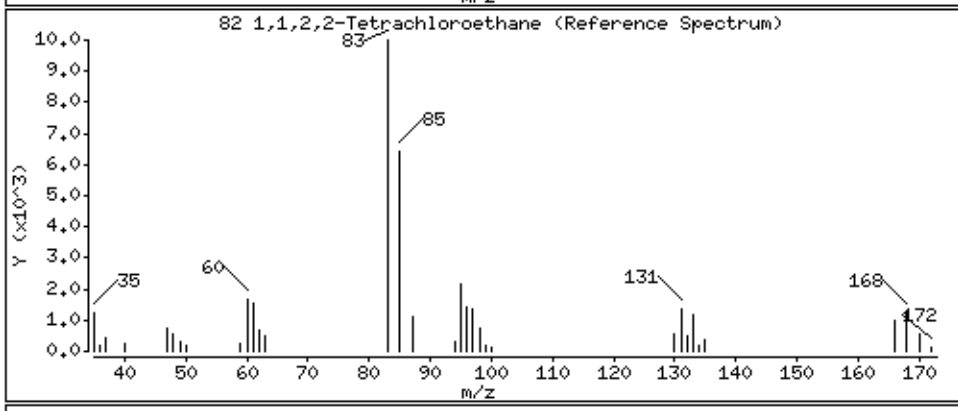
Review Code:

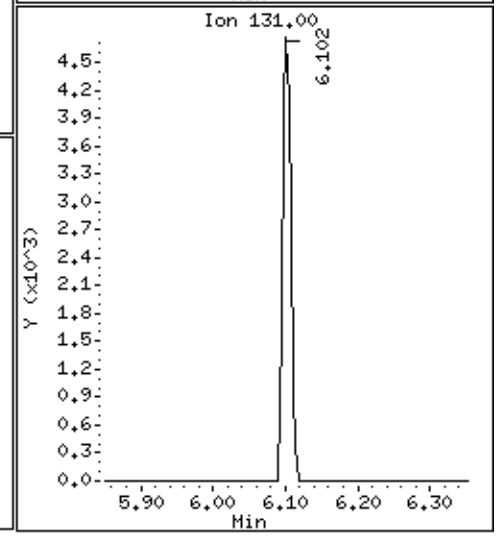


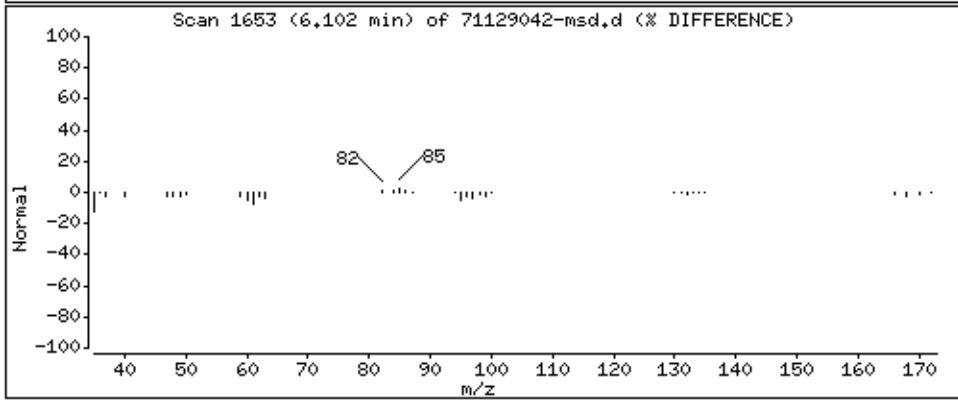












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

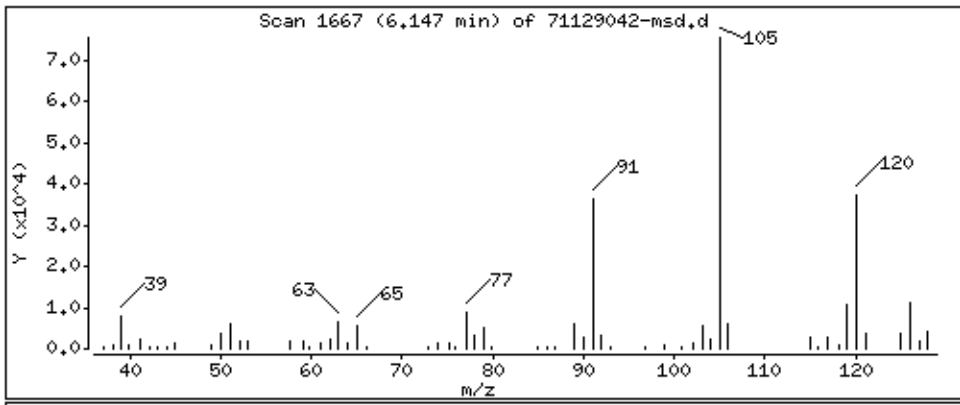
Column phase: RTX-VMS

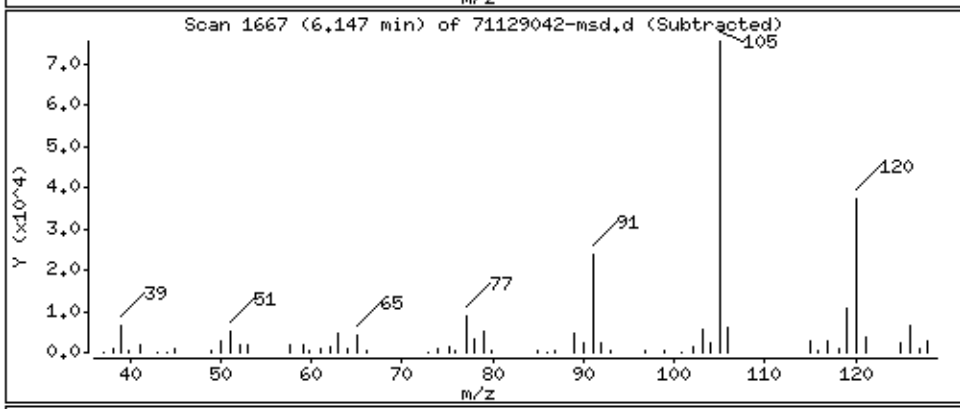
Column diameter: 0.18

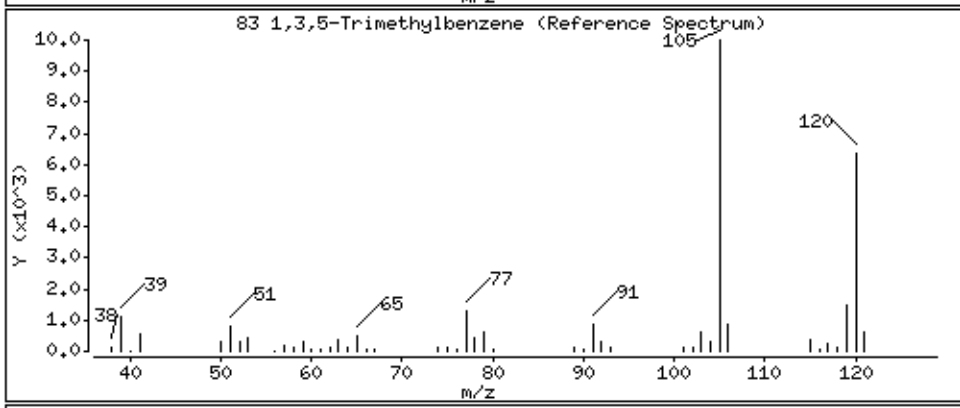
83 1,3,5-Trimethylbenzene

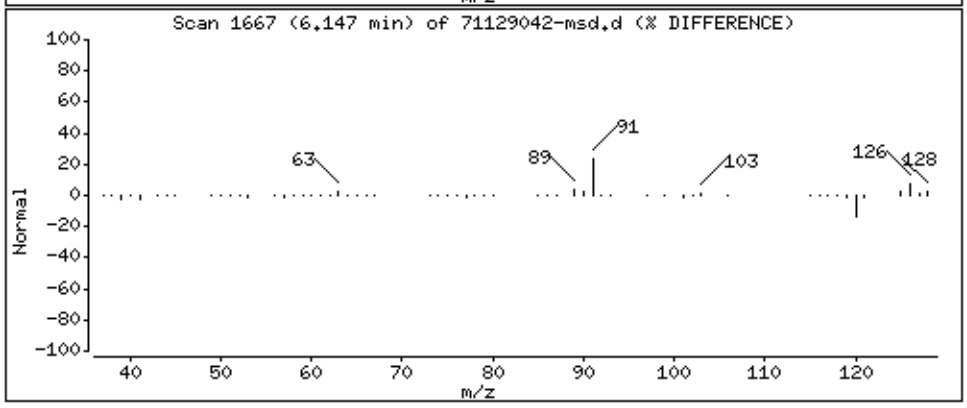
Concentration: 13.8 ug/L

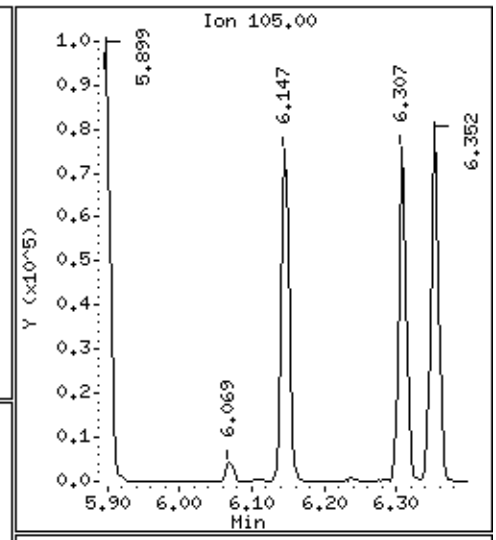
Review Code:

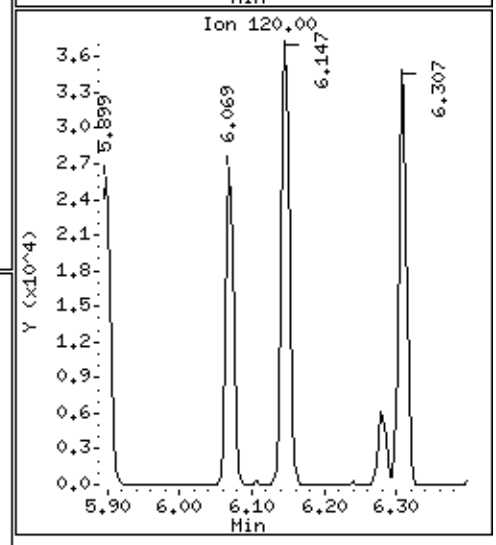












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

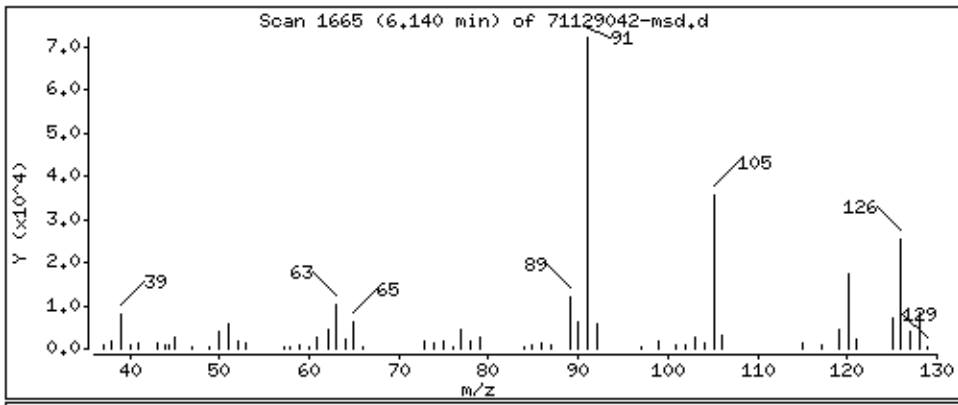
Column phase: RTX-VMS

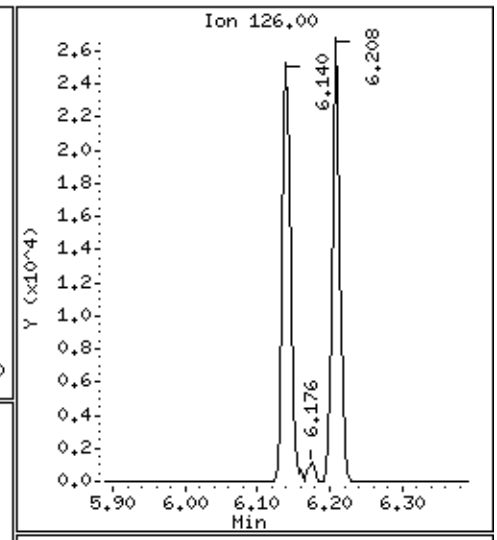
Column diameter: 0.18

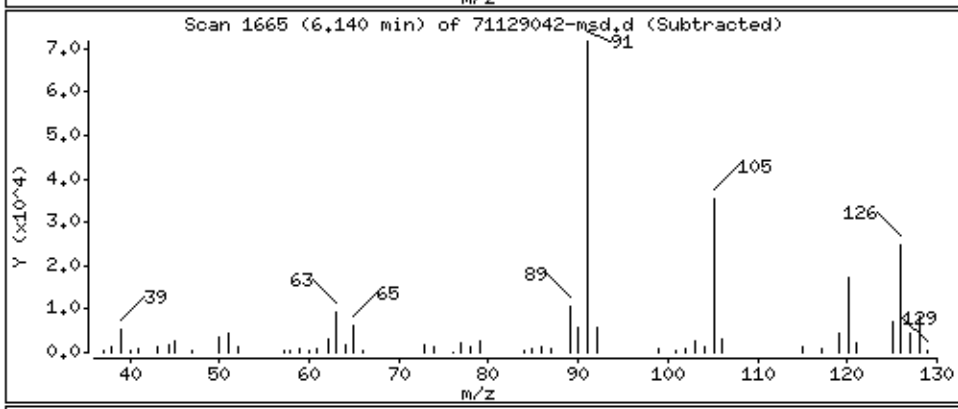
84 2-Chlorotoluene

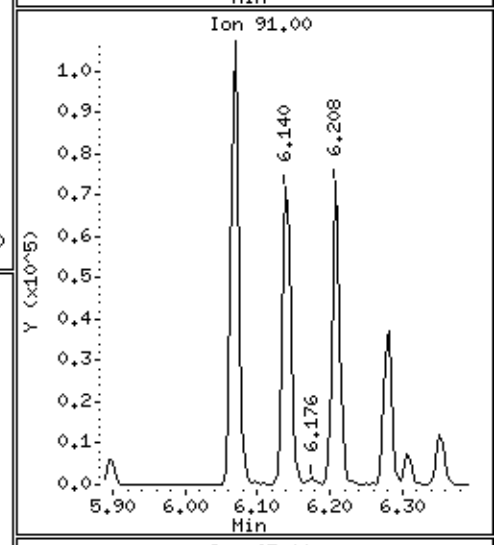
Concentration: 14.4 ug/L

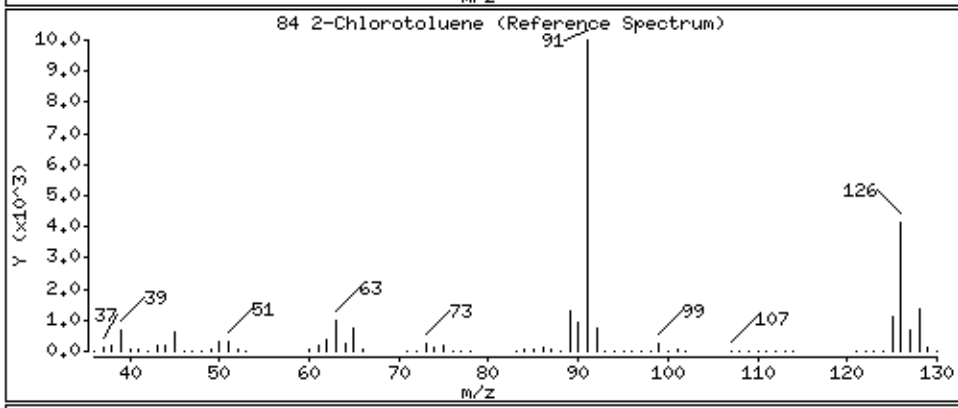
Review Code:

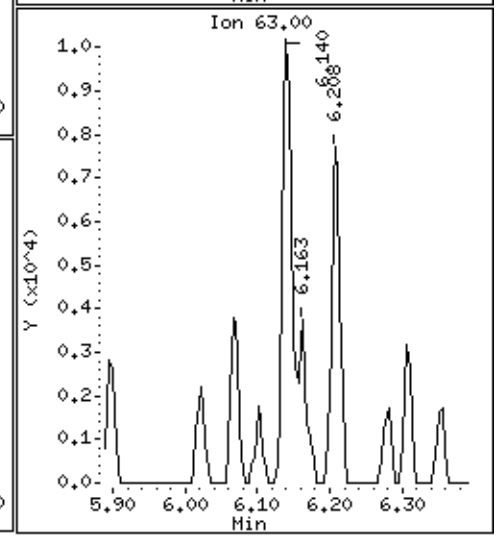


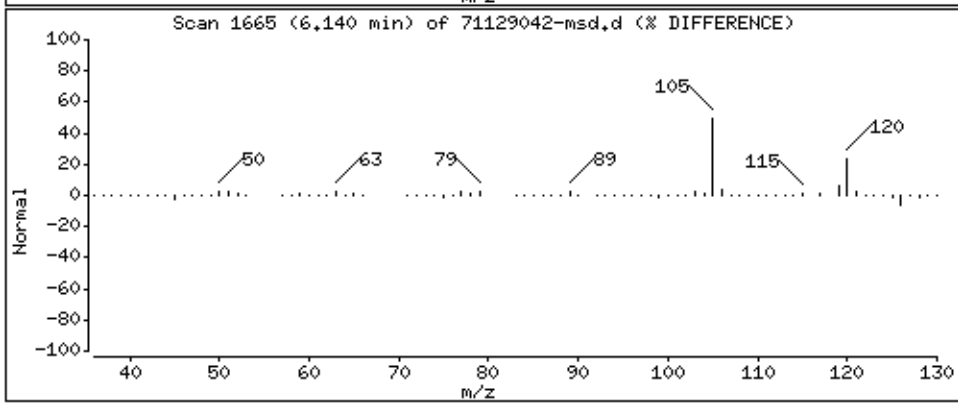












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

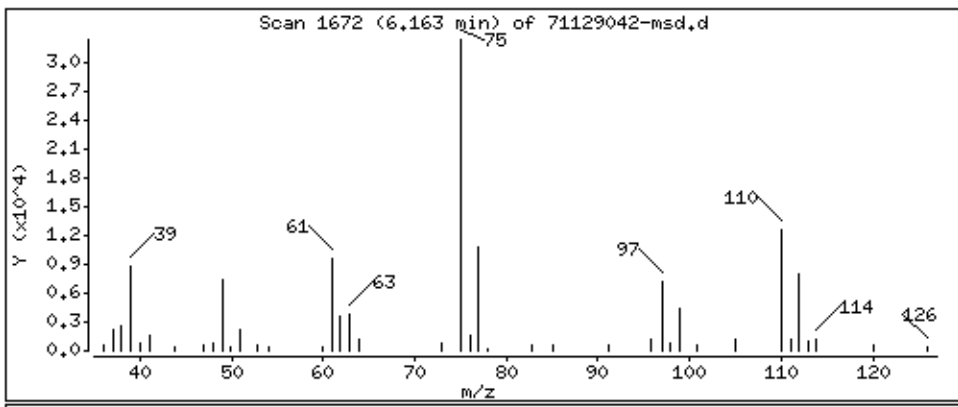
Column phase: RTX-VMS

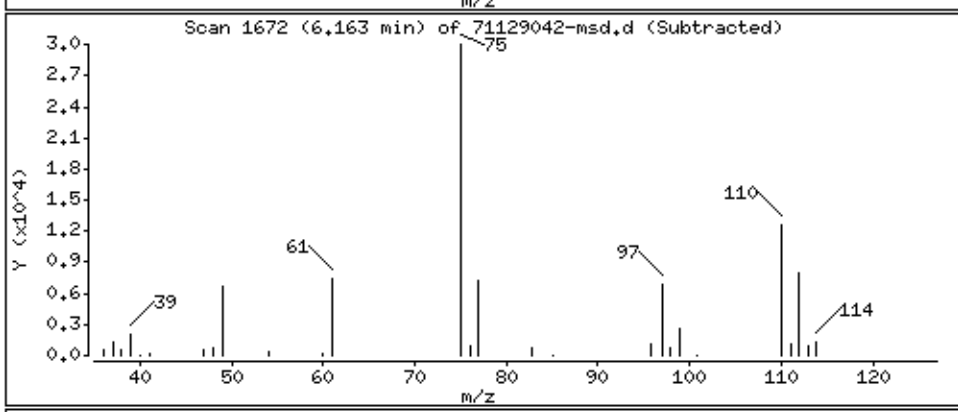
Column diameter: 0.18

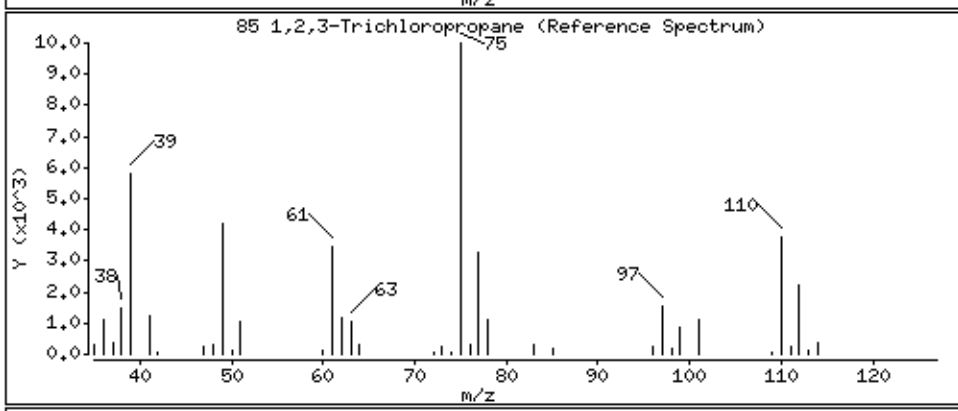
85 1,2,3-Trichloropropane

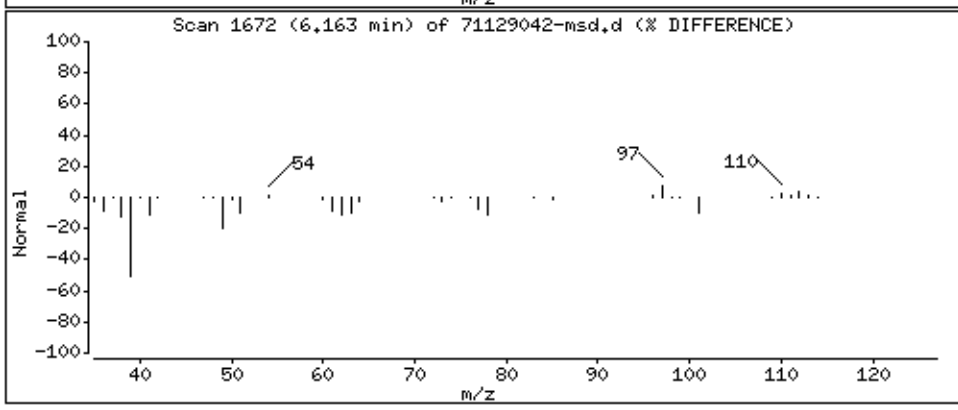
Concentration: 13.4 ug/L

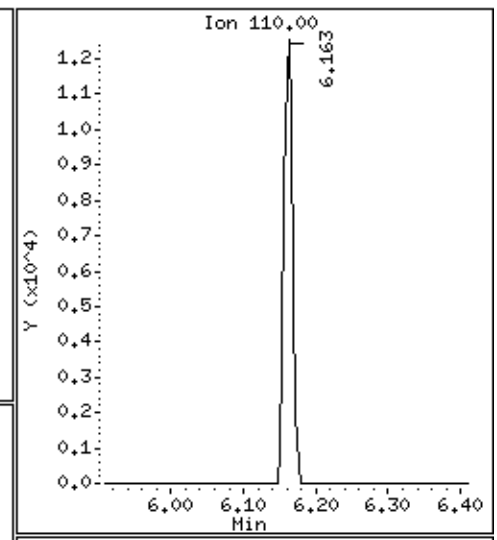
Review Code:

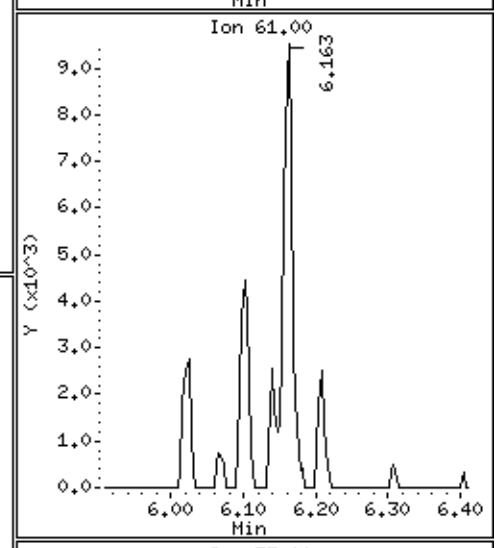


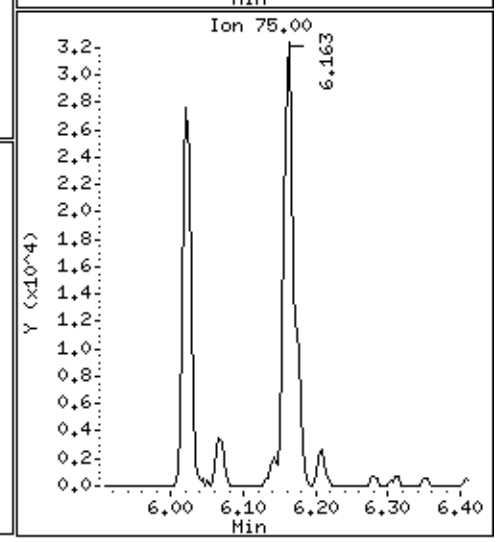












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

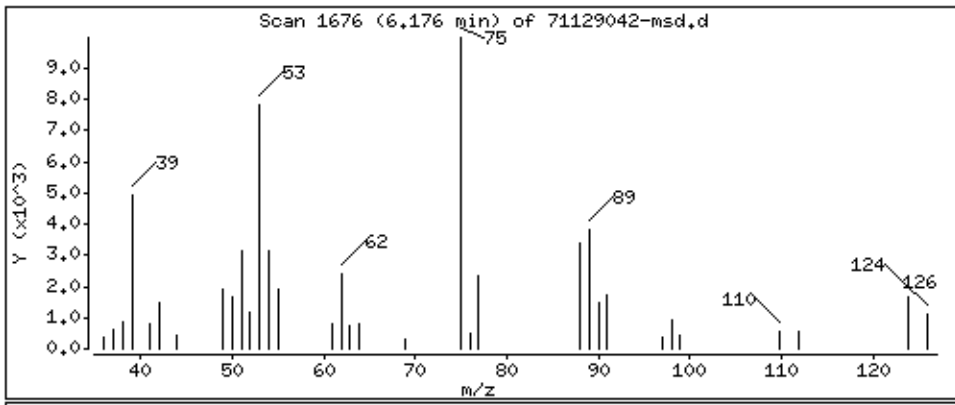
Column phase: RTX-VMS

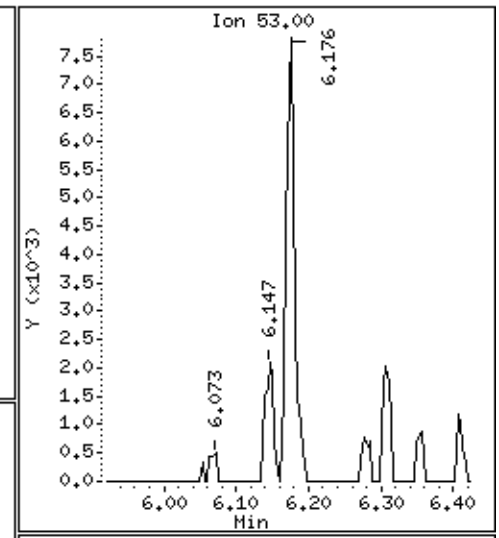
Column diameter: 0.18

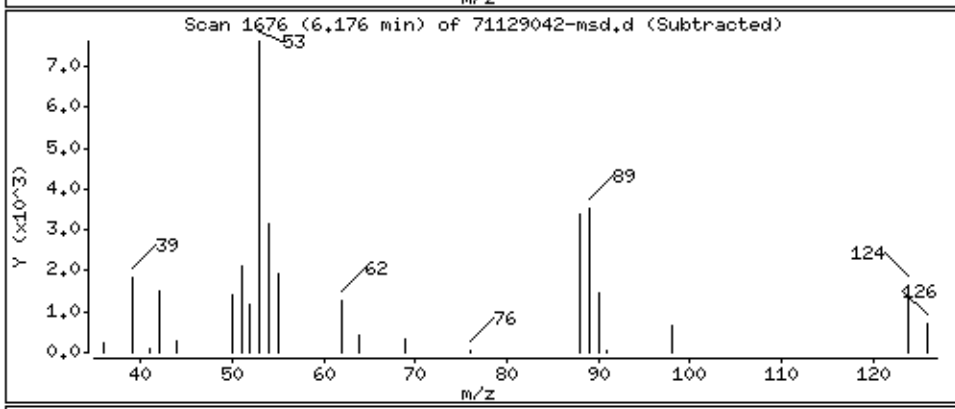
86 trans-1,4-Dichloro-2-butene

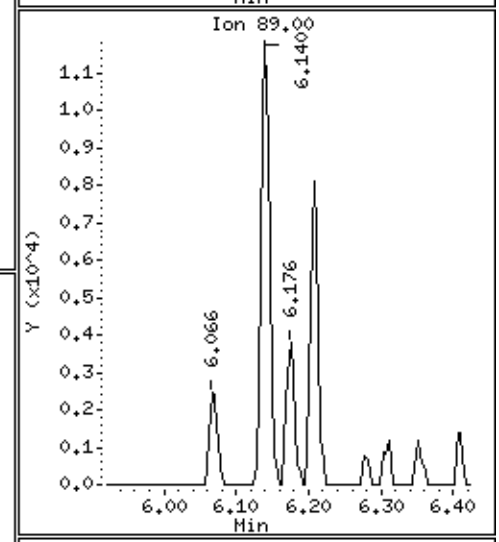
Concentration: 8.88 ug/L

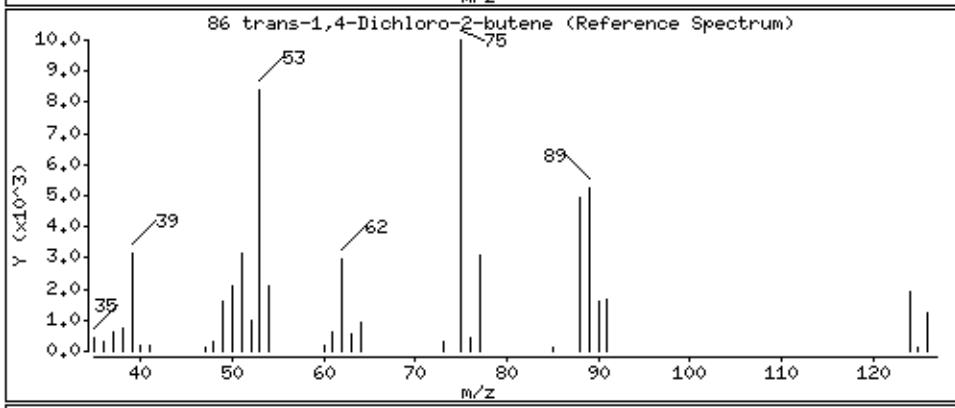
Review Code:

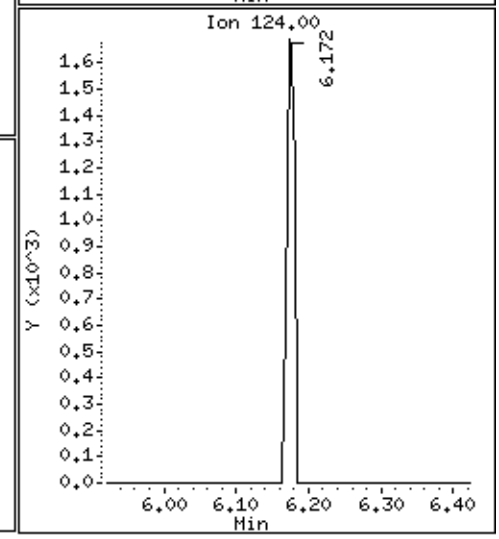


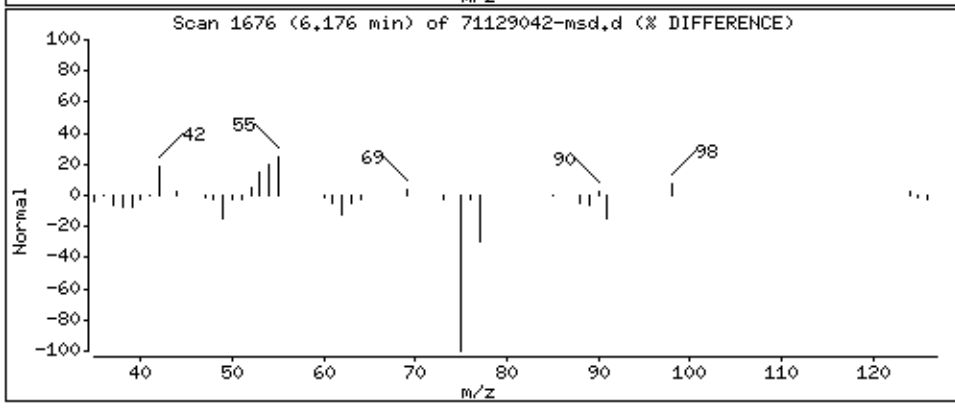












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

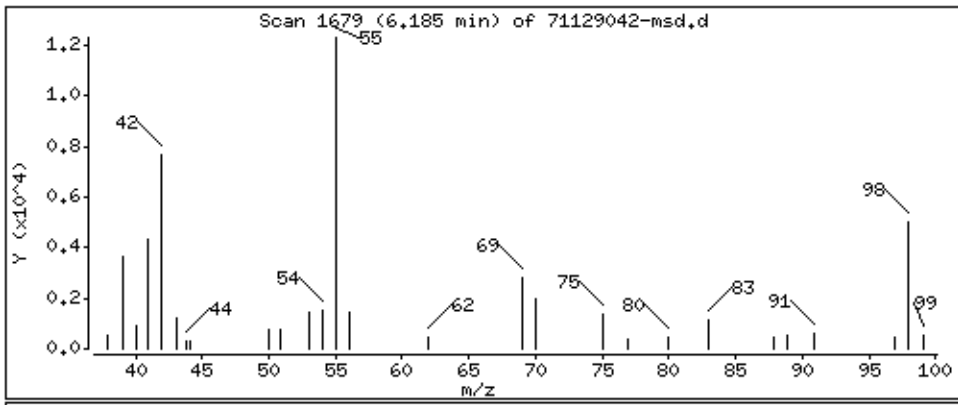
Column phase: RTX-VMS

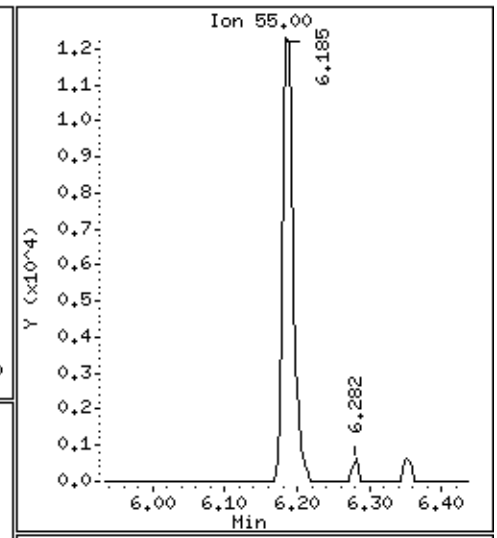
Column diameter: 0.18

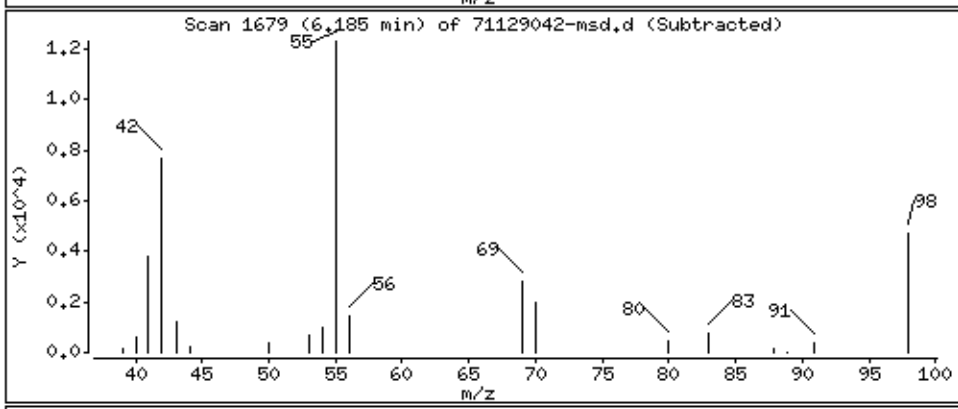
87 Cyclohexanone

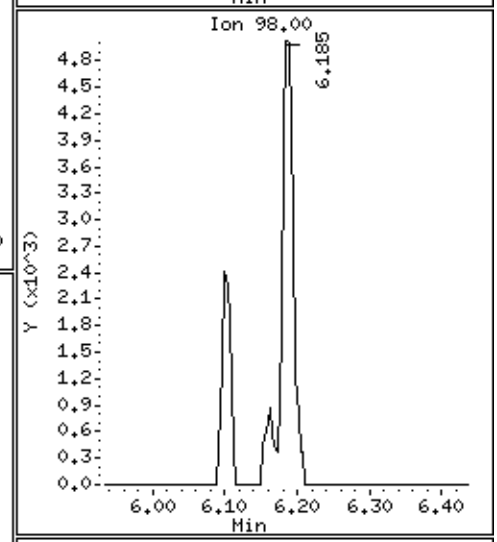
Concentration: 57.2 ug/L

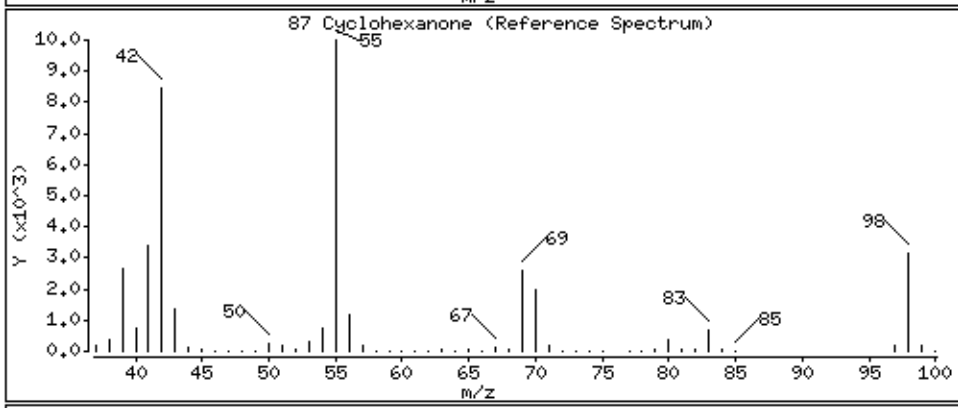
Review Code:

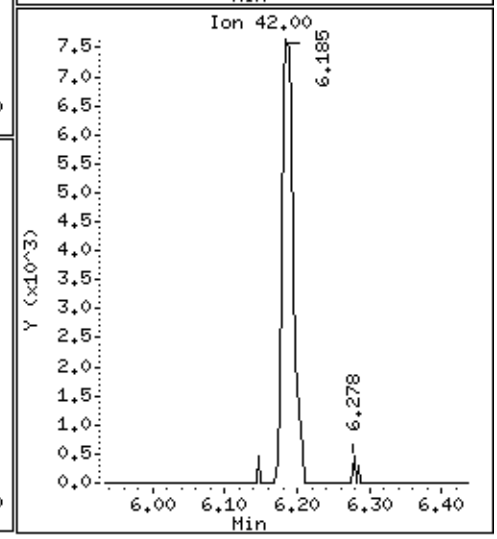


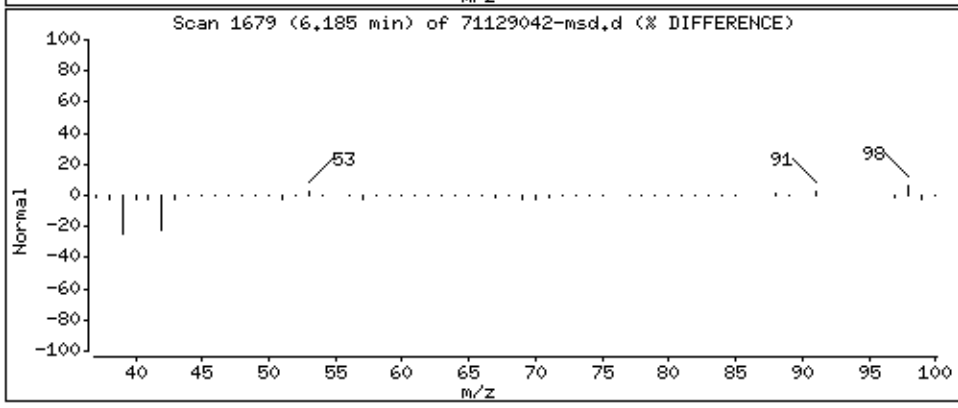












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

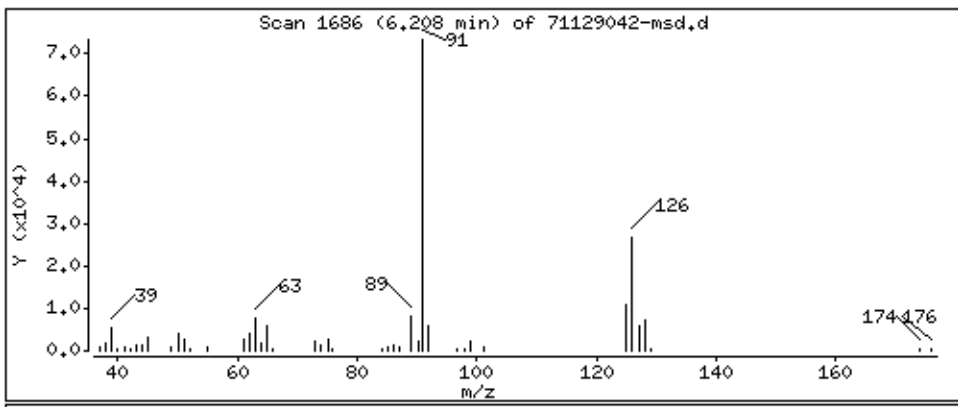
Column phase: RTX-VMS

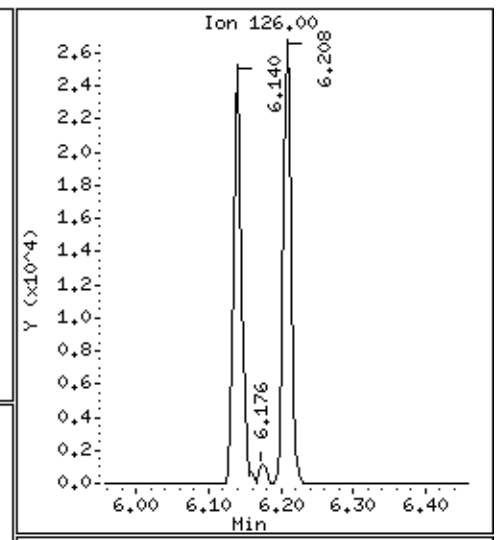
Column diameter: 0.18

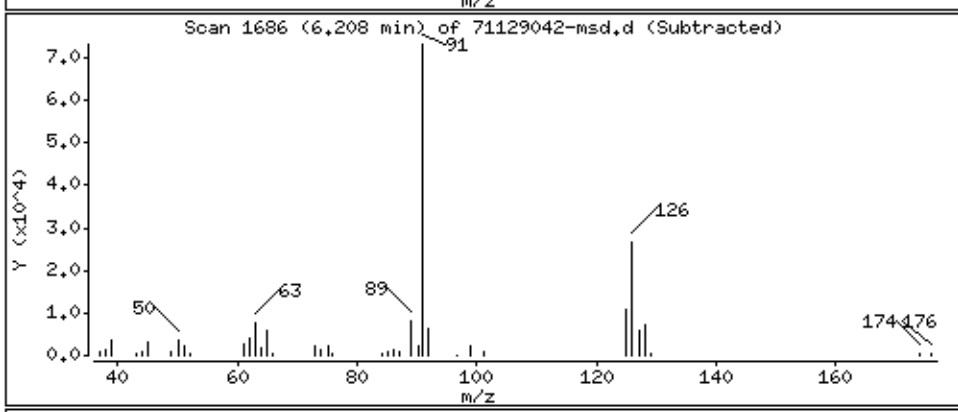
88 4-Chlorotoluene

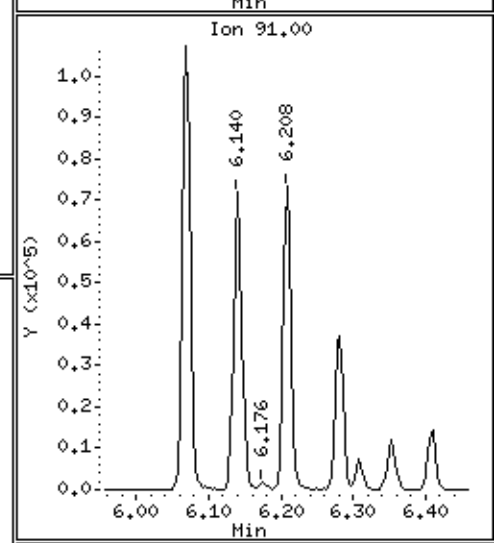
Concentration: 13.5 ug/L

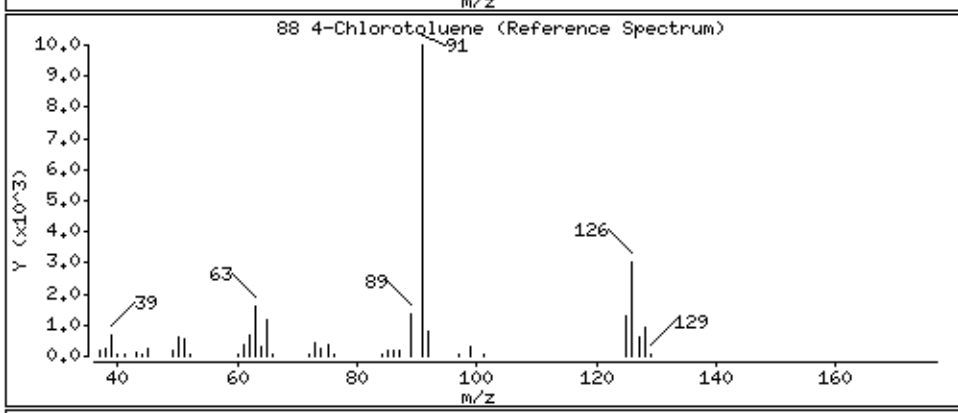
Review Code:

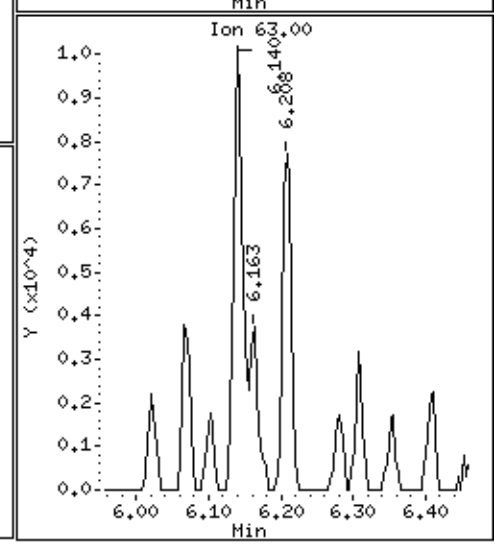


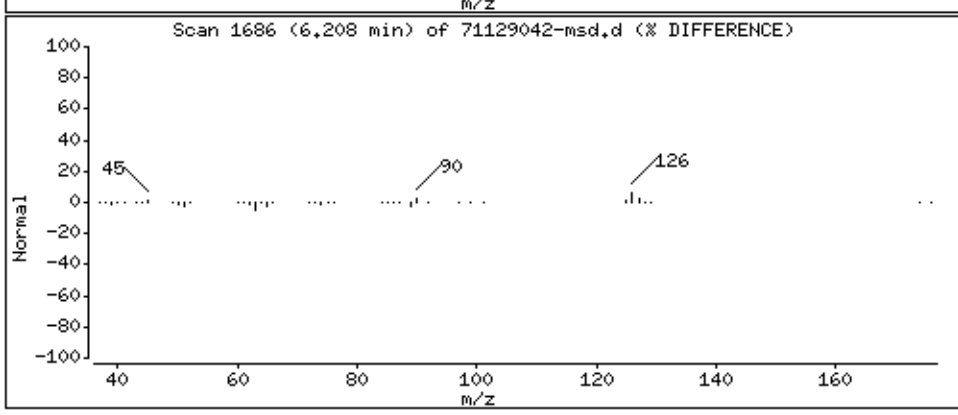












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

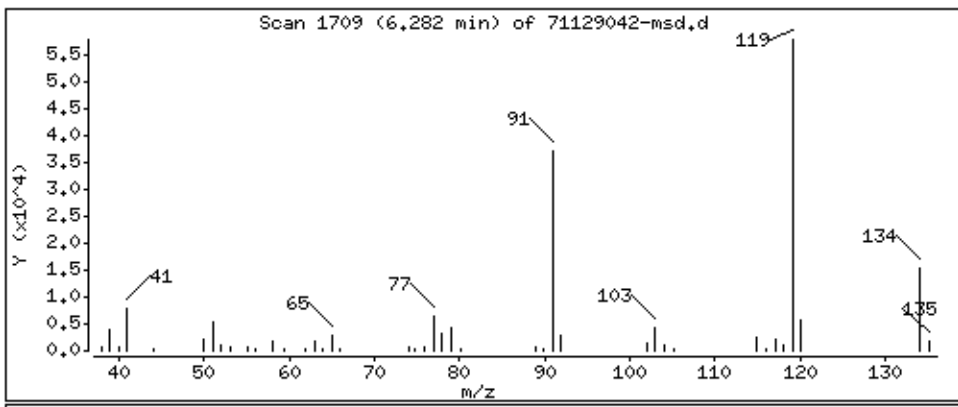
Column phase: RTX-VMS

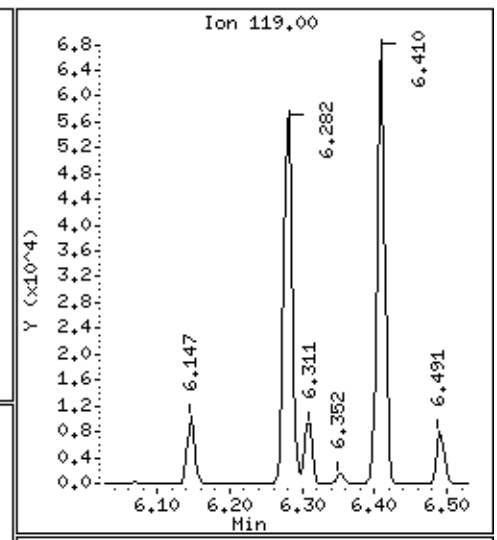
Column diameter: 0.18

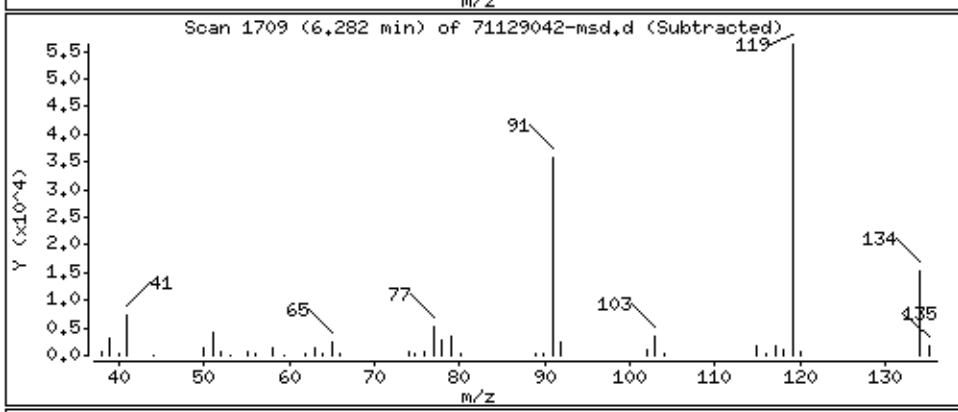
89 tert-Butylbenzene

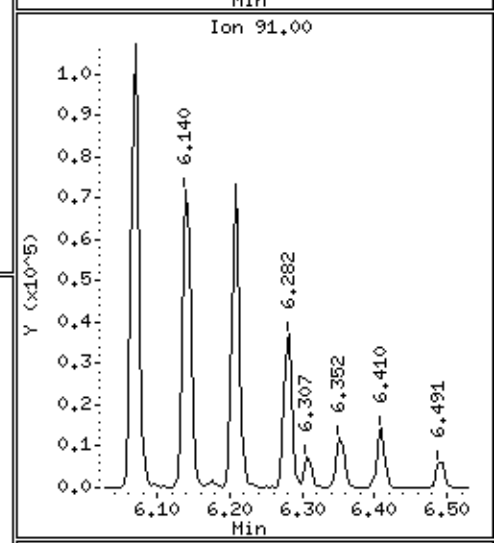
Concentration: 14.2 ug/L

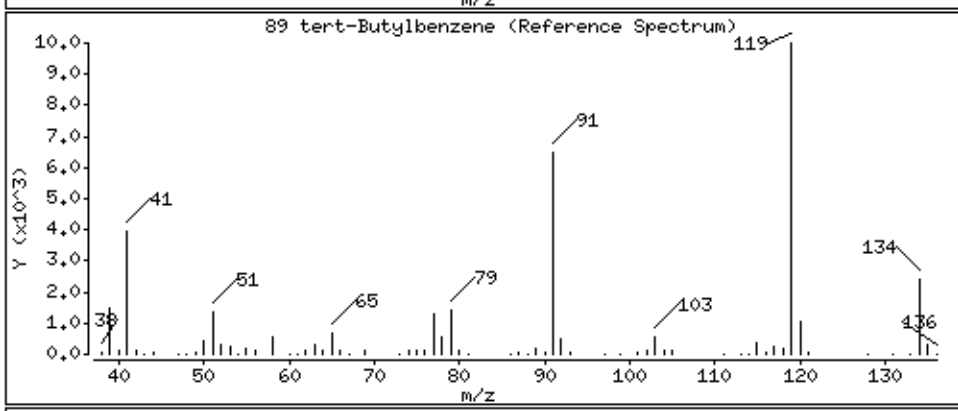
Review Code:

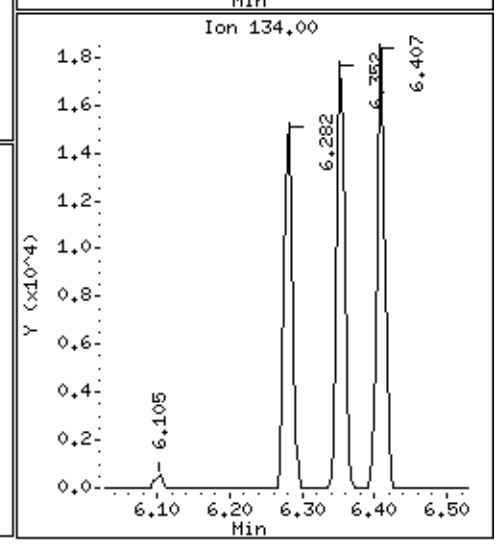


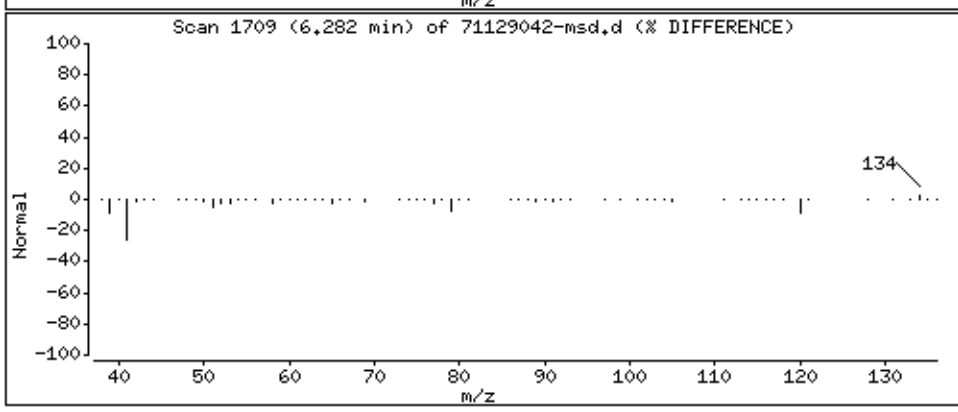












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

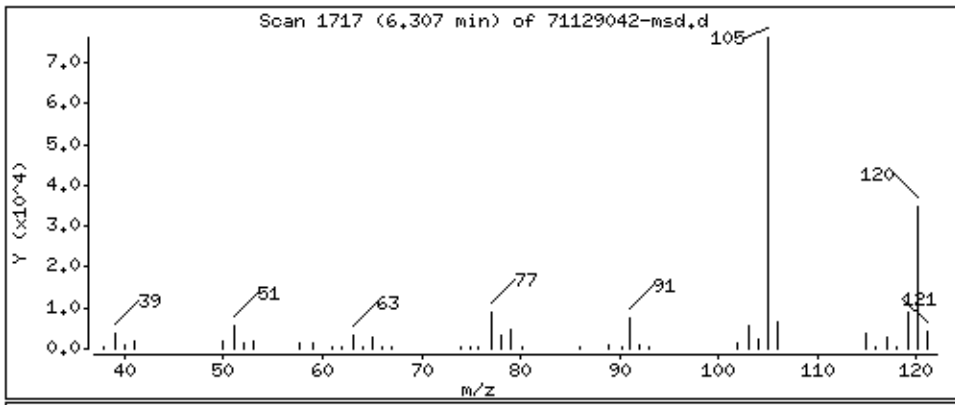
Column phase: RTX-VMS

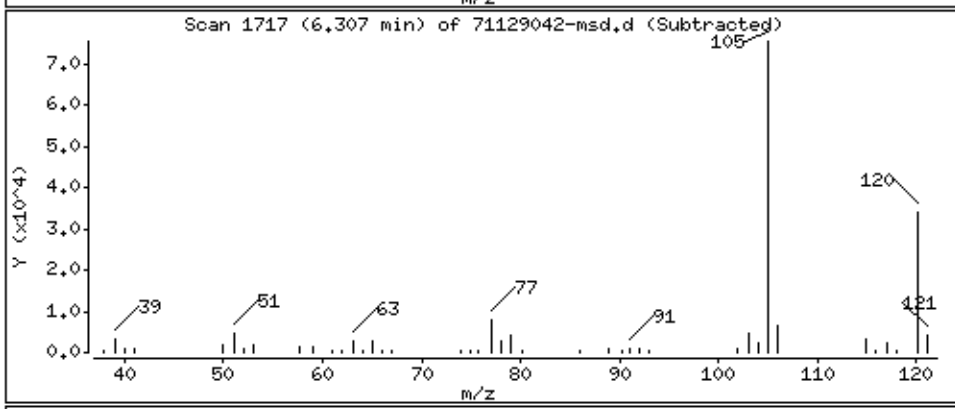
Column diameter: 0.18

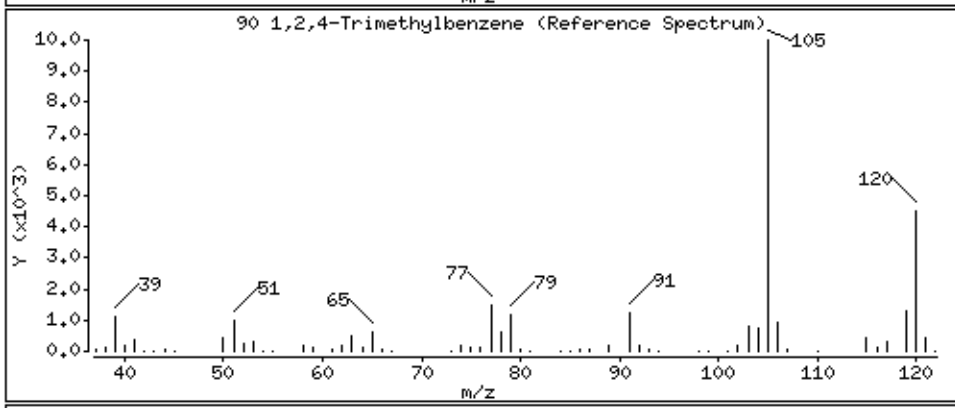
90 1,2,4-Trimethylbenzene

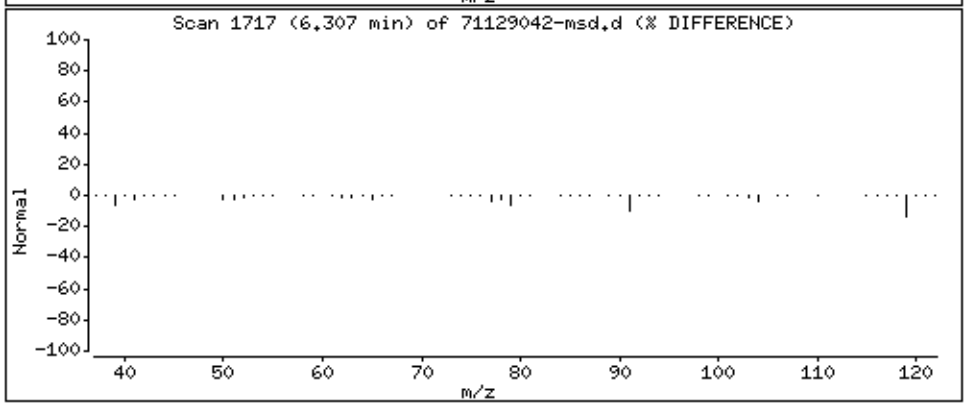
Concentration: 13.6 ug/L

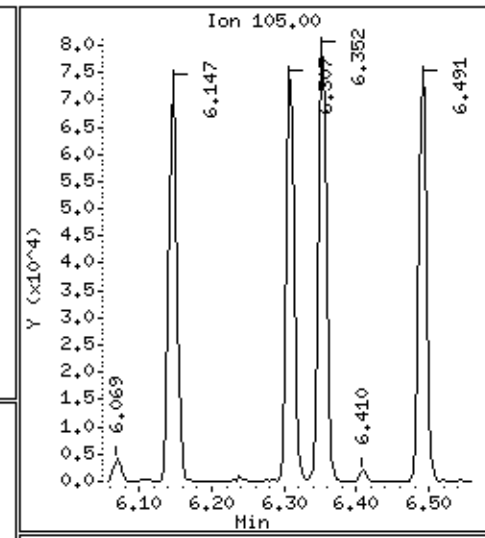
Review Code:

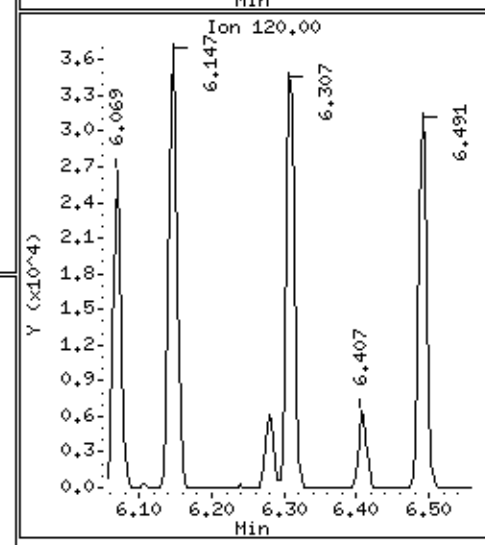












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

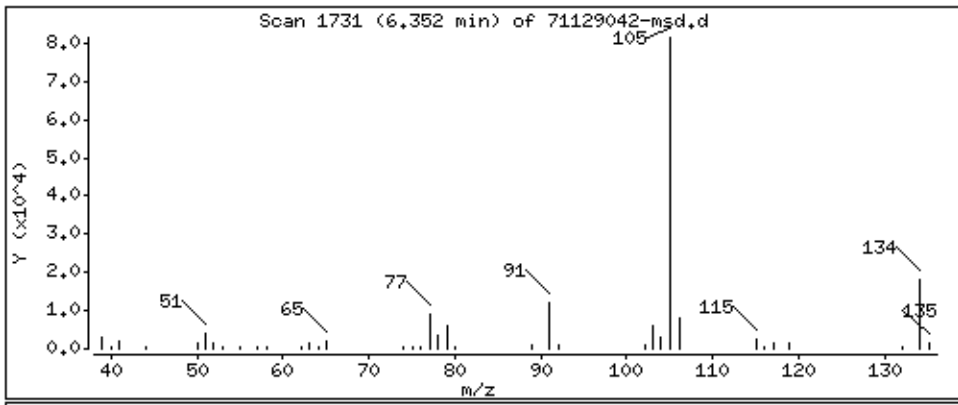
Column phase: RTX-VMS

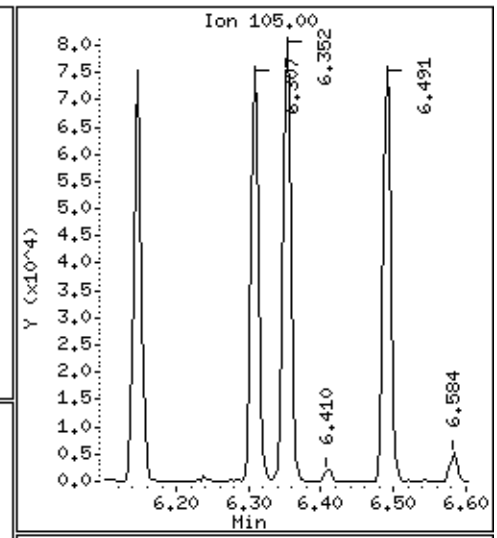
Column diameter: 0.18

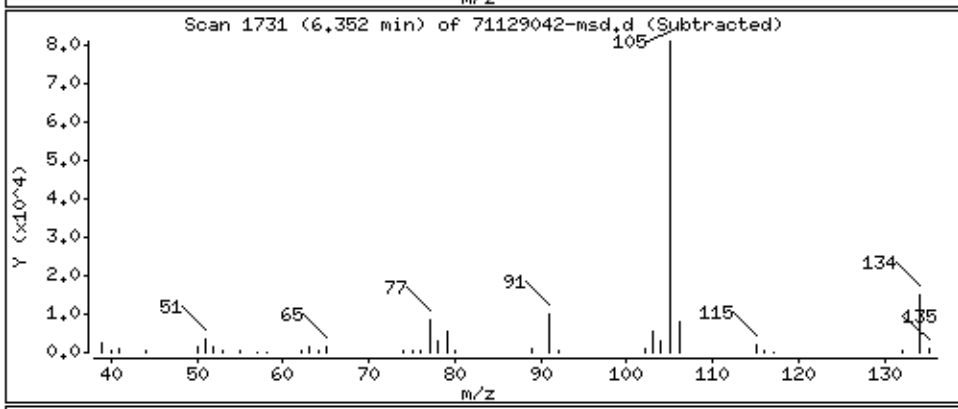
91 sec-Butylbenzene

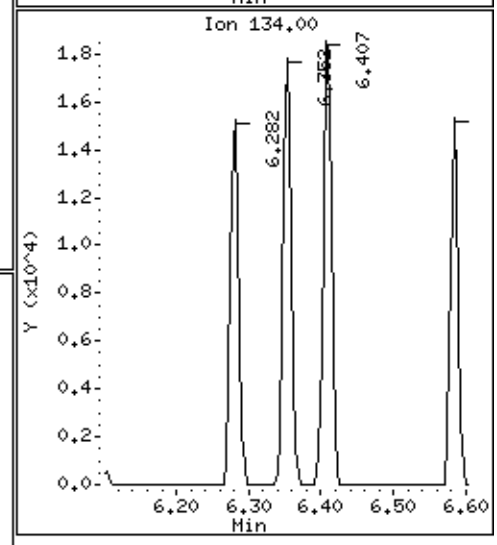
Concentration: 13.7 ug/L

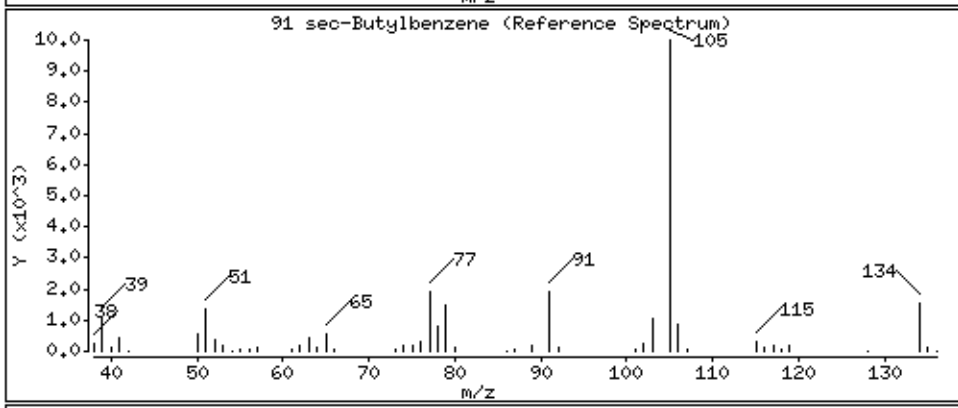
Review Code:

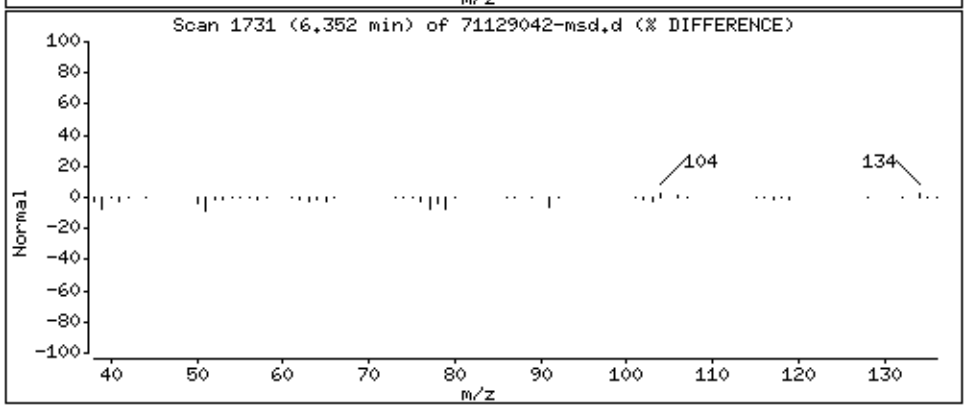












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

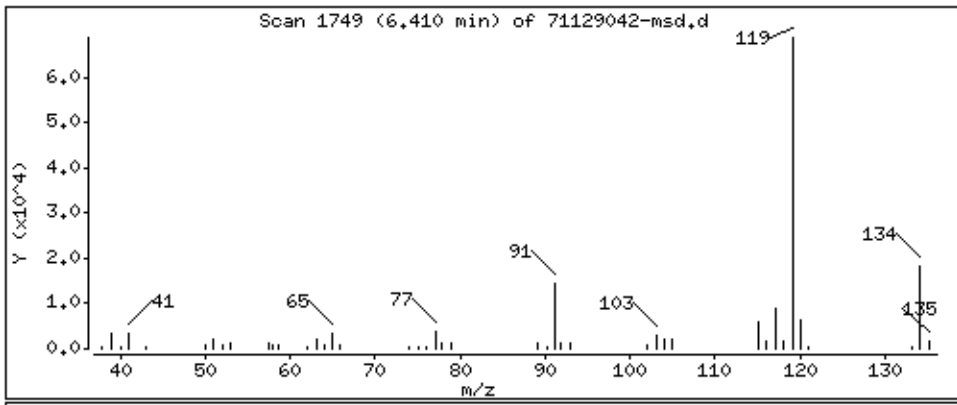
Column phase: RTX-VMS

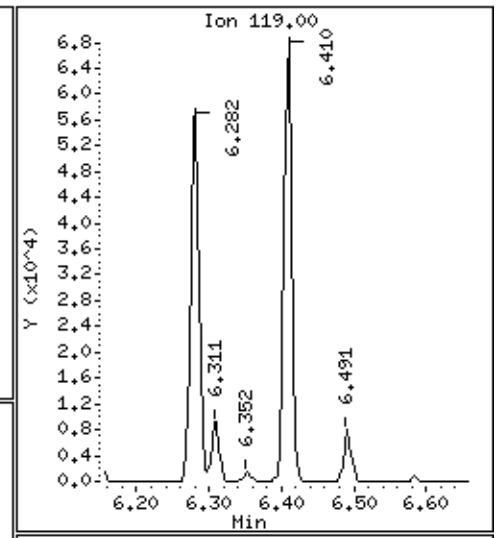
Column diameter: 0.18

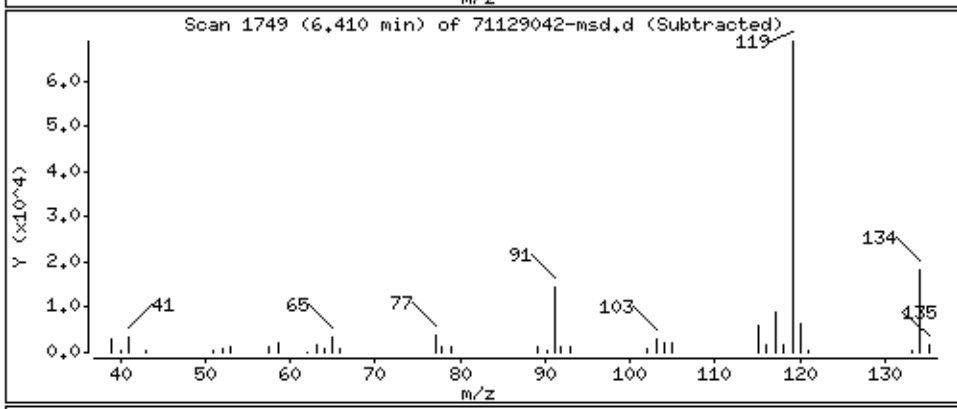
92 p-Isopropyltoluene

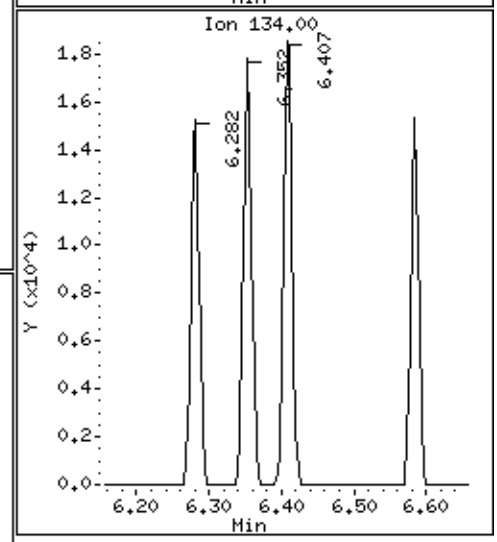
Concentration: 13.7 ug/L

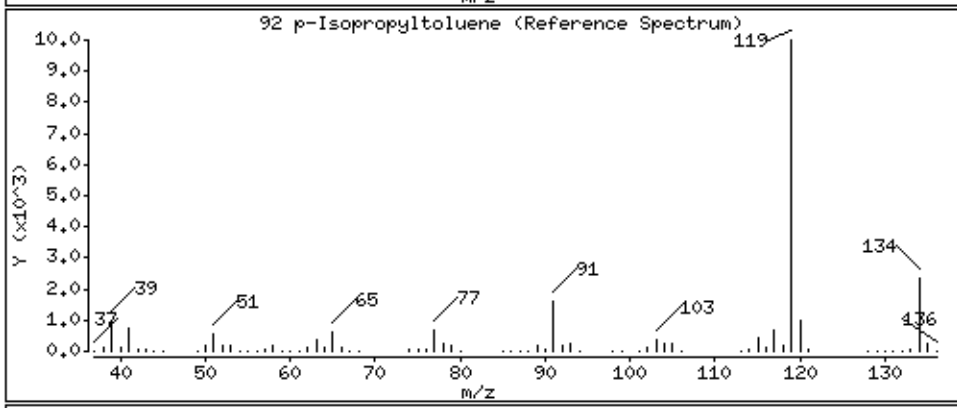
Review Code:

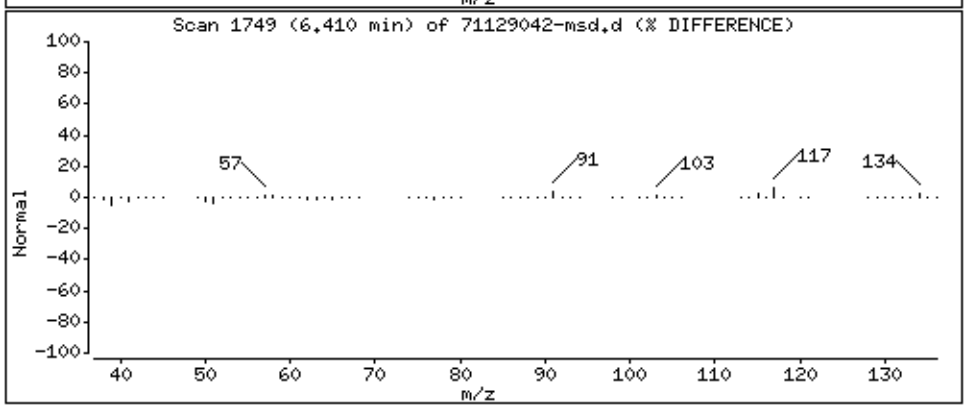












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

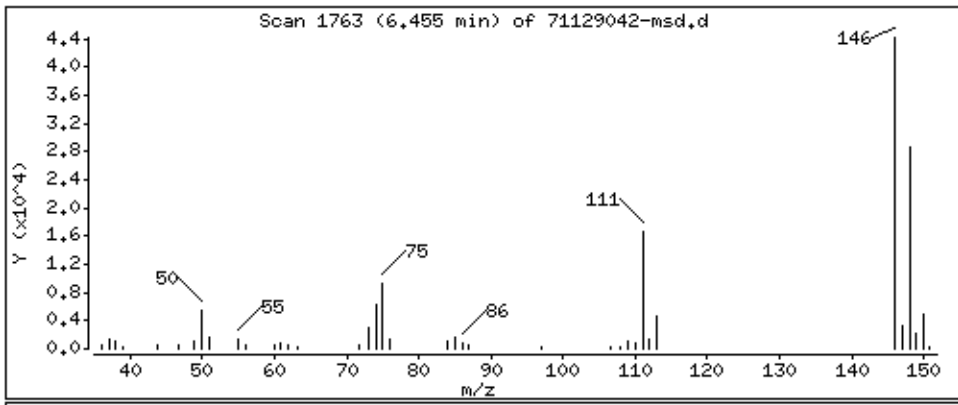
Column phase: RTX-VMS

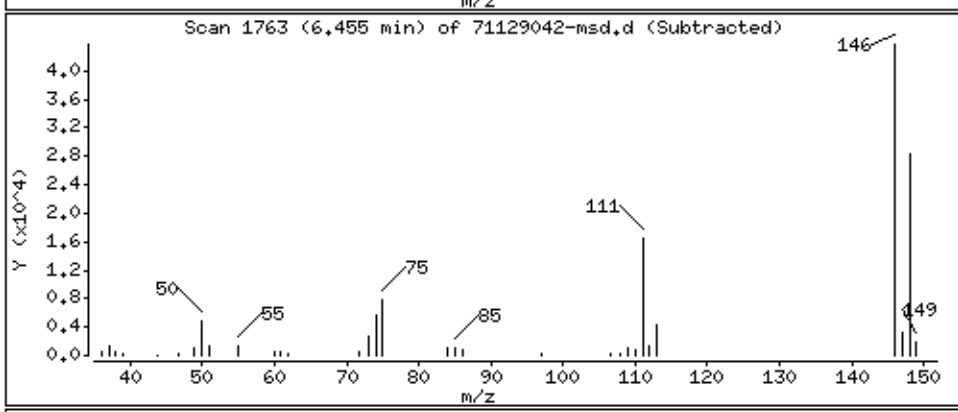
Column diameter: 0.18

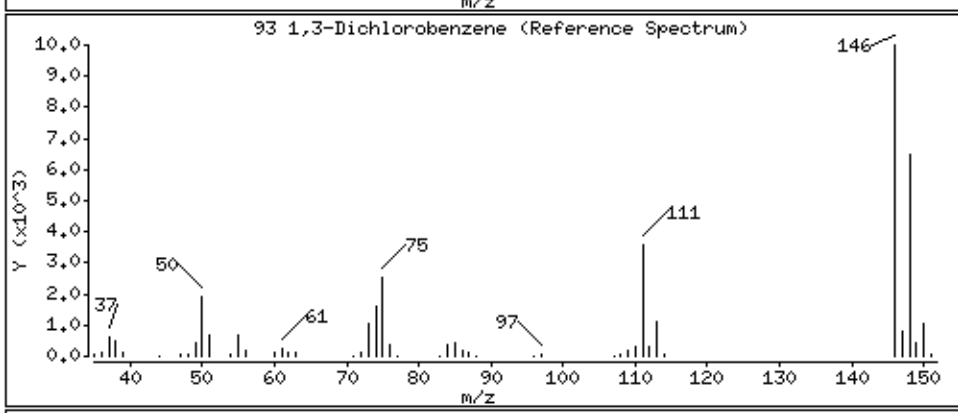
93 1,3-Dichlorobenzene

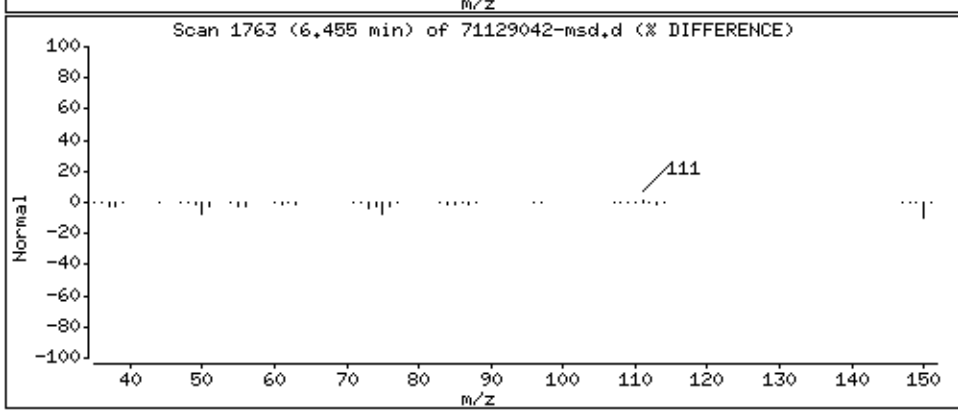
Concentration: 13.6 ug/L

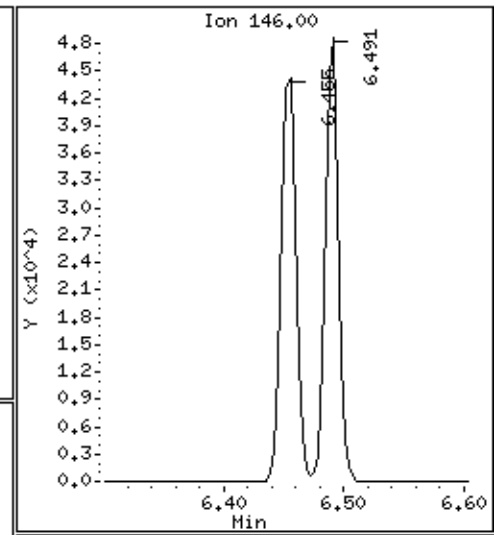
Review Code:

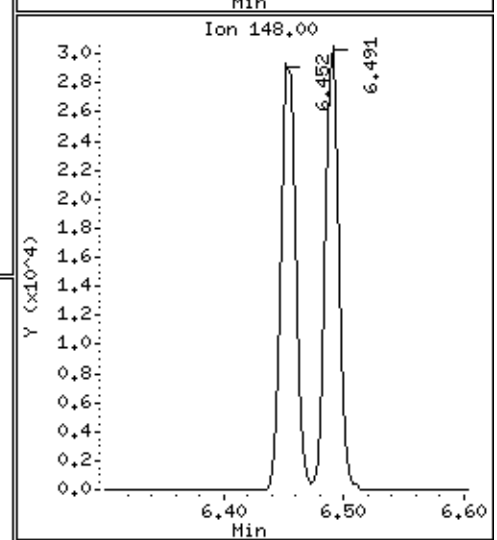


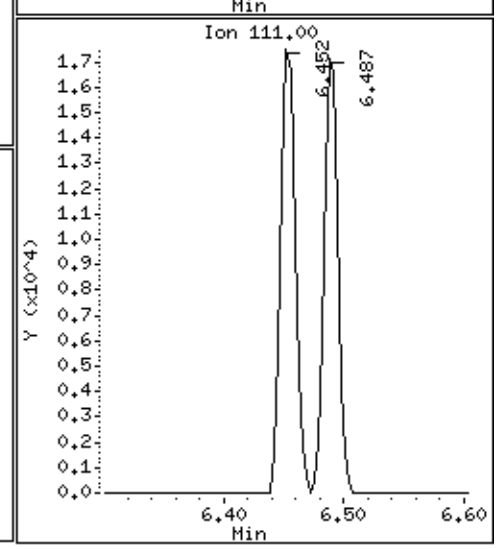












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

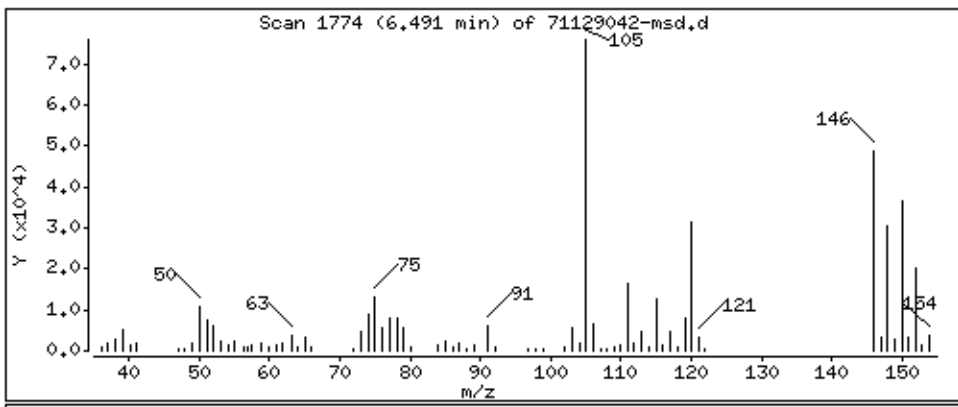
Column phase: RTX-VMS

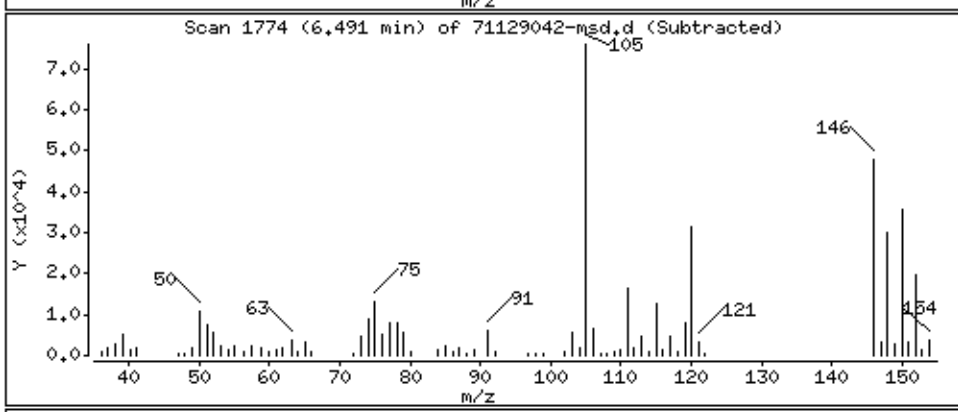
Column diameter: 0.18

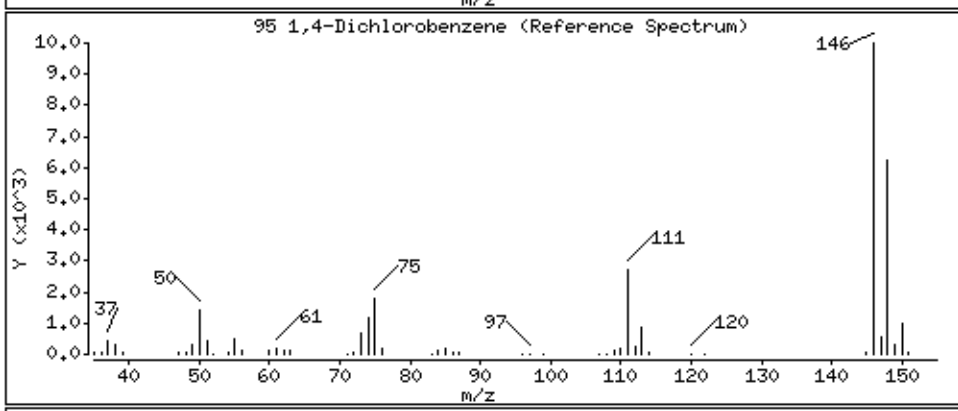
95 1,4-Dichlorobenzene

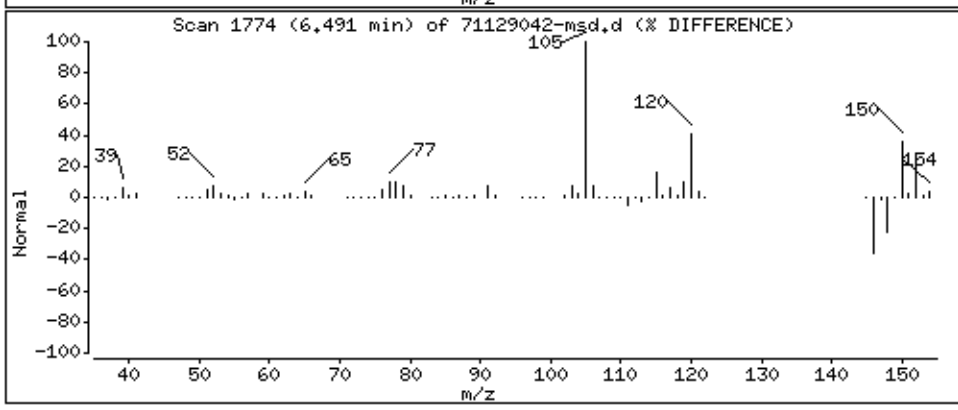
Concentration: 13.4 ug/L

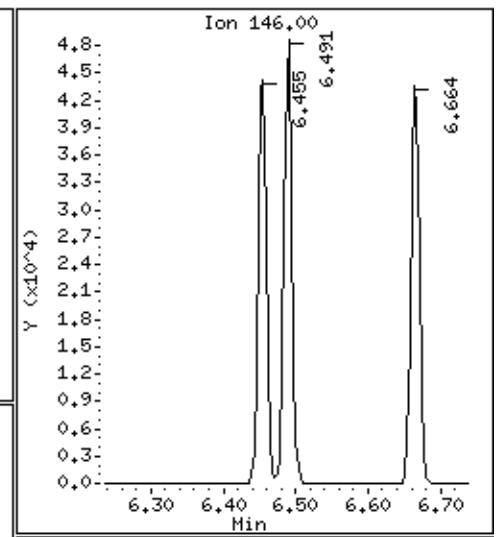
Review Code:

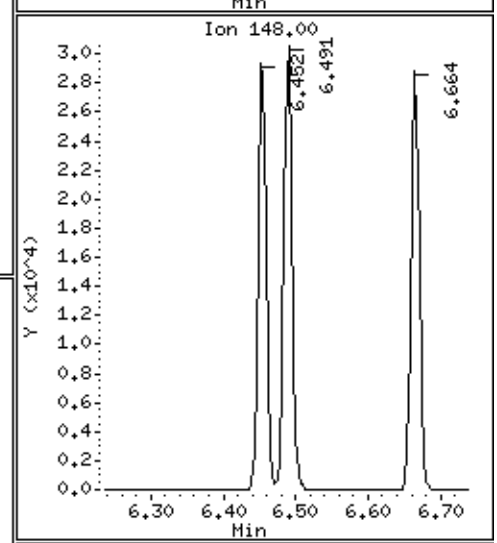


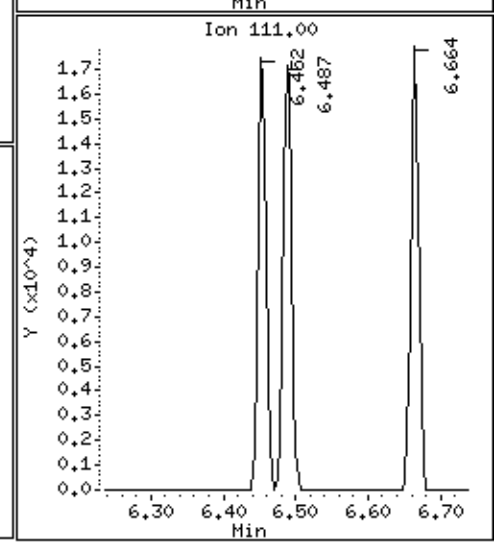












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

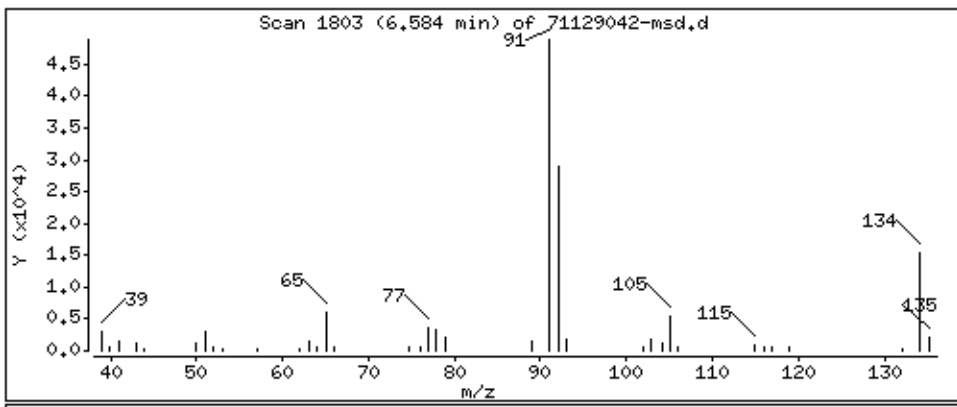
Column phase: RTX-VMS

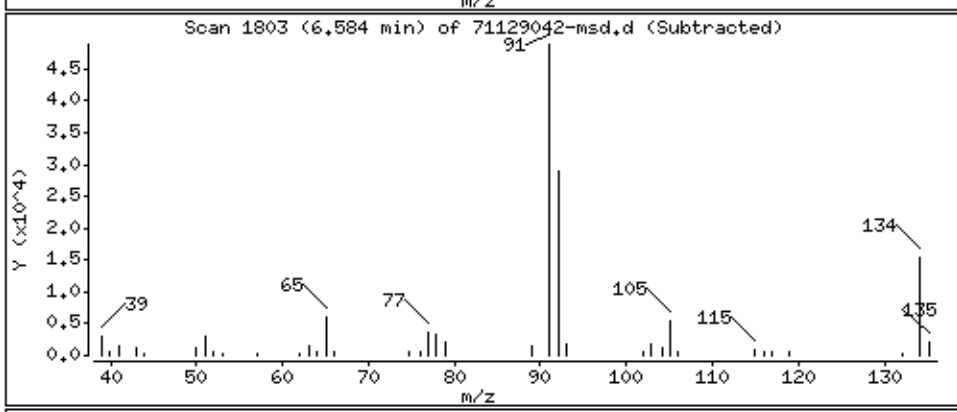
Column diameter: 0.18

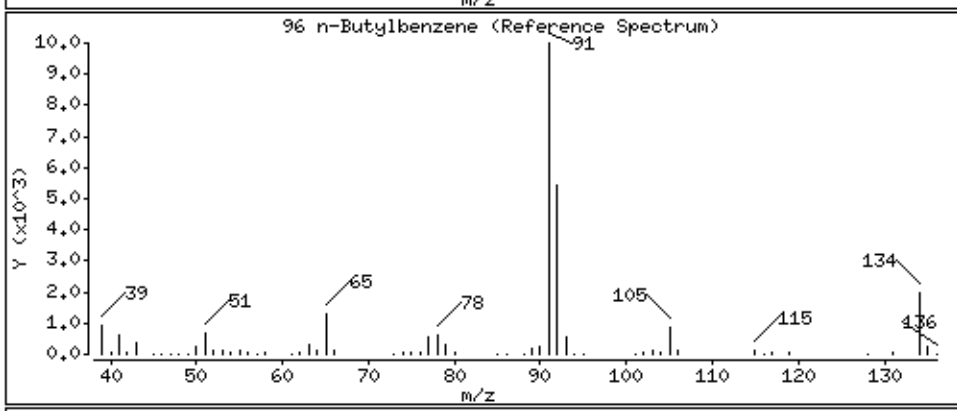
96 n-Butylbenzene

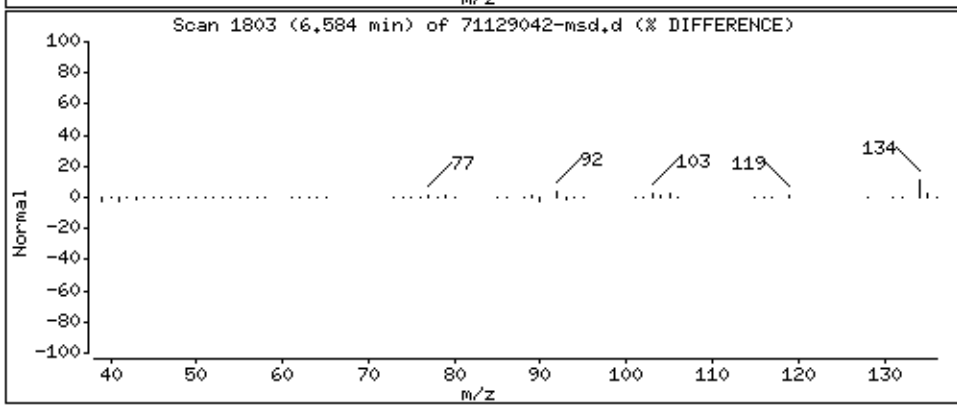
Concentration: 12.5 ug/L

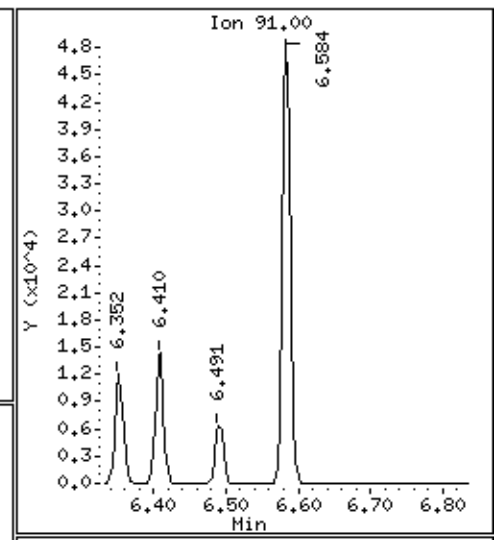
Review Code:

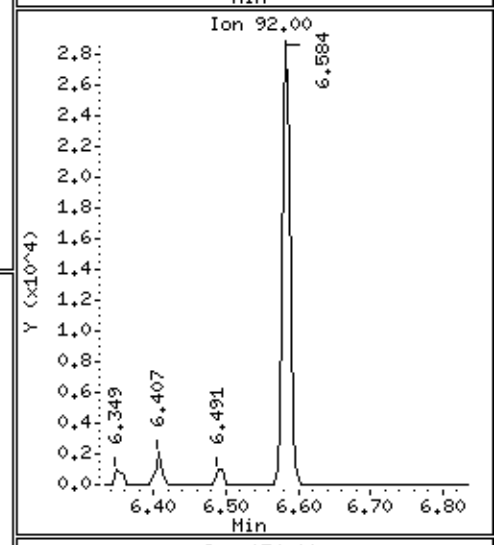


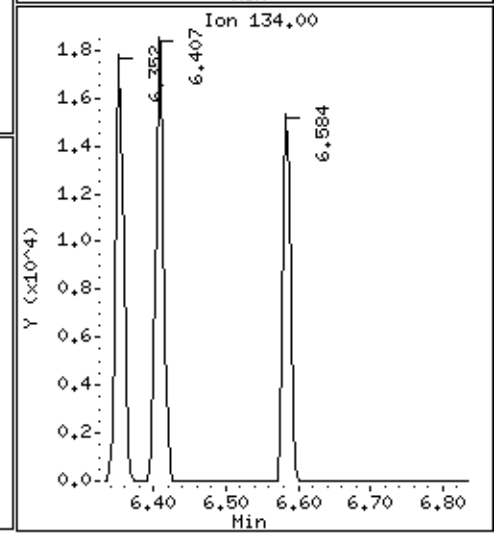












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

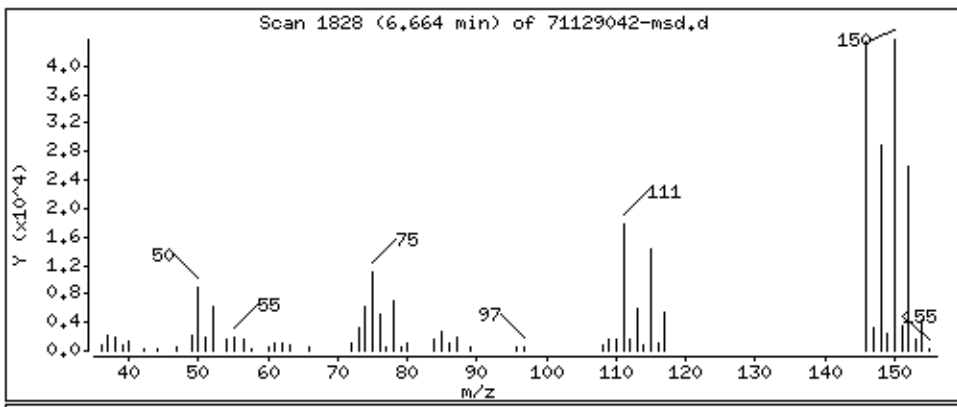
Column phase: RTX-VMS

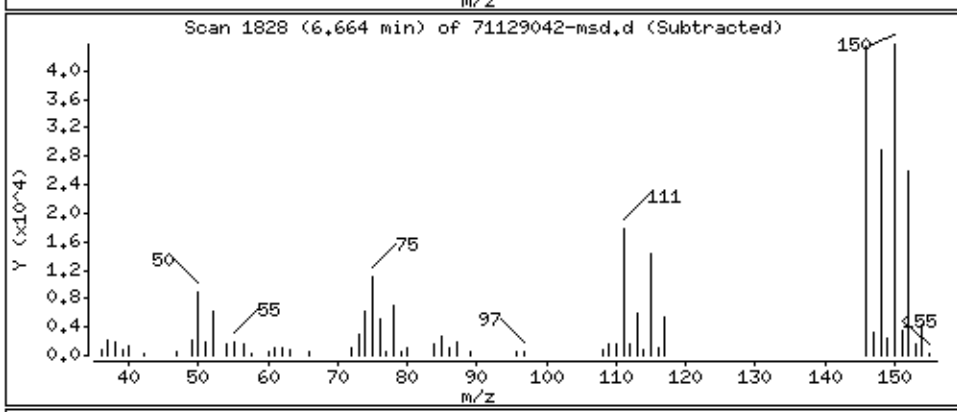
Column diameter: 0.18

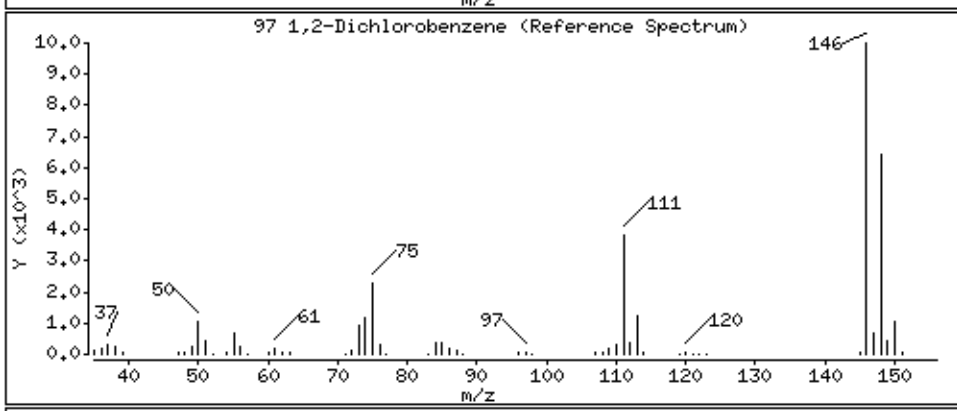
97 1,2-Dichlorobenzene

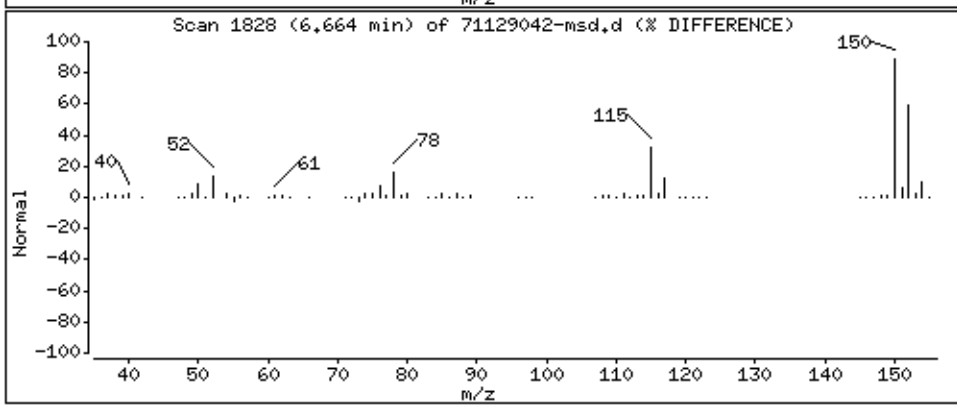
Concentration: 13.8 ug/L

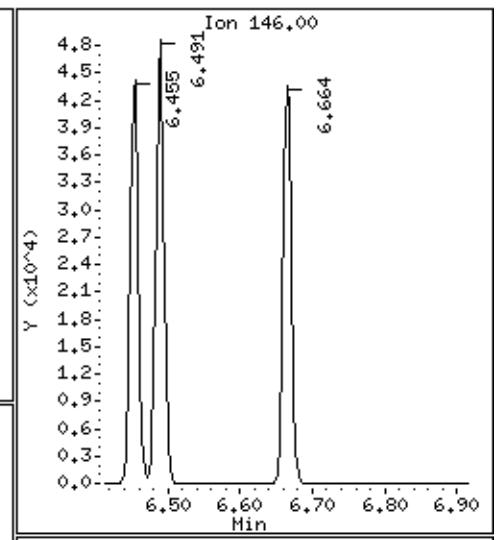
Review Code:

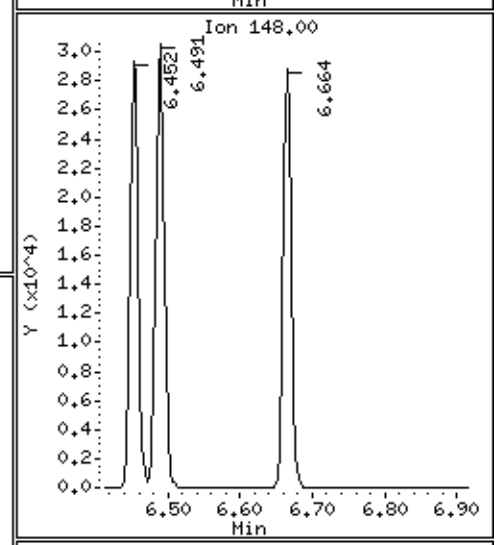


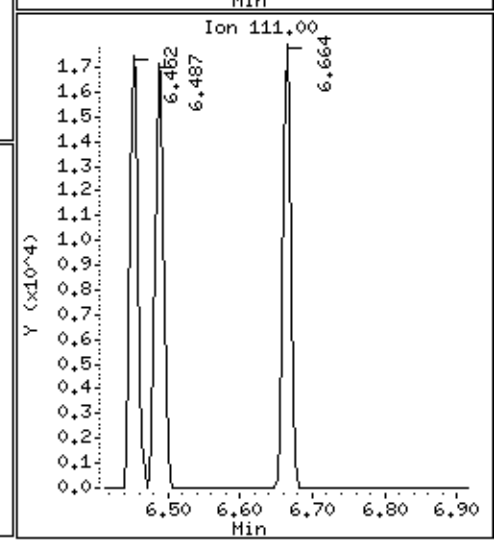












Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b\71129042-msd.d

Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

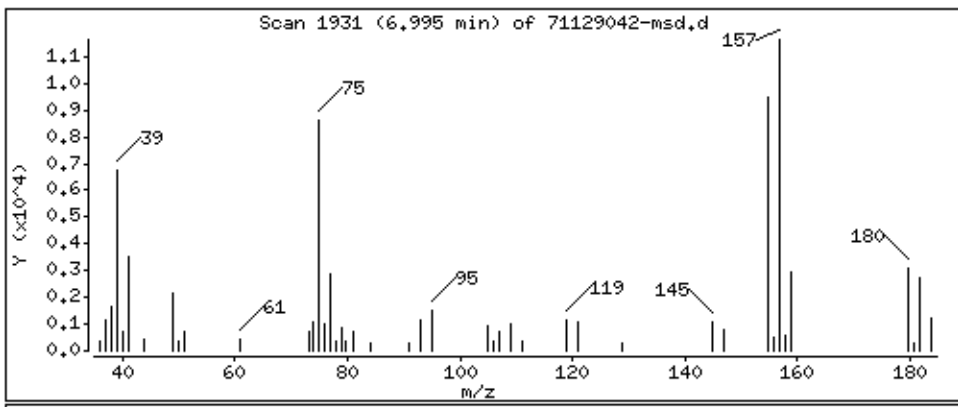
Column phase: RTX-VMS

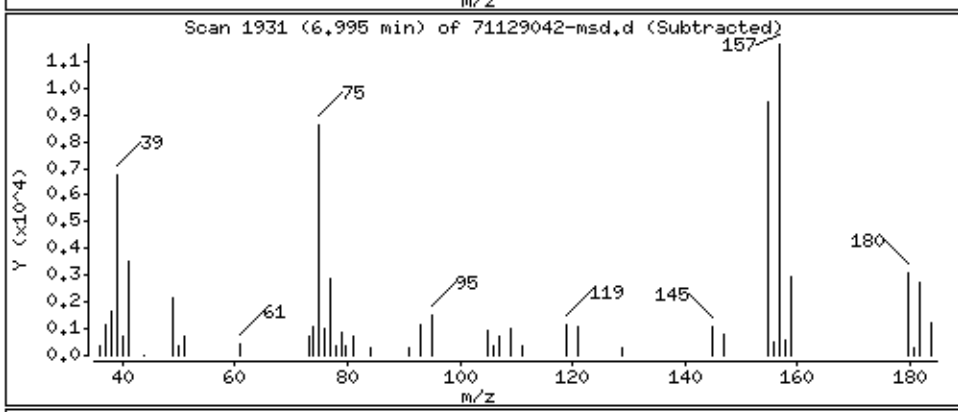
Column diameter: 0.18

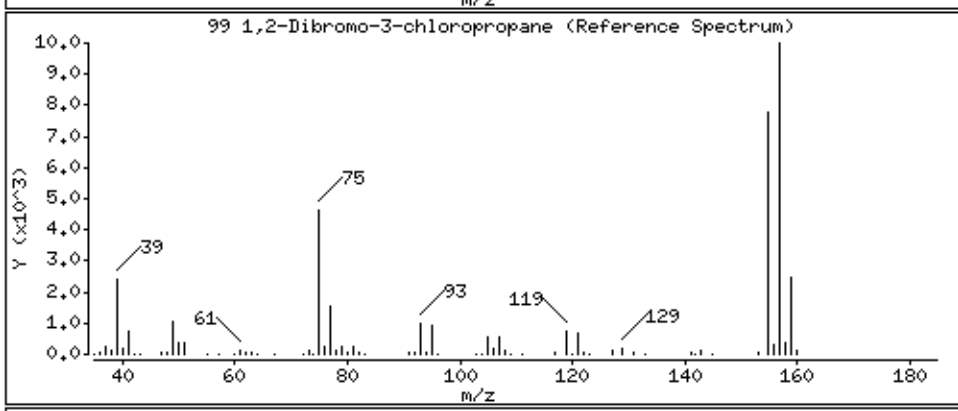
99 1,2-Dibromo-3-chloropropane

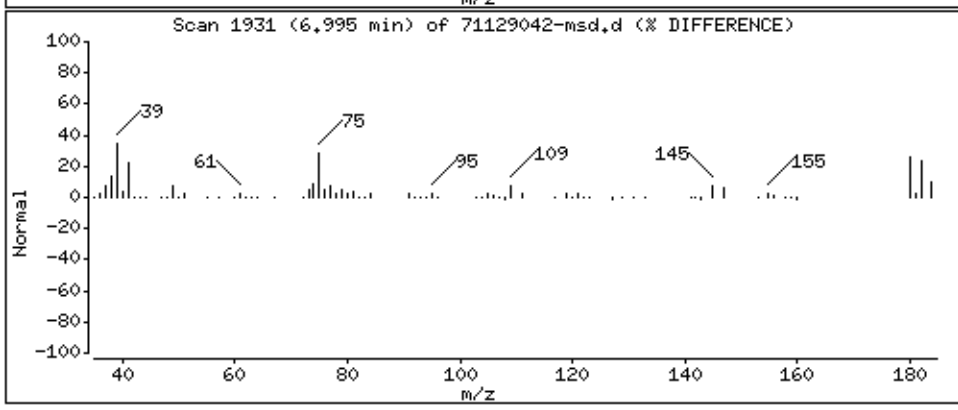
Concentration: 10.9 ug/L

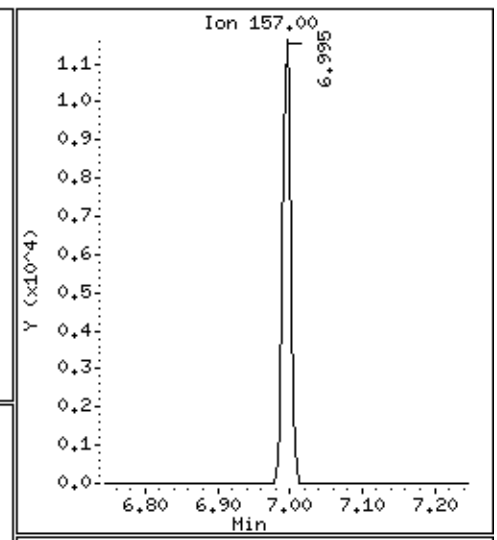
Review Code:

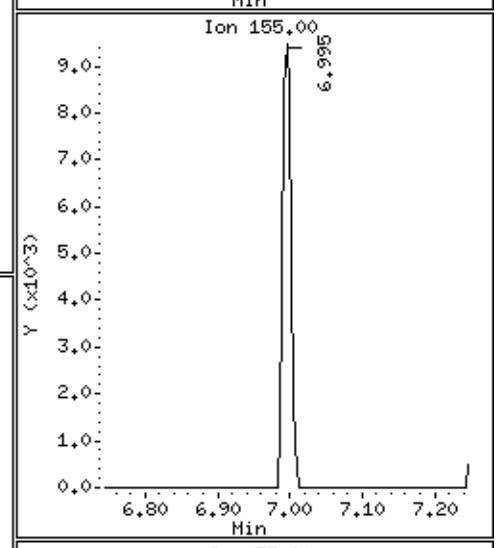


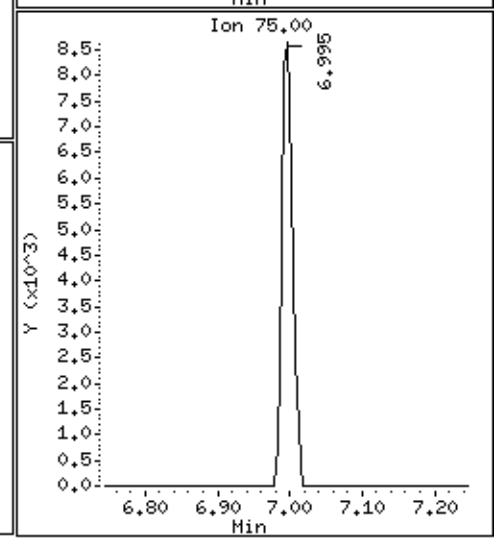












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

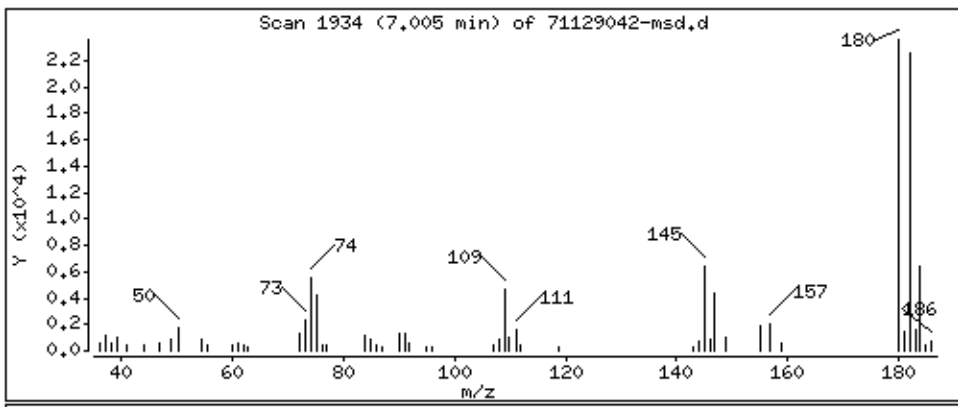
Column phase: RTX-VMS

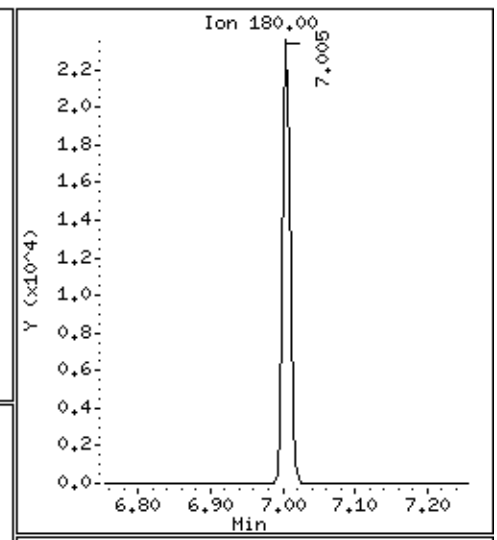
Column diameter: 0.18

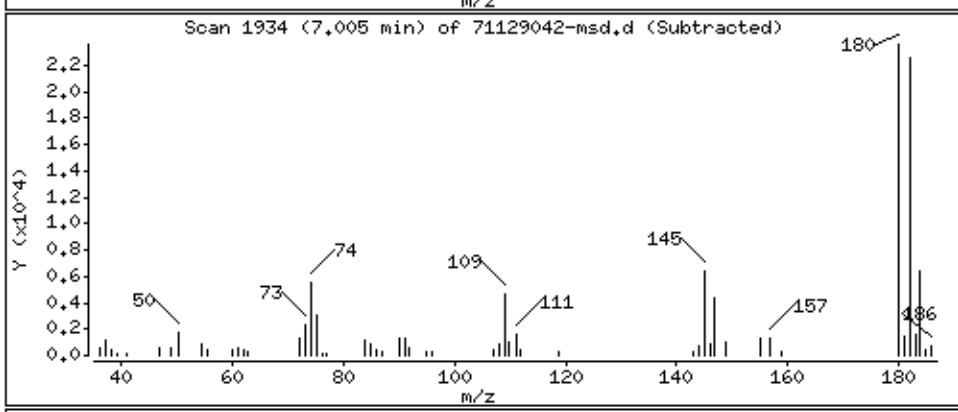
103 1,3,5-Trichlorobenzene

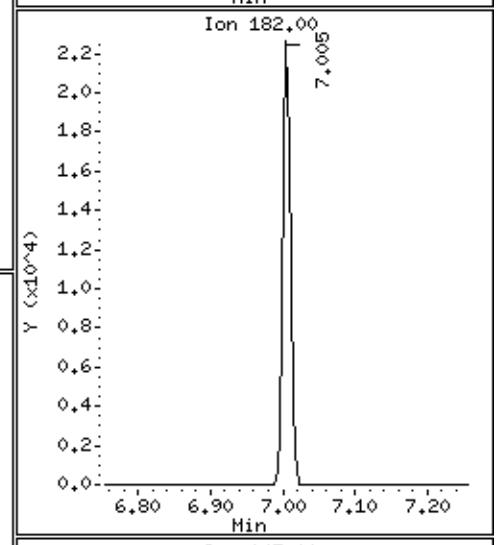
Concentration: 12.5 ug/L

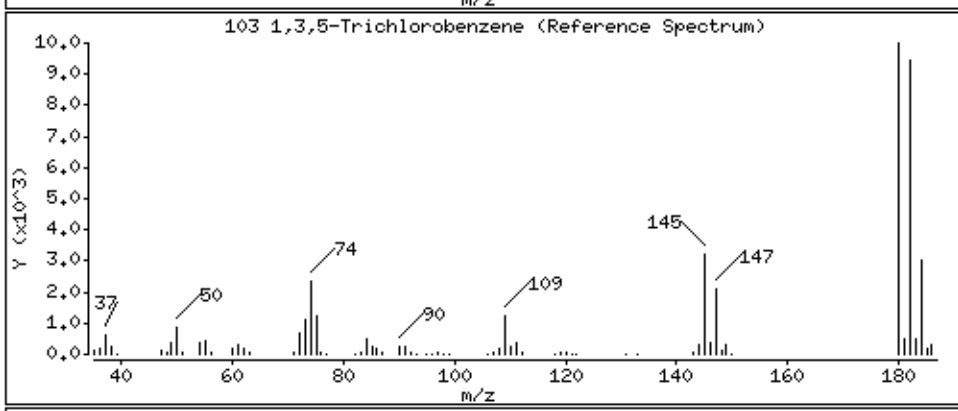
Review Code:

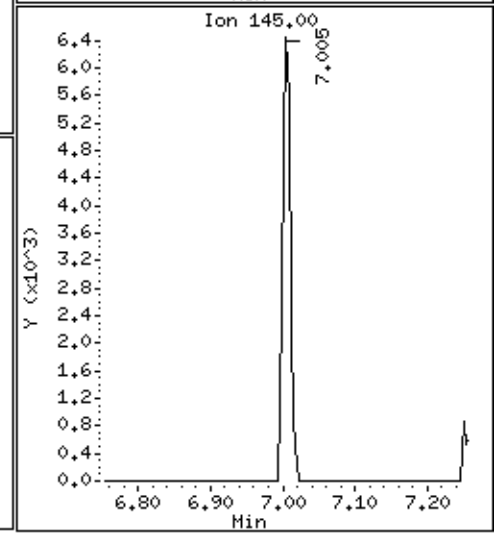


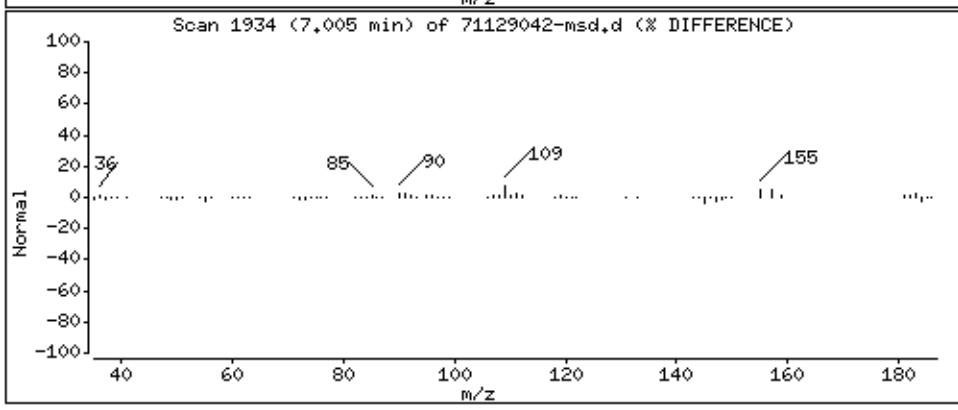












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

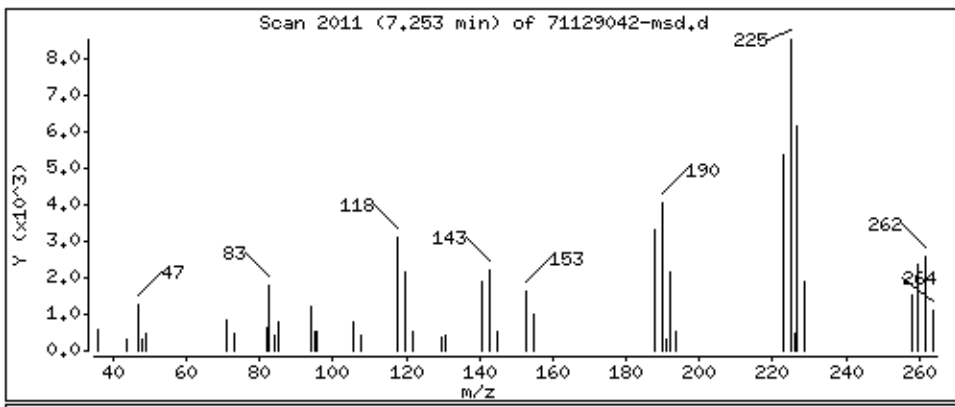
Column phase: RTX-VMS

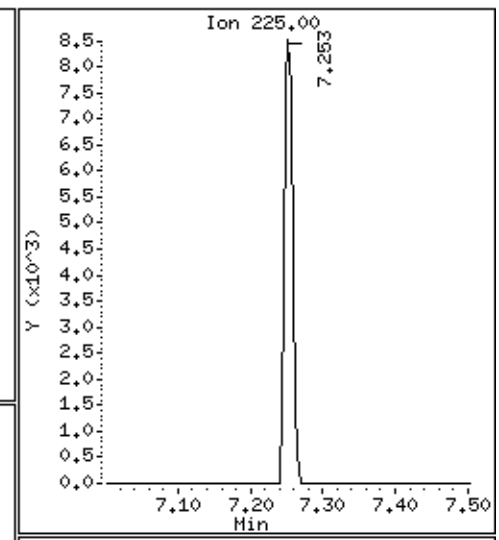
Column diameter: 0.18

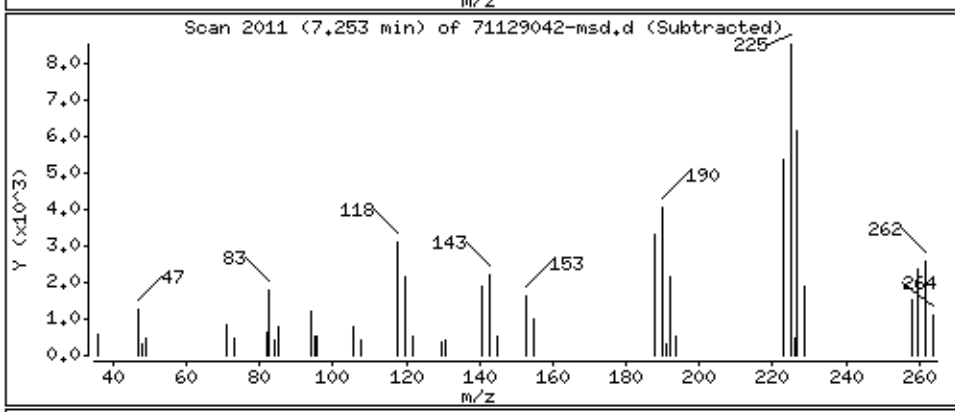
100 Hexachloro-1,3-butadiene

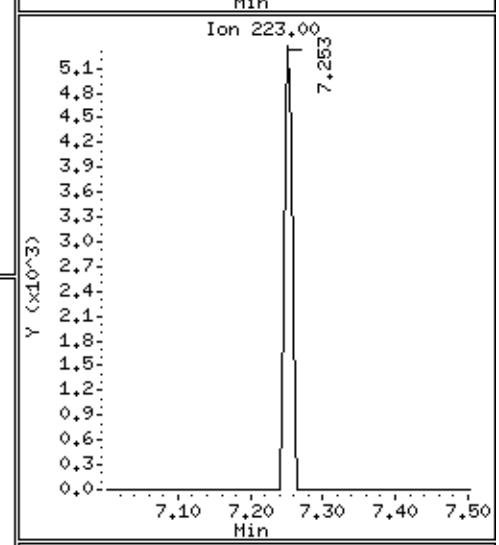
Concentration: 11.0 ug/L

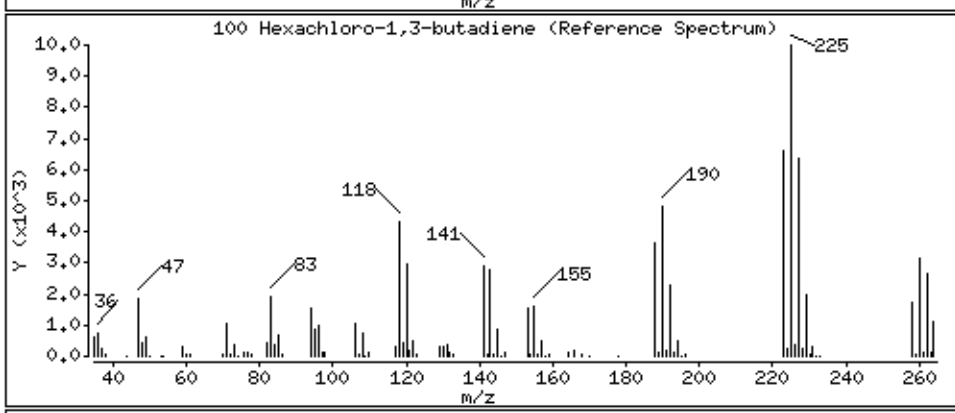
Review Code:

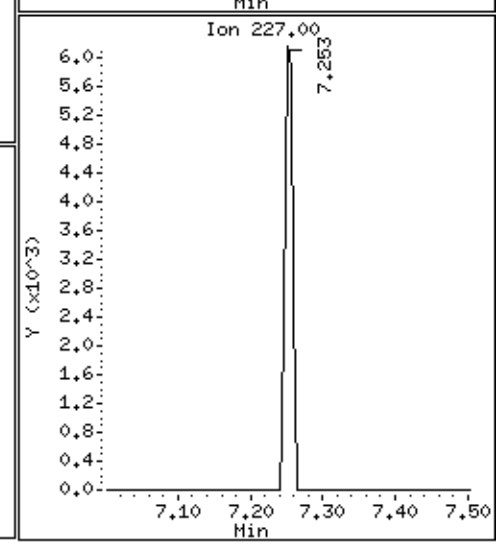


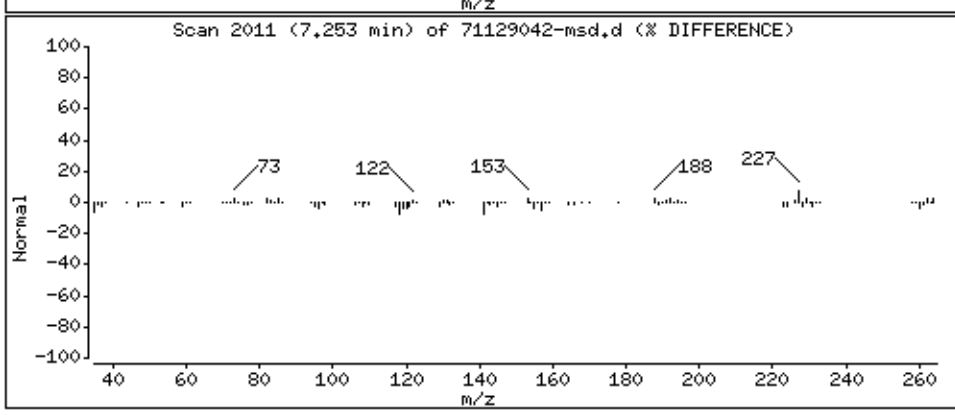












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

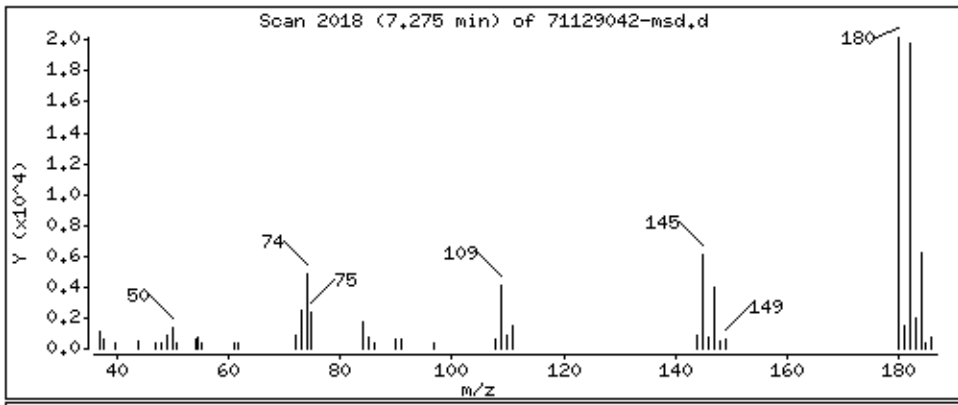
Column phase: RTX-VMS

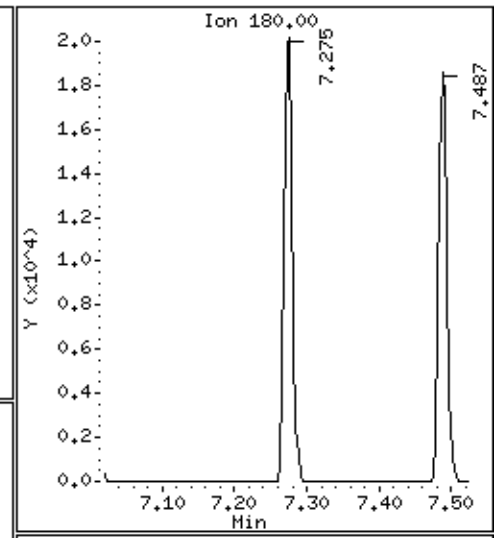
Column diameter: 0.18

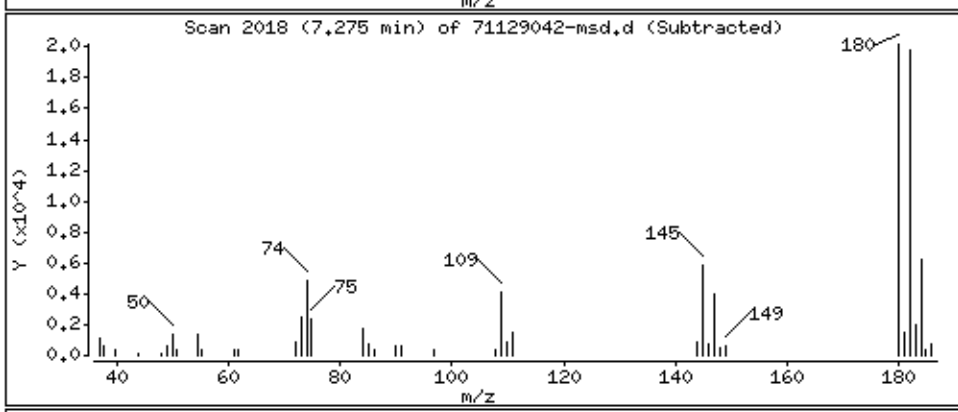
101 1,2,4-Trichlorobenzene

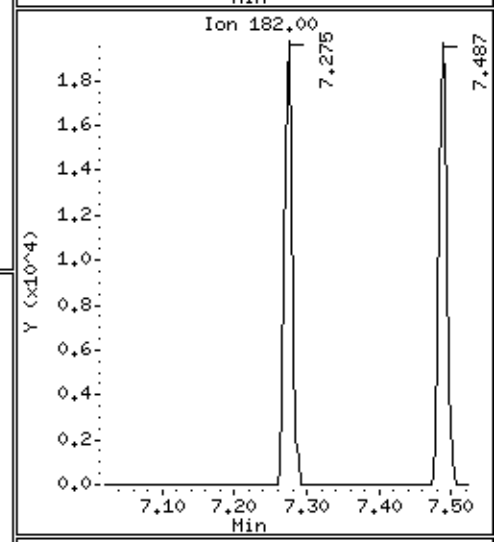
Concentration: 12.6 ug/L

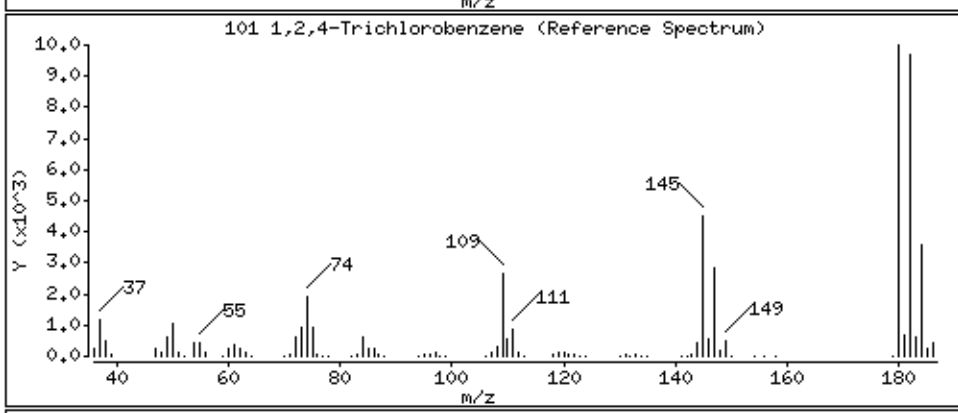
Review Code:

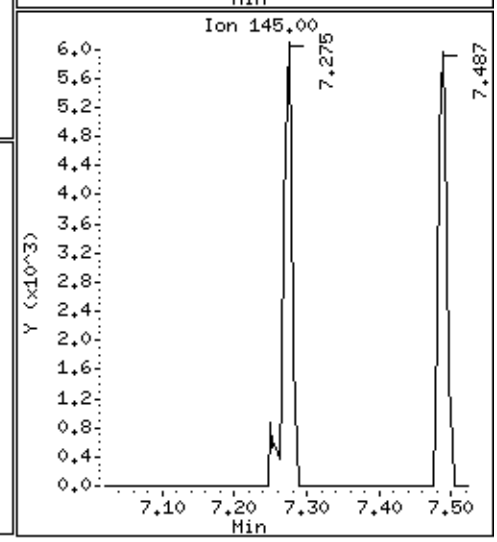


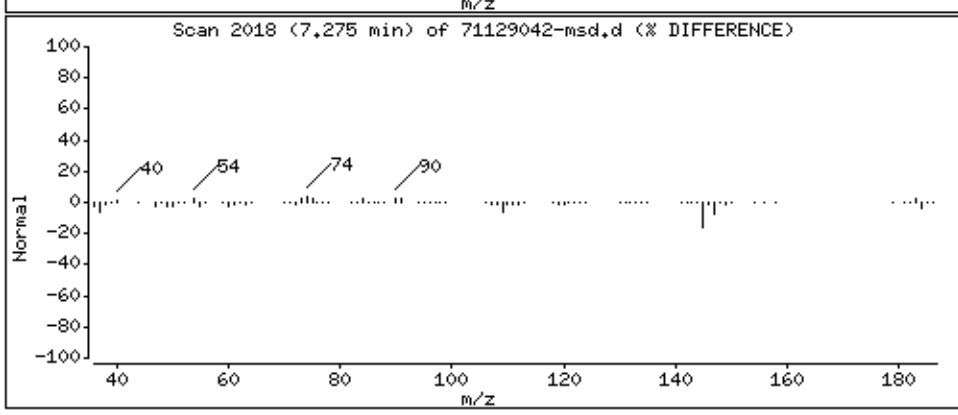












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

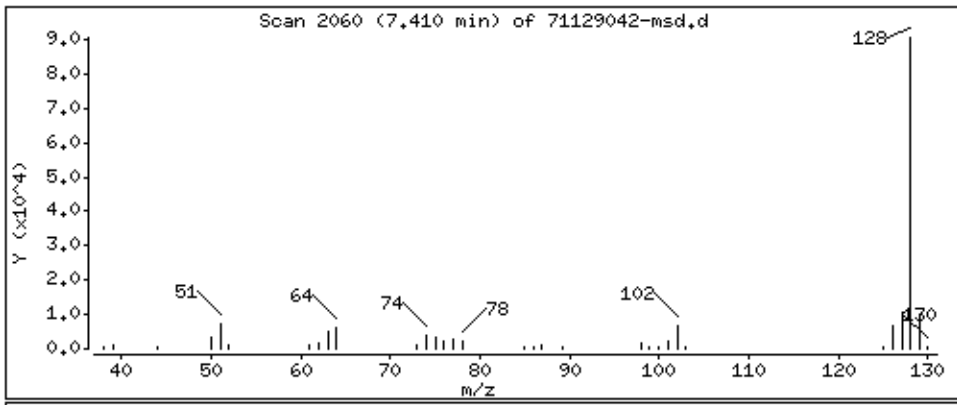
Column phase: RTX-VMS

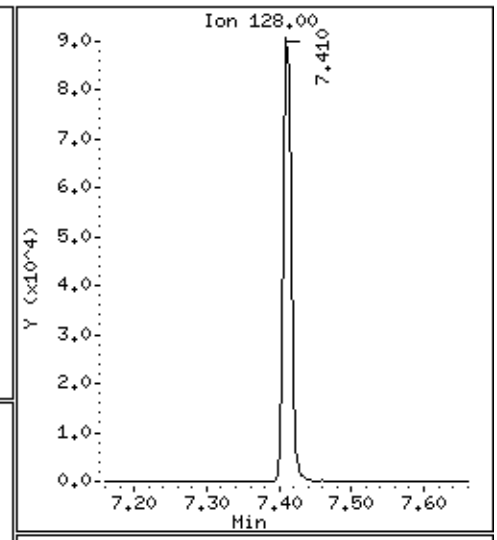
Column diameter: 0.18

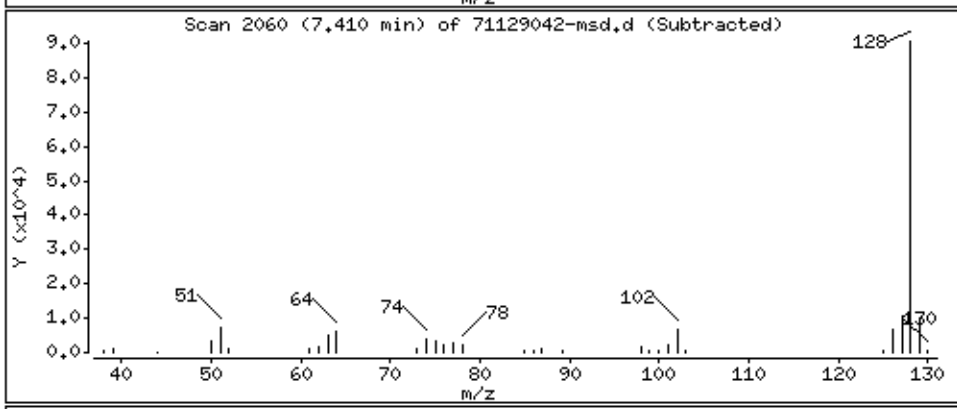
102 Naphthalene

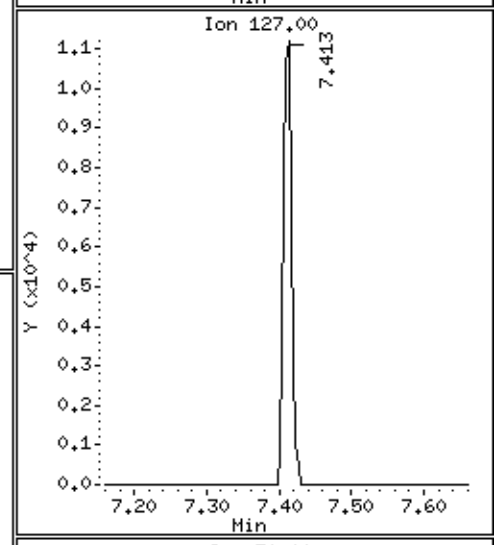
Concentration: 12.4 ug/L

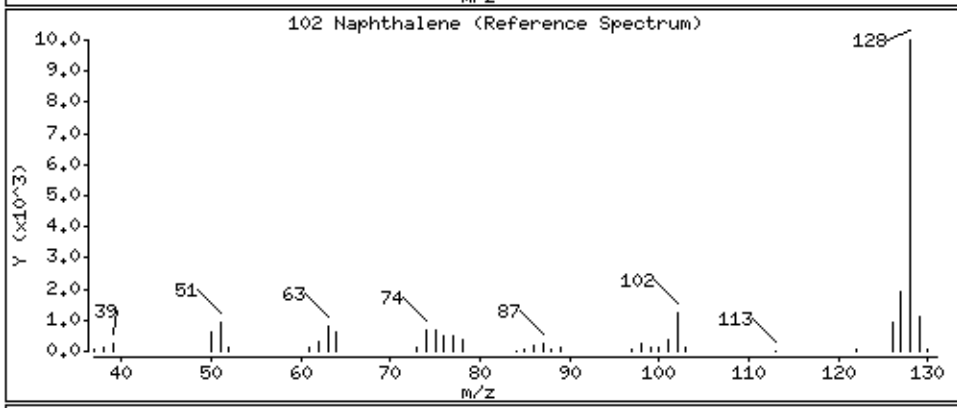
Review Code:

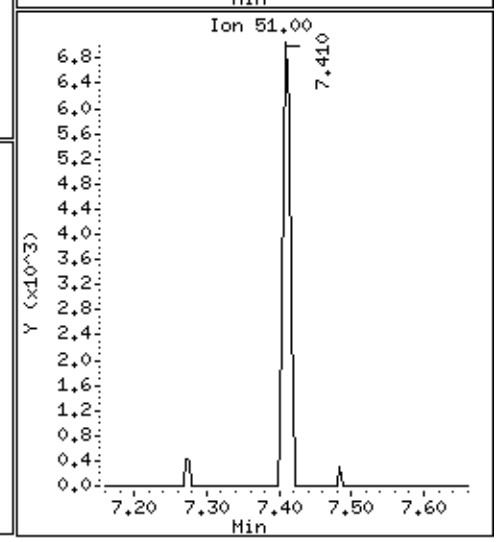


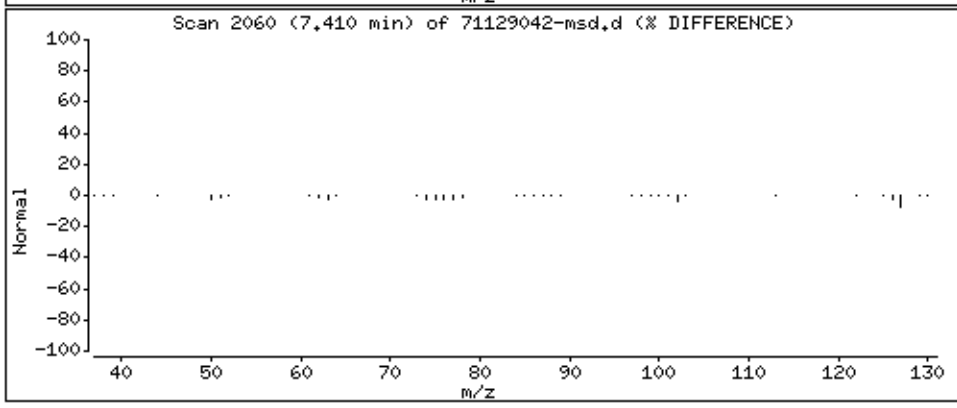












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

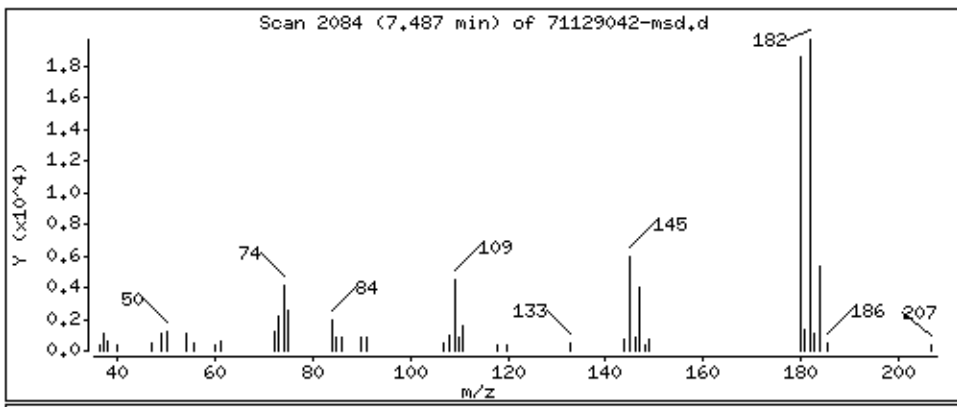
Column phase: RTX-VMS

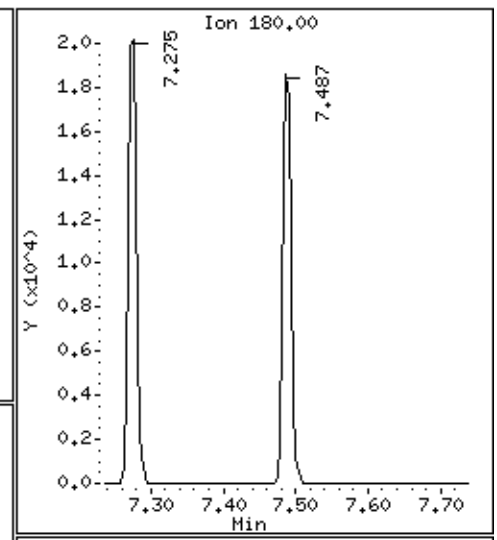
Column diameter: 0.18

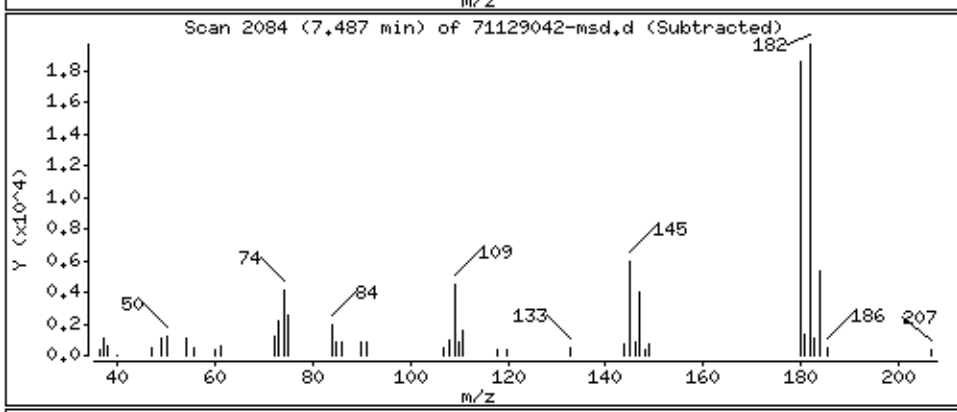
104 1,2,3-Trichlorobenzene

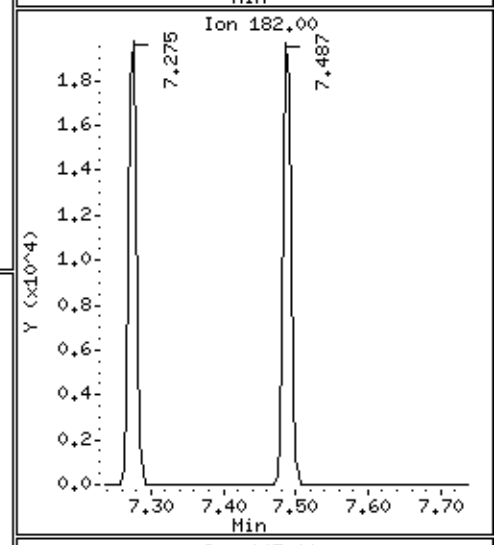
Concentration: 11.9 ug/L

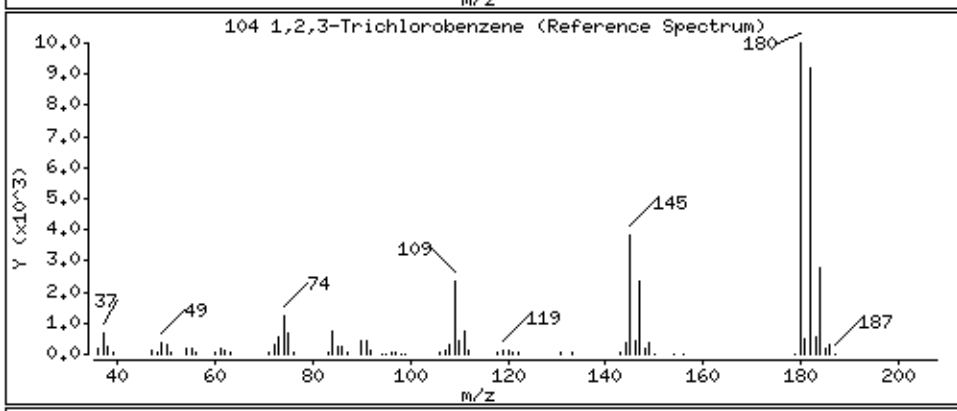
Review Code:

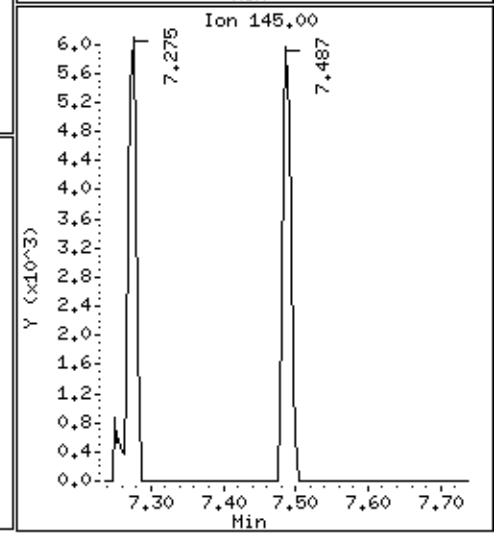


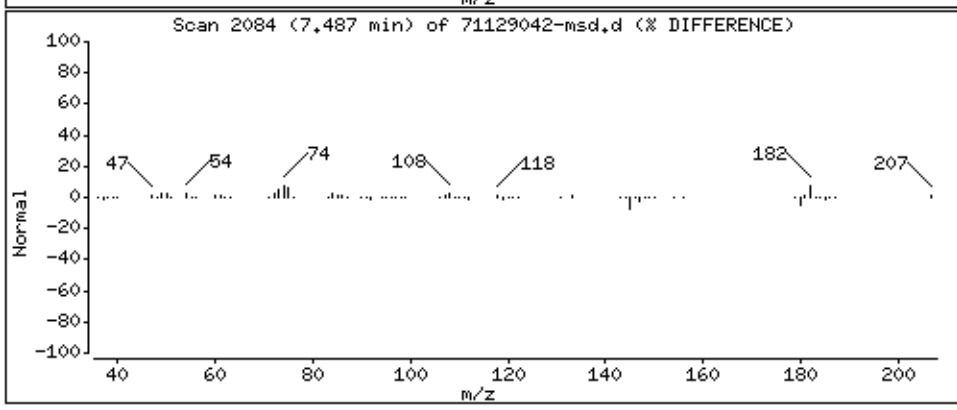












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Date : 29-NOV-2019 16:37

Client ID: MW-04MSD

Instrument: 30mv7b.i

Sample Info: 1811548

Purge Volume: 5.0

Operator: LEL

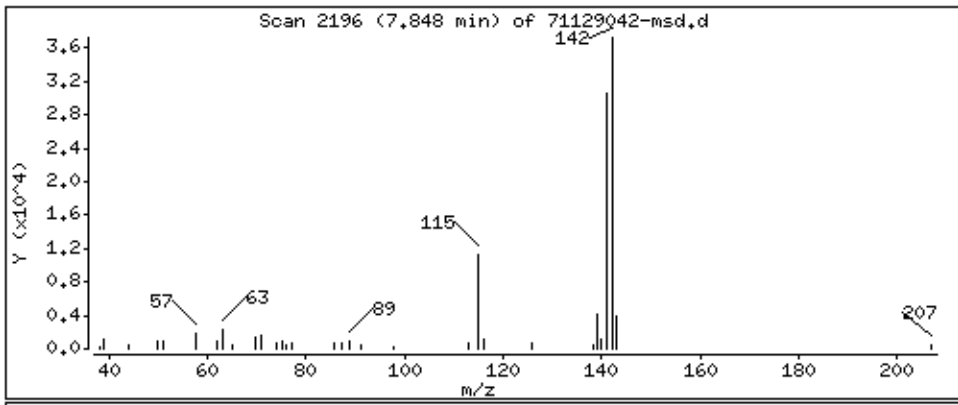
Column phase: RTX-VMS

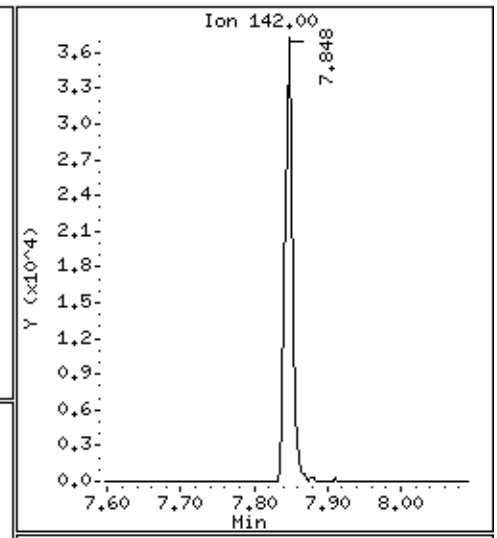
Column diameter: 0.18

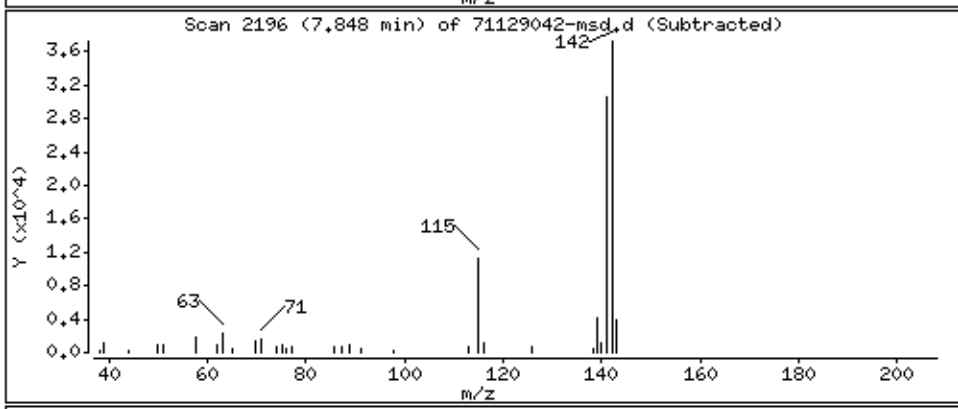
105 2-Methylnaphthalene

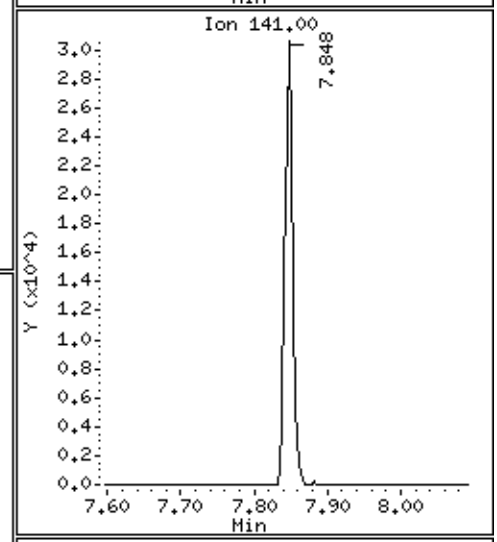
Concentration: 11.9 ug/L

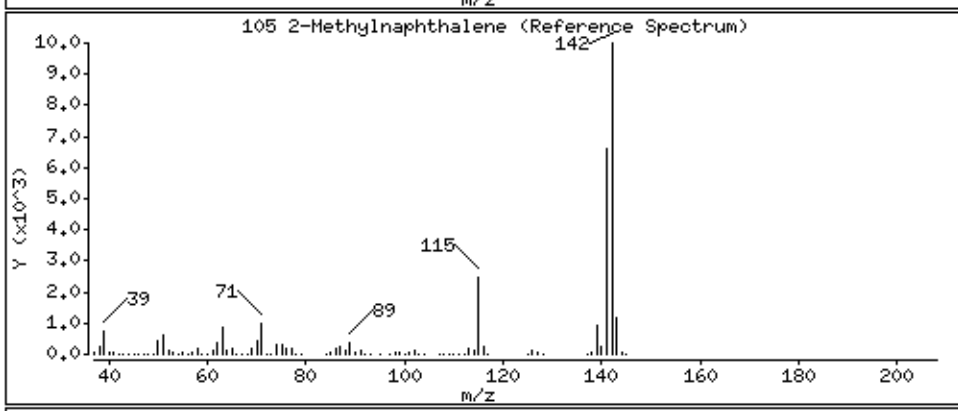
Review Code:

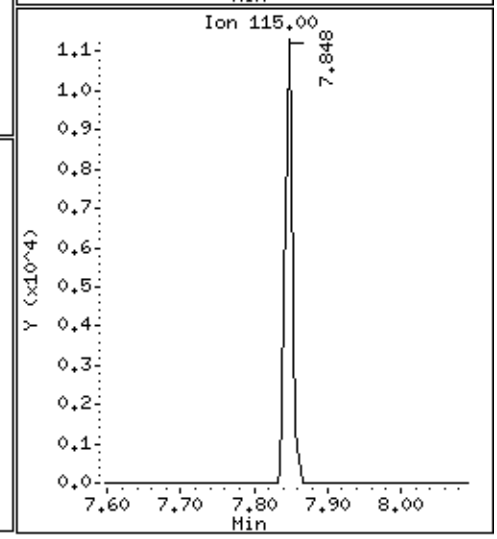


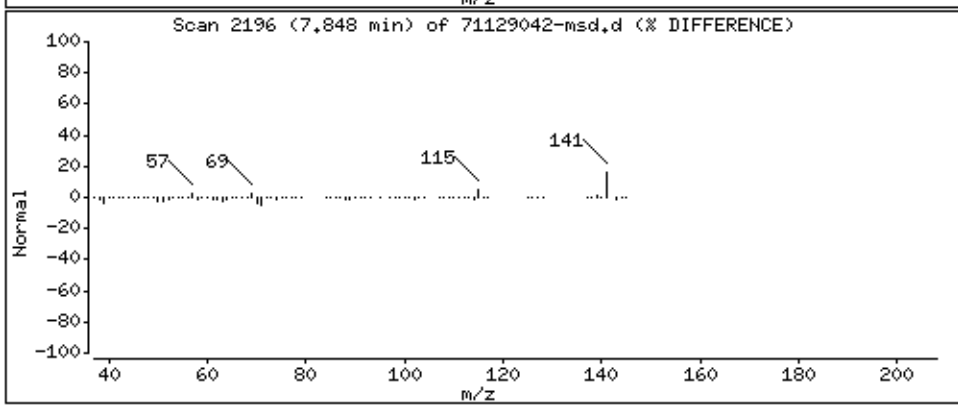






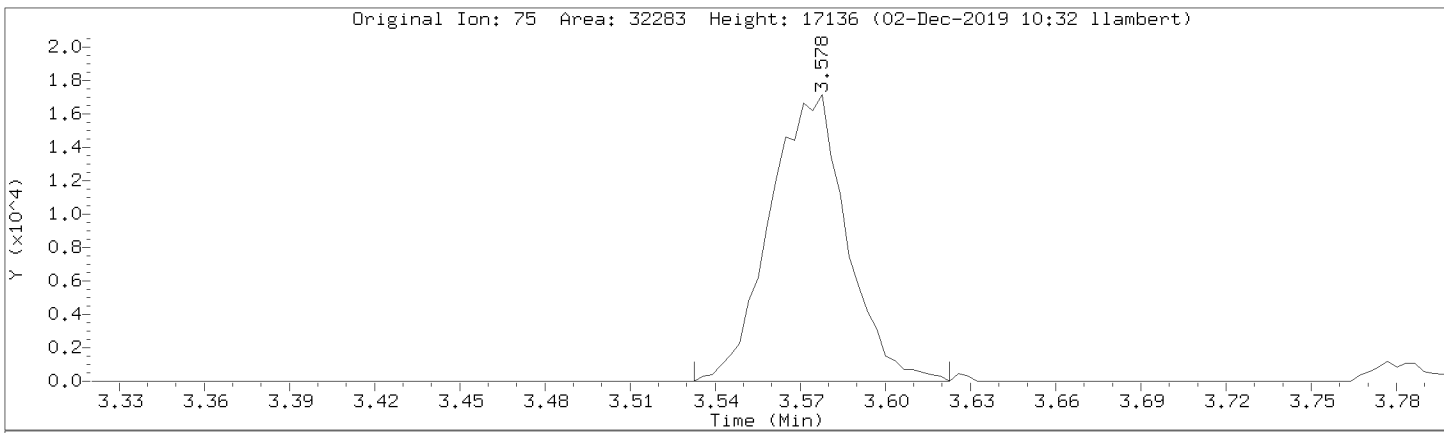


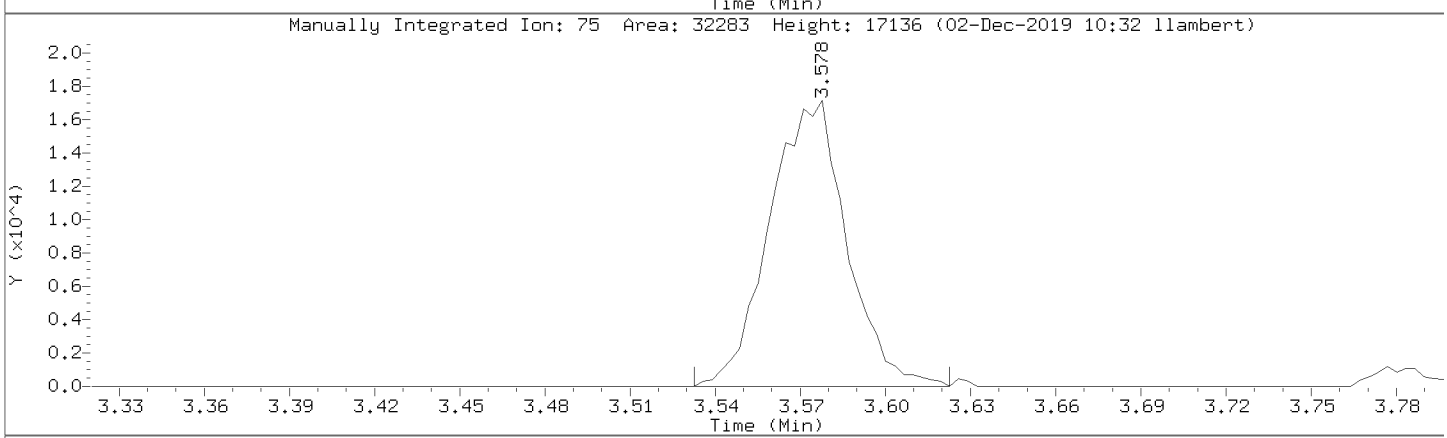


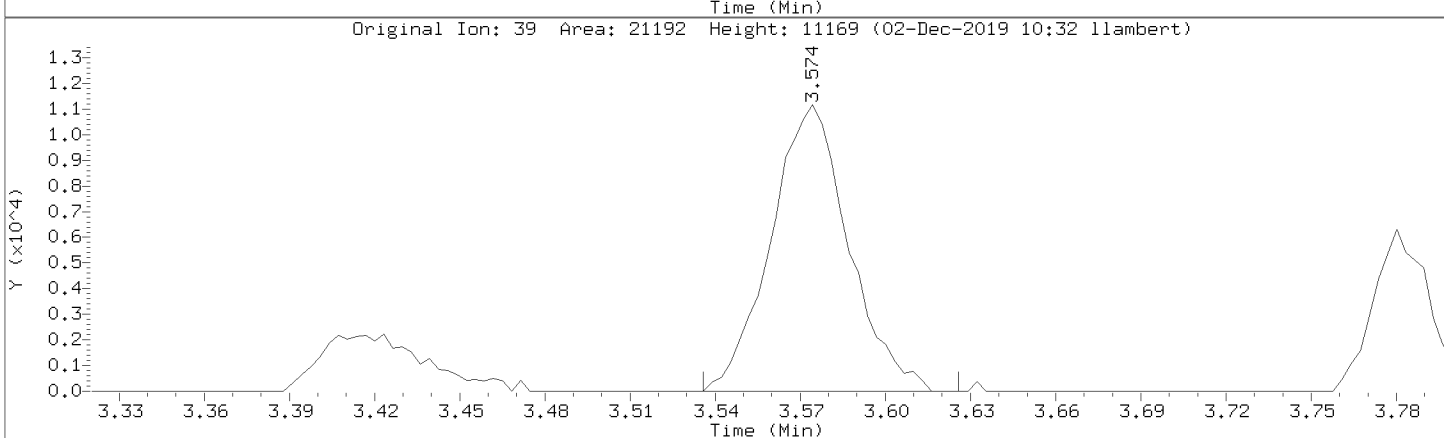


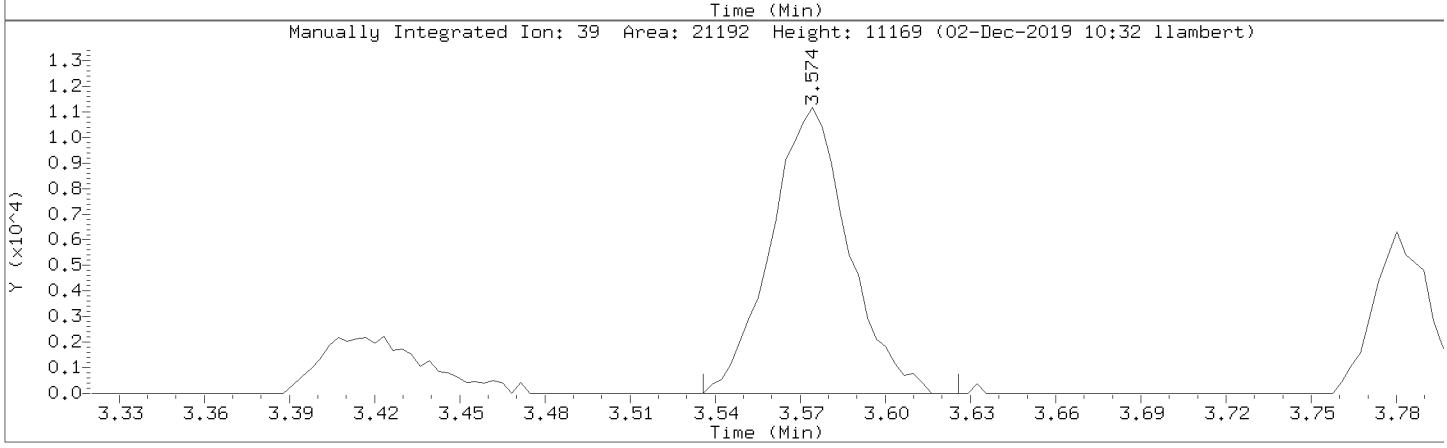
Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042-msd.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 1811548

Compound: 1,1-Dichloropropene Review Code: LT
CAS Number: 563-58-6

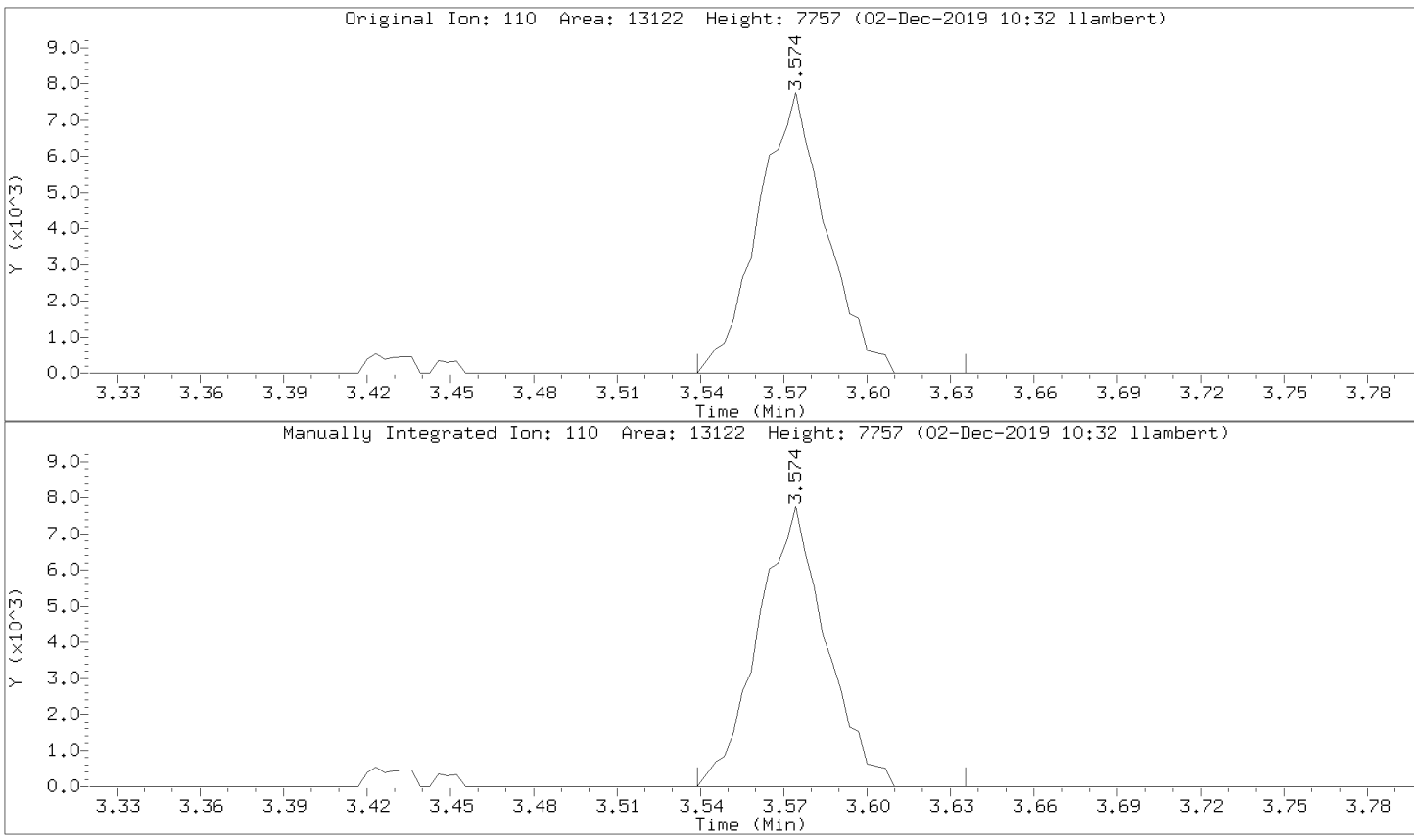






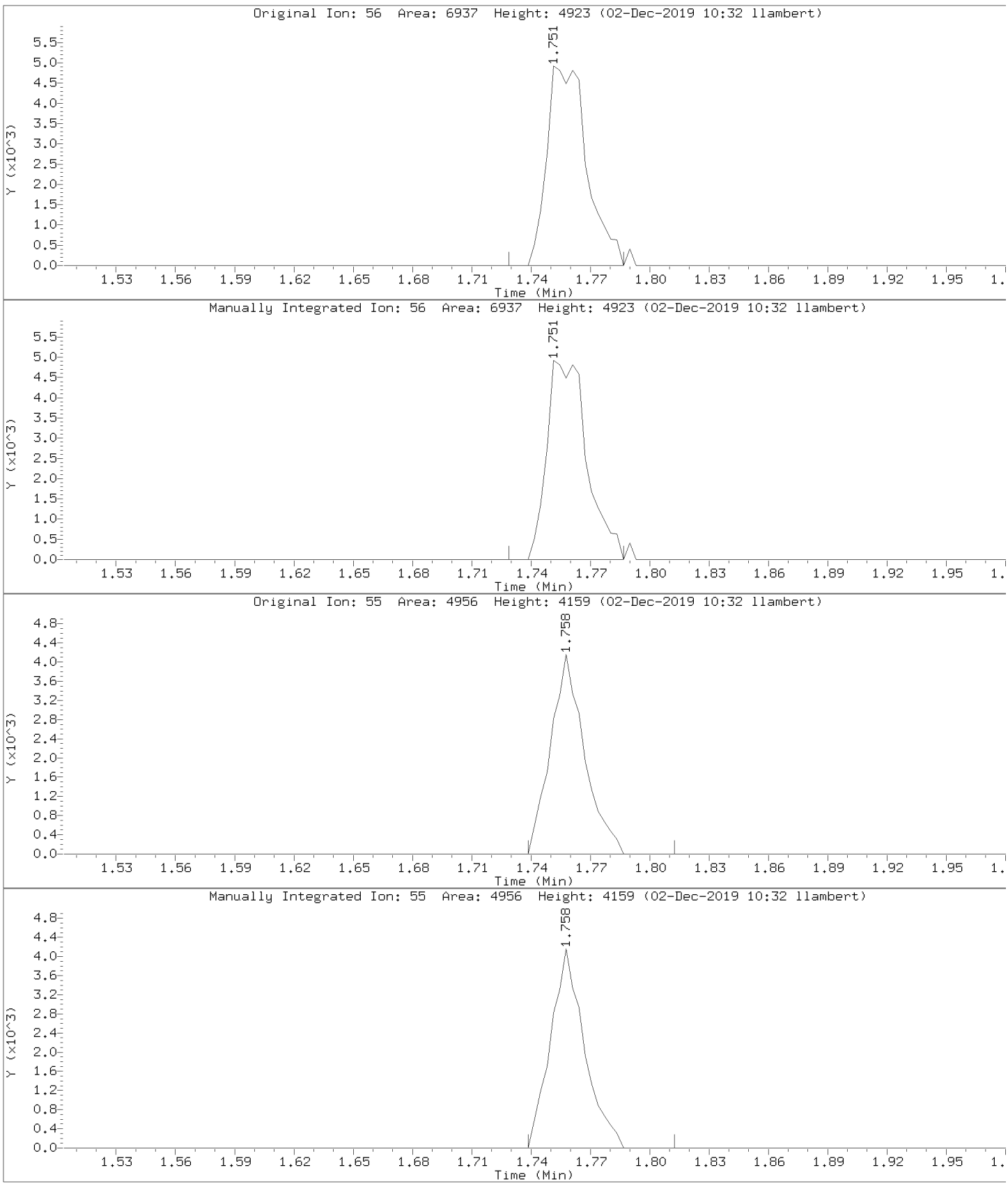


Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042-msd.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 1811548



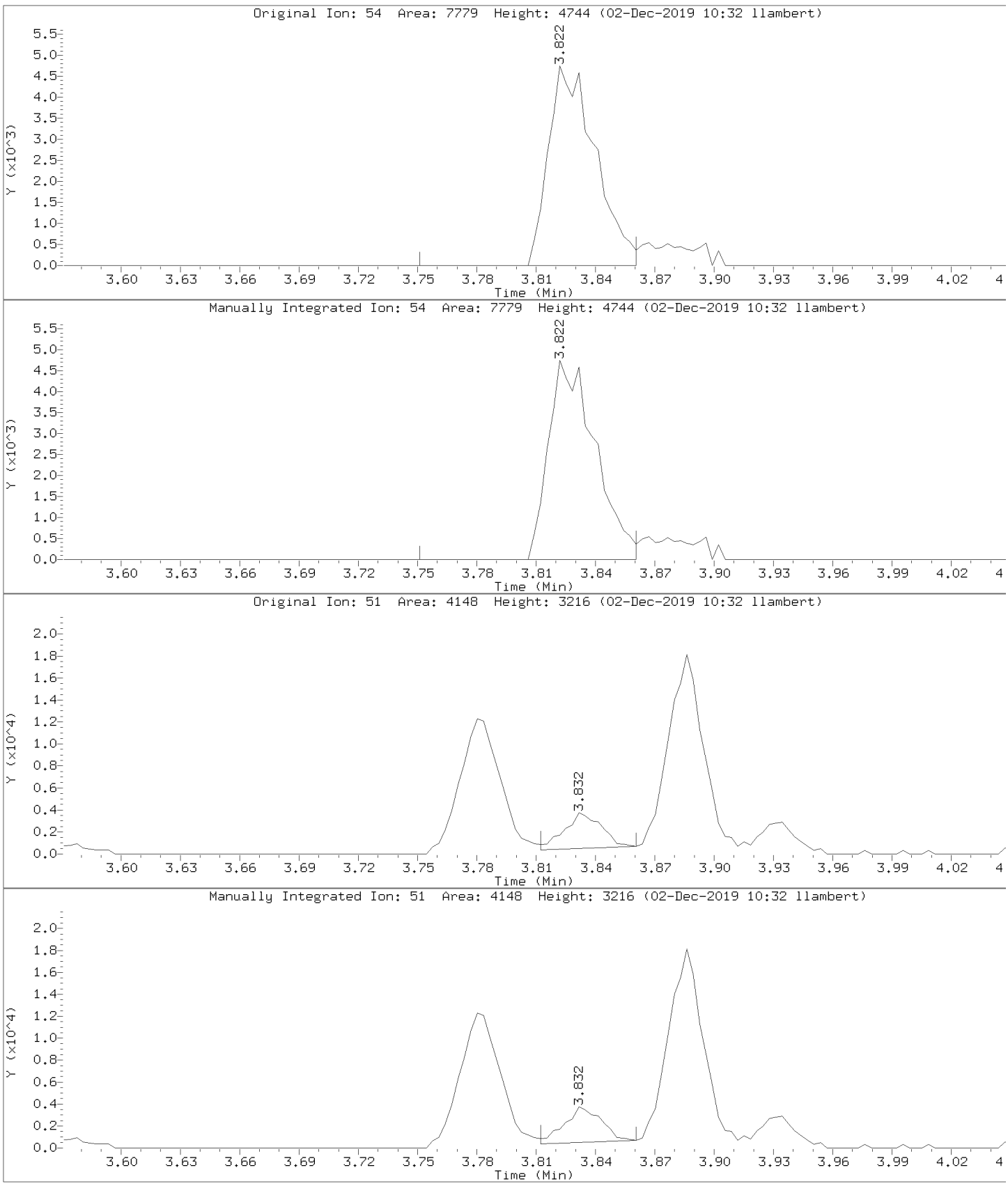
Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042-msd.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 1811548

Compound: Acrolein Review Code: LT
CAS Number: 107-02-8

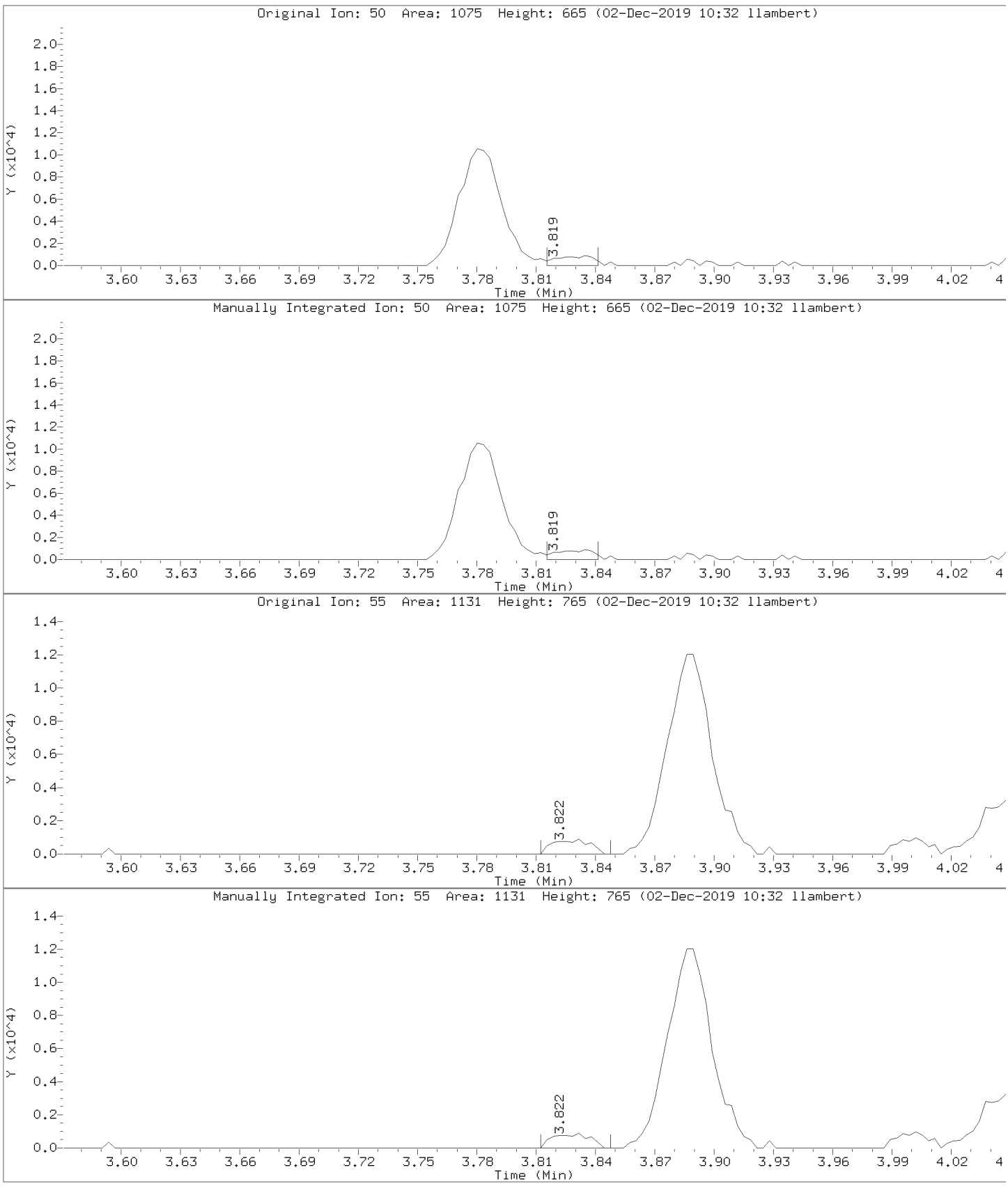


Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042-msd.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 1811548

Compound: Propionitrile Review Code: LT
CAS Number: 107-12-0

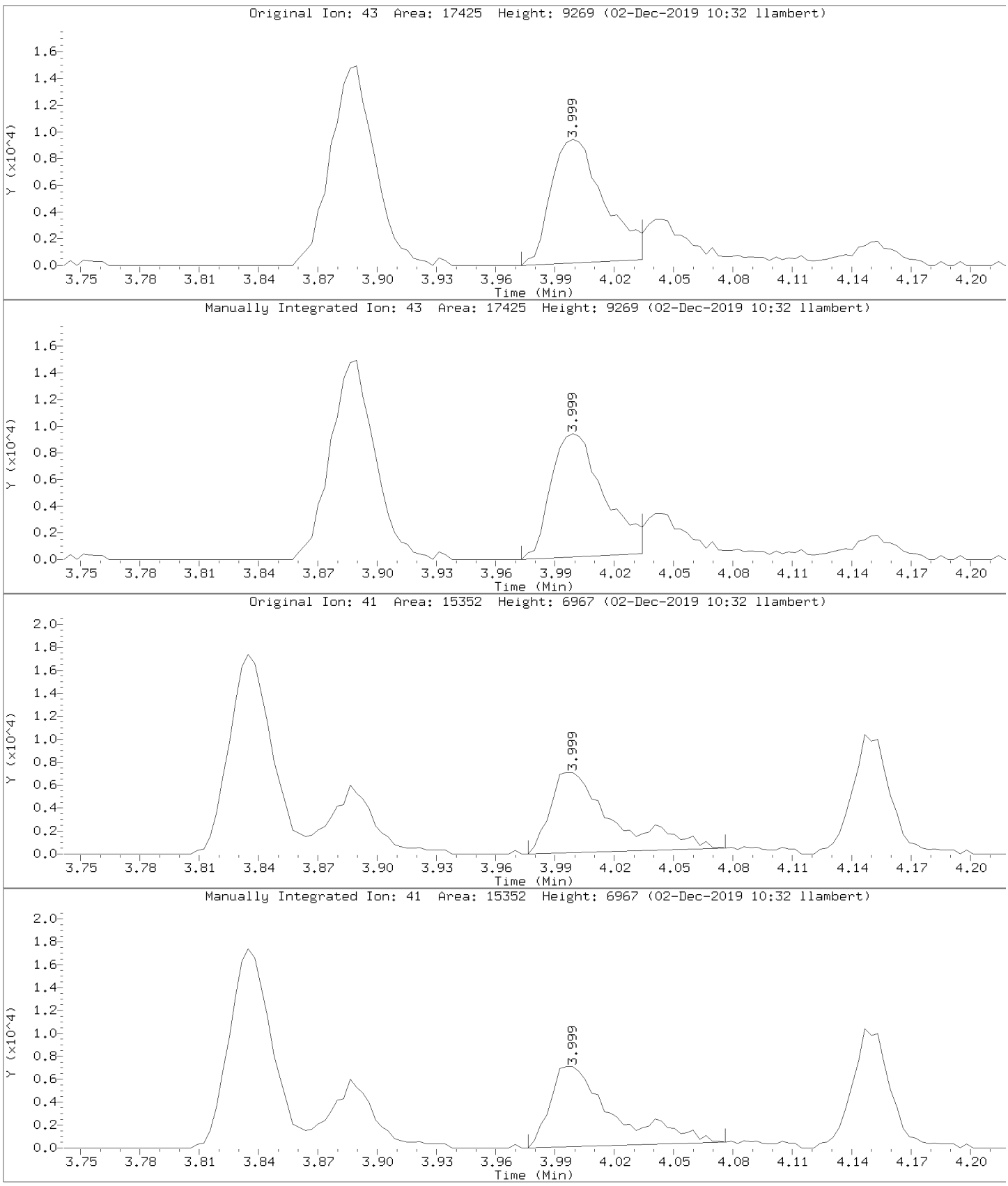


Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042-msd.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 1811548

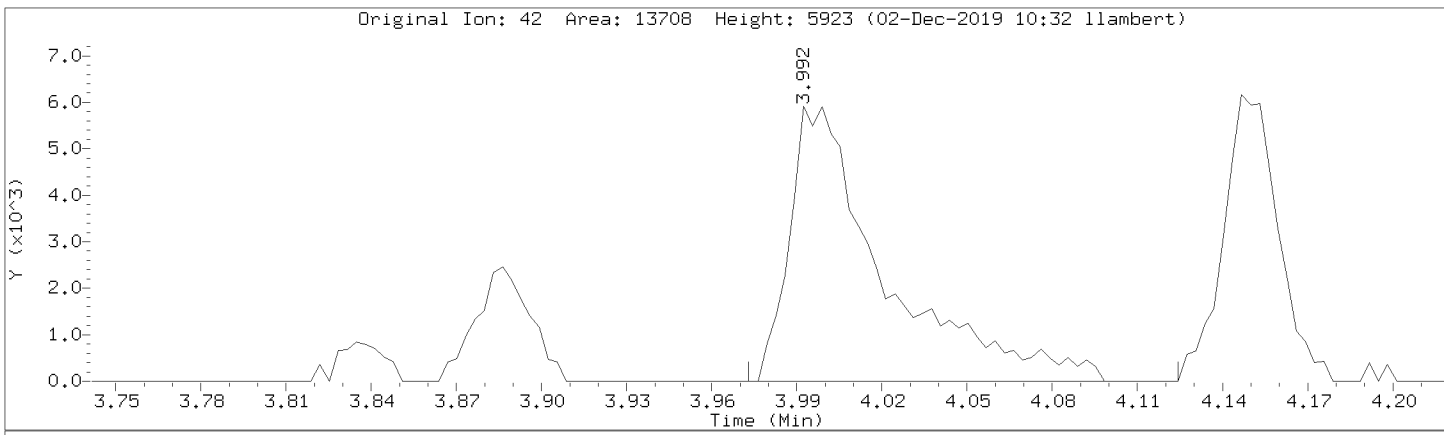


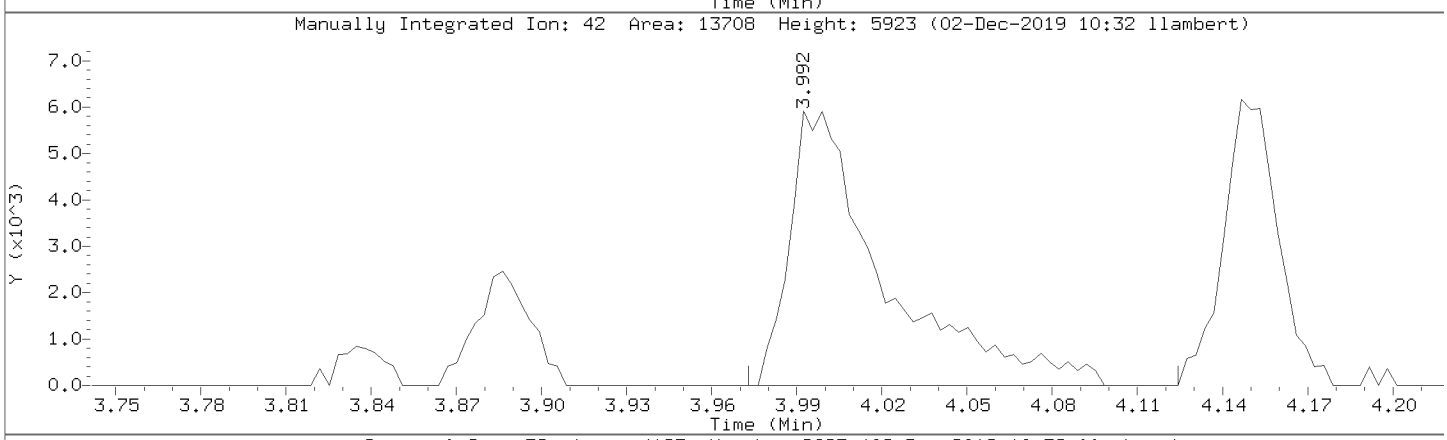
Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042-msd.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 1811548

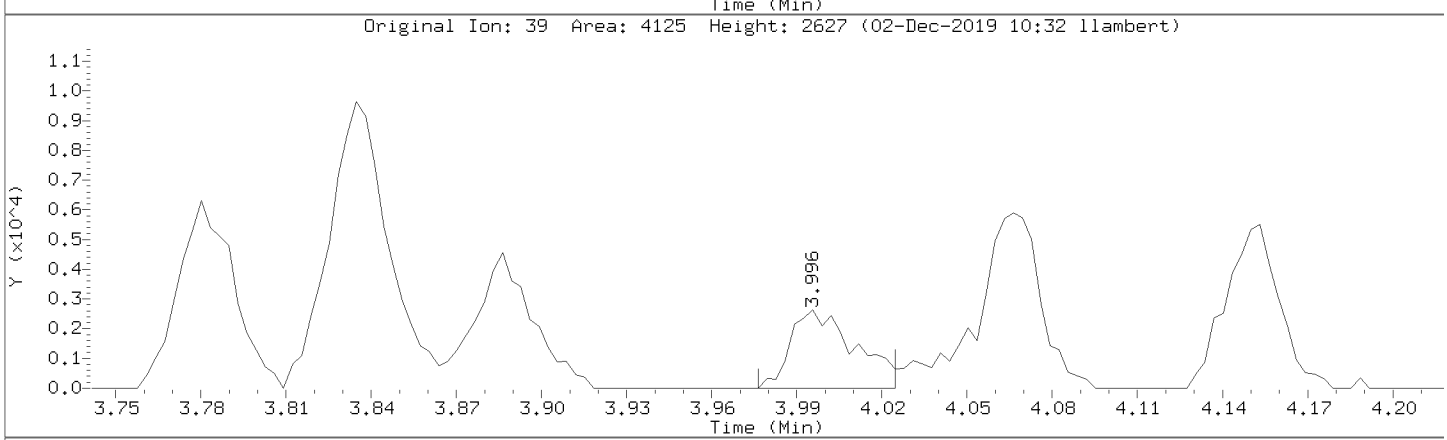
Compound: Isobutanol Review Code: GT
CAS Number: 78-83-1

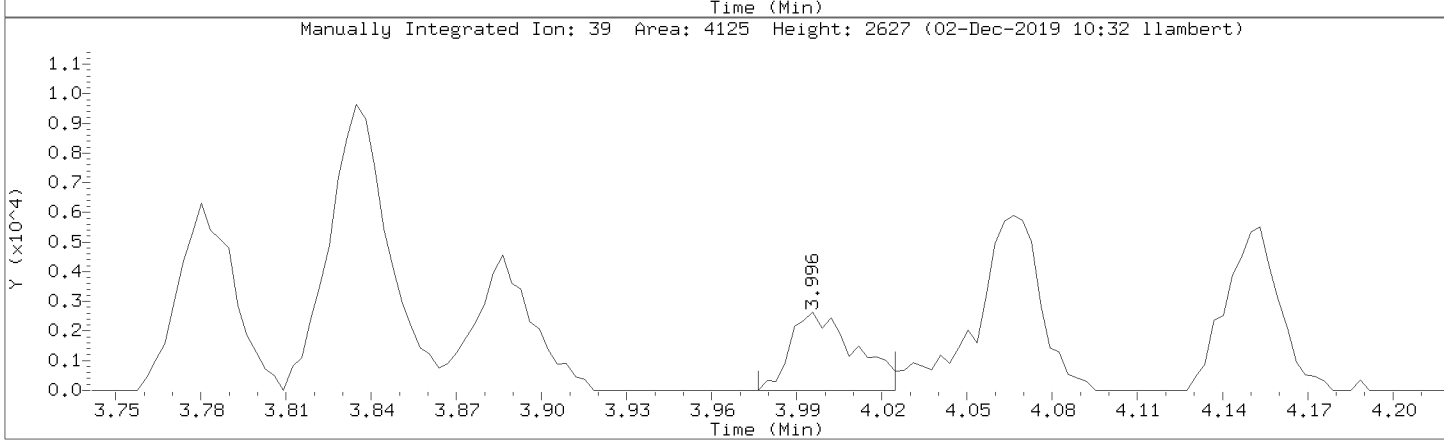


Data File: \\30wintarget\chem\30mv7b.i\7191129.B\2.b/71129042-msd.d
Injection Date: 29-NOV-2019 16:37
Instrument: 30mv7b.i
Lab Sample ID: 1811548









INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv7a.i
Column RTX-VMS 20m X 0.18mm Helium — Method: SW846-8260 / EPA 624
Misc. Prep Info [L]:
ISTD lot: 102072:10 — Surr. lot: 102072
Tune std: ↓ — Cal. std: curve

Instrument name..... 30MV7A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/71112001.d	BLANK	L/	SAMPLE	1	7	msv7191112a	11/12/19	13:11	LEL	
1/71112003.d	BFB, 102072:10	L/47221	BFB	1	7	bfb390	11/12/19	13:35	LEL	
1/71112005-11.d	CAL1, 105188:1	L/47221	SAMPLE	1	7	msv7191112a	11/12/19	14:00	LEL	
1/71112005.d	CAL1, 105188:1	L/47221	CALIB_1	1	7	msv7191112a	11/12/19	14:00	LEL	
1/71112007.d	CAL2, 105189:1	L/47221	CALIB_2	1	7	msv7191112a	11/12/19	14:25	LEL	
1/71112009.d	CAL3, 105190:1	L/47221	CALIB_3	1	7	msv7191112a	11/12/19	14:49	LEL	
1/71112011.d	CAL4, 105191:1	L/47221	CALIB_4	1	7	msv7191112a	11/12/19	15:14	LEL	
1/71112013.d	CAL5, 105192:1	L/47221	CALIB_5	1	7	msv7191112a	11/12/19	15:39	LEL	
1/71112015.d	CAL6, 105193:1	L/47221	CALIB_6	1	7	msv7191112a	11/12/19	16:04	LEL	
1/71112017.d	CAL7, 105194:1	L/47221	CALIB_7	1	7	msv7191112a	11/12/19	16:28	LEL	
1/71112019.d	BLANK	L/	SAMPLE	1	7	msv7191112a	11/12/19	16:53	LEL	
1/71112021.d	BLANK	L/	SAMPLE	1	7	msv7191112a	11/12/19	17:17	LEL	
1/71112023.d	BLANK	L/	SAMPLE	1	7	msv7191112a	11/12/19	17:42	LEL	
1/71112025-6241.d	ICV, 105195:1	L/47221	LCS	1	7	msv7191112a	11/12/19	18:07	LEL	
1/71112025.d	ICV, 105195:1	L/47221	CCALIB_4	1	7	msv7191112a	11/12/19	18:07	LEL	
1/71112027.d	BLANK	L/	SAMPLE	1	7	msv7191112a	11/12/19	18:31	LEL	
1/71112029.d	BLANK	L/	SAMPLE	1	7	msv7191112a	11/12/19	18:56	LEL	
1/71112031.d	BLANK	L/	SAMPLE	1	7	msv7191112a	11/12/19	19:21	LEL	

Check Maintenance Items Performed:

___ Changed septum — ___ Clipped column — ___ Changed column (lot #_____)
___ Cleaned liner — ___ Changed trap (lot #_____) — ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal — ___ Cleaned MS source — ✓ No maintenance performed today

Additional Comments:

Run Order Verified: LEL

File Path 1: \\30wintarget\chem\30mv7a.i\7191112.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 08:52 11/13/2019

Reviewed By/Date: JAW 11/13/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv7a.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot: 102072:10
Tune std: ↓

Method: SW846-8260 / EPA 624

Surr. lot: 102072
Cal. std: 107047

Instrument name..... 30MV7A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/71202001.d	PRIMER	L/	SAMPLE	1	7	msv7191112a	12/02/19	09:59	LEL	
1/71202003.d	BFB, 102072:10	L/47221	BFB	1	7	bfb390	12/02/19	10:24	LEL	
1/71202005.d	CCV, 107047:1	L/47221	CCALIB_5	1	7	msv7191112a	12/02/19	10:49	LEL	
1/71202007.d	BFB, 102072:10	L/47221	BFB	1	7	bfb390	12/02/19	11:15	LEL	
1/71202009.d	CCV, 107047:1	L/47221	CCALIB_5	1	7	msv7191112a	12/02/19	11:40	LEL	
1/71202011-47524.d	1811550, 107048	L/47524	LCS	1	7	msv7191112a	12/02/19	12:05	LEL	
1/71202011.d	1811665, 107048	L/47534	LCS	1	7	msv7191112a	12/02/19	12:05	LEL	
1/71202013-mdl.d	30337403018	L/47524	SAMPLE	1	7	msv7191112a	12/02/19	12:31	LEL	MDL 1
1/71202013.d	LLCHECK, 107049:	L/	SAMPLE	1	7	msv7191112a	12/02/19	12:31	LEL	
1/71202015-47524.d	1811549	L/47524	BLANK	1	7	msv7191112a	12/02/19	12:56	LEL	
1/71202015-blk.d	30337403017	L/47524	SAMPLE	1	7	msv7191112a	12/02/19	12:56	LEL	Blank - MDL
1/71202015.d	1811664	L/47534	BLANK	1	7	msv7191112a	12/02/19	12:56	LEL	
1/71202017.d	30337403019	L/47524	SAMPLE	1	7	msv7191112a	12/02/19	13:21	LEL	MDL 4
1/71202019.d	30337403020	L/47524	SAMPLE	1	7	msv7191112a	12/02/19	13:47	LEL	MDL 10
1/71202021.d	30337161010	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	14:12	LEL	
1/71202023.d	30337161002	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	14:38	LEL	
1/71202025.d	30337161003	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	15:03	LEL	
1/71202027.d	30337161005	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	15:29	LEL	
1/71202029.d	30337161009	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	15:54	LEL	
1/71202031.d	30337161009X10	L/47534	SAMPLE	10	< 2	msv7191112a	12/02/19	16:19	LEL	
1/71202033.d	30337161001	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	16:44	LEL	
1/71202035.d	30337161001X10	L/47534	SAMPLE	10	< 2	msv7191112a	12/02/19	17:10	LEL	
1/71202037.d	30337161006	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	17:35	LEL	
1/71202039.d	30337161006X10	L/47534	SAMPLE	10	< 2	msv7191112a	12/02/19	18:00	LEL	Need x20 chloroethane
1/71202041.d	30337161007	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	18:25	LEL	
1/71202043.d	30337161007X10	L/47534	SAMPLE	10	< 2	msv7191112a	12/02/19	18:50	LEL	Need x20 chloroethane
1/71202045.d	30337161008	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	19:15	LEL	
1/71202047.d	30337161008X10	L/47534	SAMPLE	10	< 2	msv7191112a	12/02/19	19:40	LEL	Not needed
1/71202049.d	30337161004	L/47534	SAMPLE	1	< 2	msv7191112a	12/02/19	20:06	LEL	
1/71202051.d	30337161004X50	L/47534	SAMPLE	50	< 2	msv7191112a	12/02/19	20:30	LEL	
1/71202053.d	30337161004X100	L/47534	SAMPLE	100	< 2	msv7191112a	12/02/19	20:55	LEL	
1/71202055.d	BLANK	L/	SAMPLE	1	7	msv7191112a	12/02/19	21:20	LEL	
1/71202057.d	1811668	L/47534	MS	1	< 2	msv7191112a	12/02/19	21:45	LEL	
1/71202059.d	1811669	L/47534	MSD	1	< 2	msv7191112a	12/02/19	22:10	LEL	

Check Maintenance Items Performed:

___ Changed septum ___ Clipped column ___ Changed column (lot #_____)
___ Cleaned liner ___ Changed trap (lot #_____) ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal ___ Cleaned MS source ✓ No maintenance performed today

Additional Comments: All samples negative for residual chlorine

Run Order Verified: LEL

File Path 1: \\30wintarget\chem\30mv7a.i\7191202.b\1.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:18 12/03/2019

Reviewed By/Date: JEW 12/3/19 Page: 1 of 2

INSTRUMENT RUN LOG

Pace Analytical Services, Inc.

Instrument: 30mv7a.i

Column RTX-VMS 20m X 0.18mm Helium Method: SW846-8260 / EPA 624

Misc. Prep Info [L]:

ISTD lot: 102072:10 Surr. lot: 102072

Tune std: ↓ Cal. std: 107047

Instrument name..... 30MV7A

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/71202061.d	30337003005X10	L/47517	SAMPLE	10	< 2	msv7191112a	12/02/19	22:35	LEL	
1/71202063.d	30337003008X10	L/47517	SAMPLE	10	< 2	msv7191112a	12/02/19	23:00	LEL	
1/71202065.d	BLANK	L/	SAMPLE	1	7	msv7191112a	12/02/19	23:25	LEL	

File Path 1: \\30wintarget\chem\30mv7a.i\7191202.b\1.b

Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one

Report Date: 09:18 12/03/2019

Reviewed By/Date: JAW 12/3/19 Page: 2 of 2

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv7b.i
Column RTX-VMS 20m X 0.18mm Helium — Method: SW846-8260 / EPA 624
Misc. Prep Info [L]:
ISTD lot: 102072:10 — Surr. lot: 102072
Tune std: ↓ — Cal. std: curve

Instrument name..... 30MV7B

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/71112002.d	blank	L/	SAMPLE	1	7	msv7191112b	11/12/19	13:23	LEL	
1/71112004.d	BFB, 102072:10	L/47222	BFB	1	7	bfb390	11/12/19	13:48	LEL	
1/71112006-bfb.d	BFB, 102072:10,	L/47222	BFB	1	7	bfb390	11/12/19	14:12	LEL	
1/71112006-11.d	CAL1, 105188:1	L/47222	SAMPLE	1	7	msv7191112b	11/12/19	14:12	LEL	
1/71112006.d	CAL1, 105188:1	L/47222	CALIB_1	1	7	msv7191112b	11/12/19	14:12	LEL	
1/71112008.d	CAL2, 105189:1	L/47222	CALIB_2	1	7	msv7191112b	11/12/19	14:37	LEL	
1/71112010.d	CAL3, 105190:1	L/47222	CALIB_3	1	7	msv7191112b	11/12/19	15:01	LEL	
1/71112012.d	CAL4, 105191:1	L/47222	CALIB_4	1	7	msv7191112b	11/12/19	15:26	LEL	
1/71112014.d	CAL5, 105192:1	L/47222	CALIB_5	1	7	msv7191112b	11/12/19	15:51	LEL	
1/71112016.d	CAL6, 105193:1	L/47222	CALIB_6	1	7	msv7191112b	11/12/19	16:16	LEL	
1/71112018.d	CAL7, 105194:1	L/47222	CALIB_7	1	7	msv7191112b	11/12/19	16:40	LEL	
1/71112020.d	BLANK	L/	SAMPLE	1	7	msv7191112b	11/12/19	17:05	LEL	
1/71112022.d	BLANK	L/	SAMPLE	1	7	msv7191112b	11/12/19	17:29	LEL	
1/71112024.d	BLANK	L/	SAMPLE	1	7	msv7191112b	11/12/19	17:54	LEL	
1/71112026-6241.d	ICV, 105195:1	L/47222	LCS	1	7	msv7191112b	11/12/19	18:19	LEL	
1/71112026.d	ICV, 105195:1	L/47222	CCALIB_4	1	7	msv7191112b	11/12/19	18:19	LEL	
1/71112028.d	BLANK	L/	SAMPLE	1	7	msv7191112b	11/12/19	18:44	LEL	
1/71112030.d	BLANK	L/	SAMPLE	1	7	msv7191112b	11/12/19	19:08	LEL	
1/71112032.d	BLANK	L/	SAMPLE	1	7	msv7191112b	11/12/19	19:33	LEL	

Check Maintenance Items Performed:

___ Changed septum — ___ Clipped column — ___ Changed column (lot #_____)
___ Cleaned liner — ___ Changed trap (lot #_____) — ___ Other minor parts replaced _____
___ Replaced/Cleaned gold seal — ___ Cleaned MS source — ✓ No maintenance performed today

Additional Comments:

Run Order Verified: LEL

File Path 1: \\30wintarget\chem\30mv7b.i\7191112.b\2.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 09:51 11/13/2019

Reviewed By/Date: JEW 11/13/19 Page: 1 of 1

INSTRUMENT RUN LOG
Pace Analytical Services, Inc.

Instrument: 30mv7b.i
Column RTX-VMS 20m X 0.18mm Helium
Misc. Prep Info [L]:
ISTD lot: 102072:10
Tune std: ↓

Method: SW846-8260 / EPA 624
Surr. lot: 102072
Cal. std: 107035

Instrument name..... 30MV7B

Path/File	Lab ID	Mtrx/Batch	Type	DF	pH	Method	Date	Time	Oper	Comments
1/71129002.d	PRIMER	L/	SAMPLE	1	7	msv7191112b	11/29/19	08:18	LEL	
1/71129004.d	BFB, 102072:10	L/47222	BFB	1	7	bfb390	11/29/19	08:43	LEL	
1/71129006.d	CCV, 107035:1	L/47222	CCALIB_5	1	7	msv7191112b	11/29/19	09:08	LEL	
1/71129008.d	1811178, 107036	L/47517	LCS	1	< 2	msv7191112b	11/29/19	09:33	LEL	
1/71129010.d	LLCHECK, 107037:	L/	SAMPLE	1	< 2	msv7191112b	11/29/19	09:58	LEL	
1/71129012.d	1811177	L/47517	BLANK	1	< 2	msv7191112b	11/29/19	10:22	LEL	
1/71129014.d	30337003009	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	10:47	LEL	
1/71129016.d	30337122005	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	11:12	LEL	
1/71129018.d	30337003001	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	11:38	LEL	
1/71129020.d	30337003002	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	12:03	LEL	
1/71129022.d	30337003003	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	12:28	LEL	
1/71129024.d	30337003004	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	12:52	LEL	EQS
1/71129026.d	30337003005	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	13:17	LEL	XTO
1/71129028.d	30337003008	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	13:42	LEL	XLS
1/71129030.d	30337122001	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	14:07	LEL	
1/71129032.d	30337122003	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	14:32	LEL	
1/71129034.d	30337122004	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	14:57	LEL	
1/71129036.d	30337122002x5	L/47517	SAMPLE	5	< 2	msv7191112b	11/29/19	15:22	LEL	
1/71129038.d	30336858005x20	L/47482	SAMPLE	20	< 2	msv7191112b	11/29/19	15:47	LEL	
1/71129040-ms.d	1811547	L/47517	MS	1	< 2	msv7191112b	11/29/19	16:12	LEL	
1/71129040.d	30337003006	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	16:12	LEL	
1/71129042-msd.d	1811548	L/47517	MSD	1	< 2	msv7191112b	11/29/19	16:37	LEL	
1/71129042.d	30337003007	L/47517	SAMPLE	1	< 2	msv7191112b	11/29/19	16:37	LEL	
1/71129044.d	blank	L/	SAMPLE	1	7	msv7191112b	11/29/19	17:02	LEL	
1/71129046.d	blank	L/	SAMPLE	1	7	msv7191112b	11/29/19	17:27	LEL	

Check Maintenance Items Performed:

___ Changed septum
___ Cleaned liner
___ Replaced/Cleaned gold seal
___ Clipped column
___ Changed trap (lot #_____)
___ Cleaned MS source
___ Changed column (lot #_____)
___ Other minor parts replaced
✓ No maintenance performed today

Additional Comments: All samples negative for residual chlorine

Run Order Verified: LEL

File Path 1: \\30wintarget\chem\30mv7b.i\7191129.B\2.b
Matrix Codes: [B]iota, [G]as, [L]iquid, [S]olid, [N]one
Report Date: 10:32 12/02/2019

Reviewed By/Date: KW 12/2/19

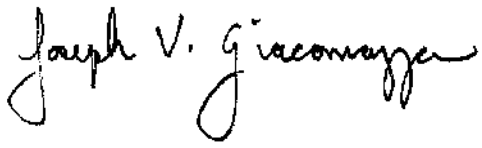
ANALYTICAL REPORT

Job Number: 480-163227-1

Job Description: Emerging Contaminants - 215042

For:
Geologic NY Inc
PO BOX 350
37 Copeland Ave
Homer, NY 13077

Attention: Mr. Christopher T Gabriel



Approved for release.
Joe V Giacomazza
Project Management Assistant II
12/19/2019 10:46 AM

Designee for
Orlette S Johnson, Senior Project Manager
10 Hazelwood Drive, Amherst, NY, 14228-2298
(484)685-0864
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12/19/2019

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Eurofins TestAmerica Project Manager who has signed this report.

Eurofins TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NYDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

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

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

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Job Narrative
480-163227-1

Comments
No additional comments.

Receipt
The samples were received on 11/22/2019 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1° C.

GC/MS Semi VOA
Method 8270D SIM ID: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW 05 (480-163227-3) and DUP (480-163227-4). Elevated reporting limits (RLs) are provided.

Method 8270D SIM ID: The 1,4-Dioxane result reported for samples MW 05 (480-163227-3) and DUP (480-163227-4) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

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

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

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.

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
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

Sample Summary

Client: Geologic NY Inc
Job ID: 480-163227-1
Project/Site: Emerging Contaminants - 215042

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-163227-1	MW 01	Water	11/20/19 12:00	11/22/19 08:00	
480-163227-2	MW 03	Water	11/19/19 16:15	11/22/19 08:00	
480-163227-3	MW 05	Water	11/19/19 15:15	11/22/19 08:00	
480-163227-4	DUP	Water	11/19/19 15:15	11/22/19 08:00	
480-163227-7	EQUIPMENT BLANK	Water	11/20/19 16:00	11/22/19 08:00	

Detection Summary

Client: Geologic NY Inc
Job ID: 480-163227-1
Project/Site: Emerging Contaminants - 215042

Client Sample ID: MW 01
Lab Sample ID: 480-163227-1

No Detections.

Client Sample ID: MW 03
Lab Sample ID: 480-163227-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	1.0		0.19	0.095	ug/L	1		8270D SIM ID	Total/NA

Client Sample ID: MW 05
Lab Sample ID: 480-163227-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	37	E	3.8	1.9	ug/L	20		8270D SIM ID	Total/NA

Client Sample ID: DUP
Lab Sample ID: 480-163227-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,4-Dioxane	37	E	3.8	1.9	ug/L	20		8270D SIM ID	Total/NA

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: 480-163227-7

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Geologic NY Inc
Job ID: 480-163227-1
Project/Site: Emerging Contaminants - 215042

Method	Method Description	Protocol	Laboratory
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Client Sample ID: MW 01
Lab Sample ID: 480-163227-1
Date Collected: 11/20/19 12:00
Matrix: Water
Date Received: 11/22/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		11/26/19 08:36	11/29/19 13:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*34*		*15 - 110*	*11/26/19 08:36*	*11/29/19 13:06*	*1*

Client Sample ID: MW 03
Lab Sample ID: 480-163227-2
Date Collected: 11/19/19 16:15
Matrix: Water
Date Received: 11/22/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**1.0**		0.19	0.095	ug/L		11/26/19 08:36	11/28/19 05:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*32*		*15 - 110*	*11/26/19 08:36*	*11/28/19 05:42*	*1*

Client Sample ID: MW 05
Lab Sample ID: 480-163227-3
Date Collected: 11/19/19 15:15
Matrix: Water
Date Received: 11/22/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**37**	**E**	3.8	1.9	ug/L		11/26/19 08:36	12/02/19 13:17	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*32*		*15 - 110*	*11/26/19 08:36*	*12/02/19 13:17*	*20*

Client Sample ID: DUP
Lab Sample ID: 480-163227-4
Date Collected: 11/19/19 15:15
Matrix: Water
Date Received: 11/22/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	**37**	**E**	3.8	1.9	ug/L		11/26/19 08:36	12/02/19 13:40	20

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*33*		*15 - 110*	*11/26/19 08:36*	*12/02/19 13:40*	*20*

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: 480-163227-7
Date Collected: 11/20/19 16:00
Matrix: Water
Date Received: 11/22/19 08:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.19	0.095	ug/L		11/26/19 08:36	11/29/19 15:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*11/26/19 08:36*	*11/29/19 15:00*	*1*

Isotope Dilution Summary

Client: Geologic NY Inc
Job ID: 480-163227-1
Project/Site: Emerging Contaminants - 215042

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

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	DXE (15-110)							
480-163227-1	MW 01	34							
480-163227-2	MW 03	32							
480-163227-2 MS	MW 03	31							
480-163227-2 MSD	MW 03	29							
480-163227-3	MW 05	32							
480-163227-4	DUP	33							
480-163227-7	EQUIPMENT BLANK	29							
LCS 480-506760/2-A	Lab Control Sample	31							
MB 480-506760/1-A	Method Blank	29							

Surrogate Legend

DXE = 1,4-Dioxane-d8

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

Lab Sample ID: MB 480-506760/1-A
Matrix: Water
Analysis Batch: 507166

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 506760

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		0.20	0.10	ug/L		11/26/19 08:36	11/28/19 02:59	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,4-Dioxane-d8	*29*		*15 - 110*	*11/26/19 08:36*	*11/28/19 02:59*	*1*

Lab Sample ID: LCS 480-506760/2-A
Matrix: Water
Analysis Batch: 507166

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 506760

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane			1.00	1.16		ug/L		116	40 - 140		

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,4-Dioxane-d8	*31*		*15 - 110*

Lab Sample ID: 480-163227-2 MS
Matrix: Water
Analysis Batch: 507166

Client Sample ID: MW 03
Prep Type: Total/NA
Prep Batch: 506760

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,4-Dioxane	1.0		0.952	2.15	E	ug/L		116	40 - 140		

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
1,4-Dioxane-d8	*31*		*15 - 110*

Lab Sample ID: 480-163227-2 MSD
Matrix: Water
Analysis Batch: 507166

Client Sample ID: MW 03
Prep Type: Total/NA
Prep Batch: 506760

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,4-Dioxane	1.0		0.952	2.14	E	ug/L		115	40 - 140	0	20

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,4-Dioxane-d8	*29*		*15 - 110*

QC Association Summary

Client: Geologic NY Inc
Job ID: 480-163227-1
Project/Site: Emerging Contaminants - 215042

GC/MS Semi VOA

Prep Batch: 506760

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-163227-1	MW 01	Total/NA	Water	3510C	
480-163227-2	MW 03	Total/NA	Water	3510C	
480-163227-3	MW 05	Total/NA	Water	3510C	
480-163227-4	DUP	Total/NA	Water	3510C	
480-163227-7	EQUIPMENT BLANK	Total/NA	Water	3510C	
MB 480-506760/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-506760/2-A	Lab Control Sample	Total/NA	Water	3510C	
480-163227-2 MS	MW 03	Total/NA	Water	3510C	
480-163227-2 MSD	MW 03	Total/NA	Water	3510C	

Analysis Batch: 507166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-163227-2	MW 03	Total/NA	Water	8270D SIM ID	506760
MB 480-506760/1-A	Method Blank	Total/NA	Water	8270D SIM ID	506760
LCS 480-506760/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	506760
480-163227-2 MS	MW 03	Total/NA	Water	8270D SIM ID	506760
480-163227-2 MSD	MW 03	Total/NA	Water	8270D SIM ID	506760

Analysis Batch: 507167

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-163227-1	MW 01	Total/NA	Water	8270D SIM ID	506760
480-163227-7	EQUIPMENT BLANK	Total/NA	Water	8270D SIM ID	506760

Analysis Batch: 507629

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-163227-3	MW 05	Total/NA	Water	8270D SIM ID	506760
480-163227-4	DUP	Total/NA	Water	8270D SIM ID	506760

Lab Chronicle

Client: Geologic NY Inc
Job ID: 480-163227-1
Project/Site: Emerging Contaminants - 215042

Client Sample ID: MW 01
Lab Sample ID: 480-163227-1
Date Collected: 11/20/19 12:00
Matrix: Water
Date Received: 11/22/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			506760	11/26/19 08:36	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	507167	11/29/19 13:06	JMM	TAL BUF

Client Sample ID: MW 03
Lab Sample ID: 480-163227-2
Date Collected: 11/19/19 16:15
Matrix: Water
Date Received: 11/22/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			506760	11/26/19 08:36	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	507166	11/28/19 05:42	JMM	TAL BUF

Client Sample ID: MW 05
Lab Sample ID: 480-163227-3
Date Collected: 11/19/19 15:15
Matrix: Water
Date Received: 11/22/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			506760	11/26/19 08:36	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		20	507629	12/02/19 13:17	JMM	TAL BUF

Client Sample ID: DUP
Lab Sample ID: 480-163227-4
Date Collected: 11/19/19 15:15
Matrix: Water
Date Received: 11/22/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			506760	11/26/19 08:36	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		20	507629	12/02/19 13:40	JMM	TAL BUF

Client Sample ID: EQUIPMENT BLANK
Lab Sample ID: 480-163227-7
Date Collected: 11/20/19 16:00
Matrix: Water
Date Received: 11/22/19 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			506760	11/26/19 08:36	JMP	TAL BUF
Total/NA	Analysis	8270D SIM ID		1	507167	11/29/19 15:00	JMM	TAL BUF

Laboratory References:

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

Accreditation/Certification Summary

Client: Geologic NY Inc
Job ID: 480-163227-1
Project/Site: Emerging Contaminants - 215042

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Method 8270D SIM-ID

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

FORM II
GC/MS SEMI VOA SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DXE #
MW 01	480-163227-1	34
MW 03	480-163227-2	32
MW 05	480-163227-3	32
DUP	480-163227-4	33
EQUIPMENT BLANK	480-163227-7	29
	MB 480-506760/1-A	29
	LCS 480-506760/2-A	31
MW 03 MS	480-163227-2 MS	31
MW 03 MSD	480-163227-2 MSD	29

	QC LIMITS
DXE = 1,4-Dioxane-d8	15-110

Column to be used to flag recovery values

FORM II 8270D SIM ID

FORM III
GC/MS SEMI VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U33154750.D

Lab ID: LCS 480-506760/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,4-Dioxane	1.00	1.16	116	40-140	
1,4-Dioxane-d8	10.0	3.11	31	15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U33154753.D

Lab ID: 480-163227-2 MS Client ID: MW 03 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,4-Dioxane	0.952	1.0	2.15	116	40-140	E
1,4-Dioxane-d8	9.52	3.1	2.95	31	15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM III
GC/MS SEMI VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Matrix: Water Level: Low Lab File ID: U33154754.D

Lab ID: 480-163227-2 MSD Client ID: MW 03 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,4-Dioxane	0.952	2.14	115	0	20	40-140	E
1,4-Dioxane-d8	9.52	2.73	29			15-110	

Column to be used to flag recovery and RPD values

FORM III 8270D SIM ID

FORM IV
GC/MS SEMI VOA METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab File ID: U33154749.D Lab Sample ID: MB 480-506760/1-A

Matrix: Water Date Extracted: 11/26/2019 08:36

Instrument ID: HP5973U Date Analyzed: 11/28/2019 02:59

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 480-506760/2-A	U33154750.D	11/28/2019 03:22
MW 03 MS	480-163227-2 MS	U33154753.D	11/28/2019 04:32
MW 03 MSD	480-163227-2 MSD	U33154754.D	11/28/2019 04:55
MW 03	480-163227-2	U33154756.D	11/28/2019 05:42
MW 01	480-163227-1	U33154773.D	11/29/2019 13:06
EQUIPMENT BLANK	480-163227-7	U33154776.D	11/29/2019 15:00
MW 05	480-163227-3	U33154834.D	12/02/2019 13:17
DUP	480-163227-4	U33154835.D	12/02/2019 13:40

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab File ID: U33154640.D DFTPP Injection Date: 11/25/2019

Instrument ID: HP5973U DFTPP Injection Time: 09:52

Analysis Batch No.: 506566

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	48.6	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	58.3	
70	Less than 2% of mass 69	0.3	(0.6) 1
127	10-80% of Base Peak	55.9	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.4	
275	10-60% of Base Peak	25.5	
365	Greater than 1% of mass 198	2.8	
441	present but less than 24% of mass 442	10.7	(15.8) 2
442	Greater than 50% of mass 198	67.6	
443	15-24% of mass 442	13.3	(19.6) 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
	IC 480-506566/3	U33154641.D	11/25/2019	10:19
	IC 480-506566/4	U33154642.D	11/25/2019	10:43
	ICIS 480-506566/5	U33154643.D	11/25/2019	11:06
	IC 480-506566/6	U33154644.D	11/25/2019	11:29
	IC 480-506566/7	U33154645.D	11/25/2019	11:53
	IC 480-506566/8	U33154646.D	11/25/2019	12:16

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab File ID: U33154736.D DFTPP Injection Date: 11/27/2019

Instrument ID: HP5973U DFTPP Injection Time: 21:52

Analysis Batch No.: 507166

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	42.9	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	52.9	
70	Less than 2% of mass 69	0.3	(0.5) 1
127	10-80% of Base Peak	54.5	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.6	
275	10-60% of Base Peak	24.8	
365	Greater than 1% of mass 198	3.5	
441	present but less than 24% of mass 442	10.9	(15.0) 2
442	Greater than 50% of mass 198	72.5	
443	15-24% of mass 442	14.1	(19.5) 2

1-Value is % mass 69 2-Value is % mass 442

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 480-507166/3	U33154737.D	11/27/2019	22:20
	MB 480-506760/1-A	U33154749.D	11/28/2019	02:59
	LCS 480-506760/2-A	U33154750.D	11/28/2019	03:22
MW 03 MS	480-163227-2 MS	U33154753.D	11/28/2019	04:32
MW 03 MSD	480-163227-2 MSD	U33154754.D	11/28/2019	04:55
MW 03	480-163227-2	U33154756.D	11/28/2019	05:42

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab File ID: U33154765.D DFTPP Injection Date: 11/29/2019

Instrument ID: HP5973U DFTPP Injection Time: 09:56

Analysis Batch No.: 507167

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	46.0	
68	Less than 2% of mass 69	0.0	(0.0) 1
69	Mass 69 Relative abundance	54.2	
70	Less than 2% of mass 69	0.3	(0.5) 1
127	10-80% of Base Peak	54.8	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.7	
275	10-60% of Base Peak	23.3	
365	Greater than 1% of mass 198	3.0	
441	present but less than 24% of mass 442	9.8	(15.4) 2
442	Greater than 50% of mass 198	63.5	
443	15-24% of mass 442	12.7	(20.0) 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 480-507167/3	U33154766.D	11/29/2019	10:24
MW 01	480-163227-1	U33154773.D	11/29/2019	13:06
EQUIPMENT BLANK	480-163227-7	U33154776.D	11/29/2019	15:00

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab File ID: U33154831.D DFTPP Injection Date: 12/02/2019

Instrument ID: HP5973U DFTPP Injection Time: 12:02

Analysis Batch No.: 507629

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10-80% of Base Peak	42.5	
68	Less than 2% of mass 69	0.1	(0.1) 1
69	Mass 69 Relative abundance	52.3	
70	Less than 2% of mass 69	0.2	(0.5) 1
127	10-80% of Base Peak	54.2	
197	Less than 2% of mass 198	0.0	
198	Base peak	100.0	
199	5-9% of mass 198	6.6	
275	10-60% of Base Peak	24.1	
365	Greater than 1% of mass 198	3.4	
441	present but less than 24% of mass 442	10.4	(14.8) 2
442	Greater than 50% of mass 198	69.9	
443	15-24% of mass 442	14.0	(20.0) 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 480-507629/3	U33154832.D	12/02/2019	12:30
MW 05	480-163227-3	U33154834.D	12/02/2019	13:17
DUP	480-163227-4	U33154835.D	12/02/2019	13:40

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Sample No.: ICIS 480-506566/5 Date Analyzed: 11/25/2019 11:06

Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)

Lab File ID (Standard): U33154643.D Heated Purge: (Y/N) N

Calibration ID: 38301

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		413989	5.50				
UPPER LIMIT		827978	6.00				
LOWER LIMIT		206995	5.00				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCVIS 480-507166/3		563213	5.49				
CCVIS 480-507167/3		607878	5.49				
CCVIS 480-507629/3		636870	5.49				

DCBd4 = 1,4-Dichlorobenzene-d4

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 ID

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Sample No.: CCVIS 480-507166/3 Date Analyzed: 11/27/2019 22:20

Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)

Lab File ID (Standard): U33154737.D Heated Purge: (Y/N) N

Calibration ID: 38301

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		563213	5.49				
UPPER LIMIT		1126426	5.99				
LOWER LIMIT		281607	4.99				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 480-506760/1-A		540663	5.50				
LCS 480-506760/2-A		502067	5.50				
480-163227-2 MS	MW 03 MS	497610	5.50				
480-163227-2 MSD	MW 03 MSD	506159	5.50				
480-163227-2	MW 03	492823	5.50				

DCBd4 = 1,4-Dichlorobenzene-d4

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 ID

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Sample No.: CCVIS 480-507167/3 Date Analyzed: 11/29/2019 10:24

Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)

Lab File ID (Standard): U33154766.D Heated Purge: (Y/N) N

Calibration ID: 38301

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		607878	5.49				
UPPER LIMIT		1215756	5.99				
LOWER LIMIT		303939	4.99				
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-163227-1	MW 01	515280	5.50				
480-163227-7	EQUIPMENT BLANK	549677	5.49				

DCBd4 = 1,4-Dichlorobenzene-d4

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 ID

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Sample No.: CCVIS 480-507629/3 Date Analyzed: 12/02/2019 12:30

Instrument ID: HP5973U GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm)

Lab File ID (Standard): U33154832.D Heated Purge: (Y/N) N

Calibration ID: 38301

		DCBd4					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		636870	5.49				
UPPER LIMIT		1273740	5.99				
LOWER LIMIT		318435	4.99				
LAB SAMPLE ID	CLIENT SAMPLE ID						
480-163227-3	MW 05	604593	5.49				
480-163227-4	DUP	614311	5.49				

DCBd4 = 1,4-Dichlorobenzene-d4

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 ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: MW 01 Lab Sample ID: 480-163227-1

Matrix: Water Lab File ID: U33154773.D

Analysis Method: 8270D SIM ID Date Collected: 11/20/2019 12:00

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1050(mL) Date Analyzed: 11/29/2019 13:06

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.: 507167 Units: ug/L

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

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

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154773.D
Lims ID: 480-163227-A-1-A
Client ID: MW 01
Sample Type: Client
Inject. Date: 29-Nov-2019 13:06:30 ALS Bottle#: 10 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086514-010
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 13:54:48 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 02-Dec-2019 11:23:35

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D	1 1,4-Dioxane-d8	96	2.142	2.068	0.074	96	217049	3.44	34.4	
	3 1,4-Dioxane	88		2.101				ND		U
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.491	0.004	97	515280	4.00		

QC Flag Legend

Review Flags
U - Marked Undetected

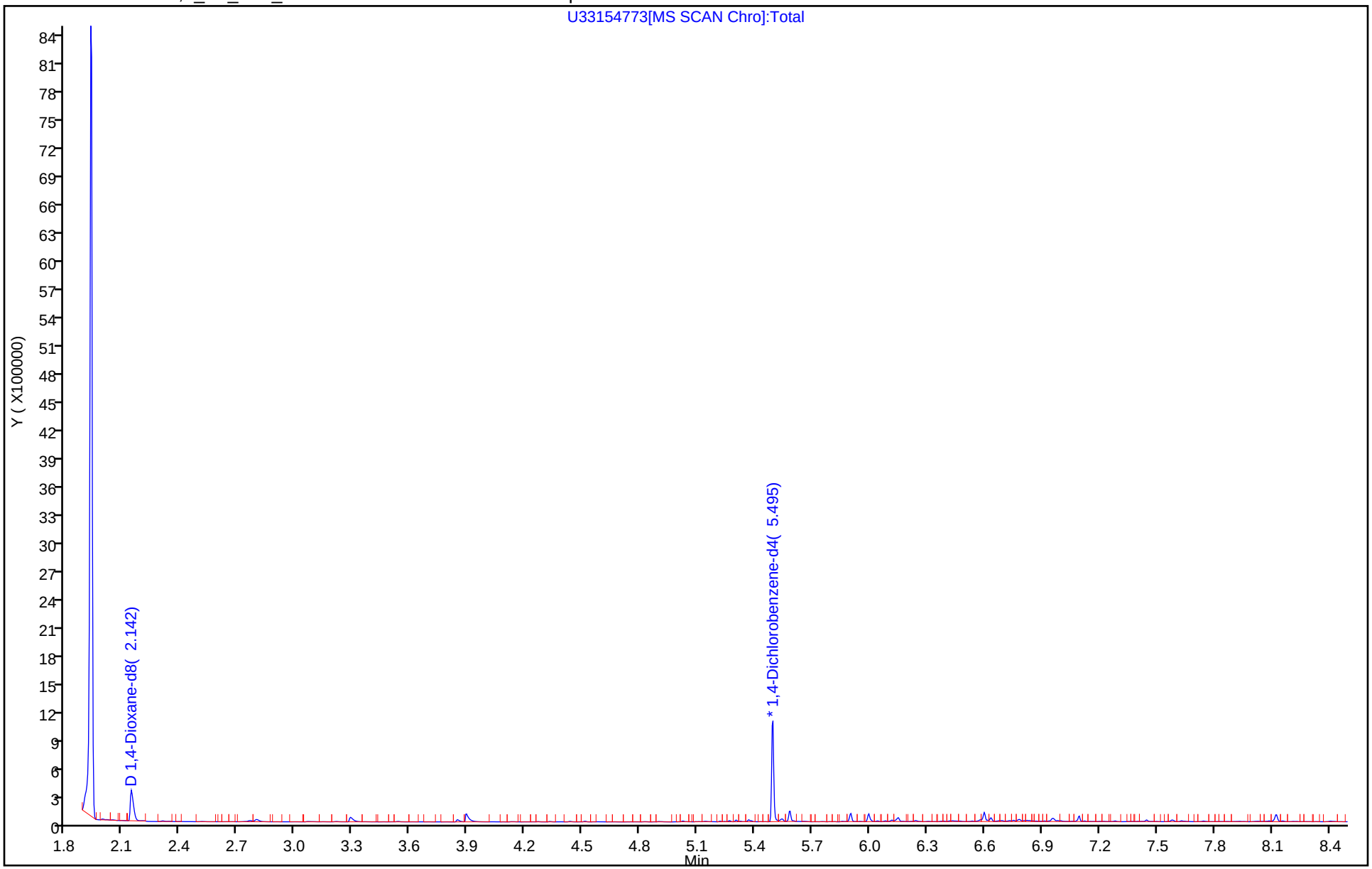
Reagents:

MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Dec-2019 13:54:52 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

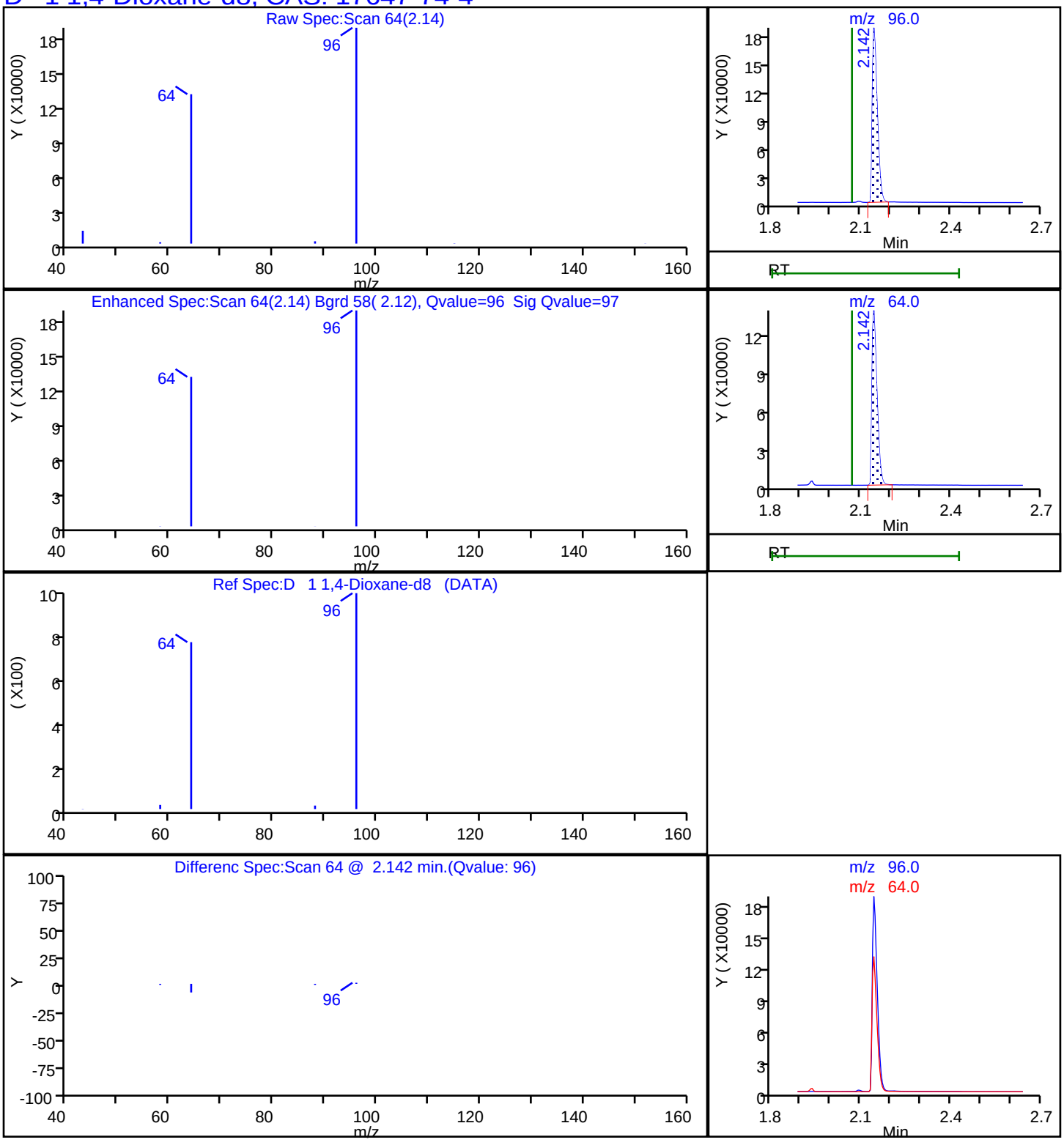
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154773.D				
Injection Date:	29-Nov-2019 13:06:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	480-163227-A-1-A	Lab Sample ID:	480-163227-1	Worklist Smp#:	10
Client ID:	MW 01				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154773.D				
Injection Date:	29-Nov-2019 13:06:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-A-1-A	Lab Sample ID:	480-163227-1		
Client ID:	MW 01				
Operator ID:	JM	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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



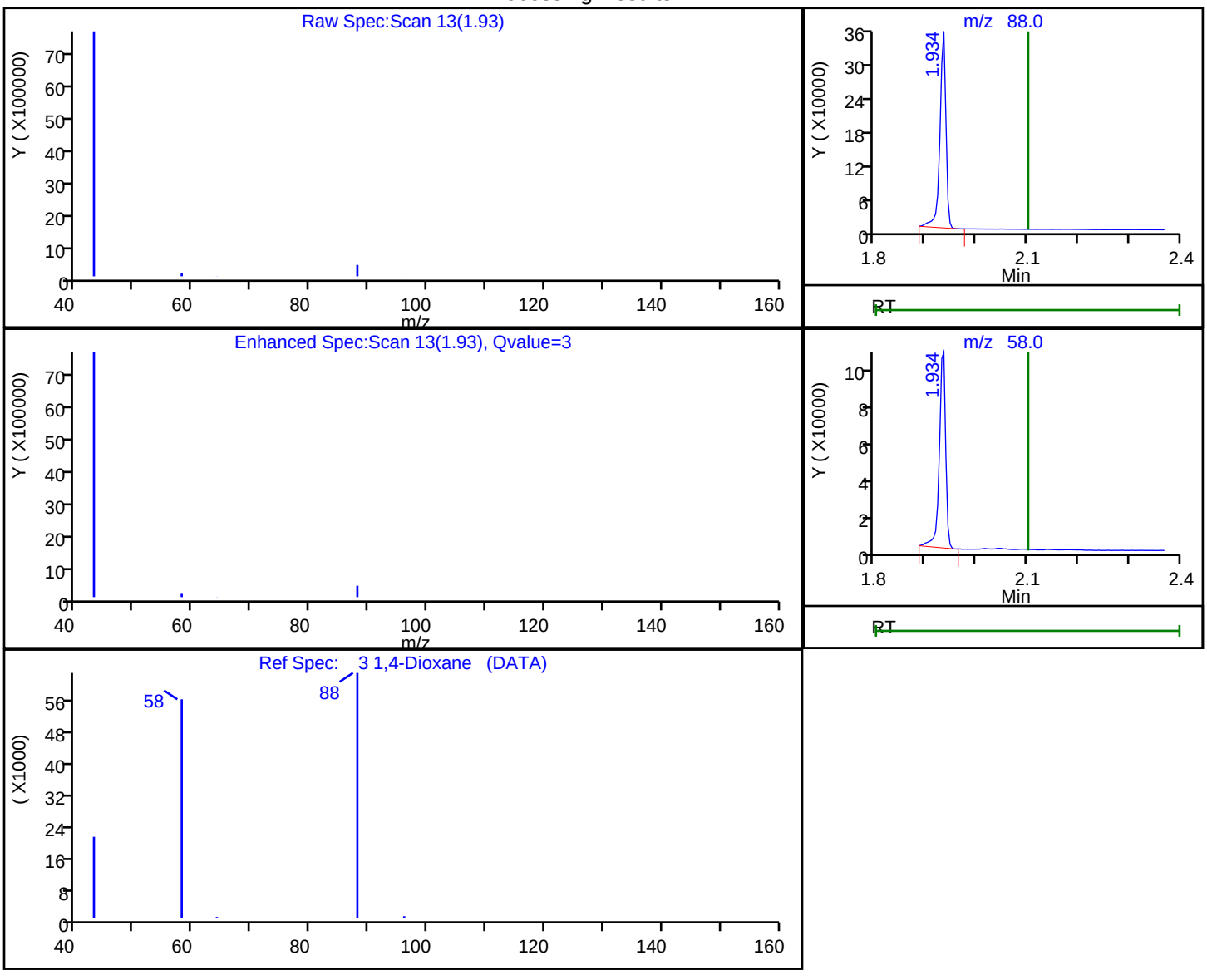
User Disabled Compound Report

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154773.D				
Injection Date:	29-Nov-2019 13:06:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-A-1-A	Lab Sample ID:	480-163227-1		
Client ID:	MW 01				
Operator ID:	JM	ALS Bottle#:	10	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

Processing Results



RT	Mass	Response	Amount
1.93	88.00	289508	12.121300
1.93	58.00	87480	

Reviewer: marshallj, 02-Dec-2019 11:23:31

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: MW 03 Lab Sample ID: 480-163227-2

Matrix: Water Lab File ID: U33154756.D

Analysis Method: 8270D SIM ID Date Collected: 11/19/2019 16:15

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1050(mL) Date Analyzed: 11/28/2019 05:42

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.: 507166 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.0		0.19	0.095

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

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154756.D
Lims ID: 480-163227-B-2-A
Client ID: MW 03
Sample Type: Client
Inject. Date: 28-Nov-2019 05:42:30 ALS Bottle#: 52 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086513-022
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 29-Nov-2019 13:57:09 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: marshallj Date: 29-Nov-2019 09:37:19

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D	1 1,4-Dioxane-d8	96	2.146	2.073	0.073	94	195891	3.25	32.5	a
	3 1,4-Dioxane	88	2.183	2.105	0.078	82	23507	1.09		a
*	2 1,4-Dichlorobenzene-d4	152	5.499	5.491	0.008	98	492823	4.00		

QC Flag Legend

Review Flags
a - User Assigned ID

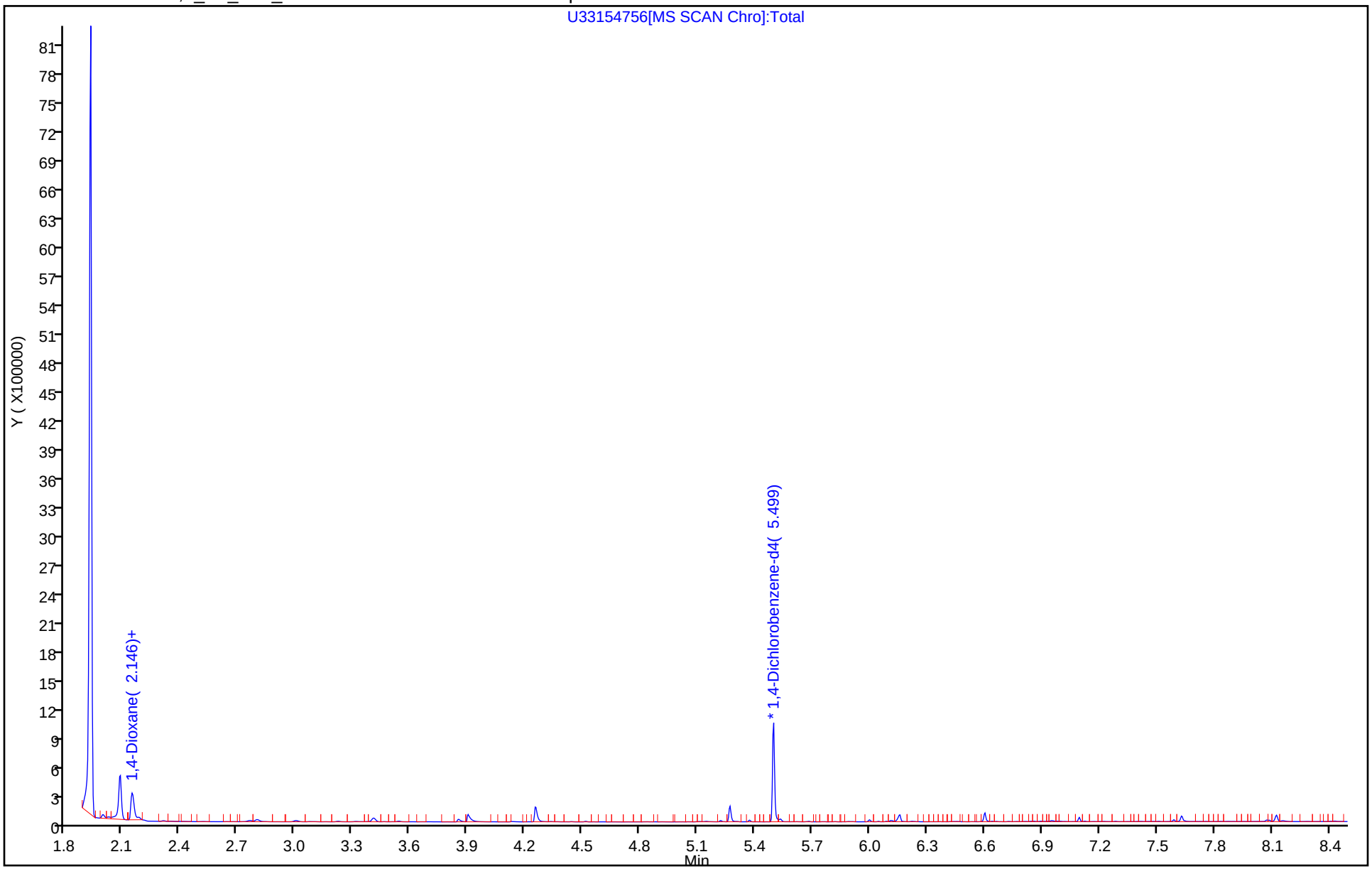
Reagents:

MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 29-Nov-2019 13:57:20 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154756.D				
Injection Date:	28-Nov-2019 05:42:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	480-163227-B-2-A	Lab Sample ID:	480-163227-2	Worklist Smp#:	22
Client ID:	MW 03				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	52
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		

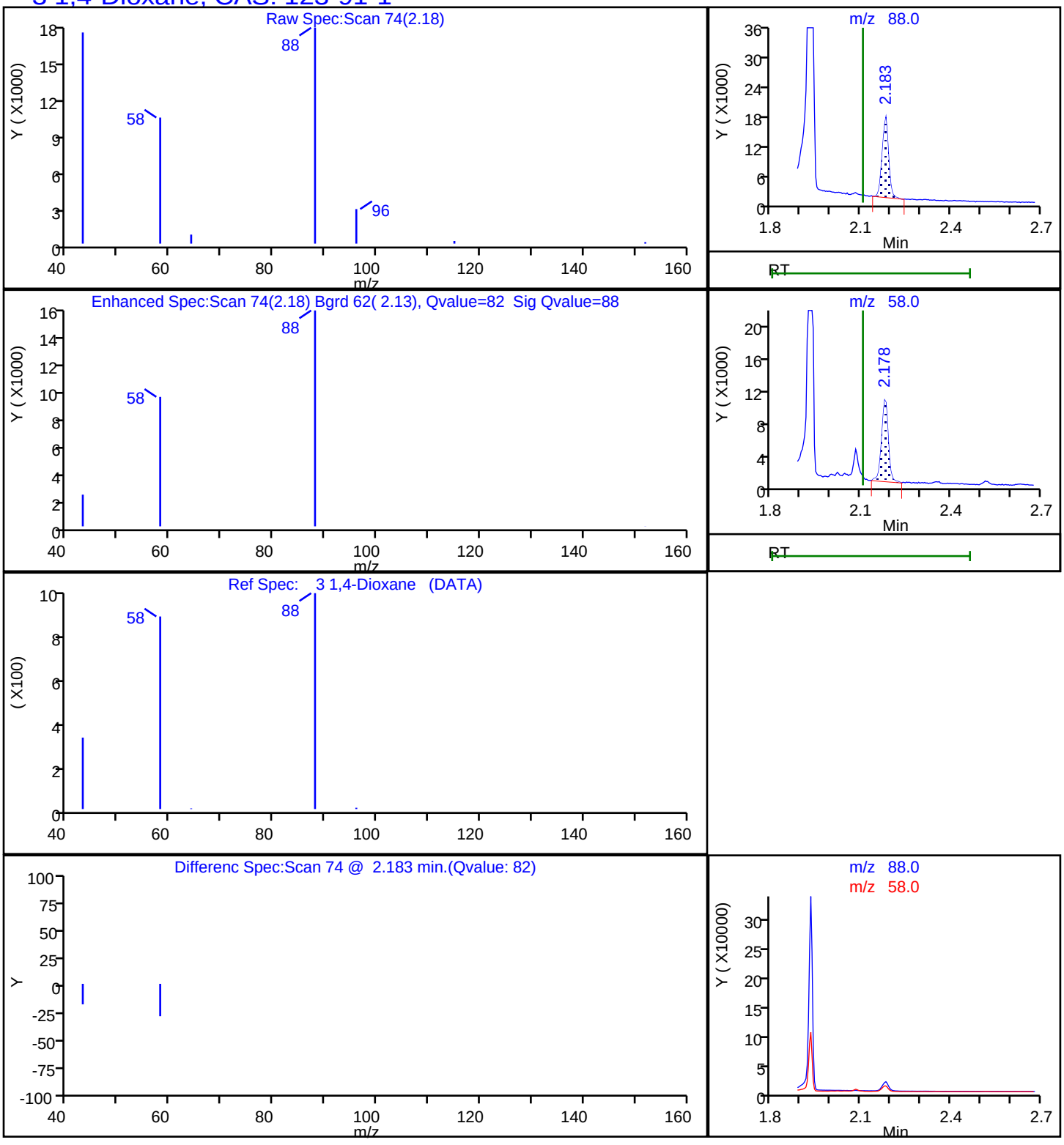


Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154756.D

Injection Date:	28-Nov-2019 05:42:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-2-A	Lab Sample ID:	480-163227-2		
Client ID:	MW 03				
Operator ID:	JM	ALS Bottle#:	52	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

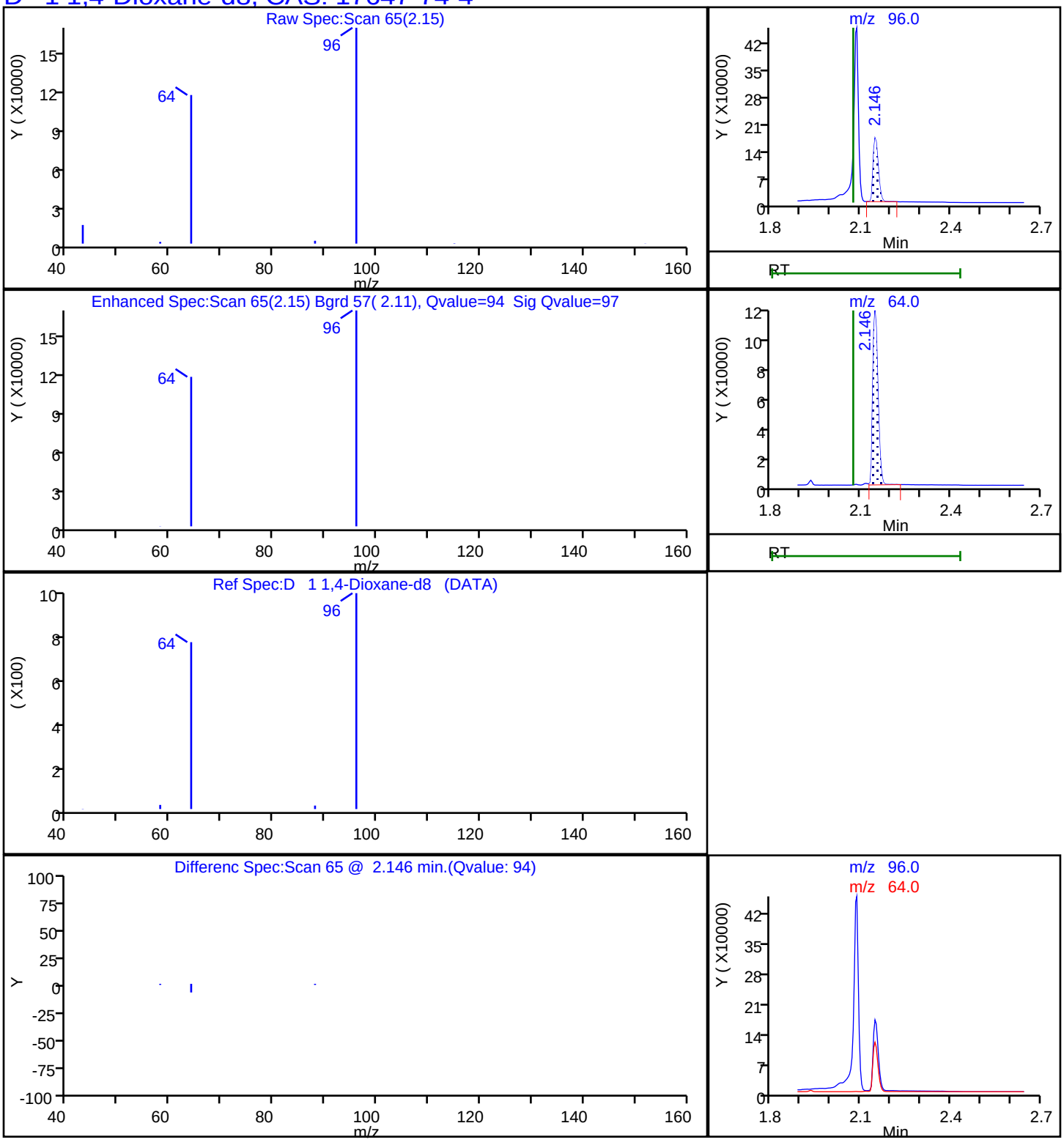
3 1,4-Dioxane, CAS: 123-91-1



Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154756.D				
Injection Date:	28-Nov-2019 05:42:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-2-A	Lab Sample ID:	480-163227-2		
Client ID:	MW 03				
Operator ID:	JM	ALS Bottle#:	52	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Buffalo

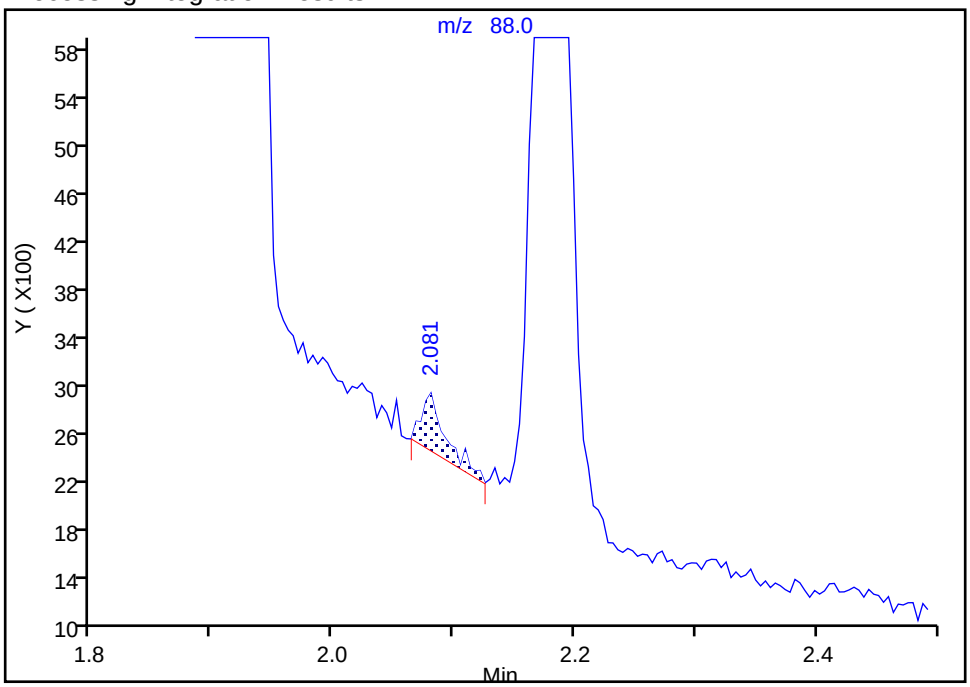
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154756.D				
Injection Date:	28-Nov-2019 05:42:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-2-A	Lab Sample ID:	480-163227-2		
Client ID:	MW 03				
Operator ID:	JM	ALS Bottle#:	52	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

Signal: 1

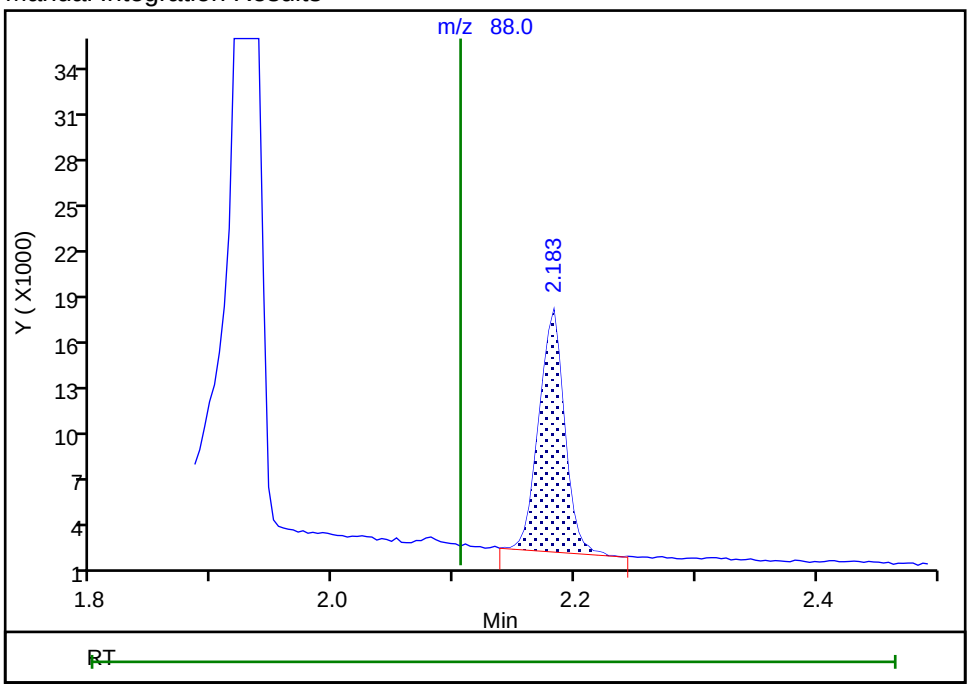
Processing Integration Results

RT: 2.08
Area: 641
Amount: 0.011415
Amount Units: ng/ul



Manual Integration Results

RT: 2.18
Area: 23507
Amount: 1.090509
Amount Units: ng/ul



Reviewer: marshallj, 29-Nov-2019 09:37:17

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Buffalo

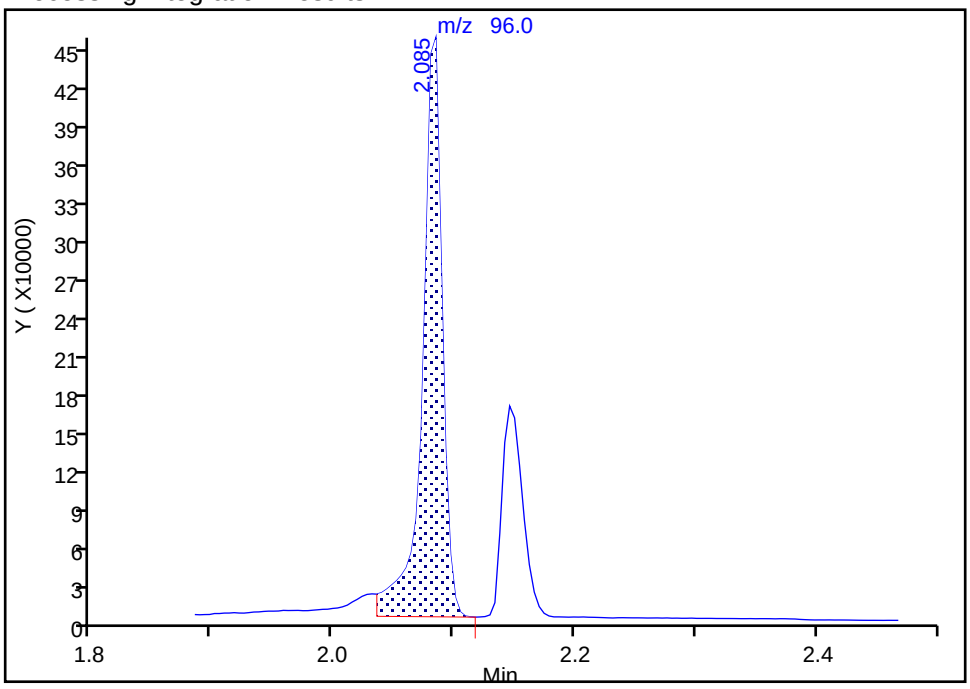
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154756.D				
Injection Date:	28-Nov-2019 05:42:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-2-A	Lab Sample ID:	480-163227-2		
Client ID:	MW 03				
Operator ID:	JM	ALS Bottle#:	52	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

Signal: 1

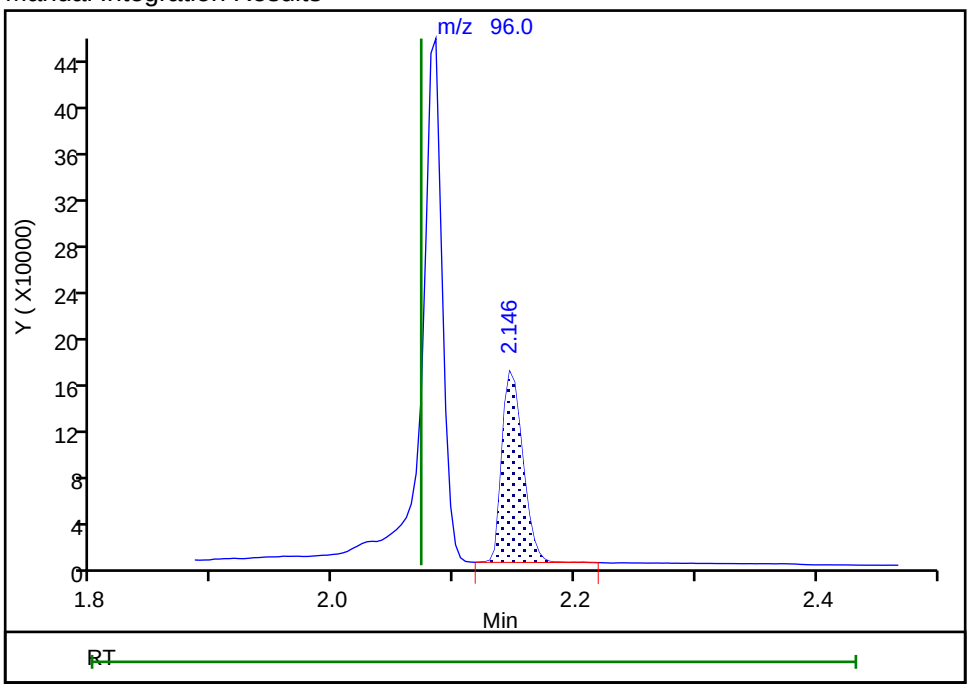
Processing Integration Results

RT: 2.08
Area: 510291
Amount: 8.456754
Amount Units: ng/ul



Manual Integration Results

RT: 2.15
Area: 195891
Amount: 3.246387
Amount Units: ng/ul



Reviewer: marshallj, 29-Nov-2019 13:55:29

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: MW 05 Lab Sample ID: 480-163227-3

Matrix: Water Lab File ID: U33154834.D

Analysis Method: 8270D SIM ID Date Collected: 11/19/2019 15:15

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1050(mL) Date Analyzed: 12/02/2019 13:17

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

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

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

Analysis Batch No.: 507629 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	37	E	3.8	1.9

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

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154834.D
Lims ID: 480-163227-B-3-A
Client ID: MW 05
Sample Type: Client
Inject. Date: 02-Dec-2019 13:17:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Sample Info: 480-0086580-005
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 16:50:43 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 02-Dec-2019 16:49:50

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D	1 1,4-Dioxane-d8	96	2.089	2.068	0.021	97	11793	0.1593	31.9	
	3 1,4-Dioxane	88	2.109	2.101	0.008	88	50767	1.96		E
*	2 1,4-Dichlorobenzene-d4	152	5.487	5.487	0.000	99	604593	4.00		

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

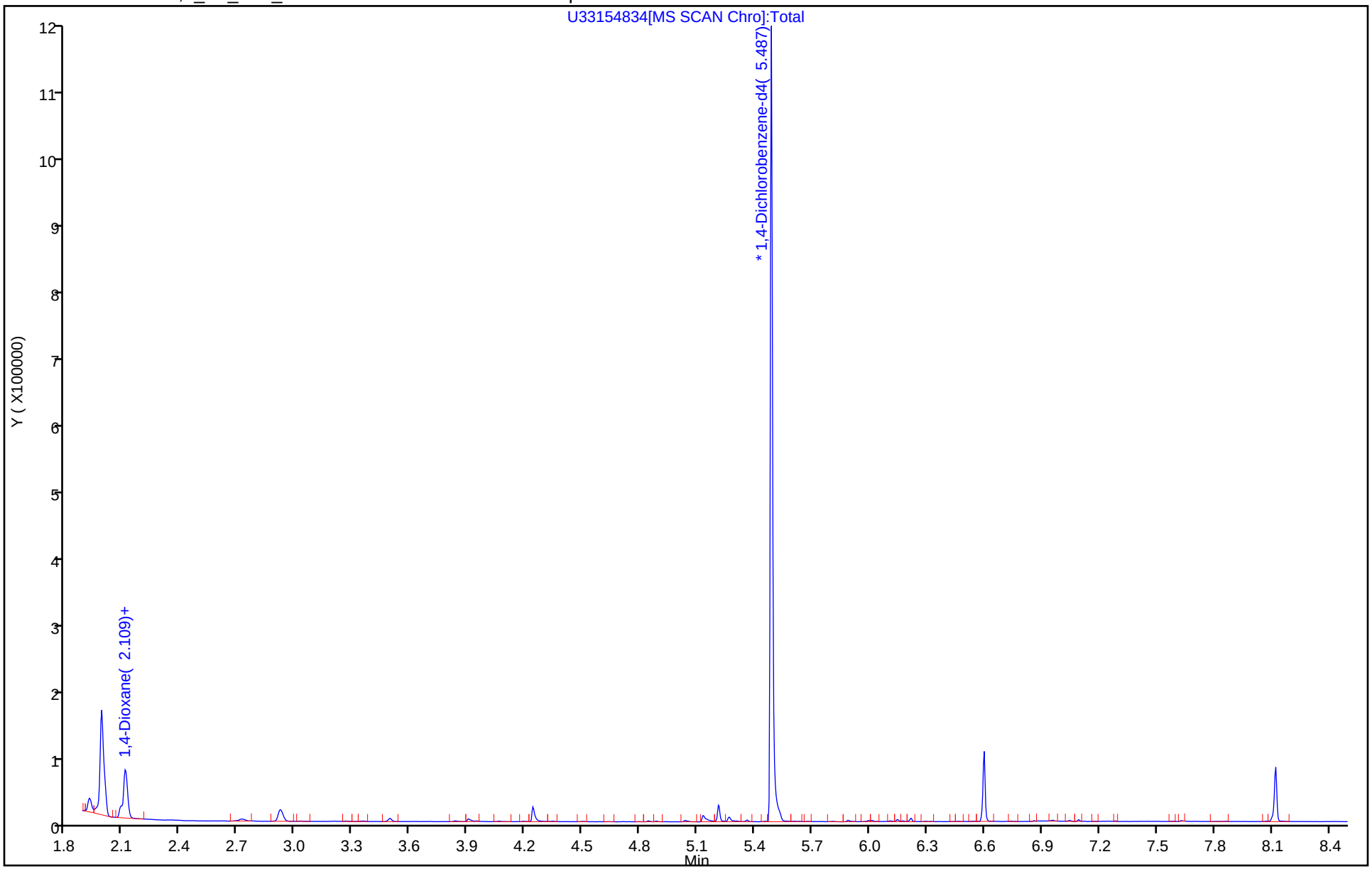
Reagents:

MB_LLIS_WRK_00183 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Dec-2019 16:50:44 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154834.D				
Injection Date:	02-Dec-2019 13:17:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	480-163227-B-3-A	Lab Sample ID:	480-163227-3	Worklist Smp#:	5
Client ID:	MW 05				
Injection Vol:	1.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	5
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



12/19/2019

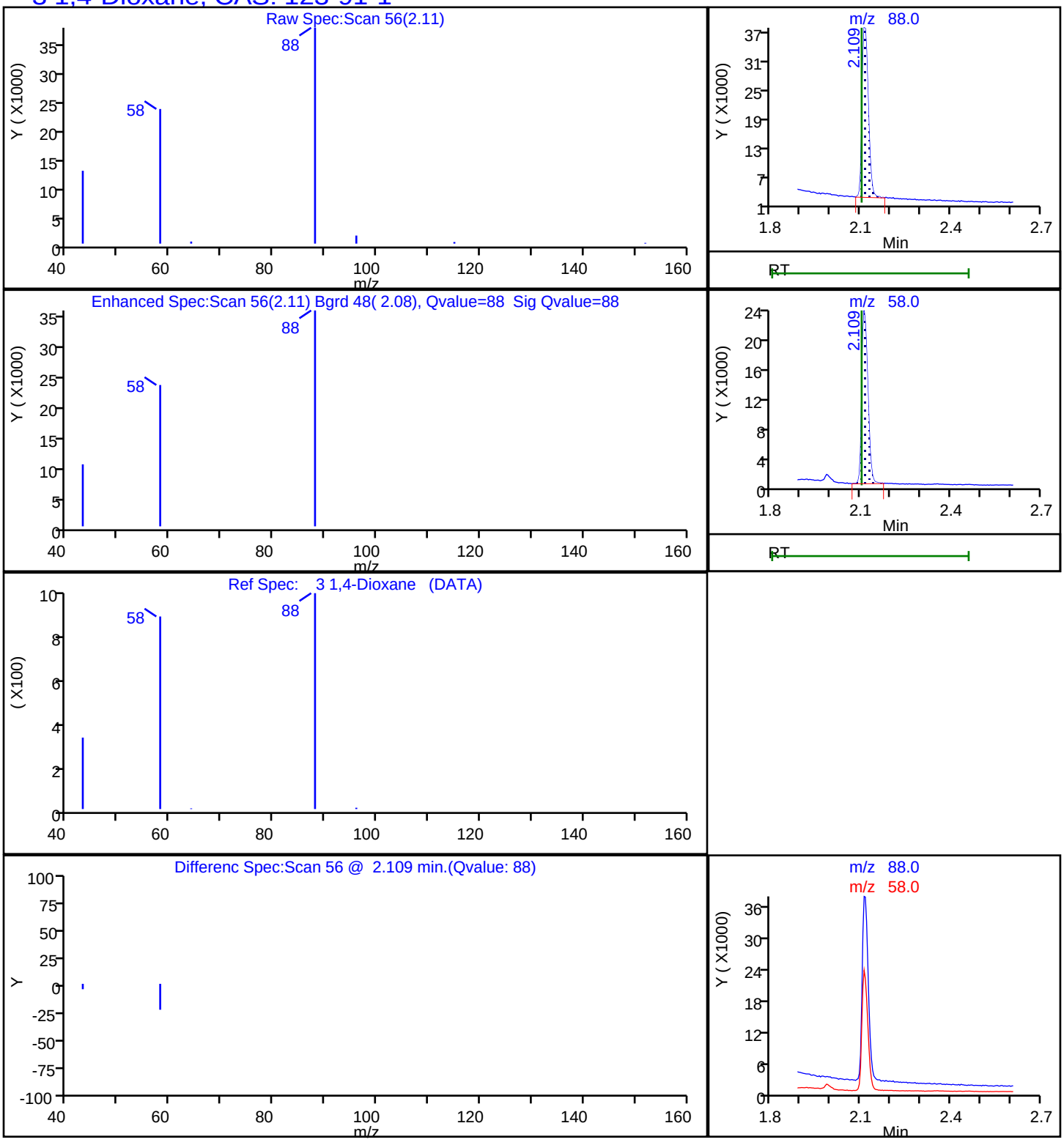
Report Date: 02-Dec-2019 16:50:45 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154834.D

Injection Date:	02-Dec-2019 13:17:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-3-A	Lab Sample ID:	480-163227-3		
Client ID:	MW 05				
Operator ID:	JM	ALS Bottle#:	5	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

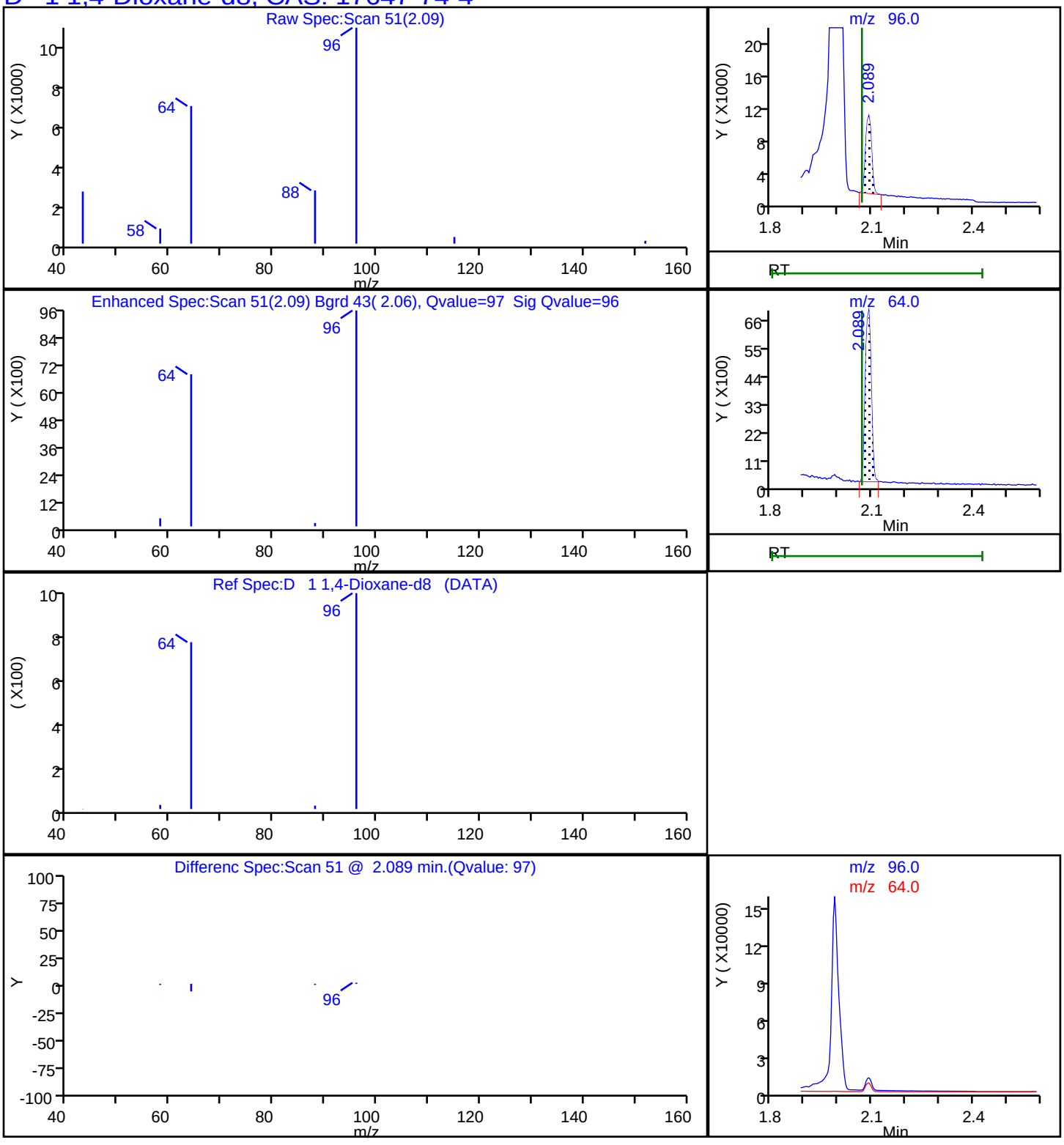


Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154834.D

Injection Date:	02-Dec-2019 13:17:30	Instrument ID:	HP5973U
Lims ID:	480-163227-B-3-A	Lab Sample ID:	480-163227-3
Client ID:	MW 05		
Operator ID:	JM	ALS Bottle#:	5 Worklist Smp#: 5
Injection Vol:	1.0 ul	Dil. Factor:	20.0000
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL
Column:		Detector	MS SCAN

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: DUP Lab Sample ID: 480-163227-4

Matrix: Water Lab File ID: U33154835.D

Analysis Method: 8270D SIM ID Date Collected: 11/19/2019 15:15

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1050(mL) Date Analyzed: 12/02/2019 13:40

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

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

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

Analysis Batch No.: 507629 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	37	E	3.8	1.9

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

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154835.D
Lims ID: 480-163227-B-4-A
Client ID: DUP
Sample Type: Client
Inject. Date: 02-Dec-2019 13:40:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 20.0000
Sample Info: 480-0086580-006
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 16:50:43 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 02-Dec-2019 16:49:59

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D	1 1,4-Dioxane-d8	96	2.089	2.068	0.021	95	12531	0.1666	33.3	
	3 1,4-Dioxane	88	2.113	2.101	0.012	86	53106	1.93		E
*	2 1,4-Dichlorobenzene-d4	152	5.487	5.487	0.000	99	614311	4.00		

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount

Reagents:

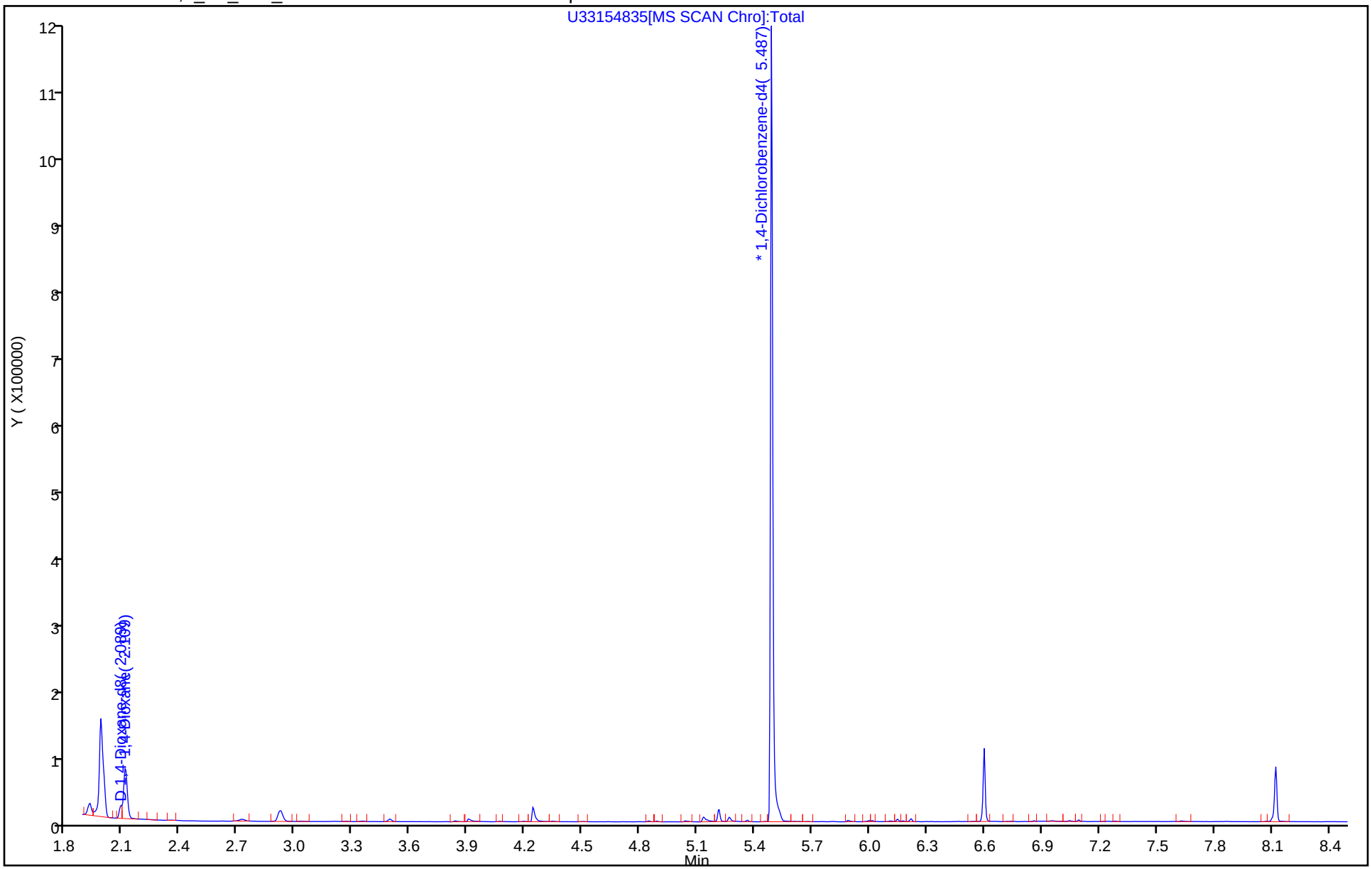
MB_LLIS_WRK_00183 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Dec-2019 16:50:45 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154835.D

Injection Date:	02-Dec-2019 13:40:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	480-163227-B-4-A	Lab Sample ID:	480-163227-4	Worklist Smp#:	6
Client ID:	DUP				
Injection Vol:	1.0 ul	Dil. Factor:	20.0000	ALS Bottle#:	6
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		

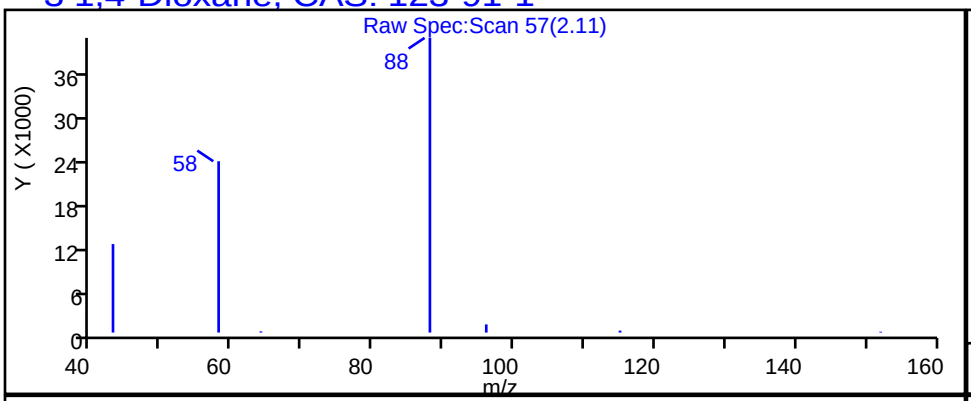


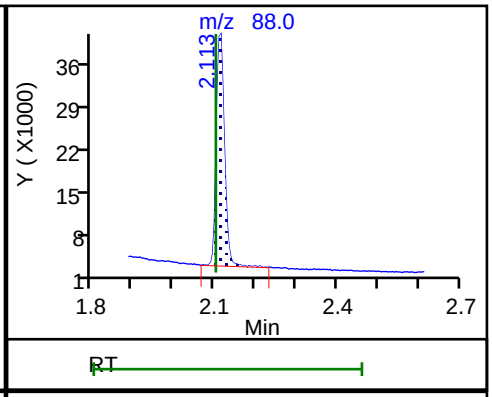
Eurofins TestAmerica, Buffalo

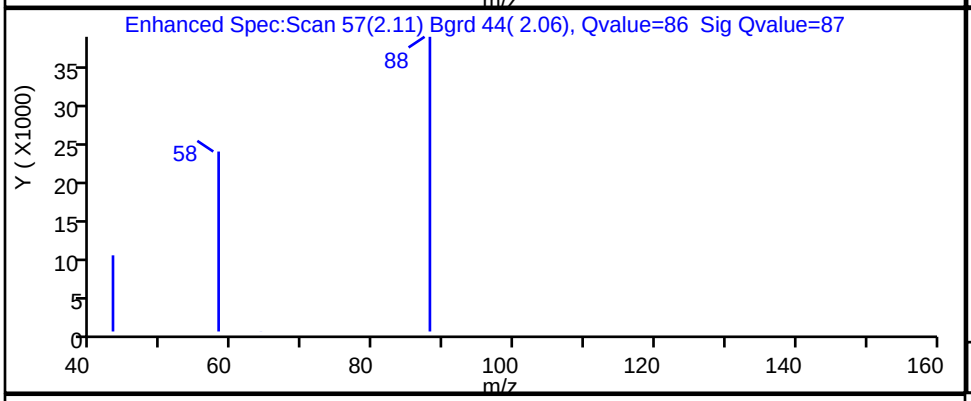
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154835.D

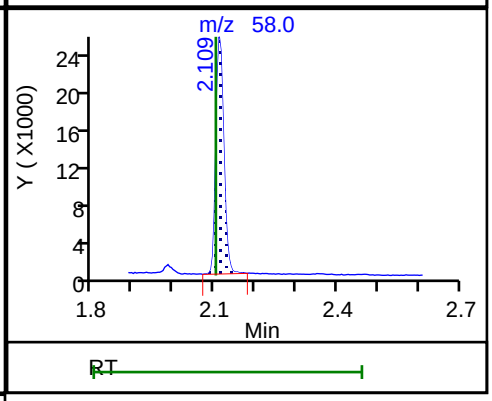
Injection Date:	02-Dec-2019 13:40:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-4-A	Lab Sample ID:	480-163227-4		
Client ID:	DUP				
Operator ID:	JM	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

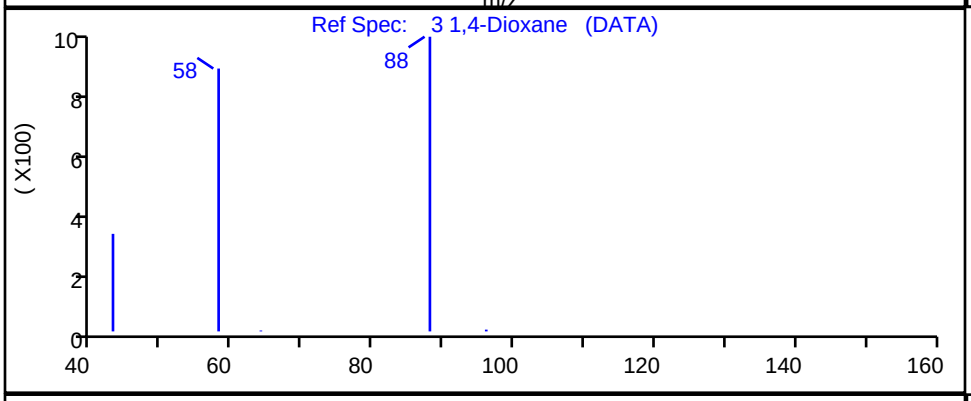
3 1,4-Dioxane, CAS: 123-91-1

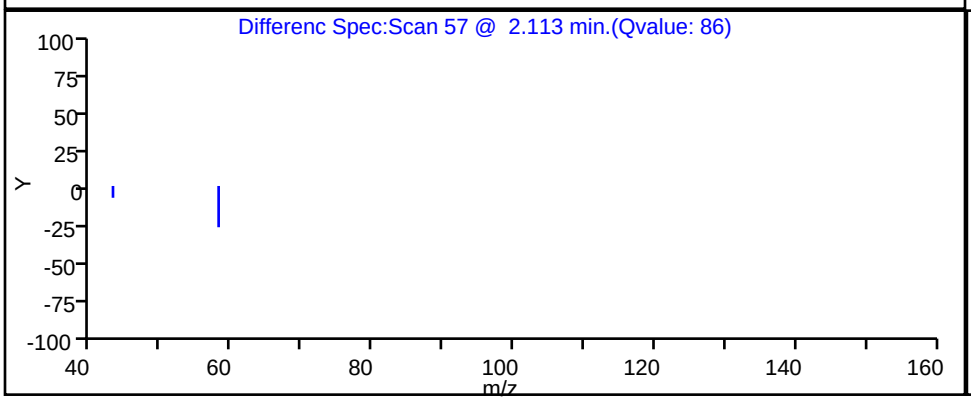


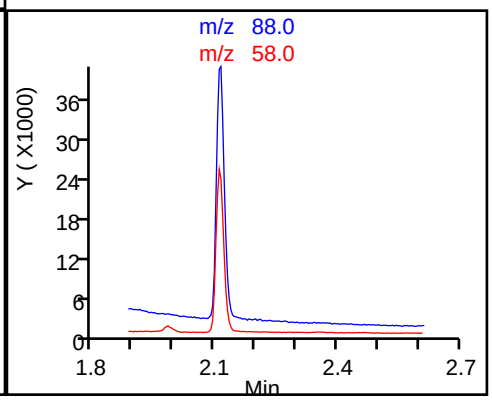












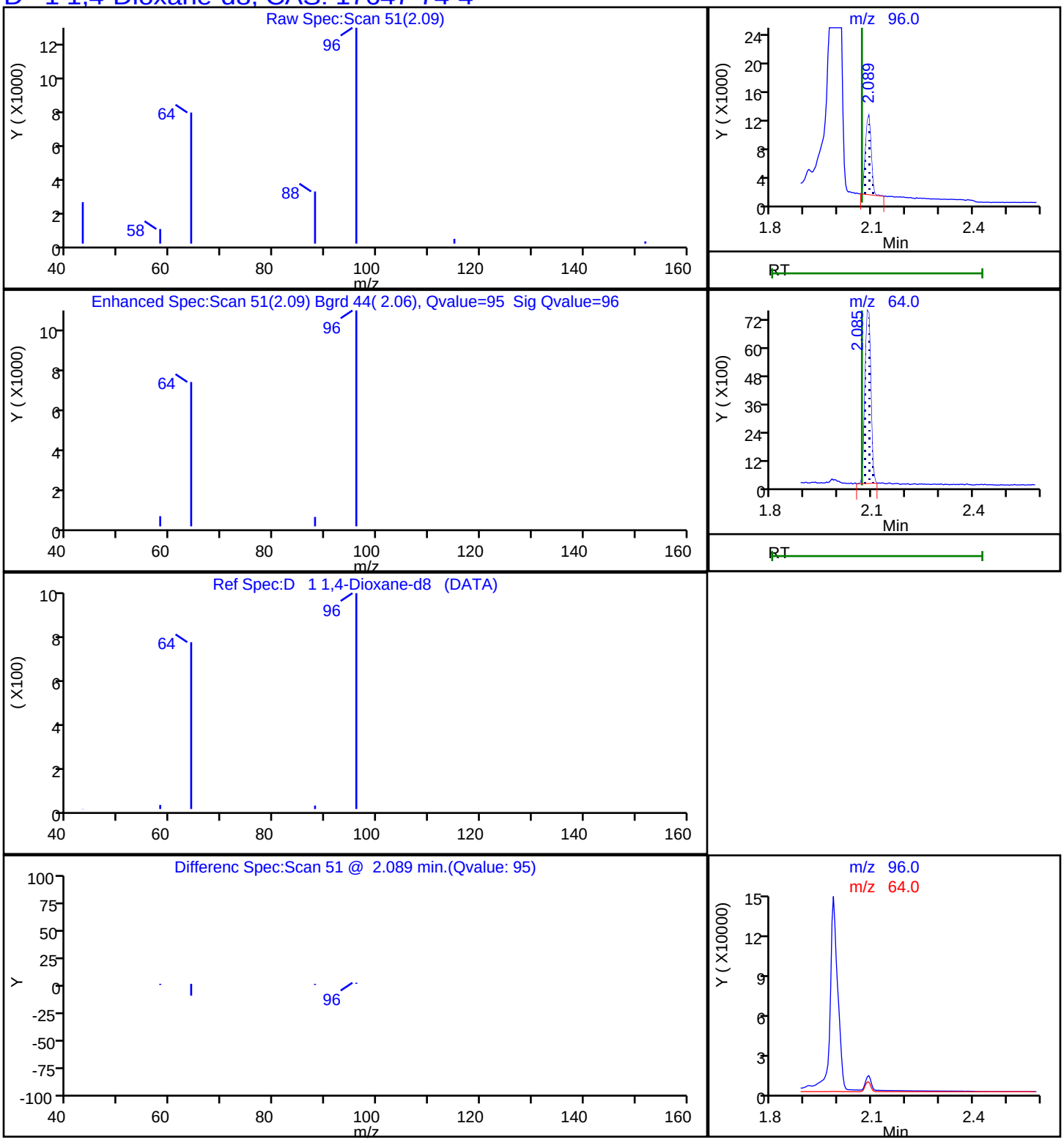
Report Date: 02-Dec-2019 16:50:45 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154835.D

Injection Date:	02-Dec-2019 13:40:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-4-A	Lab Sample ID:	480-163227-4		
Client ID:	DUP				
Operator ID:	JM	ALS Bottle#:	6	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	20.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: EQUIPMENT BLANK Lab Sample ID: 480-163227-7

Matrix: Water Lab File ID: U33154776.D

Analysis Method: 8270D SIM ID Date Collected: 11/20/2019 16:00

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1050(mL) Date Analyzed: 11/29/2019 15:00

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.: 507167 Units: ug/L

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

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	29		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154776.D
Lims ID: 480-163227-B-7-A
Client ID: EQUIPMENT BLANK
Sample Type: Client
Inject. Date: 29-Nov-2019 15:00:30 ALS Bottle#: 13 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086514-013
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 13:54:48 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 02-Dec-2019 11:24:52

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng/ul	%Rec	Flags
D	1 1,4-Dioxane-d8	96	2.138	2.068	0.070	94	198263	2.95	29.5	
	3 1,4-Dioxane	88		2.101				ND		U
*	2 1,4-Dichlorobenzene-d4	152	5.491	5.491	0.000	99	549677	4.00		

QC Flag Legend

Review Flags
U - Marked Undetected

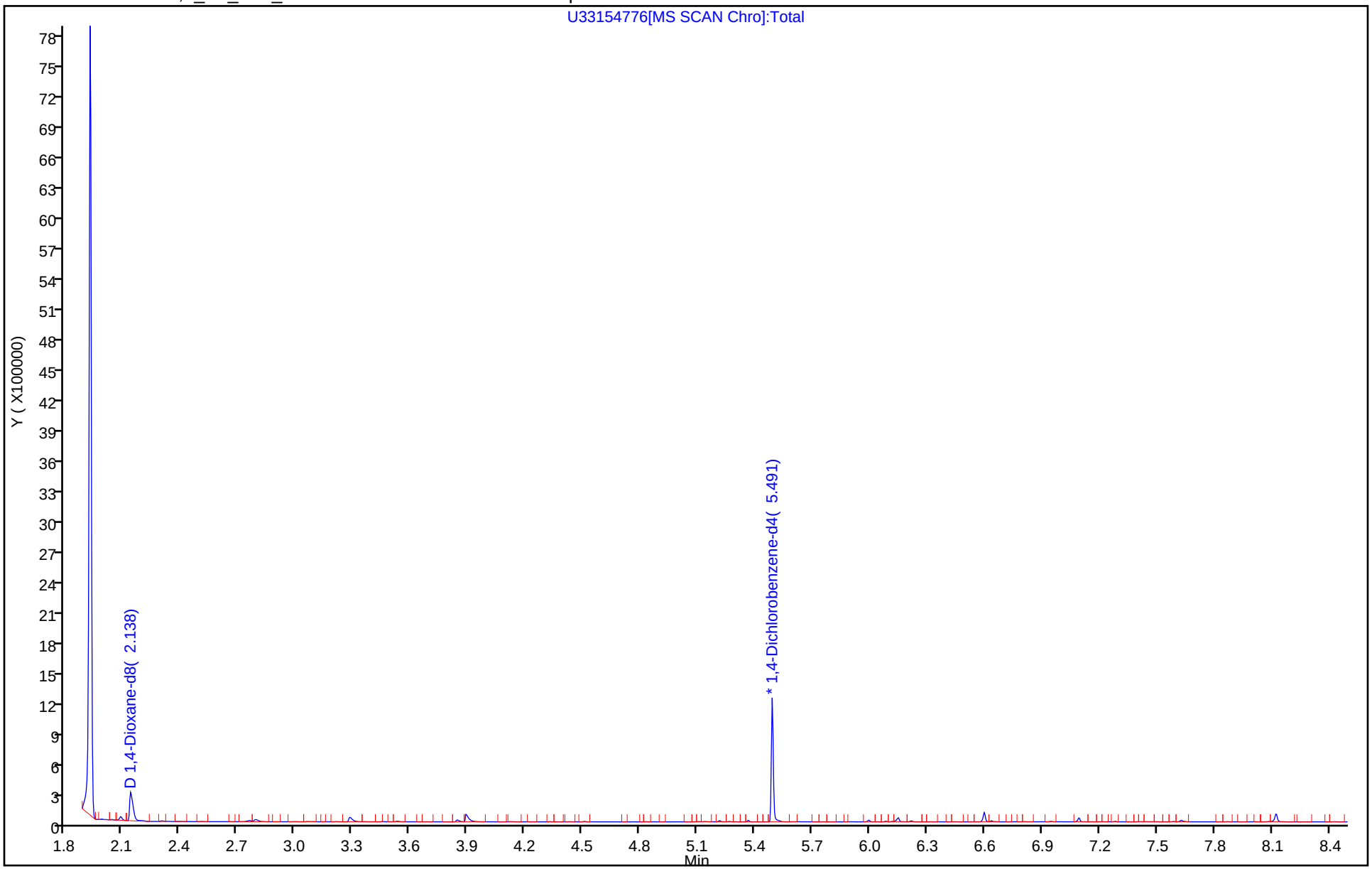
Reagents:

MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Dec-2019 13:54:54 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

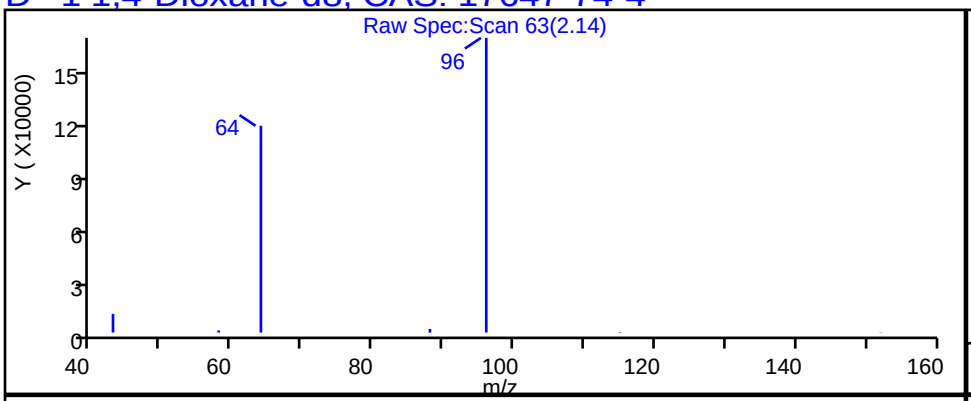
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154776.D				
Injection Date:	29-Nov-2019 15:00:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	480-163227-B-7-A	Lab Sample ID:	480-163227-7	Worklist Smp#:	13
Client ID:	EQUIPMENT BLANK				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		

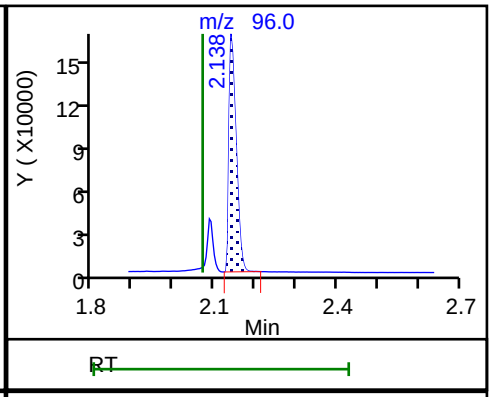


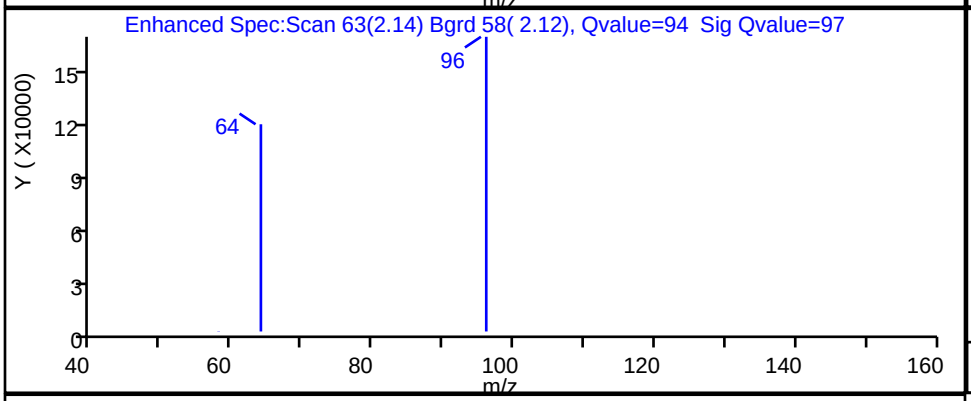
Eurofins TestAmerica, Buffalo

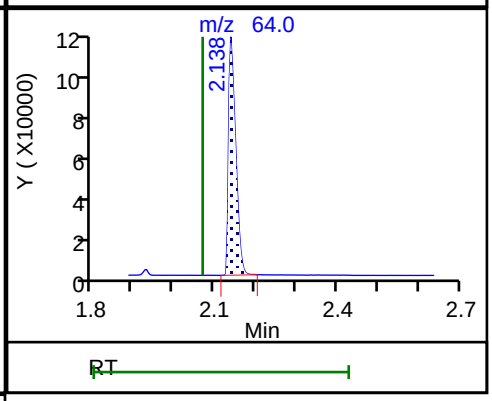
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154776.D				
Injection Date:	29-Nov-2019 15:00:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-7-A	Lab Sample ID:	480-163227-7		
Client ID:	EQUIPMENT BLANK				
Operator ID:	JM	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

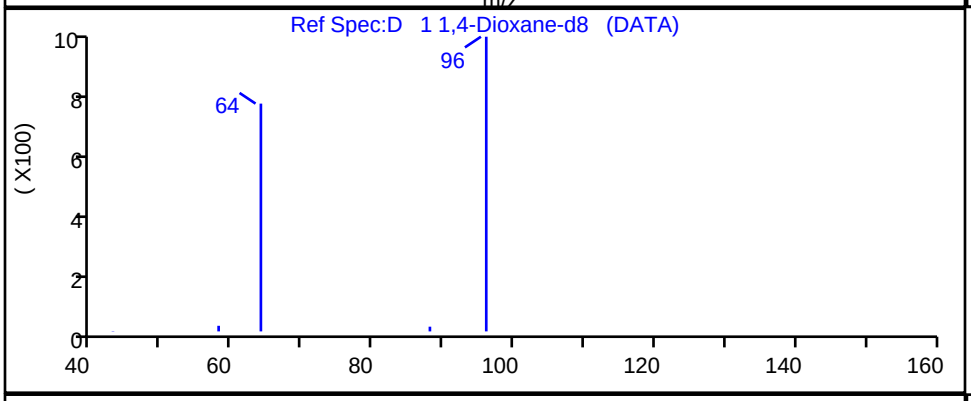
D 1 1,4-Dioxane-d8, CAS: 17647-74-4

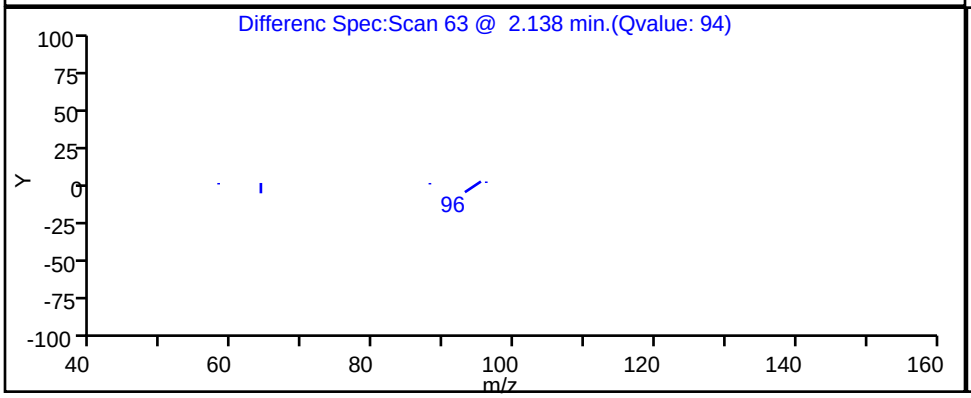


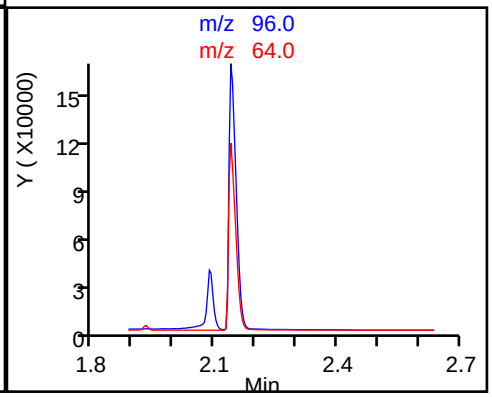












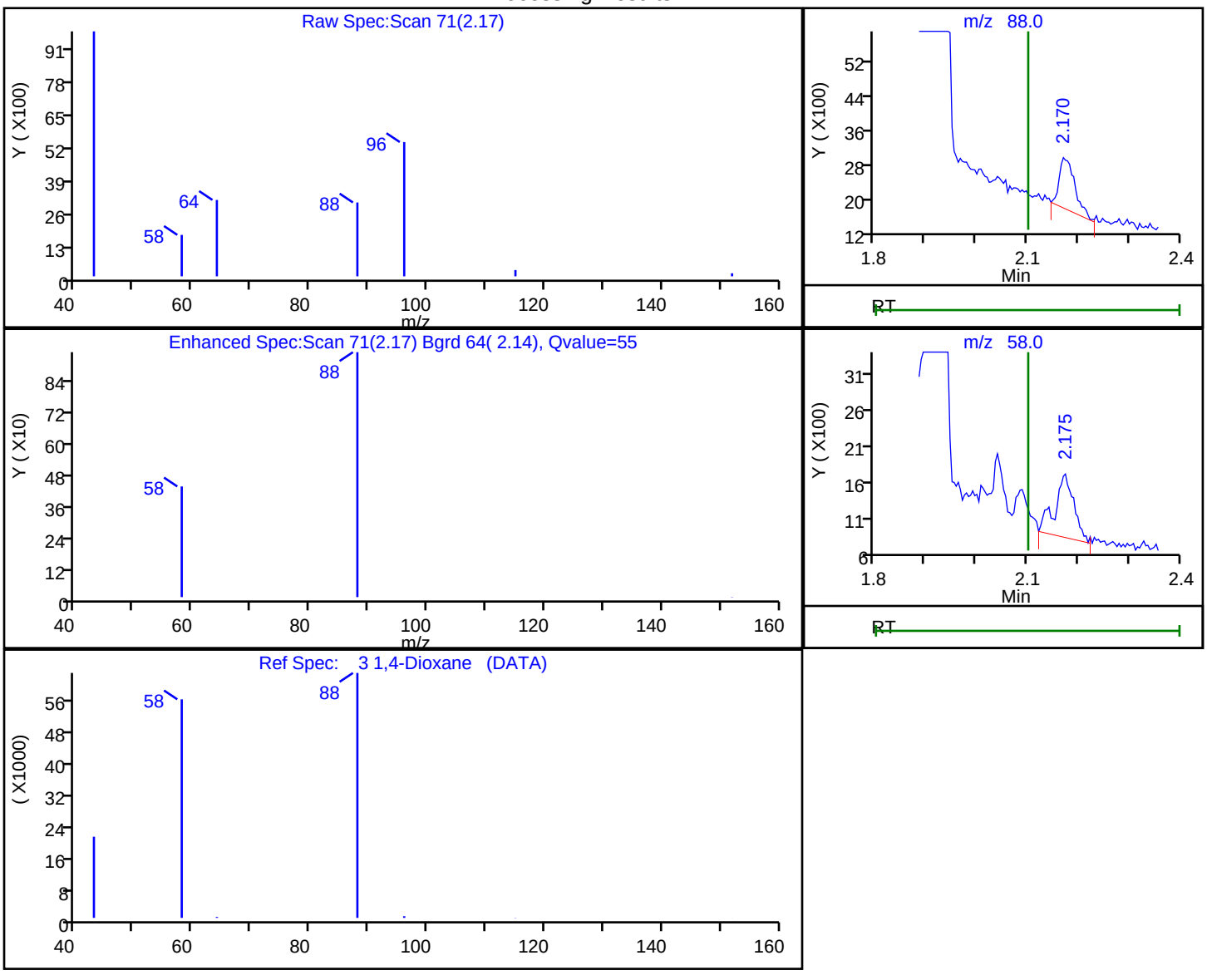
User Disabled Compound Report

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154776.D				
Injection Date:	29-Nov-2019 15:00:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-B-7-A	Lab Sample ID:	480-163227-7		
Client ID:	EQUIPMENT BLANK				
Operator ID:	JM	ALS Bottle#:	13	Worklist Smp#:	13
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

Processing Results



RT	Mass	Response	Amount
2.17	88.00	2554	0.117065
2.17	58.00	2261	

Reviewer: marshallj, 02-Dec-2019 11:24:50

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1 Analy Batch No.: 506566

SDG No.:

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

Calibration Start Date: 11/25/2019 10:19 Calibration End Date: 11/25/2019 12:16 Calibration ID: 38301

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-506566/3	U33154641.D
Level 2	IC 480-506566/4	U33154642.D
Level 3	ICIS 480-506566/5	U33154643.D
Level 4	IC 480-506566/6	U33154644.D
Level 5	IC 480-506566/7	U33154645.D
Level 6	IC 480-506566/8	U33154646.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,4-Dioxane	1.0860 1.0887	1.1210	1.1001	1.0853	1.1215	AveID		1.1004			0.0100	1.5		20.0			
1,4-Dioxane-d8	0.4837 0.4831	0.4833	0.4828	0.5040	0.5016	Ave		0.4898			0.0100	2.1		20.0			

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

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

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1 Analy Batch No.: 506566

SDG No.:

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

Calibration Start Date: 11/25/2019 10:19 Calibration End Date: 11/25/2019 12:16 Calibration ID: 38301

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 480-506566/3	U33154641.D
Level 2	IC 480-506566/4	U33154642.D
Level 3	ICIS 480-506566/5	U33154643.D
Level 4	IC 480-506566/6	U33154644.D
Level 5	IC 480-506566/7	U33154645.D
Level 6	IC 480-506566/8	U33154646.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
1,4-Dioxane		AveID	10350 58836	21425	32985	42110	53700	0.200 1.20	0.400	0.600	0.800	1.00
1,4-Dioxane-d8	DCBd 4	Ave	95307 540439	191130	299827	388019	478842	2.00 12.0	4.00	6.00	8.00	10.0

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154641.D
Lims ID: IC - SIM - 0.2
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 25-Nov-2019 10:19:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086424-003
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:45 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj Date: 25-Nov-2019 14:38:06

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.081	2.073	0.008	94	95307	2.00	1.98	
	3 1,4-Dioxane	88	2.113	2.105	0.008	88	10350	0.2000	0.1974	M
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	100	394051	4.00	4.00	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

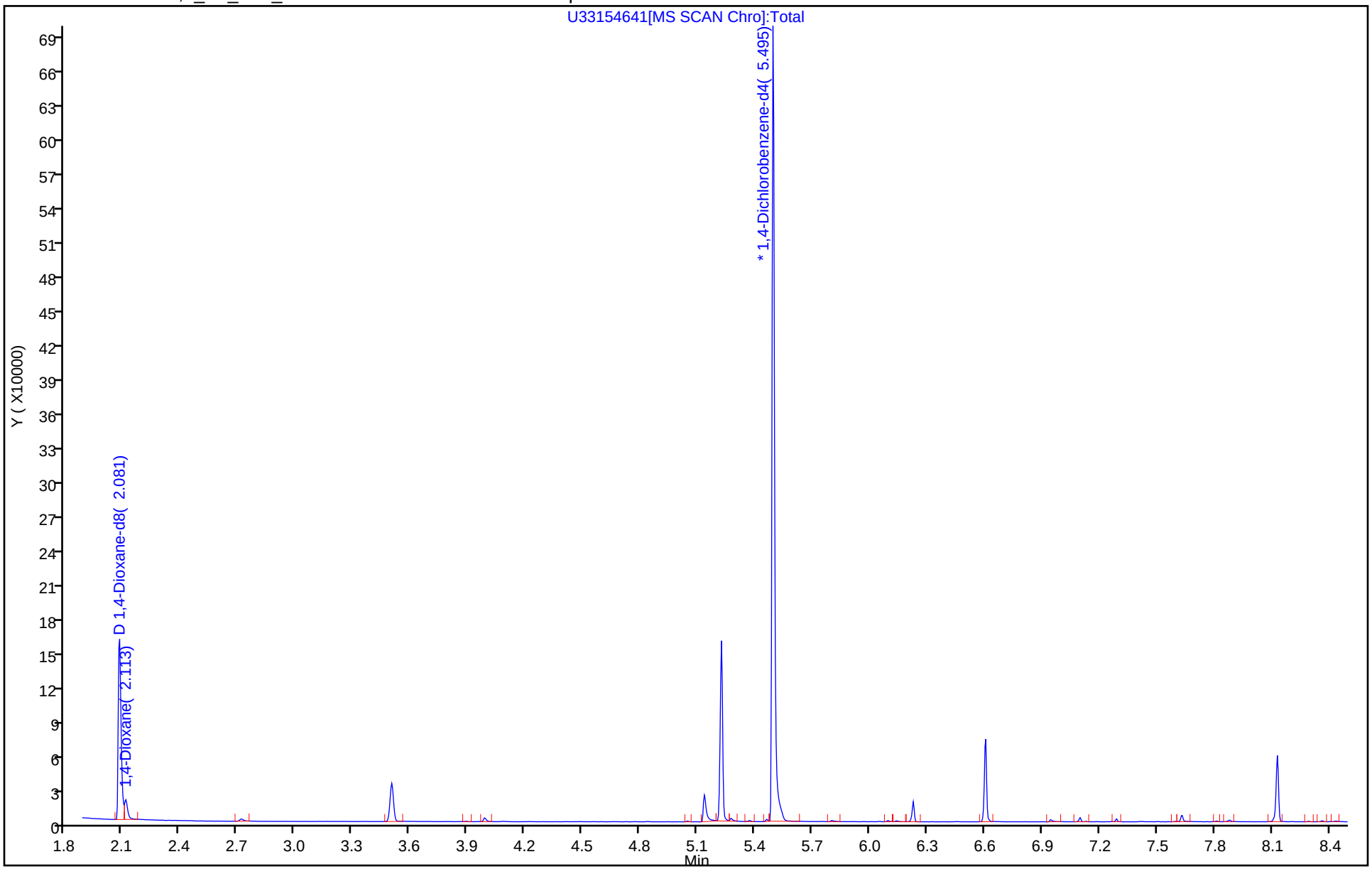
MB_1,4SIM_WRK_00078 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 25-Nov-2019 14:39:45 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154641.D

Injection Date:	25-Nov-2019 10:19:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	IC - SIM - 0.2			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Buffalo

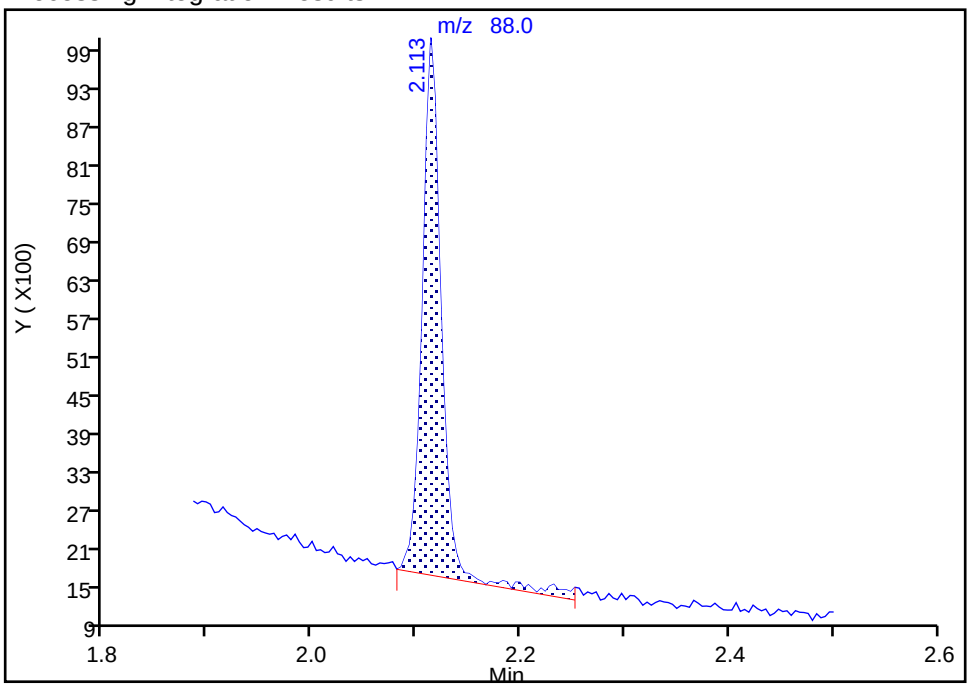
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154641.D
Injection Date: 25-Nov-2019 10:19:30 Instrument ID: HP5973U
Lims ID: IC - SIM - 0.2
Client ID:
Operator ID: JM ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL
Column: Detector MS SCAN

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

Signal: 1

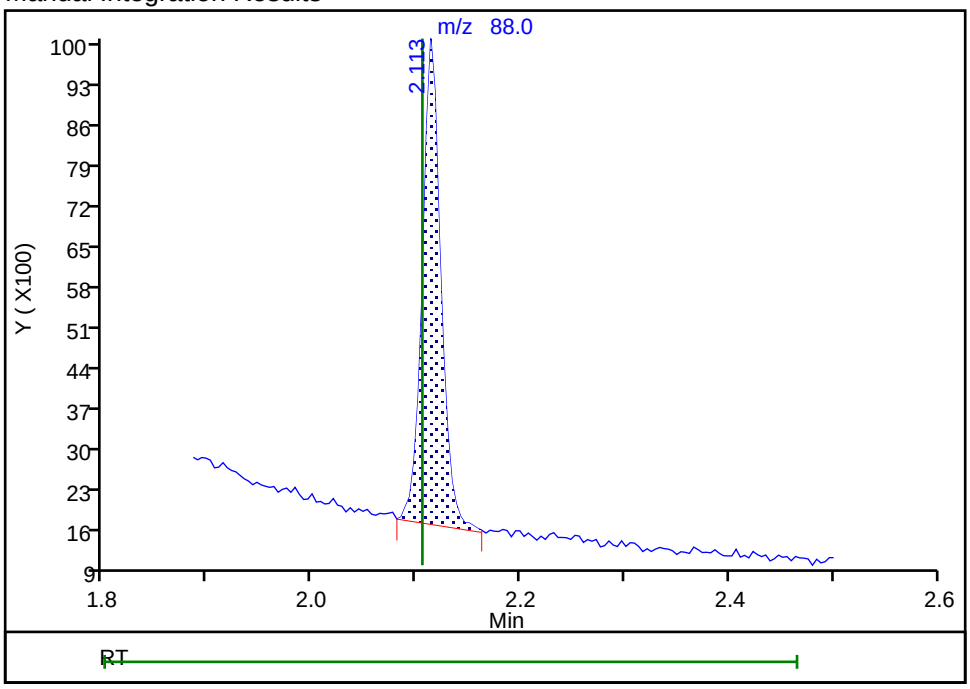
Processing Integration Results

RT: 2.11
Area: 10826
Amount: 0.204902
Amount Units: ng/ul



Manual Integration Results

RT: 2.11
Area: 10350
Amount: 0.197375
Amount Units: ng/ul



Reviewer: marshallj, 25-Nov-2019 14:38:02
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154642.D
Lims ID: IC - SIM - 0.4
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 25-Nov-2019 10:43:30 ALS Bottle#: 4 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086424-004
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:46 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj Date: 25-Nov-2019 14:38:12

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.081	2.073	0.008	94	191130	4.00	3.95	
	3 1,4-Dioxane	88	2.113	2.105	0.008	89	21425	0.4000	0.4075	
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	100	395469	4.00	4.00	

Reagents:

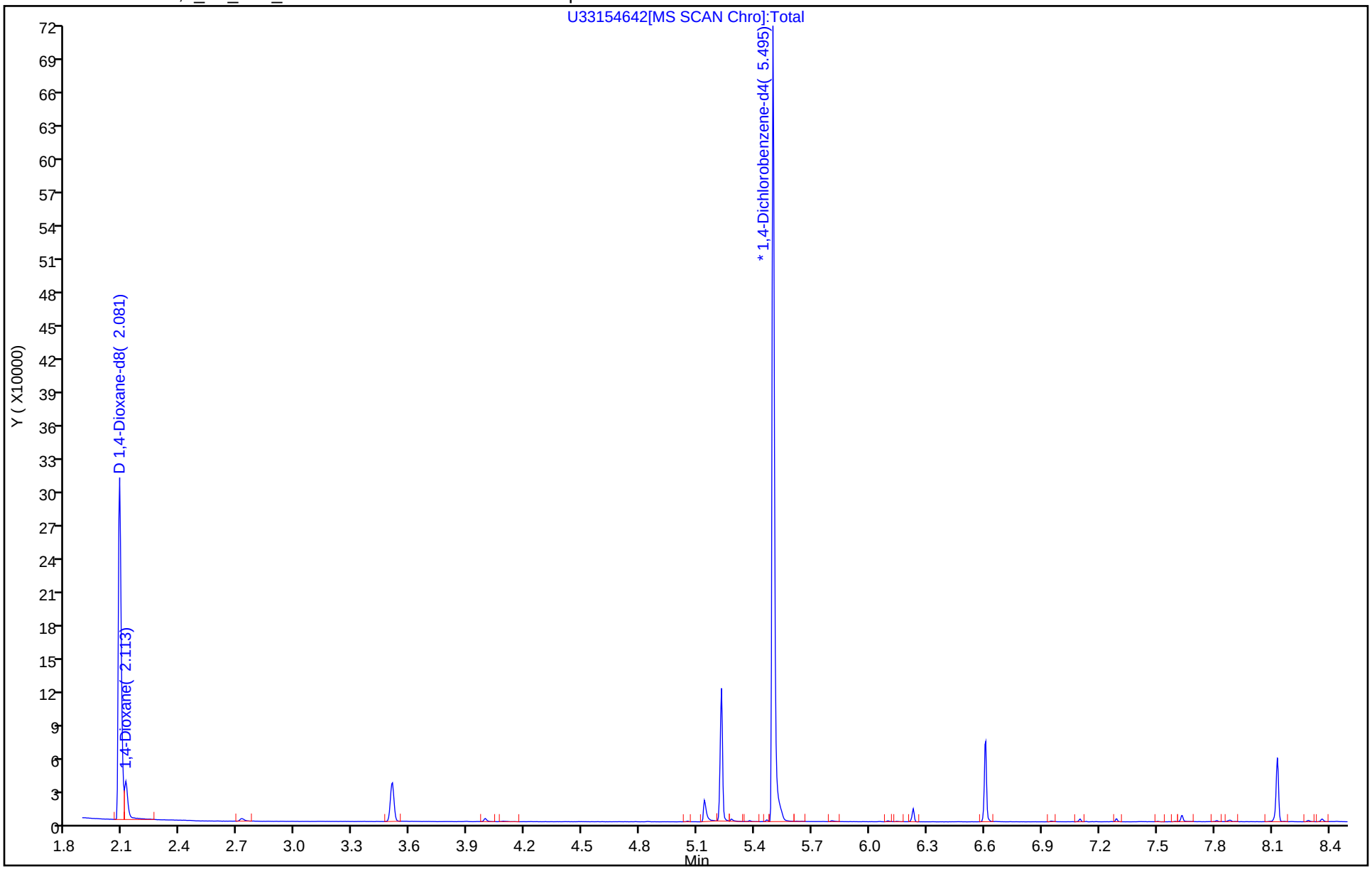
MB_1,4SIM_WRK_00079 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 25-Nov-2019 14:39:46 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154642.D

Injection Date:	25-Nov-2019 10:43:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	IC - SIM - 0.4			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



12/19/2019

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154643.D
Lims ID: ICIS - SIM - 0.6
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 25-Nov-2019 11:06:30 ALS Bottle#: 5 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086424-005
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:47 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj Date: 25-Nov-2019 14:37:14

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.073	2.073	0.000	96	299827	6.00	5.92	
	3 1,4-Dioxane	88	2.105	2.105	0.000	90	32985	0.6000	0.5999	
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	413989	4.00	4.00	

Reagents:

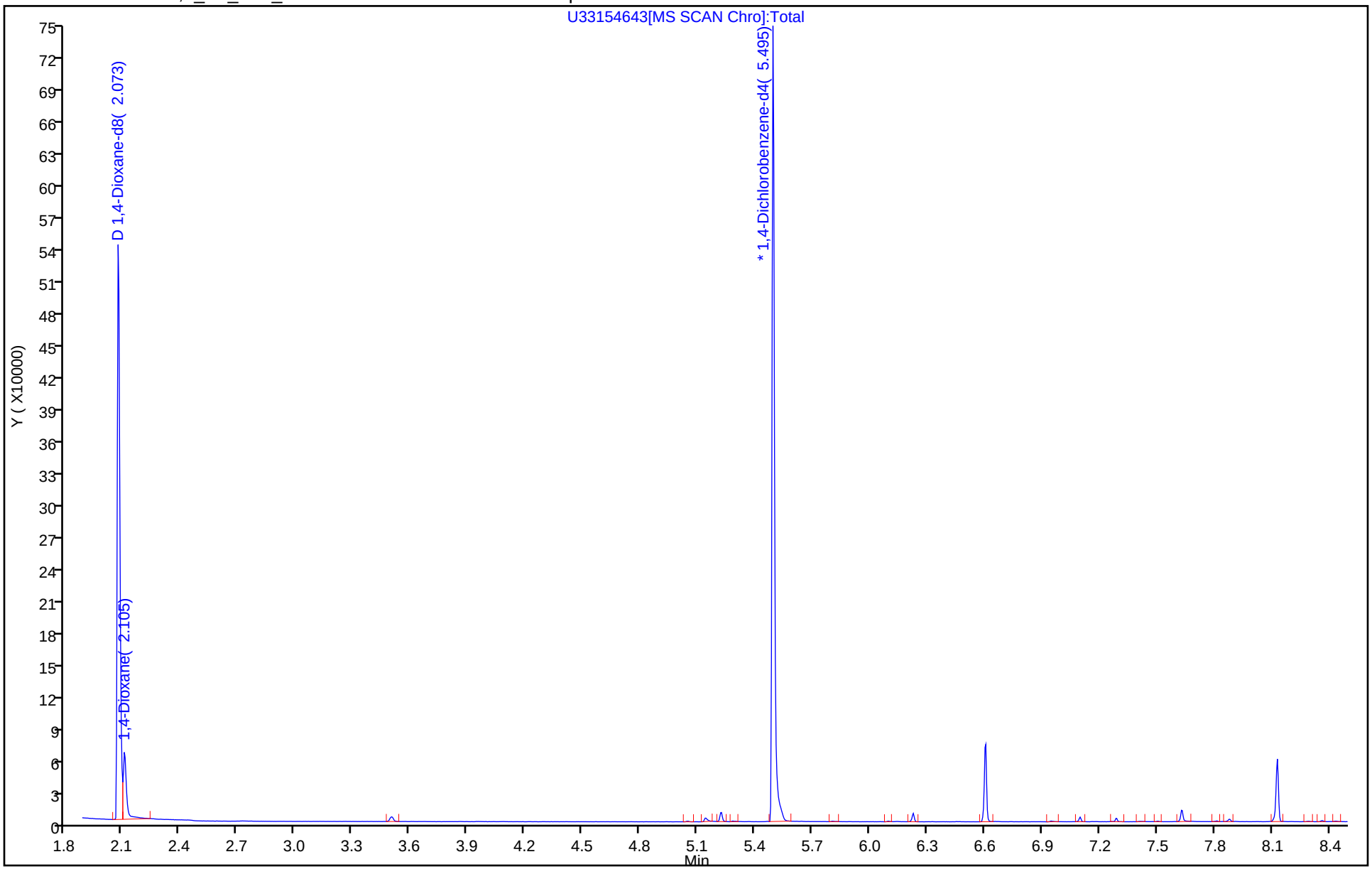
MB_1,4SIM_WRK_00080 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 25-Nov-2019 14:39:47 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154643.D

Injection Date:	25-Nov-2019 11:06:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	ICIS - SIM - 0.6			Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



12/19/2019

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154644.D
Lims ID: IC - SIM - 0.8
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 25-Nov-2019 11:29:30 ALS Bottle#: 6 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086424-006
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:48 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj Date: 25-Nov-2019 14:38:21

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.077	2.073	0.004	95	388019	8.00	8.23	
	3 1,4-Dioxane	88	2.109	2.105	0.004	88	42110	0.8000	0.7890	
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	384938	4.00	4.00	

Reagents:

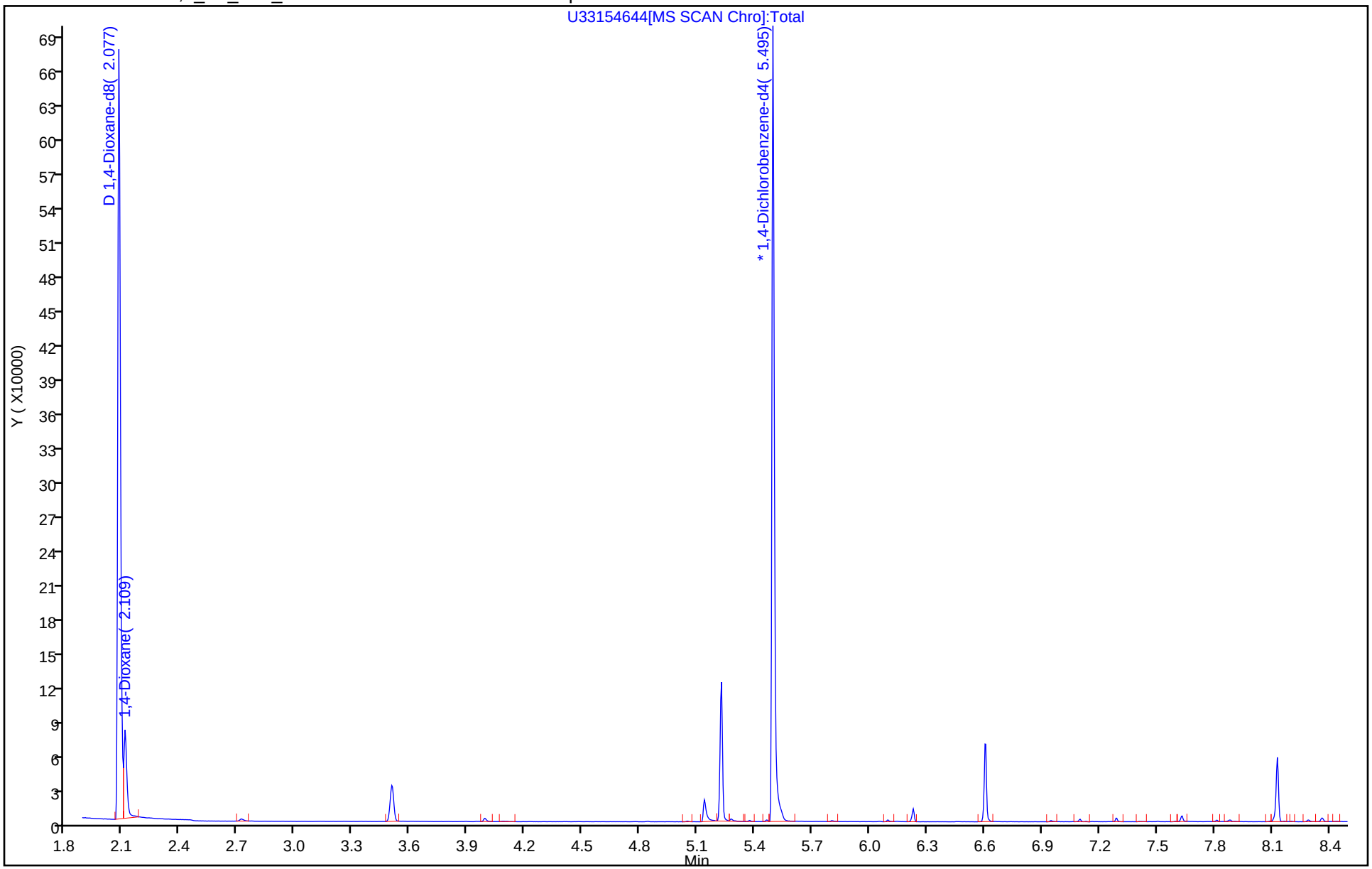
MB_1,4SIM_WRK_00081 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 25-Nov-2019 14:39:48 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154644.D

Injection Date:	25-Nov-2019 11:29:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	IC - SIM - 0.8			Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154645.D
Lims ID: IC - SIM - 1.0
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 25-Nov-2019 11:53:30 ALS Bottle#: 7 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086424-007
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:48 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj Date: 25-Nov-2019 14:38:25

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.077	2.073	0.004	95	478842	10.0	10.2	
	3 1,4-Dioxane	88	2.109	2.105	0.004	90	53700	1.00	1.02	
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	381870	4.00	4.00	

Reagents:

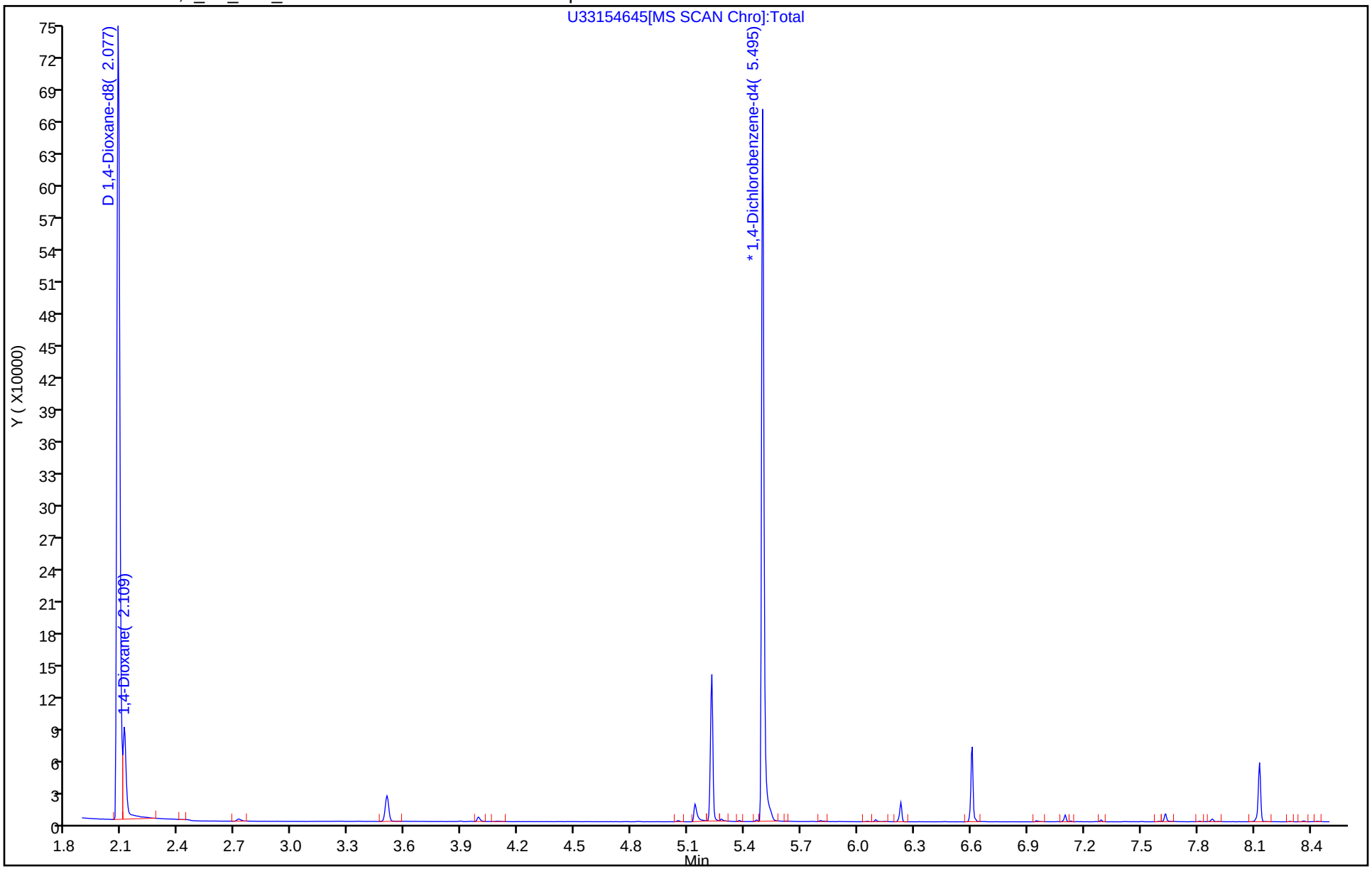
MB_1,4SIM_WRK_00082 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 25-Nov-2019 14:39:48 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154645.D

Injection Date:	25-Nov-2019 11:53:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	IC - SIM - 1.0			Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D
Lims ID: IC - SIM - 1.2
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 25-Nov-2019 12:16:30 ALS Bottle#: 8 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086424-008
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:49 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj Date: 25-Nov-2019 14:38:28

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.068	2.073	-0.005	92	540439	12.0	11.8	
	3 1,4-Dioxane	88	2.101	2.105	-0.004	87	58836	1.20	1.19	
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.495	0.000	99	372876	4.00	4.00	

Reagents:

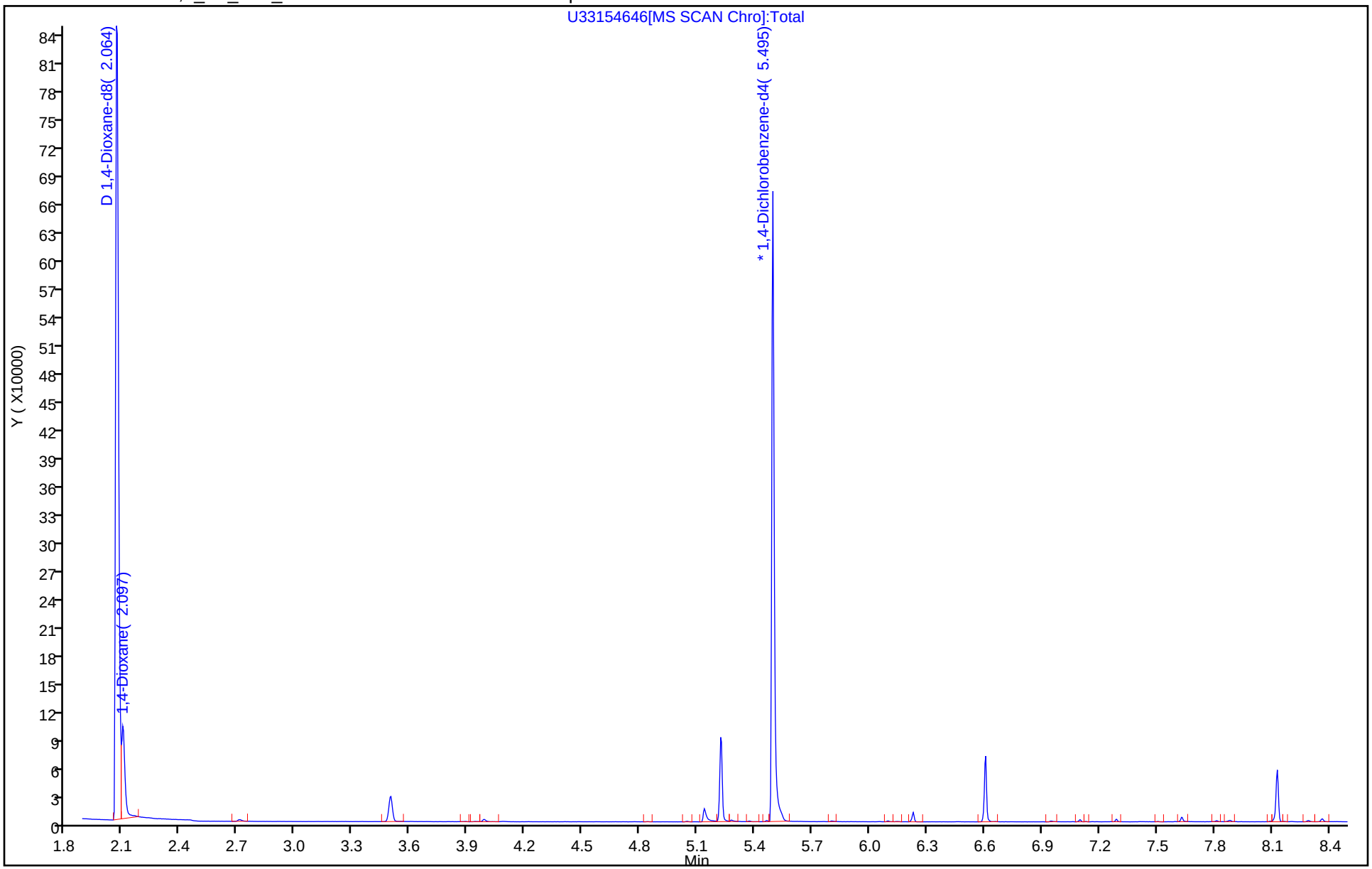
MB_1,4SIM_WRK_00083 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 25-Nov-2019 14:39:49 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Injection Date:	25-Nov-2019 12:16:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	IC - SIM - 1.2			Worklist Smp#:	8
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



12/19/2019

FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab Sample ID: CCVIS 480-507166/3 Calibration Date: 11/27/2019 22:20

Instrument ID: HP5973U Calib Start Date: 11/25/2019 10:19

GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 11/25/2019 12:16

Lab File ID: U33154737.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.100	1.091	0.0100	595	600	-0.8	20.0
1,4-Dioxane-d8	Ave	0.4898	0.4651	0.0100	5700	6000	-5.0	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154737.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-Nov-2019 22:20:30 ALS Bottle#: 33 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086513-003
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 29-Nov-2019 13:57:09 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: marshallj Date: 29-Nov-2019 13:52:09

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.073	2.073	0.000	95	392958	6.00	5.70	
	3 1,4-Dioxane	88	2.105	2.105	0.000	88	42885	0.6000	0.5951	
*	2 1,4-Dichlorobenzene-d4	152	5.491	5.491	0.000	100	563213	4.00	4.00	

Reagents:

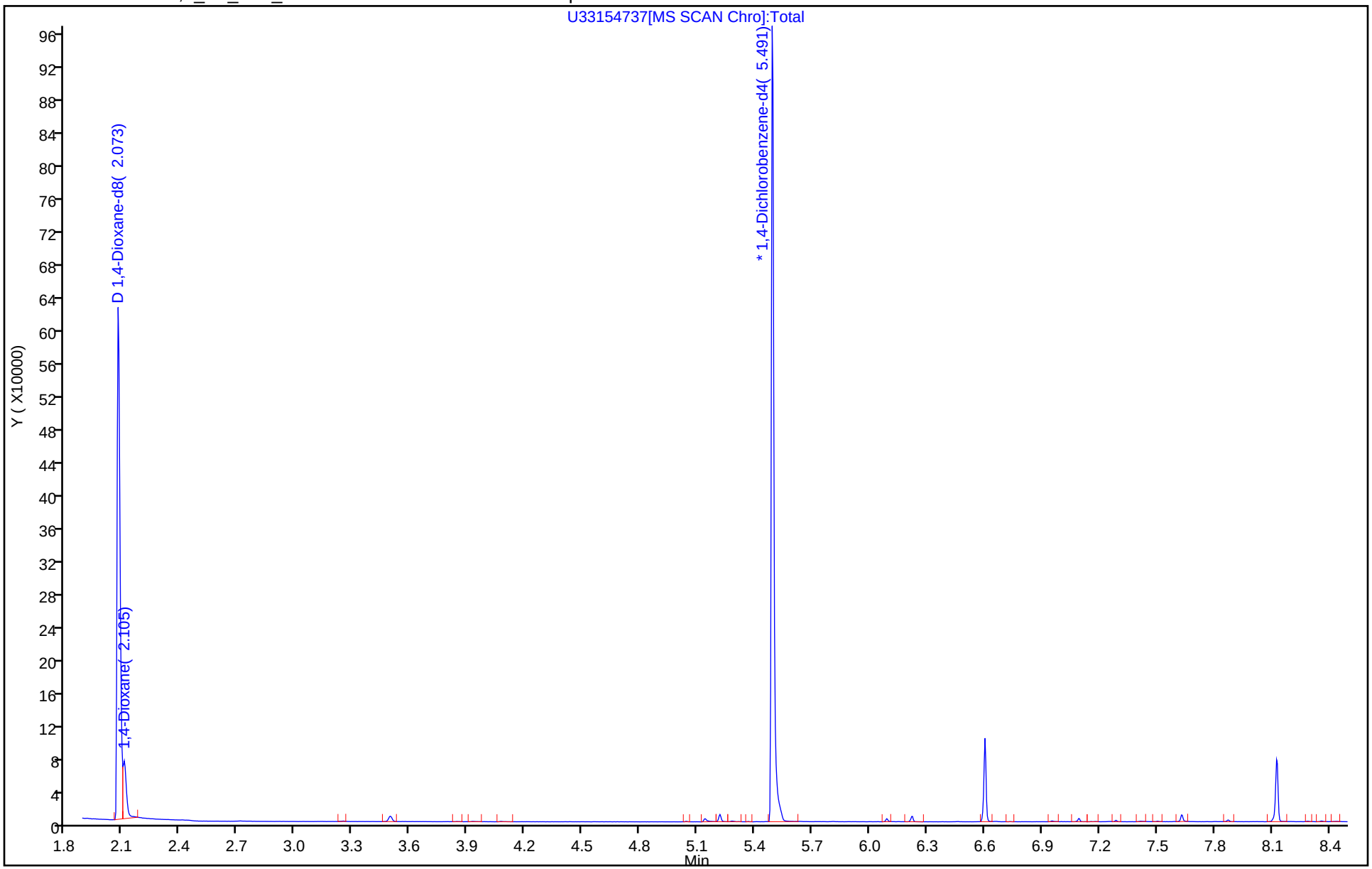
MB_1,4SIM_WRK_00080 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 29-Nov-2019 13:57:09 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154737.D

Injection Date:	27-Nov-2019 22:20:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	33
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab Sample ID: CCVIS 480-507167/3 Calibration Date: 11/29/2019 10:24

Instrument ID: HP5973U Calib Start Date: 11/25/2019 10:19

GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 11/25/2019 12:16

Lab File ID: U33154766.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.100	1.105	0.0100	603	600	0.5	20.0
1,4-Dioxane-d8	Ave	0.4898	0.4849	0.0100	5940	6000	-1.0	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154766.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 29-Nov-2019 10:24:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086514-003
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 13:54:48 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 29-Nov-2019 10:52:28

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.068	2.068	0.000	96	442144	6.00	5.94	
	3 1,4-Dioxane	88	2.101	2.101	0.000	89	48876	0.6000	0.6027	
*	2 1,4-Dichlorobenzene-d4	152	5.491	5.491	0.000	98	607878	4.00	4.00	

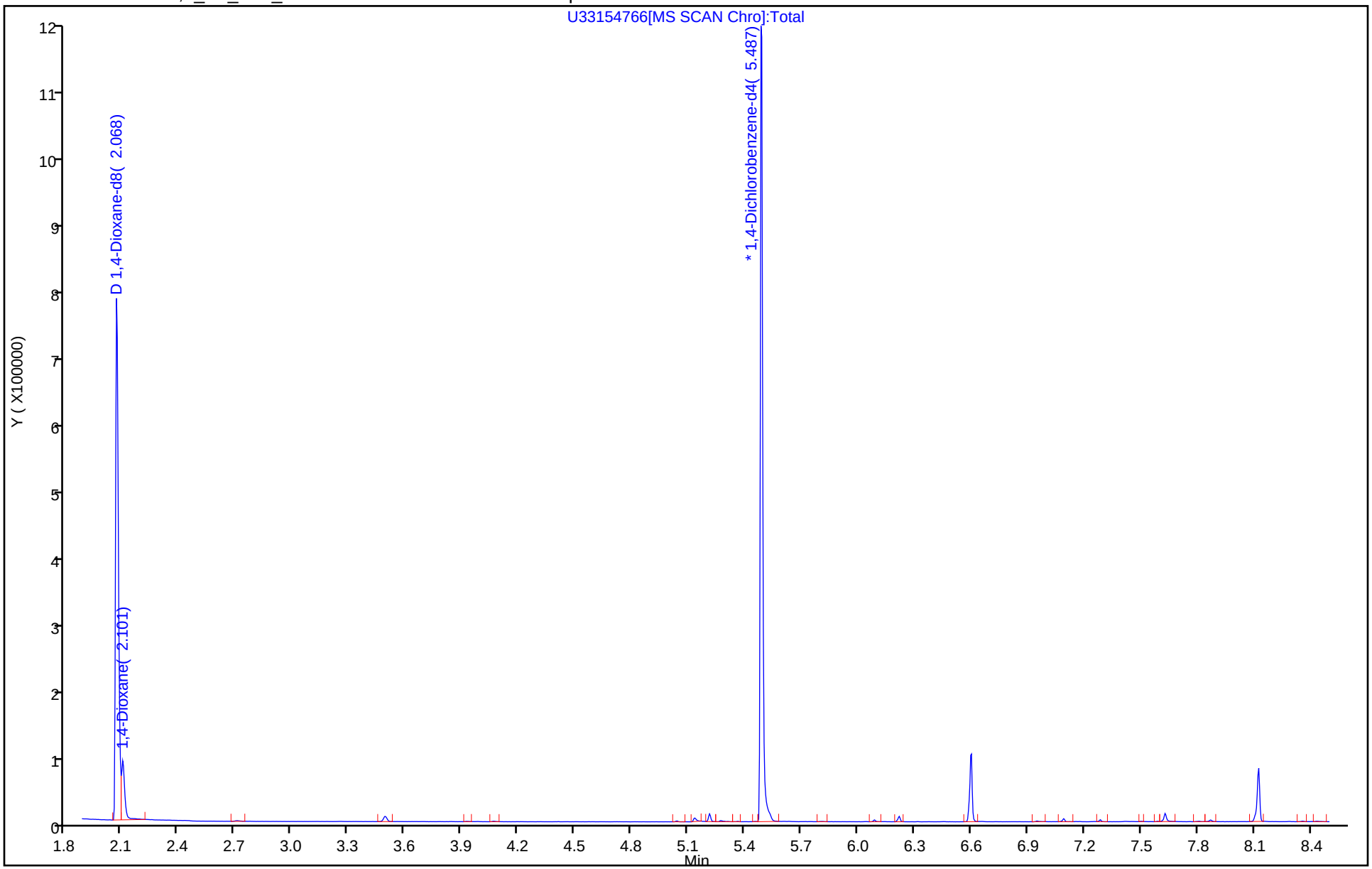
Reagents:

MB_1,4SIM_WRK_00080 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Dec-2019 13:54:48 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154766.D				
Injection Date:	29-Nov-2019 10:24:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



FORM VII
GC/MS SEMI VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Lab Sample ID: CCVIS 480-507629/3 Calibration Date: 12/02/2019 12:30

Instrument ID: HP5973U Calib Start Date: 11/25/2019 10:19

GC Column: RXI-5Sil MS(0.5 ID: 0.25(mm) Calib End Date: 11/25/2019 12:16

Lab File ID: U33154832.D Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,4-Dioxane	AveID	1.100	1.117	0.0100	609	600	1.6	20.0
1,4-Dioxane-d8	Ave	0.4898	0.4868	0.0100	5960	6000	-0.6	20.0

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154832.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 02-Dec-2019 12:30:30 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086580-003
Operator ID: JM Instrument ID: HP5973U
Sublist: chrom-1,4_Dx_SIM_HP5973U*sub1

Method: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 16:50:43 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 02-Dec-2019 12:56:44

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.068	2.068	0.000	94	465068	6.00	5.96	
	3 1,4-Dioxane	88	2.101	2.101	0.000	88	51970	0.6000	0.6093	
*	2 1,4-Dichlorobenzene-d4	152	5.487	5.487	0.000	99	636870	4.00	4.00	

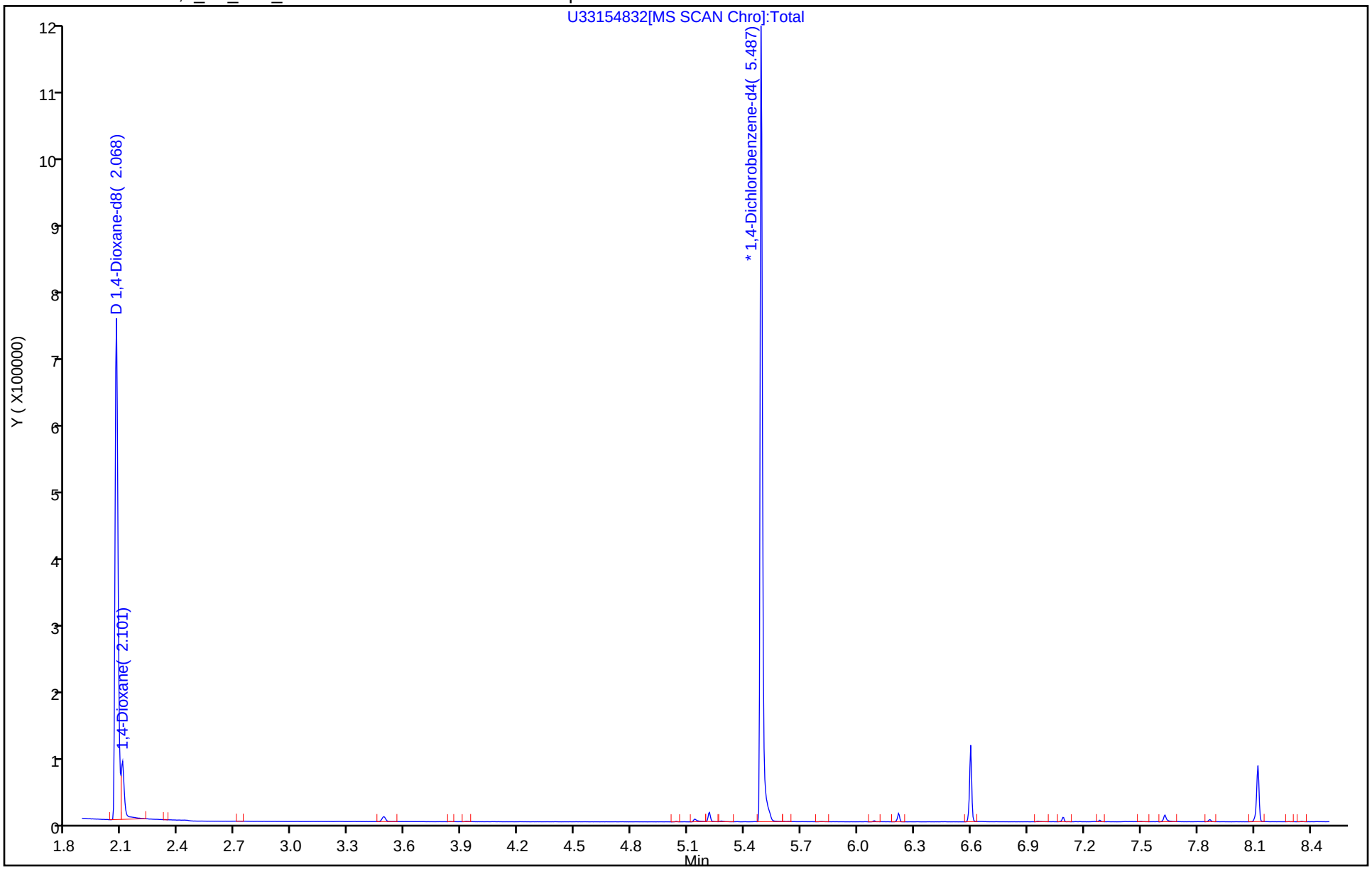
Reagents:

MB_1,4SIM_WRK_00080 Amount Added: 1.00 Units: mL
MB_LLIS_WRK_00183 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 02-Dec-2019 16:50:43 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154832.D				
Injection Date:	02-Dec-2019 12:30:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 25-Nov-2019 09:52:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 25-Nov-2019 14:39:42 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: Deconvolution ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0324

First Level Reviewer: marshallj Date: 25-Nov-2019 10:14:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
4 DFTPP									
7 4,4'-DDE	246		10.818					ND	
5 4,4'-DDD	235		10.930					ND	
6 4,4'-DDT	235	11.095	11.095	0.000	97	749050	NR		NR

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

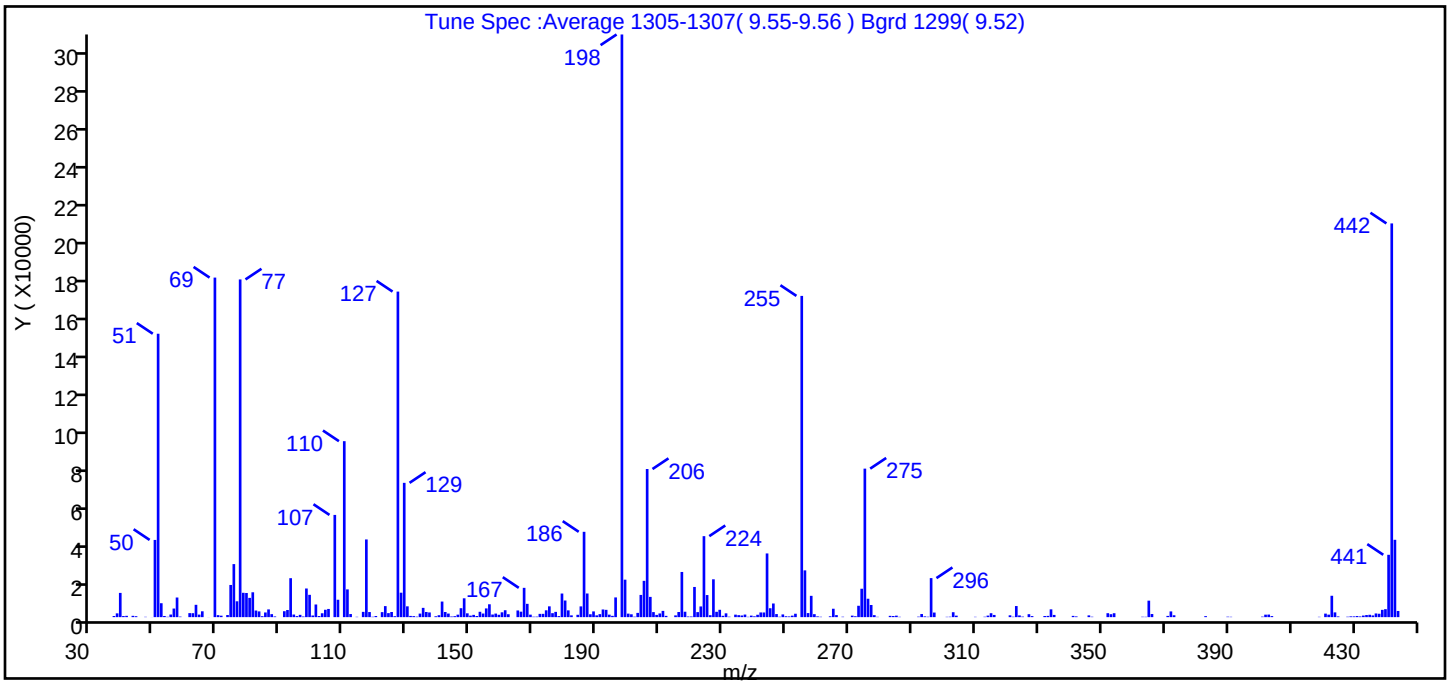
MB_DFTPP_WRK_00363 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D
Injection Date: 25-Nov-2019 09:52:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL
Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >90% of 442	100.0 (148.0)
51	10-80% of the base peak	48.6
68	<2% of mass 69	0.0 (0.0)
69	Present	58.3
70	<2% of mass 69	0.3 (0.6)
127	10-80% of the base peak	55.9
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.4
275	10-60% of the base peak	25.5
365	>1% of mass 198	2.8
441	present but <24% of mass 442	10.7 (15.8)
442	base peak, or >50% of 198	67.6
443	15-24% of mass 442	13.3 (19.6)

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 25-Nov-2019 09:52:30
Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	589	125.00	2679	202.00	245	286.00	173
38.00	1975	126.00	484	203.00	2215	292.00	257
39.00	12627	127.00	169600	204.00	11575	293.00	1626
40.00	574	128.00	12732	205.00	18912	294.00	392
41.00	686	129.00	69968	206.00	77168	295.00	214
43.00	684	130.00	5632	207.00	10553	296.00	20336
44.00	491	131.00	646	208.00	2631	297.00	2390
47.00	169	132.00	524	209.00	1171	301.00	169
49.00	32	133.00	260	210.00	1923	302.00	225
50.00	40224	134.00	1843	211.00	3259	303.00	2566
51.00	147648	135.00	4838	212.00	669	304.00	781
52.00	7252	136.00	2684	215.00	913	310.00	167
53.00	603	137.00	2444	216.00	2672	313.00	216
54.00	181	139.00	456	217.00	23536	314.00	801
55.00	1359	140.00	999	218.00	2824	315.00	2045
56.00	4479	141.00	8120	219.00	334	316.00	1146
57.00	10226	142.00	2683	220.00	328	321.00	945
58.00	275	143.00	1861	221.00	15724	322.00	218
61.00	2094	144.00	335	222.00	2619	323.00	5782
62.00	2065	145.00	503	223.00	5576	324.00	899
63.00	6423	146.00	1294	224.00	42192	325.00	289
64.00	1327	147.00	4657	225.00	11509	327.00	1536
65.00	3052	148.00	9817	226.00	1015	328.00	548
67.00	37	149.00	1988	227.00	19720	332.00	582
69.00	176896	150.00	789	228.00	2780	333.00	655
70.00	1034	151.00	1182	229.00	3831	334.00	4065
71.00	762	152.00	590	230.00	703	335.00	1158
73.00	1105	153.00	2792	231.00	1986	341.00	659
74.00	16768	154.00	1885	232.00	232	342.00	383
75.00	27632	155.00	4548	234.00	1300	346.00	919
76.00	8255	156.00	6709	235.00	1028	347.00	218
77.00	175936	157.00	1363	236.00	863	352.00	2057
78.00	12683	158.00	1851	237.00	1347	353.00	1533

Report Date: 25-Nov-2019 14:39:44 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 25-Nov-2019 09:52:30
Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
79.00	12584	159.00	1233	238.00	169	354.00	2043
80.00	10037	160.00	2514	239.00	792	363.00	211
81.00	12950	161.00	3600	240.00	423	364.00	183
82.00	3444	162.00	1518	241.00	1232	365.00	8586
83.00	2994	165.00	3485	242.00	2448	366.00	1627
84.00	491	166.00	2849	243.00	2430	371.00	646
85.00	2434	167.00	15267	244.00	33184	372.00	2985
86.00	4033	168.00	6934	245.00	4637	373.00	979
87.00	1564	169.00	1296	246.00	7114	383.00	529
88.00	361	170.00	225	247.00	1603	390.00	235
91.00	3087	171.00	260	248.00	212	391.00	181
92.00	3714	172.00	1706	249.00	1420	401.00	276
93.00	20296	173.00	1719	250.00	457	402.00	1295
94.00	1360	174.00	3565	251.00	366	403.00	1341
95.00	554	175.00	5630	252.00	778	404.00	548
96.00	1204	176.00	2071	253.00	1774	419.00	168
97.00	323	177.00	2745	255.00	167360	421.00	1834
98.00	14924	178.00	535	256.00	24368	422.00	1300
99.00	11625	179.00	12302	257.00	2116	423.00	11137
100.00	845	180.00	8664	258.00	11100	424.00	2478
101.00	6595	181.00	3536	259.00	1553	425.00	375
102.00	573	182.00	930	260.00	396	428.00	221
103.00	2021	184.00	1222	261.00	195	429.00	409
104.00	3848	185.00	5605	264.00	430	430.00	390
105.00	4267	186.00	44456	265.00	4380	431.00	576
107.00	53256	187.00	12322	266.00	1059	432.00	357
108.00	9063	188.00	1501	268.00	216	433.00	829
110.00	91672	189.00	2993	271.00	782	434.00	1097
111.00	14462	190.00	930	272.00	454	435.00	1225
112.00	1612	191.00	1565	273.00	5925	436.00	892
114.00	172	192.00	3992	274.00	14799	437.00	1923
116.00	2751	193.00	3806	275.00	77368	438.00	1767
117.00	40480	194.00	1296	276.00	9589	439.00	3794
118.00	2655	195.00	676	277.00	6328	440.00	4157

Report Date: 25-Nov-2019 14:39:44 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 25-Nov-2019 09:52:30
Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 287

m/z	Y	m/z	Y	m/z	Y	m/z	Y
119.00	202	196.00	10272	278.00	1037	441.00	32480
120.00	587	198.00	303552	279.00	171	442.00	205120
122.00	2609	199.00	19520	283.00	674	443.00	40296
123.00	5746	200.00	1825	284.00	588	444.00	3218
124.00	2093	201.00	1483	285.00	775		

Breakdown Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154640.D
Injection Date: 25-Nov-2019 09:52:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

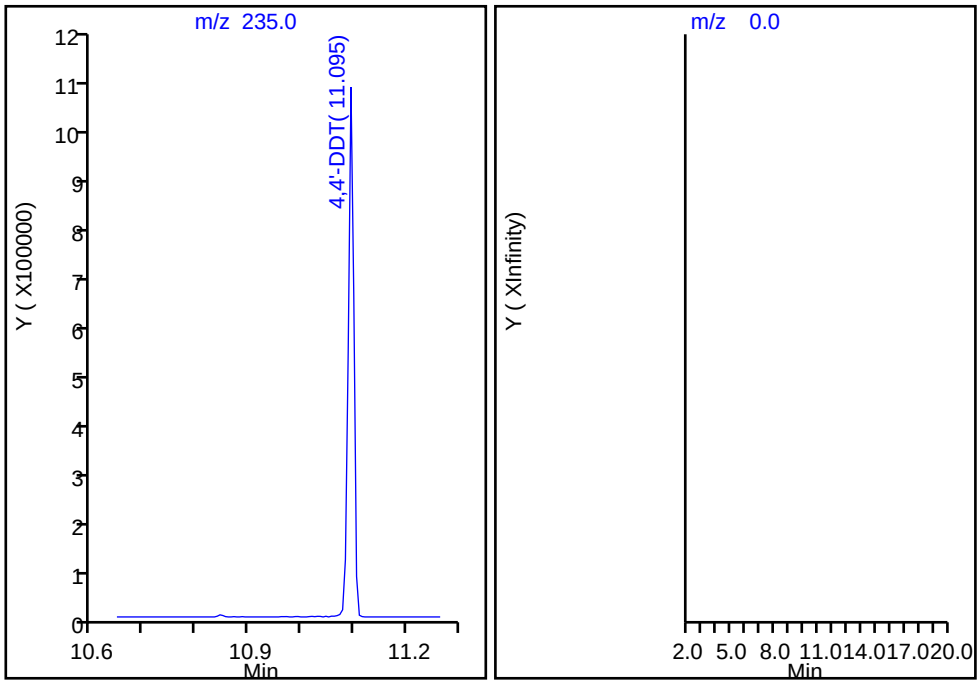
6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

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

6 4,4'-DDT, Area = 749050
5 4,4'-DDD, Area = 0
7 4,4'-DDE, Area = 0

%Breakdown: 0.00%, <= 20.00%
Passed



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154736.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 27-Nov-2019 21:52:30 ALS Bottle#: 32 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086513-002
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 29-Nov-2019 13:57:08 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: Deconvolution ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: marshallj Date: 29-Nov-2019 09:02:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
4 DFTPP									
7 4,4'-DDE	246		10.818					ND	
5 4,4'-DDD	235	10.844	10.844	0.000	94	47431			NR
6 4,4'-DDT	235	11.095	11.095	0.000	98	993198	NR		NR

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

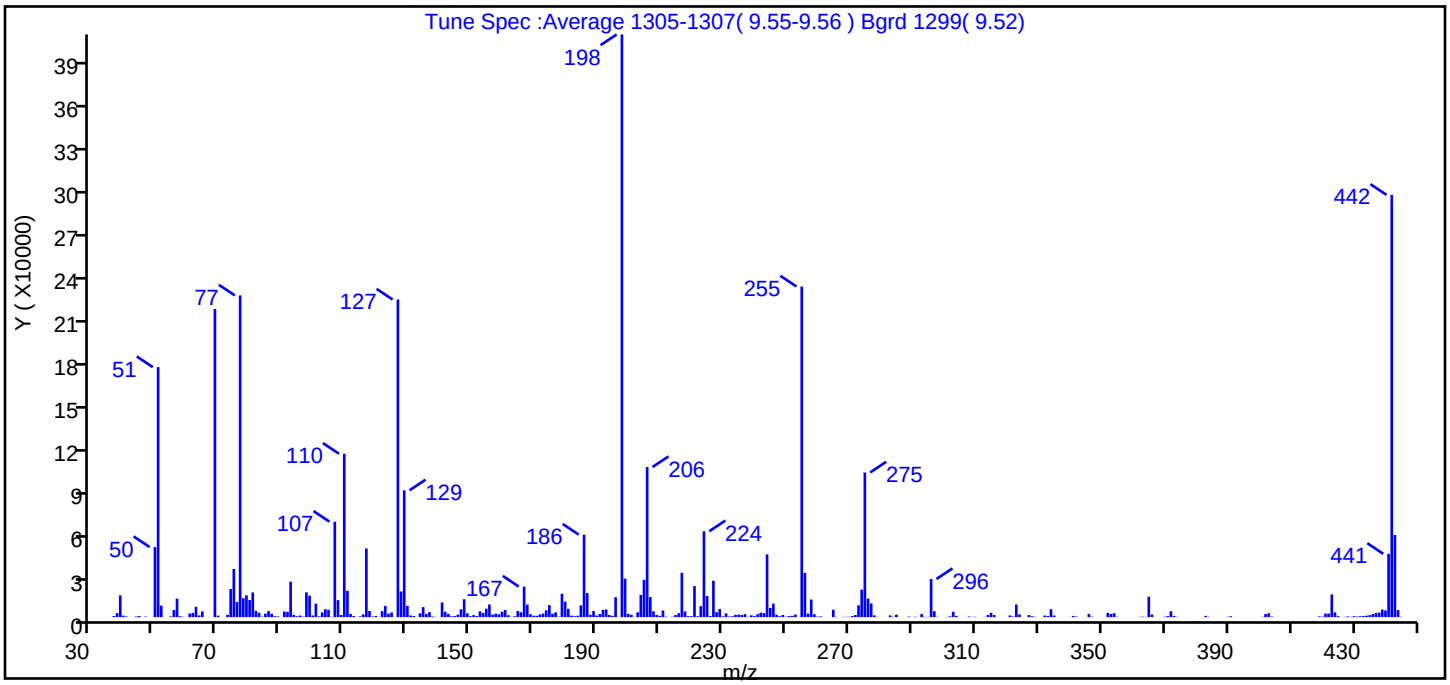
MB_DFTPP_WRK_00365 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154736.D
Injection Date: 27-Nov-2019 21:52:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 32 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL
Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >90% of 442	100.0 (138.0)
51	10-80% of the base peak	42.9
68	<2% of mass 69	0.0 (0.0)
69	Present	52.9
70	<2% of mass 69	0.3 (0.5)
127	10-80% of the base peak	54.5
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.6
275	10-60% of the base peak	24.8
365	>1% of mass 198	3.5
441	present but <24% of mass 442	10.9 (15.0)
442	base peak, or >50% of 198	72.5
443	15-24% of mass 442	14.1 (19.5)

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154736.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 27-Nov-2019 21:52:30
Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 302

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	805	129.00	89184	209.00	1532	301.00	180
38.00	2826	130.00	7955	210.00	958	302.00	595
39.00	15292	131.00	1193	211.00	4679	303.00	3789
40.00	1050	132.00	812	212.00	349	304.00	949
41.00	449	134.00	2649	214.00	281	308.00	471
44.00	470	135.00	7052	215.00	1474	309.00	181
45.00	792	136.00	2184	216.00	2767	310.00	258
47.00	379	137.00	3489	217.00	31192	313.00	186
50.00	49264	138.00	458	218.00	4024	314.00	1545
51.00	175808	139.00	194	219.00	729	315.00	3026
52.00	8075	141.00	10325	220.00	623	316.00	1448
55.00	517	142.00	3830	221.00	21808	321.00	1198
56.00	5003	143.00	2236	222.00	601	322.00	439
57.00	13009	144.00	605	223.00	7754	323.00	8893
58.00	648	145.00	747	224.00	60400	324.00	1902
59.00	265	146.00	1754	225.00	14829	327.00	1466
61.00	2516	147.00	5501	226.00	844	328.00	694
62.00	2990	148.00	12578	227.00	25584	329.00	215
63.00	7228	149.00	2663	228.00	3478	332.00	1101
64.00	1213	150.00	686	229.00	5717	333.00	809
65.00	3996	151.00	1424	230.00	545	334.00	5578
67.00	123	152.00	761	231.00	2634	335.00	1114
69.00	216704	153.00	4084	232.00	445	341.00	867
70.00	1084	154.00	3003	233.00	627	342.00	414
73.00	1641	155.00	5941	234.00	1683	346.00	2175
74.00	19736	156.00	8907	235.00	1818	347.00	349
75.00	33904	157.00	1736	236.00	1506	352.00	2949
76.00	10661	158.00	2425	237.00	2124	353.00	2223
77.00	226240	159.00	1976	238.00	217	354.00	2761
78.00	13282	160.00	3817	239.00	1262	355.00	261
79.00	15341	161.00	5048	240.00	741	362.00	191
80.00	12025	162.00	1368	241.00	2061	363.00	348
81.00	17368	163.00	175	242.00	3139	364.00	170

Report Date: 29-Nov-2019 13:57:08 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154736.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 27-Nov-2019 21:52:30
Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 302

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.00	4477	164.00	579	243.00	2876	365.00	14420
83.00	3153	165.00	4320	244.00	44112	366.00	1862
84.00	280	166.00	3414	245.00	6498	370.00	291
85.00	2487	167.00	21488	246.00	9508	371.00	743
86.00	4265	168.00	8848	247.00	1731	372.00	4178
87.00	2364	169.00	2078	248.00	643	373.00	884
88.00	646	170.00	1026	249.00	1517	374.00	231
89.00	522	171.00	935	250.00	327	383.00	867
91.00	3968	172.00	1909	251.00	809	384.00	257
92.00	3636	173.00	2544	252.00	964	390.00	223
93.00	24888	174.00	4795	253.00	1856	391.00	654
94.00	1619	175.00	8423	255.00	232512	401.00	212
95.00	647	176.00	2406	256.00	31176	402.00	2185
96.00	1092	177.00	3337	257.00	2491	403.00	2683
97.00	308	178.00	285	258.00	12376	404.00	450
98.00	17464	179.00	16448	259.00	1994	419.00	522
99.00	15136	180.00	10909	260.00	398	420.00	328
100.00	1133	181.00	5875	261.00	551	421.00	2499
101.00	9515	182.00	1061	265.00	5253	422.00	2528
102.00	525	183.00	666	266.00	211	423.00	15959
103.00	3291	184.00	1028	268.00	215	424.00	3331
104.00	5573	185.00	8253	269.00	180	425.00	704
105.00	5198	186.00	58008	270.00	238	427.00	184
106.00	204	187.00	17008	271.00	805	428.00	485
107.00	67112	188.00	1623	272.00	1488	429.00	211
108.00	11969	189.00	4259	273.00	8322	430.00	648
109.00	1487	190.00	1090	274.00	19352	431.00	443
110.00	114904	191.00	2241	275.00	101744	432.00	658
111.00	18488	192.00	5077	276.00	13089	433.00	768
112.00	2288	193.00	5380	277.00	9643	434.00	1036
113.00	851	194.00	1482	278.00	1269	435.00	1378
115.00	520	195.00	916	279.00	199	436.00	2197
116.00	1974	196.00	14033	283.00	1240	437.00	2954
117.00	48272	198.00	409728	284.00	289	438.00	3207

Report Date: 29-Nov-2019 13:57:08 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154736.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 27-Nov-2019 21:52:30
Spectrum: Tune Spec :Average 1305-1307(9.55-9.56) Bgrd 1299(9.52)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 302

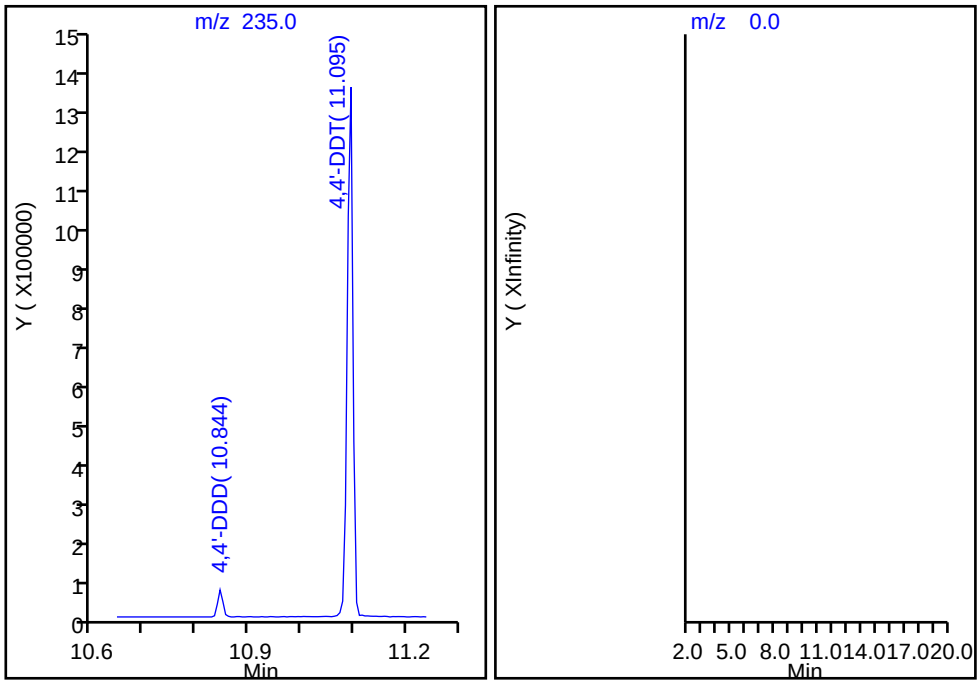
m/z	Y	m/z	Y	m/z	Y	m/z	Y
118.00	4309	199.00	27120	285.00	1756	439.00	5346
119.00	426	200.00	2327	289.00	427	440.00	4695
120.00	801	201.00	1666	291.00	307	441.00	44520
122.00	4218	203.00	3419	293.00	2182	442.00	296960
123.00	7916	204.00	15621	294.00	233	443.00	57760
124.00	2446	205.00	26224	295.00	170	444.00	5009
125.00	3292	206.00	105544	296.00	26800	445.00	236
127.00	223360	207.00	14112	297.00	4159		
128.00	18080	208.00	4112	298.00	218		

Breakdown Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154736.D
Injection Date: 27-Nov-2019 21:52:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 32 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

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



SW-846 Method

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

6 4,4'-DDT, Area = 993198
5 4,4'-DDD, Area = 47431
7 4,4'-DDE, Area = 0

%Breakdown: 4.56%, <= 20.00%
Passed

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154765.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 29-Nov-2019 09:56:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: DFTPP
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 13:54:46 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: Deconvolution ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 29-Nov-2019 10:18:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
4 DFTPP									
7 4,4'-DDE	246		10.818					ND	
5 4,4'-DDD	235	10.844	10.844	0.000	89	5419			NR
6 4,4'-DDT	235	11.090	11.090	0.000	97	1139194	NR		NR

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

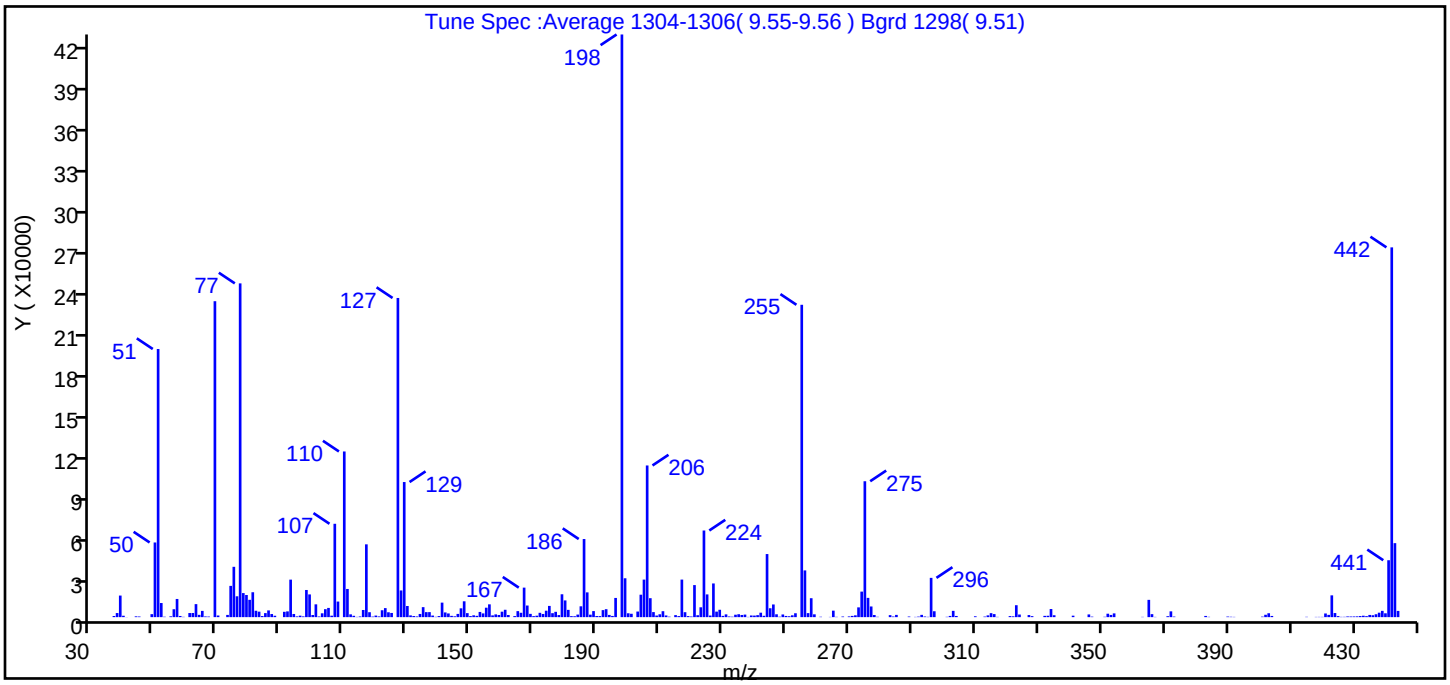
MB_DFTPP_WRK_00365 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154765.D
Injection Date: 29-Nov-2019 09:56:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL
Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >90% of 442	100.0 (157.6)
51	10-80% of the base peak	46.0
68	<2% of mass 69	0.0 (0.0)
69	Present	54.2
70	<2% of mass 69	0.3 (0.5)
127	10-80% of the base peak	54.8
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.7
275	10-60% of the base peak	23.3
365	>1% of mass 198	3.0
441	present but <24% of mass 442	9.8 (15.4)
442	base peak, or >50% of 198	63.5
443	15-24% of mass 442	12.7 (20.0)

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154765.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 29-Nov-2019 09:56:30
Spectrum: Tune Spec :Average 1304-1306(9.55-9.56) Bgrd 1298(9.51)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	839	127.00	233728	206.00	111072	296.00	28768
38.00	3000	128.00	19544	207.00	13877	297.00	4314
39.00	15803	129.00	98936	208.00	3698	301.00	229
40.00	1022	130.00	8158	209.00	1178	302.00	889
41.00	74	131.00	1285	210.00	2094	303.00	4607
44.00	589	132.00	806	211.00	4354	304.00	863
45.00	471	133.00	514	212.00	1230	310.00	626
49.00	2190	134.00	2327	213.00	354	313.00	410
50.00	54680	135.00	7318	215.00	1476	314.00	1296
51.00	196352	136.00	3666	216.00	761	315.00	2916
52.00	10332	137.00	3676	217.00	27504	316.00	2229
53.00	307	138.00	1159	218.00	3621	317.00	194
55.00	610	139.00	229	219.00	779	321.00	772
56.00	5798	140.00	781	220.00	442	322.00	592
57.00	13313	141.00	10631	221.00	23472	323.00	8738
58.00	856	142.00	3447	222.00	1407	324.00	1912
59.00	214	143.00	2700	223.00	7214	327.00	1529
61.00	3007	144.00	948	224.00	63448	328.00	735
62.00	3037	145.00	606	225.00	16648	332.00	944
63.00	9535	146.00	2371	226.00	1165	333.00	1013
64.00	1682	147.00	6460	227.00	24672	334.00	5947
65.00	4578	148.00	11605	228.00	4043	335.00	1385
66.00	506	149.00	2936	229.00	5401	341.00	1068
67.00	430	150.00	787	230.00	930	346.00	1985
69.00	231360	151.00	1343	231.00	2030	347.00	369
70.00	1200	152.00	963	232.00	500	351.00	266
73.00	1635	153.00	3803	233.00	326	352.00	2515
74.00	22896	154.00	2743	234.00	1771	353.00	1610
75.00	36856	155.00	6918	235.00	2130	354.00	2754
76.00	15273	156.00	9378	236.00	1587	363.00	192
77.00	244416	157.00	1293	237.00	1872	365.00	12659
78.00	17616	158.00	2019	238.00	169	366.00	2191
79.00	16210	159.00	1579	239.00	1215	367.00	171

Report Date: 02-Dec-2019 13:54:47 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154765.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 29-Nov-2019 09:56:30
Spectrum: Tune Spec :Average 1304-1306(9.55-9.56) Bgrd 1298(9.51)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
80.00	12686	160.00	3997	240.00	1144	371.00	692
81.00	18232	161.00	5395	241.00	1460	372.00	4247
82.00	4672	162.00	1573	242.00	3256	373.00	409
83.00	4016	164.00	769	243.00	989	383.00	884
84.00	801	165.00	4403	244.00	46200	384.00	233
85.00	2955	166.00	3195	245.00	6511	390.00	426
86.00	4932	167.00	21616	246.00	9289	391.00	272
87.00	2280	168.00	8505	247.00	2090	392.00	188
88.00	1021	169.00	2398	248.00	321	401.00	387
91.00	3903	170.00	738	249.00	1961	402.00	1737
92.00	4218	171.00	1057	250.00	873	403.00	2851
93.00	27464	172.00	3169	251.00	662	404.00	874
94.00	2316	173.00	2321	252.00	1342	415.00	235
95.00	550	174.00	4709	253.00	2850	418.00	177
96.00	1088	175.00	8220	255.00	228736	419.00	189
97.00	534	176.00	2906	256.00	34224	420.00	186
98.00	19888	177.00	3901	257.00	2946	421.00	2682
99.00	16640	178.00	1510	258.00	13868	422.00	1661
100.00	1554	179.00	16752	259.00	2066	423.00	15958
101.00	9382	180.00	12248	261.00	284	424.00	2994
102.00	476	181.00	5330	264.00	171	425.00	767
103.00	2811	182.00	743	265.00	4749	426.00	207
104.00	5835	183.00	658	266.00	224	427.00	232
105.00	6755	184.00	1871	268.00	456	428.00	515
106.00	1066	185.00	7938	270.00	529	429.00	465
107.00	68368	186.00	57200	271.00	911	430.00	500
108.00	11415	187.00	18144	272.00	1322	431.00	571
110.00	121320	188.00	1814	273.00	7158	432.00	809
111.00	20632	189.00	4430	274.00	18696	433.00	1049
112.00	2043	190.00	802	275.00	99520	434.00	730
113.00	985	191.00	761	276.00	14108	435.00	1618
114.00	188	192.00	5149	277.00	7809	436.00	1395
115.00	486	193.00	5830	278.00	1544	437.00	2122
116.00	5237	194.00	1624	279.00	260	438.00	3259

Report Date: 02-Dec-2019 13:54:47 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154765.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 29-Nov-2019 09:56:30
Spectrum: Tune Spec :Average 1304-1306(9.55-9.56) Bgrd 1298(9.51)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 301

m/z	Y	m/z	Y	m/z	Y	m/z	Y
117.00	53320	195.00	877	283.00	1460	439.00	4604
118.00	3608	196.00	14061	284.00	461	440.00	2823
119.00	398	198.00	426688	285.00	1647	441.00	41680
120.00	1146	199.00	28472	289.00	456	442.00	270784
121.00	526	200.00	2834	291.00	186	443.00	54184
122.00	5047	201.00	2473	292.00	397	444.00	4570
123.00	6611	203.00	4097	293.00	1669		
124.00	3559	204.00	16432	294.00	470		
125.00	3071	205.00	27496	295.00	224		

Breakdown Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86514.b\U33154765.D
Injection Date: 29-Nov-2019 09:56:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

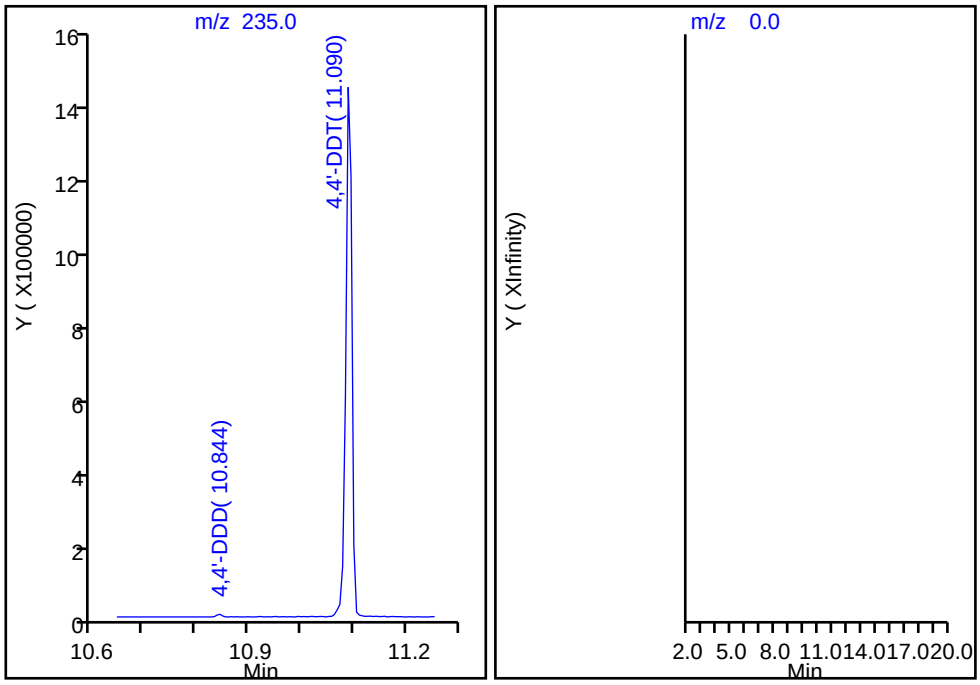
6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

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

6 4,4'-DDT, Area = 1139194
5 4,4'-DDD, Area = 5419
7 4,4'-DDE, Area = 0

%Breakdown: 0.47%, <= 20.00%
Passed



Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154831.D
Lims ID: DFTPP
Client ID:
Sample Type: DFTPP
Inject. Date: 02-Dec-2019 12:02:30 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086580-002
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 02-Dec-2019 16:50:41 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: Deconvolution ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0312

First Level Reviewer: marshallj Date: 02-Dec-2019 12:23:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
4 DFTPP									
7 4,4'-DDE	246		10.828					ND	
5 4,4'-DDD	235	10.839	10.839	0.000	93	8062			NR
6 4,4'-DDT	235	11.090	11.090	0.000	97	1153077	NR		NR

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

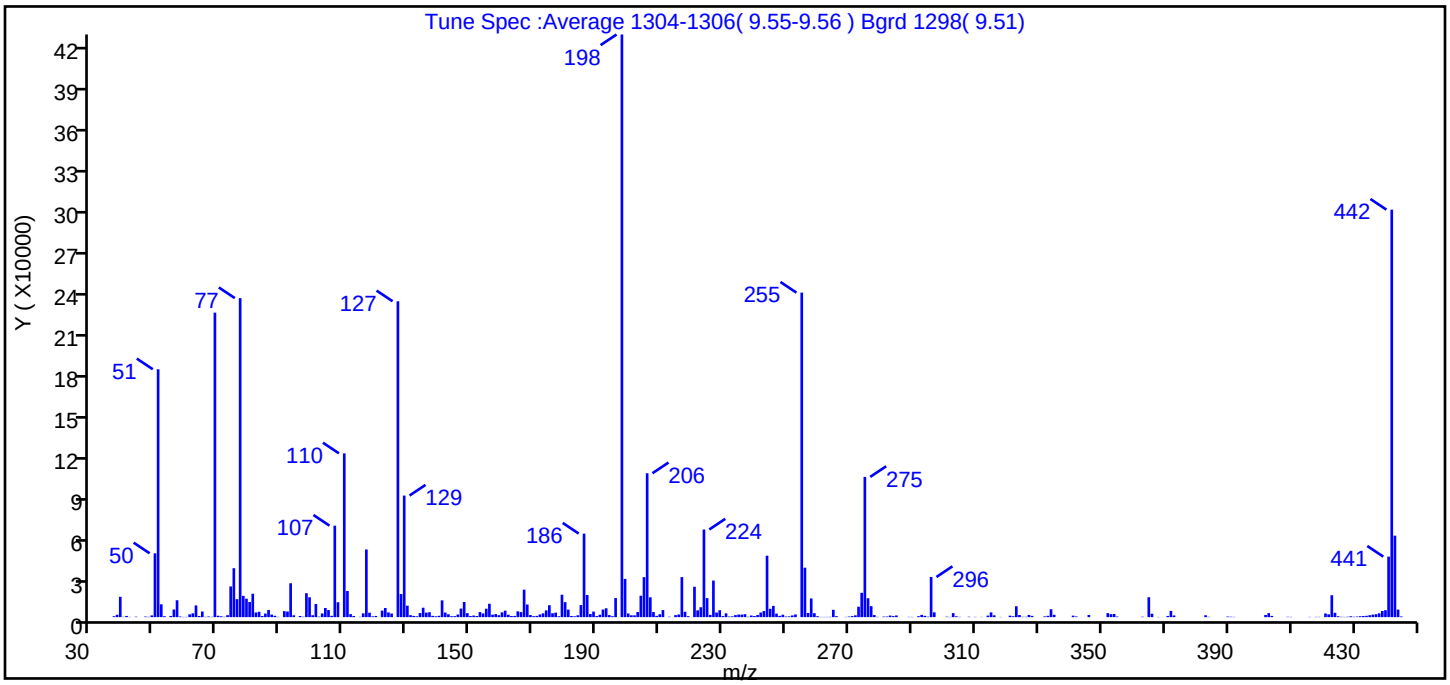
MB_DFTPP_WRK_00365 Amount Added: 1.00 Units: mL

MS Tune Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154831.D
Injection Date: 02-Dec-2019 12:02:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL
Tune Method: DFTPP Method 8270D, BP 198

4 DFTPP



m/z	Ion Abundance Criteria	% Relative Abundance
198	base peak, or >90% of 442	100.0 (143.0)
51	10-80% of the base peak	42.5
68	<2% of mass 69	0.1 (0.1)
69	Present	52.3
70	<2% of mass 69	0.2 (0.5)
127	10-80% of the base peak	54.2
197	<2% of mass 198	0.0
199	5-9% of mass 198	6.6
275	10-60% of the base peak	24.1
365	>1% of mass 198	3.4
441	present but <24% of mass 442	10.4 (14.8)
442	base peak, or >50% of 198	69.9
443	15-24% of mass 442	14.0 (20.0)

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154831.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 02-Dec-2019 12:02:30
Spectrum: Tune Spec :Average 1304-1306(9.55-9.56) Bgrd 1298(9.51)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	673	125.00	2654	206.00	105792	296.00	29512
38.00	1731	127.00	232192	207.00	14586	297.00	3513
39.00	14933	128.00	16976	208.00	3744	301.00	328
40.00	212	129.00	89376	209.00	958	302.00	176
41.00	882	130.00	8433	210.00	2136	303.00	2956
42.00	177	131.00	1472	211.00	5203	304.00	616
44.00	340	132.00	901	213.00	304	305.00	210
47.00	434	133.00	631	215.00	1495	308.00	303
48.00	222	134.00	3025	216.00	1928	310.00	190
49.00	1254	135.00	6925	217.00	29456	312.00	171
50.00	46912	136.00	3323	218.00	3968	314.00	1137
51.00	182208	137.00	3617	219.00	721	315.00	3499
52.00	9435	138.00	952	221.00	22344	316.00	1331
53.00	690	139.00	622	222.00	4998	318.00	170
55.00	889	140.00	980	223.00	7272	321.00	1079
56.00	5596	141.00	12339	224.00	64424	322.00	637
57.00	12410	142.00	3365	225.00	13982	323.00	8011
58.00	466	143.00	2113	226.00	1644	324.00	1554
59.00	179	144.00	694	227.00	26880	325.00	254
60.00	184	145.00	732	228.00	3413	326.00	259
61.00	2048	146.00	1912	229.00	5105	327.00	1623
62.00	2817	147.00	6316	230.00	785	328.00	926
63.00	8632	148.00	11144	231.00	2789	332.00	545
64.00	859	149.00	2915	232.00	451	333.00	965
65.00	4149	150.00	859	233.00	575	334.00	5802
66.00	208	151.00	1188	234.00	1511	335.00	1715
67.00	472	152.00	836	235.00	1900	341.00	1104
68.00	219	153.00	3720	236.00	1856	342.00	490
69.00	223808	154.00	2729	237.00	2178	346.00	1595
70.00	1038	155.00	6192	238.00	278	352.00	2956
71.00	635	156.00	9836	239.00	1201	353.00	2186
72.00	250	157.00	1818	240.00	808	354.00	2350
73.00	1456	158.00	2243	241.00	1549	355.00	434

Report Date: 02-Dec-2019 16:50:42 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154831.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 02-Dec-2019 12:02:30
Spectrum: Tune Spec :Average 1304-1306(9.55-9.56) Bgrd 1298(9.51)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
74.00	22552	159.00	1441	242.00	3402	363.00	313
75.00	35984	160.00	3526	243.00	4477	365.00	14634
76.00	13226	161.00	4770	244.00	45168	366.00	2517
77.00	234496	162.00	1765	245.00	6147	368.00	173
78.00	15635	163.00	850	246.00	8257	371.00	872
79.00	13540	164.00	898	247.00	2590	372.00	4614
80.00	11125	165.00	4293	248.00	940	373.00	1227
81.00	17208	166.00	3705	249.00	1779	383.00	1382
82.00	3447	167.00	20208	250.00	456	384.00	234
83.00	3938	168.00	9283	251.00	576	390.00	427
84.00	834	169.00	1575	252.00	1257	391.00	290
85.00	2634	170.00	740	253.00	1985	392.00	194
86.00	5292	171.00	941	255.00	238528	402.00	1575
87.00	1872	172.00	1988	256.00	36328	403.00	2938
88.00	998	173.00	2798	257.00	3090	404.00	918
89.00	215	174.00	4980	258.00	13725	409.00	244
91.00	4406	175.00	8772	259.00	2901	410.00	204
92.00	4164	176.00	2864	260.00	694	416.00	179
93.00	24920	177.00	3325	261.00	166	418.00	203
94.00	1370	178.00	631	262.00	186	419.00	208
96.00	851	179.00	16480	263.00	180	421.00	2690
97.00	286	180.00	11018	264.00	235	422.00	2079
98.00	17600	181.00	5539	265.00	5407	423.00	16118
99.00	14612	182.00	832	266.00	715	424.00	3189
100.00	1390	183.00	611	269.00	175	425.00	661
101.00	9674	184.00	1360	270.00	434	426.00	250
102.00	363	185.00	8892	271.00	761	427.00	174
103.00	2702	186.00	61408	272.00	1333	428.00	281
104.00	6744	187.00	16286	273.00	7674	429.00	635
105.00	5202	188.00	2276	274.00	17880	430.00	271
106.00	976	189.00	4088	275.00	103080	431.00	418
107.00	67240	190.00	785	276.00	13892	432.00	701
108.00	10956	191.00	1768	277.00	8081	433.00	851
110.00	120384	192.00	5575	278.00	1515	434.00	996

Report Date: 02-Dec-2019 16:50:42 Chrom Revision: 2.3 09-Oct-2019 11:13:36
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154831.D\1,4_Dx_SIM_HP5973U.rslt\spe
Injection Date: 02-Dec-2019 12:02:30
Spectrum: Tune Spec :Average 1304-1306(9.55-9.56) Bgrd 1298(9.51)
Base Peak: 198.00
Minimum % Base Peak: 0
Number of Points: 315

m/z	Y	m/z	Y	m/z	Y	m/z	Y
111.00	19208	193.00	6516	279.00	203	435.00	1424
112.00	2194	194.00	1503	281.00	405	436.00	1852
113.00	872	195.00	700	282.00	448	437.00	2159
115.00	256	196.00	14012	283.00	1179	438.00	2801
116.00	2768	198.00	428288	284.00	776	439.00	4520
117.00	49744	199.00	28096	285.00	1225	440.00	5111
118.00	3262	200.00	2672	289.00	197	441.00	44472
119.00	573	201.00	1368	290.00	184	442.00	299520
120.00	882	202.00	1343	292.00	715	443.00	59888
122.00	4801	203.00	3768	293.00	1633	444.00	5561
123.00	6724	204.00	15752	294.00	974	445.00	512
124.00	3459	205.00	29416	295.00	348		

Breakdown Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191202-86580.b\U33154831.D
Injection Date: 02-Dec-2019 12:02:30 Instrument ID: HP5973U
Lims ID: DFTPP
Client ID:
Operator ID: JM ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

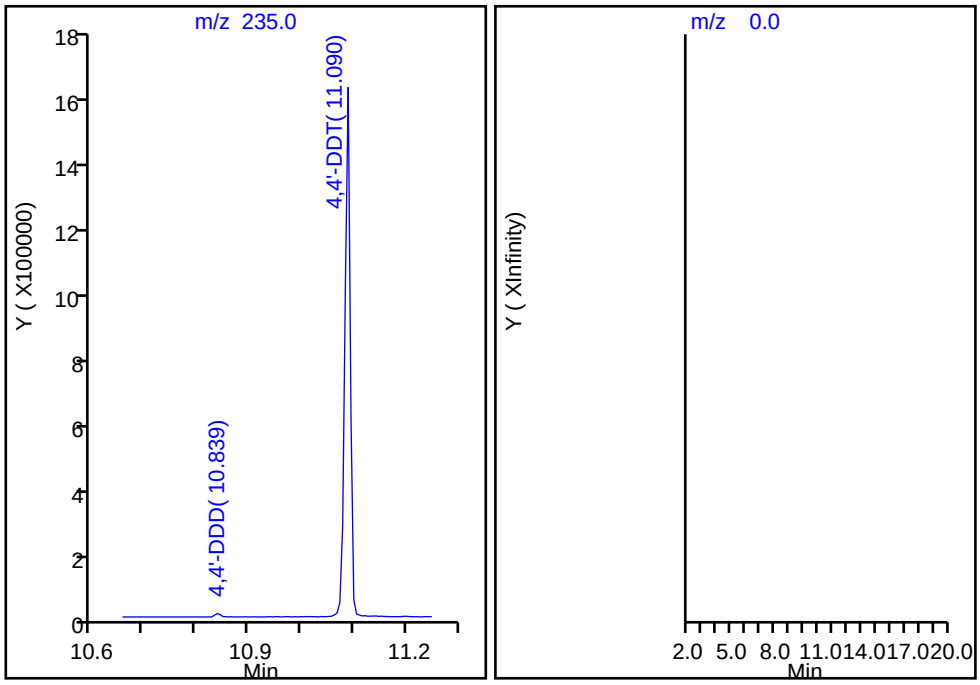
6 4,4'-DDT, Detector: MS SCAN

SW-846 Method

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

6 4,4'-DDT, Area = 1153077
5 4,4'-DDD, Area = 8062
7 4,4'-DDE, Area = 0

%Breakdown: 0.69%, <= 20.00%
Passed



FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 480-506760/1-A

Matrix: Water Lab File ID: U33154749.D

Analysis Method: 8270D SIM ID Date Collected:

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1000(mL) Date Analyzed: 11/28/2019 02:59

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.: 507166 Units: ug/L

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

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	29		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154749.D
Lims ID: MB 480-506760/1-A
Client ID:
Sample Type: MB
Inject. Date: 28-Nov-2019 02:59:30 ALS Bottle#: 45 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086513-015
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 29-Nov-2019 13:57:09 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: marshallj Date: 29-Nov-2019 13:53:59

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.142	2.073	0.069	92	190993	10.0	2.89	
	3 1,4-Dioxane	88		2.105					ND	U
*	2 1,4-Dichlorobenzene-d4	152	5.495	5.491	0.004	100	540663	4.00	4.00	

QC Flag Legend

Review Flags
U - Marked Undetected

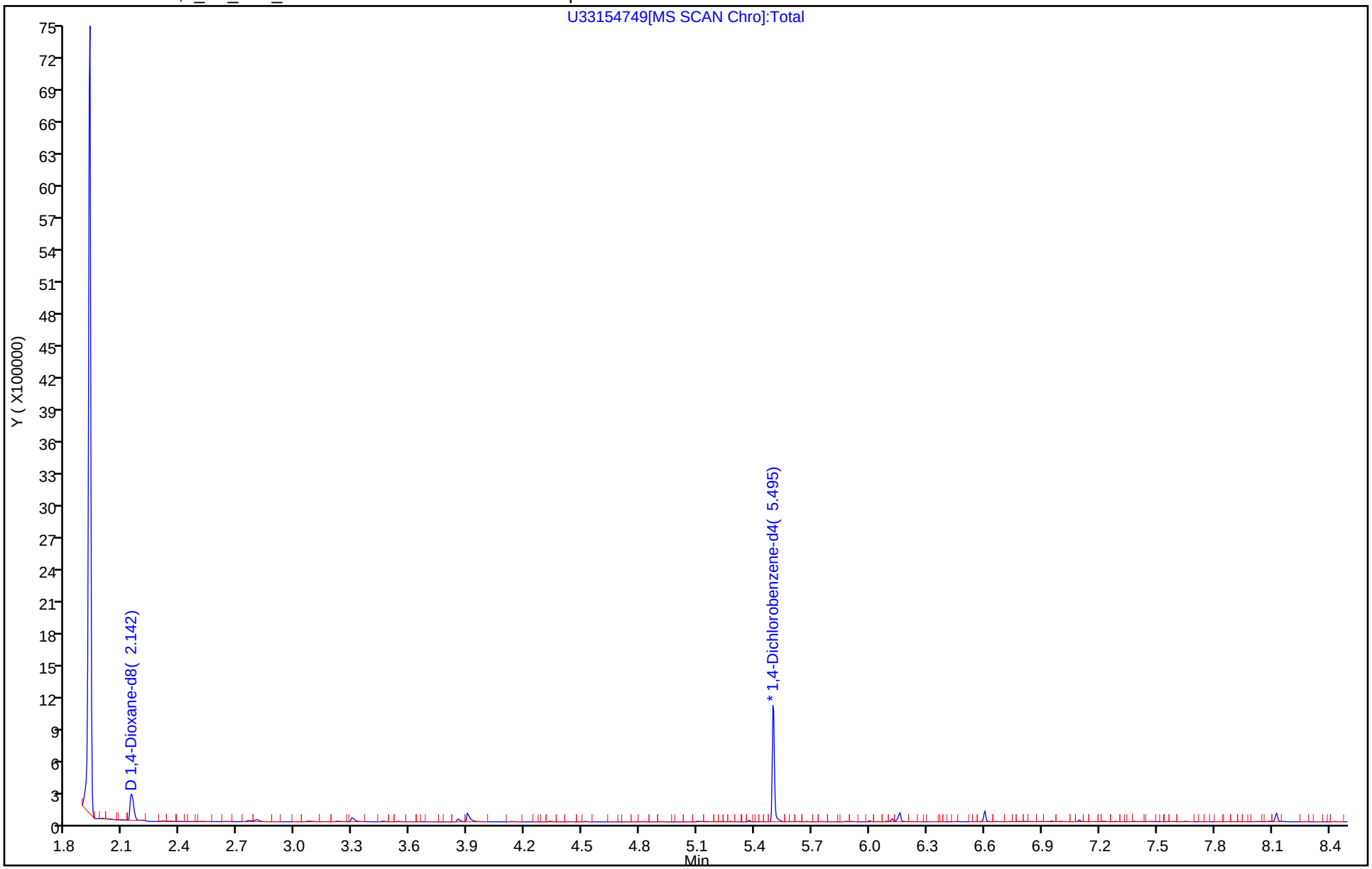
Reagents:

MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 29-Nov-2019 13:57:16 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154749.D				
Injection Date:	28-Nov-2019 02:59:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	MB 480-506760/1-A			Worklist Smp#:	15
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	45
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Report Date: 29-Nov-2019 13:57:16 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154749.D

Injection Date: 28-Nov-2019 02:59:30 Instrument ID: HP5973U

Lims ID: MB 480-506760/1-A

Client ID:

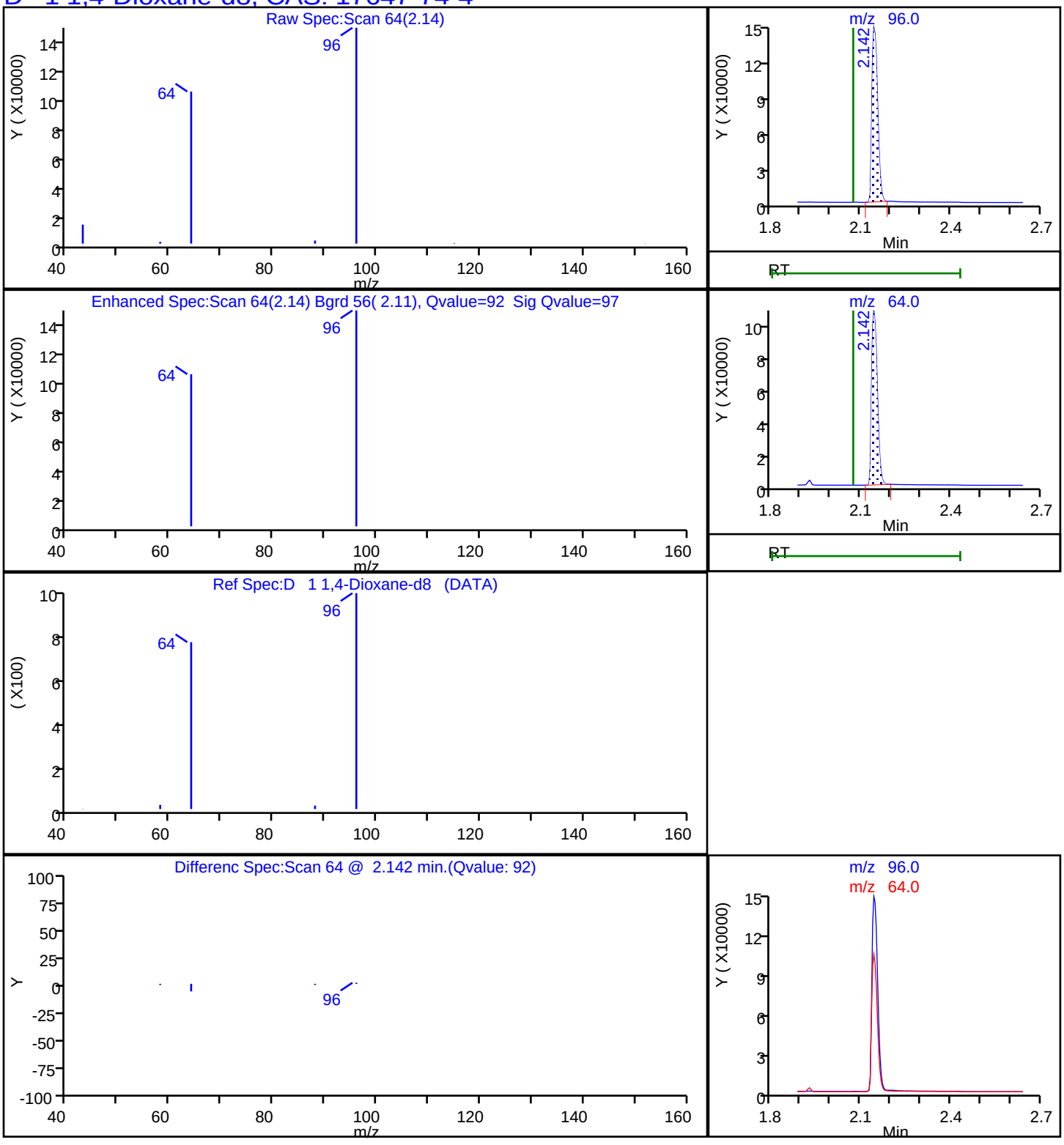
Operator ID: JM ALS Bottle#: 45 Worklist Smp#: 15

Injection Vol: 1.0 ul Dil. Factor: 1.0000

Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL

Column: Detector MS SCAN

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



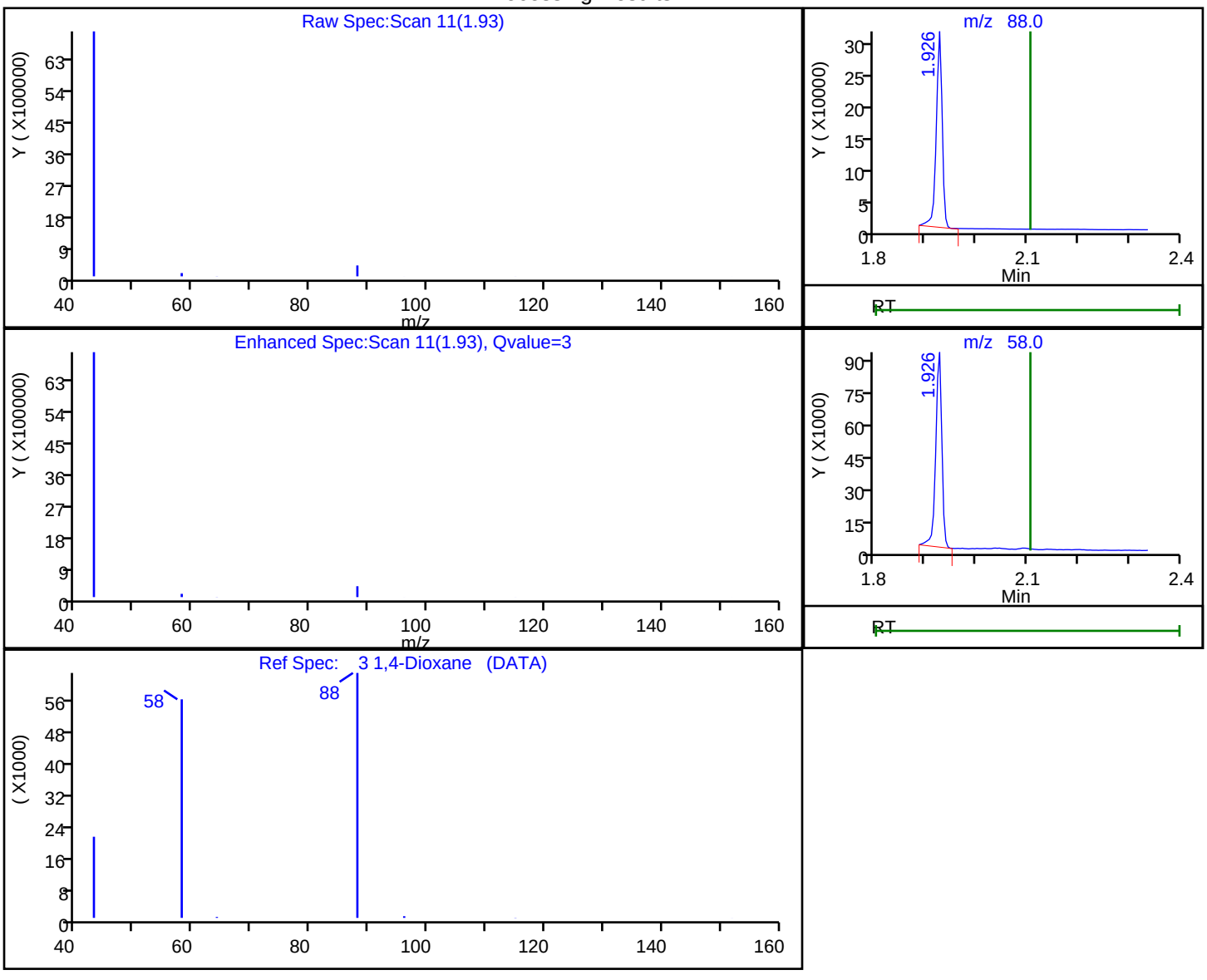
User Disabled Compound Report

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154749.D
Injection Date: 28-Nov-2019 02:59:30 Instrument ID: HP5973U
Lims ID: MB 480-506760/1-A
Client ID:
Operator ID: JM ALS Bottle#: 45 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL
Column: Detector MS SCAN

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

Processing Results



RT	Mass	Response	Amount
1.93	88.00	251188	11.951650
1.93	58.00	76964	

Reviewer: marshallj, 29-Nov-2019 13:53:57
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 480-506760/2-A

Matrix: Water Lab File ID: U33154750.D

Analysis Method: 8270D SIM ID Date Collected:

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1000(mL) Date Analyzed: 11/28/2019 03:22

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.: 507166 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	1.16		0.20	0.10

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

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154750.D
Lims ID: LCS 480-506760/2-A
Client ID:
Sample Type: LCS
Inject. Date: 28-Nov-2019 03:22:30 ALS Bottle#: 46 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086513-016
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 29-Nov-2019 13:57:09 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: marshallj Date: 29-Nov-2019 13:54:09

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.195	2.073	0.122	92	191022	10.0	3.11	
	3 1,4-Dioxane	88	2.227	2.105	0.122	61	24421	1.00	1.16	a
*	2 1,4-Dichlorobenzene-d4	152	5.499	5.491	0.008	100	502067	4.00	4.00	

QC Flag Legend

Review Flags
a - User Assigned ID

Reagents:

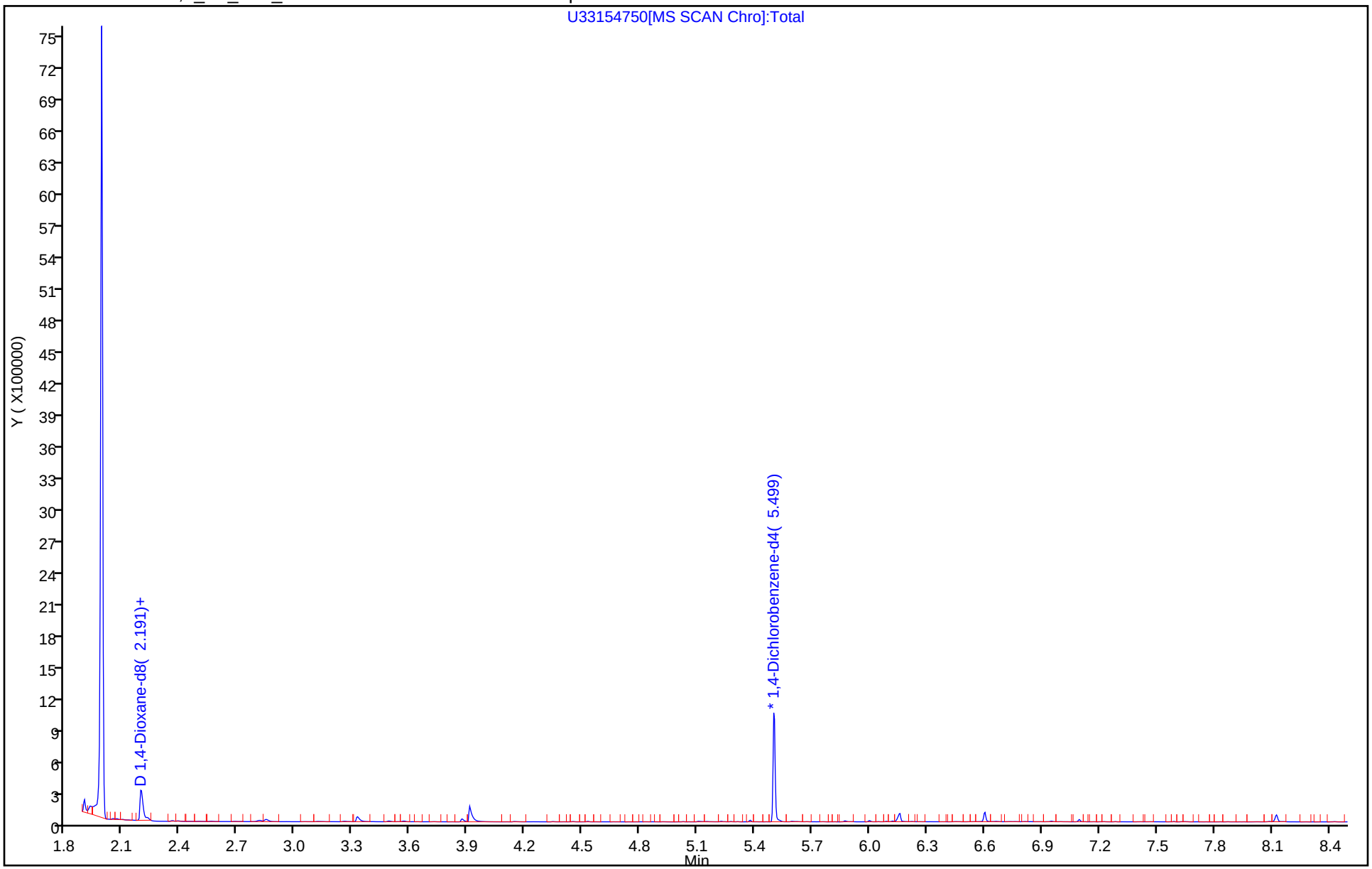
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 29-Nov-2019 13:57:17 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154750.D

Injection Date:	28-Nov-2019 03:22:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	LCS 480-506760/2-A			Worklist Smp#:	16
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	46
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Buffalo

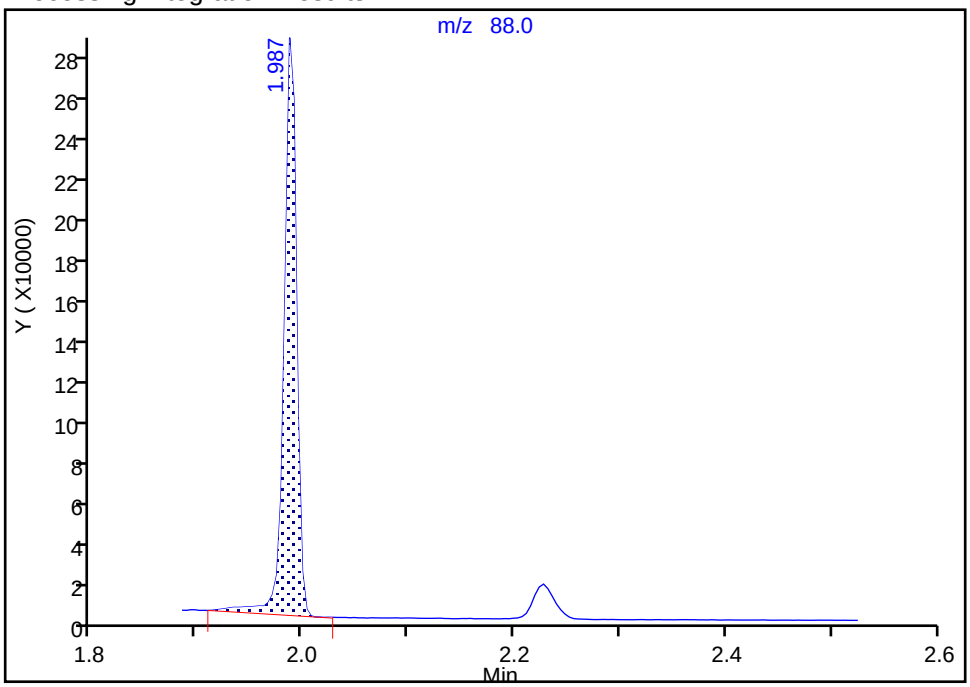
Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154750.D
Injection Date: 28-Nov-2019 03:22:30 Instrument ID: HP5973U
Lims ID: LCS 480-506760/2-A
Client ID:
Operator ID: JM ALS Bottle#: 46 Worklist Smp#: 16
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Method: 1,4_Dx_SIM_HP5973U Limit Group: MB - 8270D SIM ID ICAL
Column: Detector MS SCAN

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

Signal: 1

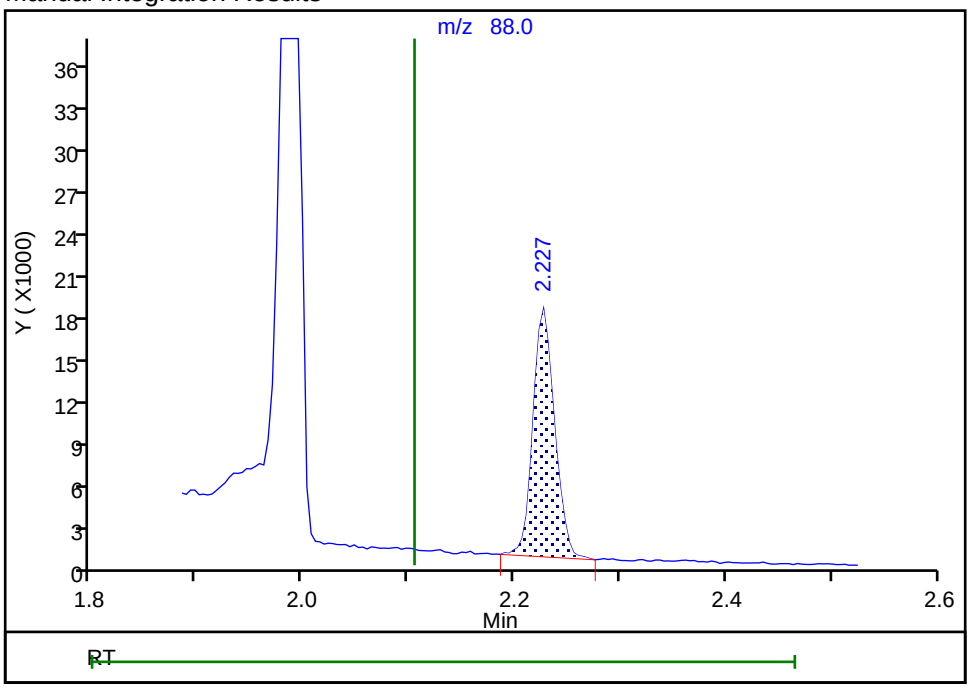
Processing Integration Results

RT: 1.99
Area: 233067
Amount: 11.087760
Amount Units: ng/ul



Manual Integration Results

RT: 2.23
Area: 24421
Amount: 1.161787
Amount Units: ng/ul



Reviewer: marshallj, 29-Nov-2019 13:54:06
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: MW 03 MS Lab Sample ID: 480-163227-2 MS

Matrix: Water Lab File ID: U33154753.D

Analysis Method: 8270D SIM ID Date Collected: 11/19/2019 16:15

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1050(mL) Date Analyzed: 11/28/2019 04:32

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

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

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

Analysis Batch No.: 507166 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.15		0.19	0.095

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

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154753.D
Lims ID: 480-163227-A-2-A MS
Client ID: MW 03
Sample Type: MS
Inject. Date: 28-Nov-2019 04:32:30 ALS Bottle#: 49 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086513-019
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 29-Nov-2019 13:57:09 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: marshallj Date: 29-Nov-2019 13:55:01

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.199	2.073	0.126	95	188979	10.0	3.10	a
	3 1,4-Dioxane	88	2.227	2.105	0.122	82	46868	1.00	2.25	Ea
*	2 1,4-Dichlorobenzene-d4	152	5.503	5.491	0.012	99	497610	4.00	4.00	
	7 4,4'-DDE	246		10.818					ND	
	5 4,4'-DDD	235		10.844					ND	
	6 4,4'-DDT	235		11.095					ND	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

Reagents:

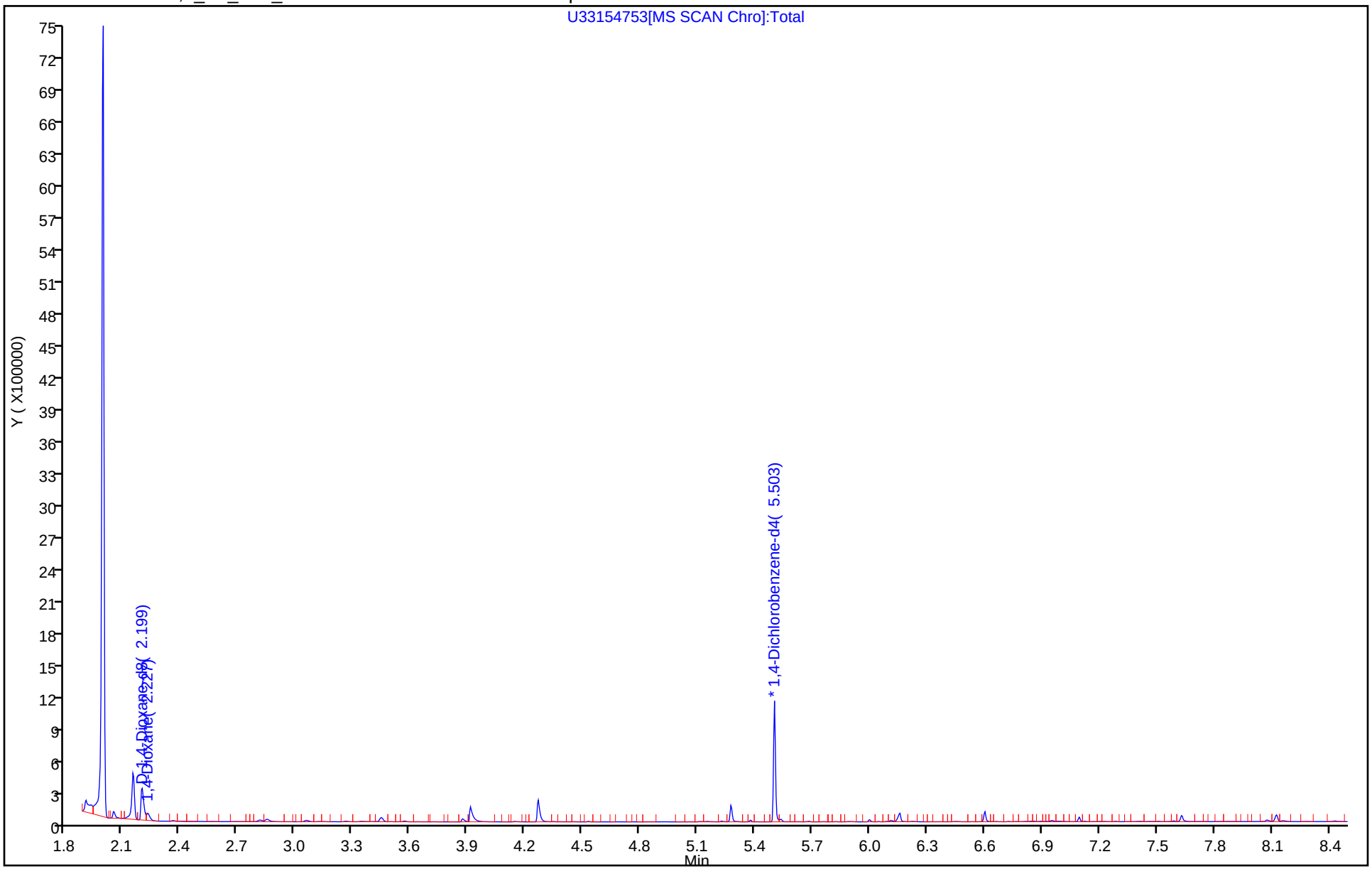
MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 29-Nov-2019 13:57:18 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154753.D

Injection Date:	28-Nov-2019 04:32:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	480-163227-A-2-A MS			Worklist Smp#:	19
Client ID:	MW 03				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	49
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Buffalo

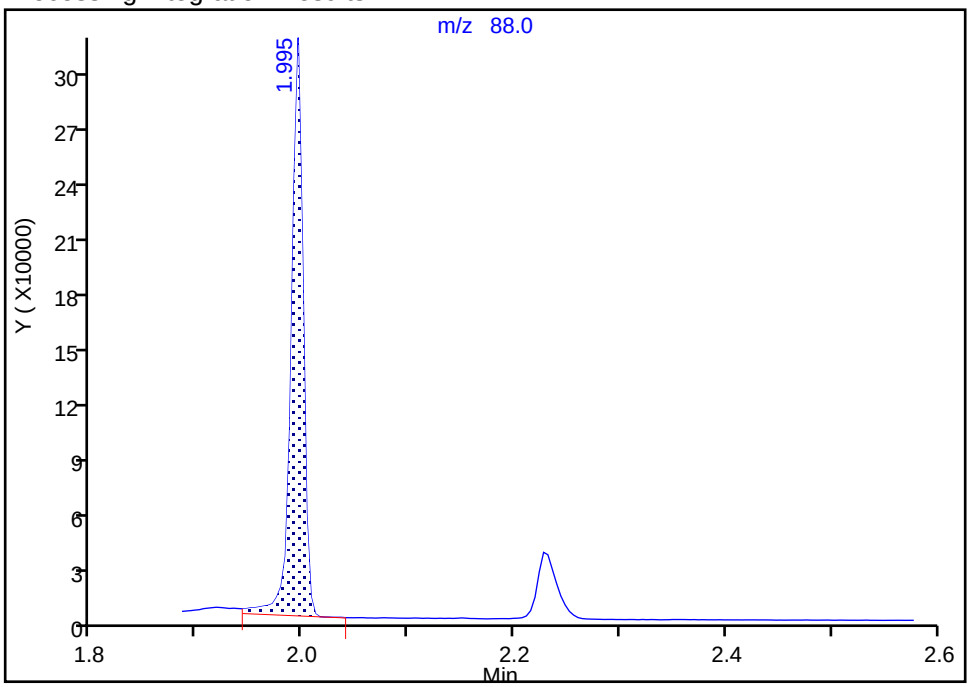
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154753.D				
Injection Date:	28-Nov-2019 04:32:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-A-2-A MS				
Client ID:	MW 03				
Operator ID:	JM	ALS Bottle#:	49	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

Signal: 1

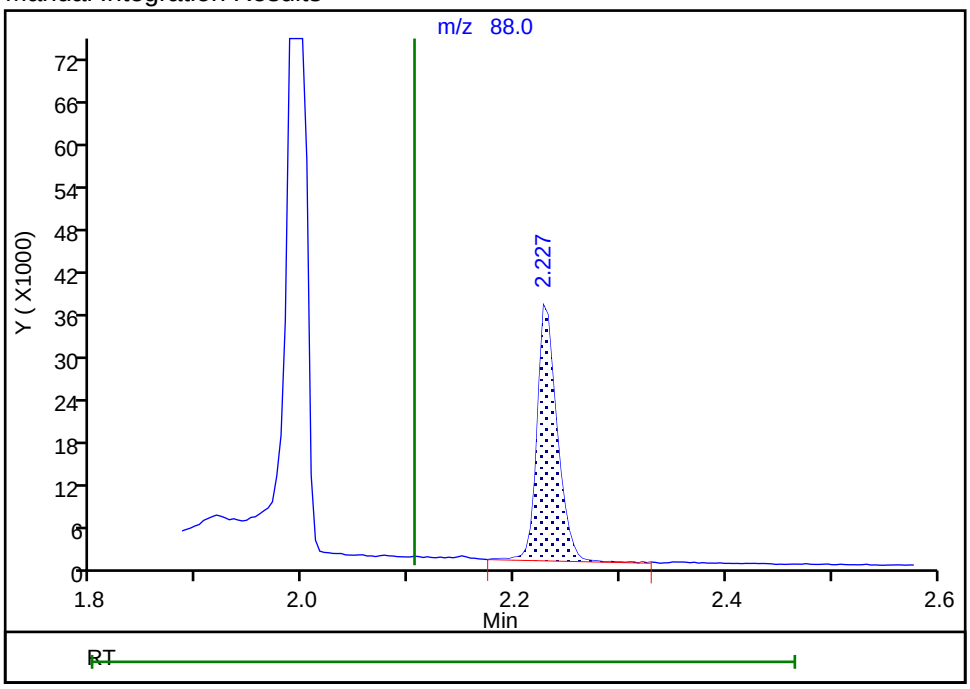
Processing Integration Results

RT: 2.00
Area: 241287
Amount: 11.602906
Amount Units: ng/ul



Manual Integration Results

RT: 2.23
Area: 46868
Amount: 2.253768
Amount Units: ng/ul



Reviewer: marshallj, 29-Nov-2019 13:54:57

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Buffalo

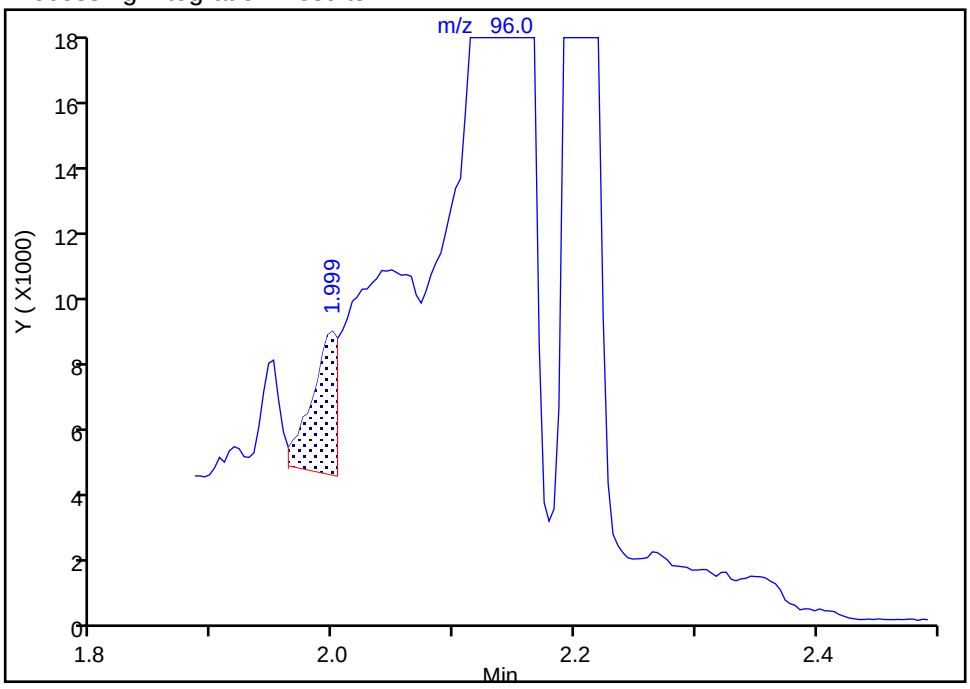
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154753.D				
Injection Date:	28-Nov-2019 04:32:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-A-2-A MS				
Client ID:	MW 03				
Operator ID:	JM	ALS Bottle#:	49	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

Signal: 1

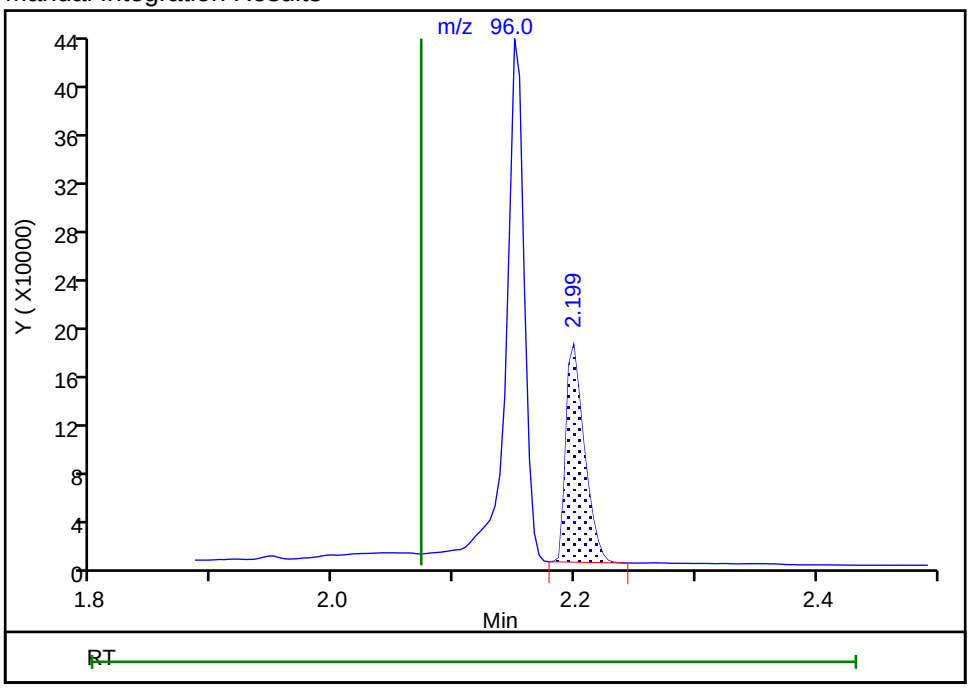
Processing Integration Results

RT: 2.00
Area: 5820
Amount: 0.095524
Amount Units: ng/ul



Manual Integration Results

RT: 2.20
Area: 188979
Amount: 3.101710
Amount Units: ng/ul



Reviewer: marshallj, 29-Nov-2019 13:54:52

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC/MS SEMI VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Client Sample ID: MW 03 MSD Lab Sample ID: 480-163227-2 MSD

Matrix: Water Lab File ID: U33154754.D

Analysis Method: 8270D SIM ID Date Collected: 11/19/2019 16:15

Extract. Method: 3510C Date Extracted: 11/26/2019 08:36

Sample wt/vol: 1050(mL) Date Analyzed: 11/28/2019 04:55

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.: 507166 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
123-91-1	1,4-Dioxane	2.14		0.19	0.095

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
17647-74-4	1,4-Dioxane-d8	29		15-110

Eurofins TestAmerica, Buffalo
Target Compound Quantitation Report

Data File: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154754.D
Lims ID: 480-163227-A-2-B MSD
Client ID: MW 03
Sample Type: MSD
Inject. Date: 28-Nov-2019 04:55:30 ALS Bottle#: 50 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 480-0086513-020
Operator ID: JM Instrument ID: HP5973U

Method: \\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\1,4_Dx_SIM_HP5973U.m
Limit Group: MB - 8270D SIM ID ICAL
Last Update: 29-Nov-2019 13:57:09 Calib Date: 25-Nov-2019 12:16:30
Integrator: Picker ID Type: RT Order ID
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\chromna\Buffalo\ChromData\HP5973U\20191125-86424.b\U33154646.D

Column 1 : Det: MS SCAN
Process Host: CTX0320

First Level Reviewer: marshallj Date: 29-Nov-2019 13:55:13

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng/ul	OnCol Amt ng/ul	Flags
D	1 1,4-Dioxane-d8	96	2.187	2.073	0.114	96	177926	10.0	2.87	a
	3 1,4-Dioxane	88	2.219	2.105	0.114	79	43932	1.00	2.24	E
*	2 1,4-Dichlorobenzene-d4	152	5.499	5.491	0.008	100	506159	4.00	4.00	
	7 4,4'-DDE	246		10.818					ND	
	5 4,4'-DDD	235		10.844					ND	
	6 4,4'-DDT	235		11.095					ND	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
Review Flags
a - User Assigned ID

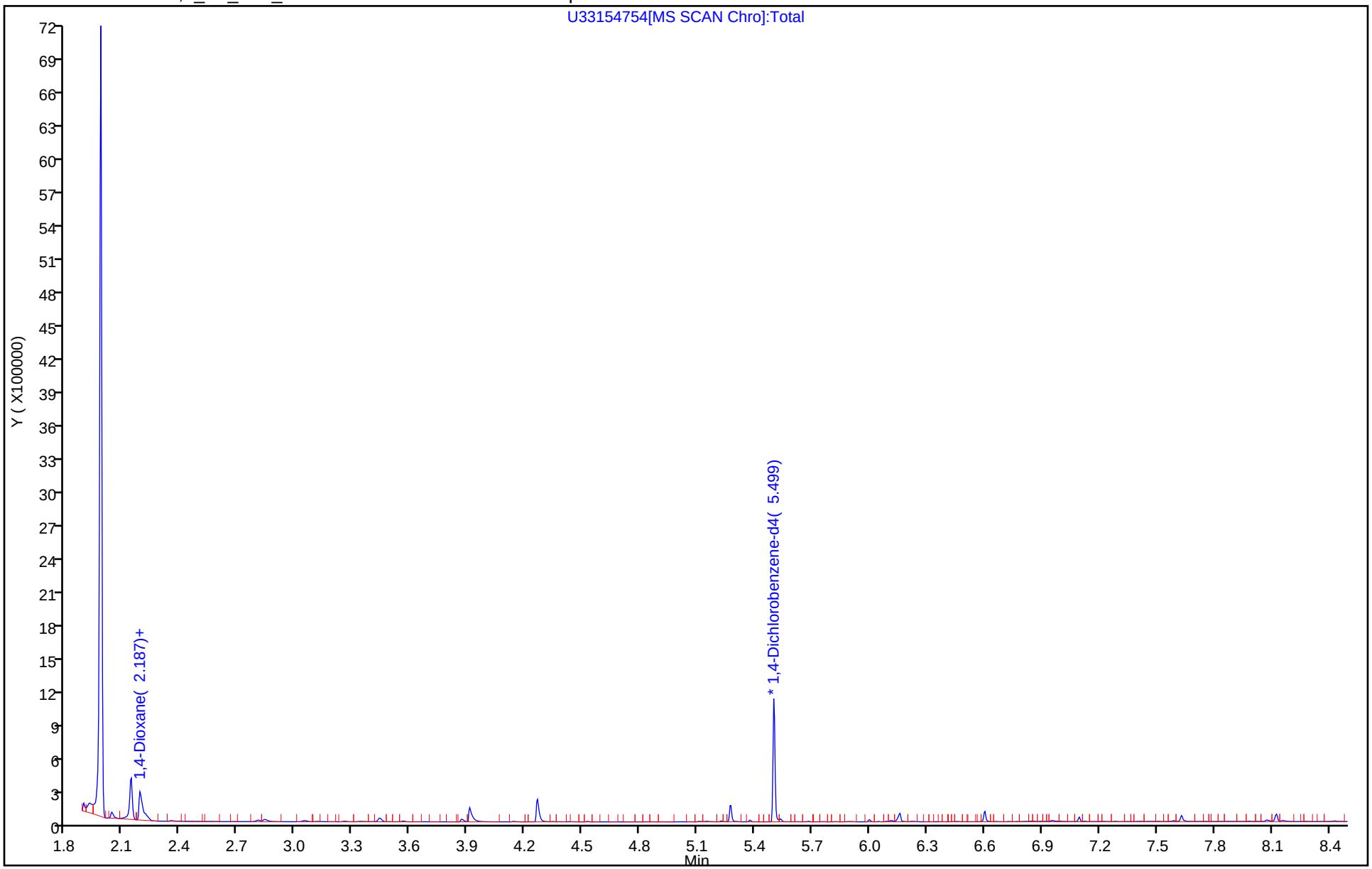
Reagents:

MB_LLIS_WRK_00182 Amount Added: 20.00 Units: uL Run Reagent

Report Date: 29-Nov-2019 13:57:19 Chrom Revision: 2.3 09-Oct-2019 11:13:36

Eurofins TestAmerica, Buffalo

Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154754.D				
Injection Date:	28-Nov-2019 04:55:30	Instrument ID:	HP5973U	Operator ID:	JM
Lims ID:	480-163227-A-2-B MSD			Worklist Smp#:	20
Client ID:	MW 03				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	50
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Buffalo

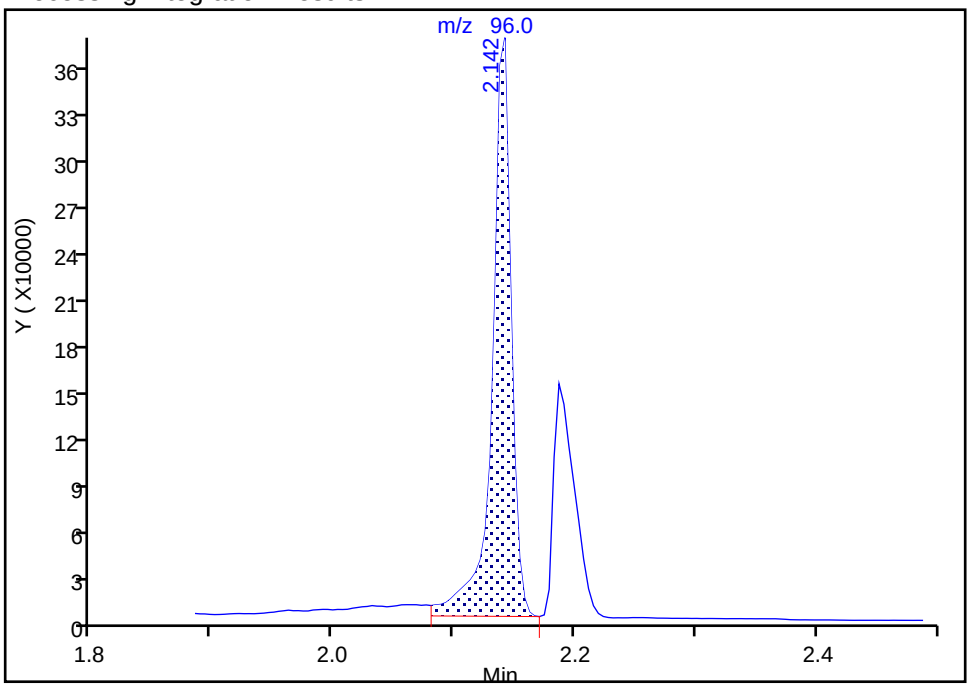
Data File:	\\chromna\Buffalo\ChromData\HP5973U\20191127-86513.b\U33154754.D				
Injection Date:	28-Nov-2019 04:55:30	Instrument ID:	HP5973U		
Lims ID:	480-163227-A-2-B MSD				
Client ID:	MW 03				
Operator ID:	JM	ALS Bottle#:	50	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	1,4_Dx_SIM_HP5973U	Limit Group:	MB - 8270D SIM ID ICAL		
Column:		Detector	MS SCAN		

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

Signal: 1

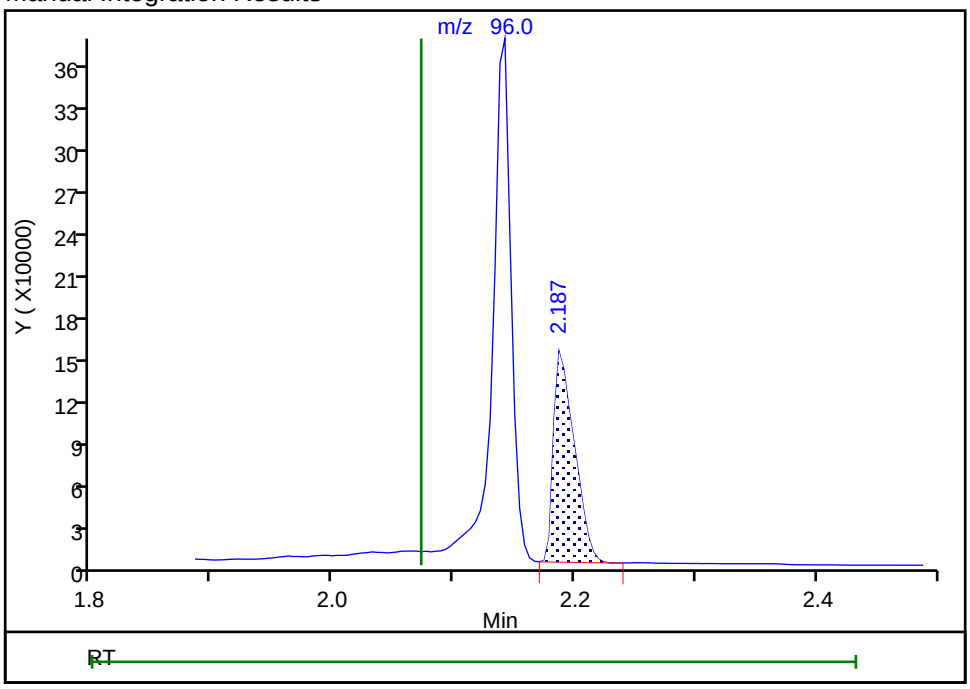
Processing Integration Results

RT: 2.14
Area: 401958
Amount: 6.485903
Amount Units: ng/ul



Manual Integration Results

RT: 2.19
Area: 177926
Amount: 2.870974
Amount Units: ng/ul



Reviewer: marshallj, 29-Nov-2019 13:55:09

Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Instrument ID: HP5973U Start Date: 11/25/2019 09:52

Analysis Batch Number: 506566 End Date: 11/25/2019 17:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-506566/2		11/25/2019 09:52	1	U33154640.D	RXI-5Sil MS(0.5 0.25(mm)
IC 480-506566/3		11/25/2019 10:19	1	U33154641.D	RXI-5Sil MS(0.5 0.25(mm)
IC 480-506566/4		11/25/2019 10:43	1	U33154642.D	RXI-5Sil MS(0.5 0.25(mm)
ICIS 480-506566/5		11/25/2019 11:06	1	U33154643.D	RXI-5Sil MS(0.5 0.25(mm)
IC 480-506566/6		11/25/2019 11:29	1	U33154644.D	RXI-5Sil MS(0.5 0.25(mm)
IC 480-506566/7		11/25/2019 11:53	1	U33154645.D	RXI-5Sil MS(0.5 0.25(mm)
IC 480-506566/8		11/25/2019 12:16	1	U33154646.D	RXI-5Sil MS(0.5 0.25(mm)
ICV 480-506566/9		11/25/2019 12:39	1		RXI-5Sil MS(0.5 0.25(mm)
CCVIS 480-506566/10		11/25/2019 13:03	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 13:27	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 13:50	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 14:14	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 14:38	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 15:01	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 15:25	5		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 15:48	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 16:11	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 16:34	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 16:58	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 17:21	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/25/2019 17:44	1		RXI-5Sil MS(0.5 0.25(mm)

8270D SIM ID

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Instrument ID: HP5973U Start Date: 11/27/2019 21:52

Analysis Batch Number: 507166 End Date: 11/28/2019 08:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-507166/2		11/27/2019 21:52	1	U33154736.D	RXI-5Sil MS(0.5 0.25(mm)
CCVIS 480-507166/3		11/27/2019 22:20	1	U33154737.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/27/2019 22:43	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/27/2019 23:07	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/27/2019 23:30	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/27/2019 23:53	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 00:16	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 00:40	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 01:03	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 01:26	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 01:49	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 02:13	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 02:36	5		RXI-5Sil MS(0.5 0.25(mm)
MB 480-506760/1-A		11/28/2019 02:59	1	U33154749.D	RXI-5Sil MS(0.5 0.25(mm)
LCS 480-506760/2-A		11/28/2019 03:22	1	U33154750.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 03:46	5		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 04:09	5		RXI-5Sil MS(0.5 0.25(mm)
480-163227-2 MS		11/28/2019 04:32	1	U33154753.D	RXI-5Sil MS(0.5 0.25(mm)
480-163227-2 MSD		11/28/2019 04:55	1	U33154754.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 05:19	5		RXI-5Sil MS(0.5 0.25(mm)
480-163227-2		11/28/2019 05:42	1	U33154756.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 06:05	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 06:28	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 06:51	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 07:14	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 07:38	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/28/2019 08:01	1		RXI-5Sil MS(0.5 0.25(mm)

8270D SIM ID

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Instrument ID: HP5973U Start Date: 11/29/2019 09:56

Analysis Batch Number: 507167 End Date: 11/29/2019 21:39

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-507167/2		11/29/2019 09:56	1	U33154765.D	RXI-5Sil MS(0.5 0.25(mm)
CCVIS 480-507167/3		11/29/2019 10:24	1	U33154766.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 10:47	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 11:11	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 11:34	5		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 11:57	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 12:20	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 12:43	1		RXI-5Sil MS(0.5 0.25(mm)
480-163227-1		11/29/2019 13:06	1	U33154773.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 14:14	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 14:37	1		RXI-5Sil MS(0.5 0.25(mm)
480-163227-7		11/29/2019 15:00	1	U33154776.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 15:24	5		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 15:47	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 16:10	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 16:34	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 16:58	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 17:21	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 17:45	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 18:09	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 18:33	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 18:56	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 19:20	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 19:43	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 20:07	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 20:30	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 20:53	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 21:16	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		11/29/2019 21:39	1		RXI-5Sil MS(0.5 0.25(mm)

8270D SIM ID

GC/MS SEMI VOA ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Instrument ID: HP5973U Start Date: 12/02/2019 12:02

Analysis Batch Number: 507629 End Date: 12/02/2019 15:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
DFTPP 480-507629/2		12/02/2019 12:02	1	U33154831.D	RXI-5Sil MS(0.5 0.25(mm)
CCVIS 480-507629/3		12/02/2019 12:30	1	U33154832.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		12/02/2019 12:53	1		RXI-5Sil MS(0.5 0.25(mm)
480-163227-3		12/02/2019 13:17	20	U33154834.D	RXI-5Sil MS(0.5 0.25(mm)
480-163227-4		12/02/2019 13:40	20	U33154835.D	RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		12/02/2019 14:04	5		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		12/02/2019 14:28	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		12/02/2019 14:52	1		RXI-5Sil MS(0.5 0.25(mm)
ZZZZZ		12/02/2019 15:16	1		RXI-5Sil MS(0.5 0.25(mm)

8270D SIM ID

GC/MS SEMI VOA BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Buffalo Job No.: 480-163227-1

SDG No.:

Batch Number: 506760 Batch Start Date: 11/26/19 08:36 Batch Analyst: Pollock, Jacob M

Batch Method: 3510C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	ReceivedpH	FirstAdjustpH	OP_SIM_LCS 00008	OP_SimSurr 00019
MB 480-506760/1		3510C, 8270D SIM ID		1000 mL	1 mL	7 SU	<2 SU		1 mL
LCS 480-506760/2		3510C, 8270D SIM ID		1000 mL	1 mL	7 SU	<2 SU	1 mL	1 mL
480-163227-A-2 MS	MW 03	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU	1 mL	1 mL
480-163227-A-2 MSD	MW 03	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU	1 mL	1 mL
480-163227-B-2	MW 03	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL
480-163227-A-1	MW 01	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL
480-163227-B-3	MW 05	3510C, 8270D SIM ID	T	1050 mL	1 mL	8 SU	<2 SU		1 mL
480-163227-B-4	DUP	3510C, 8270D SIM ID	T	1050 mL	1 mL	8 SU	<2 SU		1 mL
480-163227-B-7	EQUIPMENT BLANK	3510C, 8270D SIM ID	T	1050 mL	1 mL	7 SU	<2 SU		1 mL

Batch Notes	
Acid Used for pH Adjustment ID	5670324
Analyst ID - Concentration	JP
Analyst ID - Extraction	JP
Method/Fraction	3510C/8270D_SIM_MS_ID
Na2SO4 ID	5644441
Prep Solvent ID	5666435
Prep Solvent Volume Used	180 mL
Analyst ID - Spike Analyst	JP
Analyst ID - Spike Witness Analyst	JP
Sufficient Volume for Batch QC	Yes
Vial Lot Number	1709111094

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

8270D SIM ID

Shipping and Receiving Documents

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

FROM SYR: PFE1 → BUF, BAL → BUF, - RC

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Syracuse

Client Information	Sampler:	Lab PM: Johnson, Orlette S	Carrier Tracking No(s): #225	COC No: 480-138511-31156.1
Client Contact: Mr. Christopher Gabriel	Phone:	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Geologic NY Inc				Job #:
Address: PO BOX 350 37 Copeland Ave	Due Date Requested:			
City: Homer	TAT Requested (days):			
State, Zip: NY, 13077				
Phone: 607-749-5000(Tel)	PO #: Proj# 215042			
Email: ChrisG@geologic.net	WO #:			
Project Name: Emerging Contaminants	Project #: 48021303			
Site: 215042	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)	PFC_IDA - PFAS, Standard List (21 analytes)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
MW-01	11-20-19	12:00	G	Water			✓	✓		
MW-03	11-19-19	16:15	G	Water			✓	✓		
MW-05	11-19-19	15:15	G	Water			✓	✓		
DUP	11-19-19	15:15	G	Water			✓	✓		
MS	11-19-19	16:15	G	Water			✓	✓		
MSD	11-19-19	16:15	G	Water			✓	✓		
Equipment Blank	11-20-19	16:00	G	Water			✓	✓		
		11/21/19		AP						

480-163227 Chain of Custody

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) Cat. B Deliverables

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	11-20-19 16:45	Geologic	Geologic Foyer	11.20.19 / 16:45	Geologic
Relinquished by: Geologic Foyer [signature]	Date/Time: 11/21/19 / 11:50	Company Geologic	Received by: [signature]	Date/Time: 11/21/19 1150	Company TASYR
Relinquished by: RENglish	Date/Time: 11-21-19, 15:00	Company Syr	Received by: [signature]	Date/Time: 11/22/19 0800	Company TAB

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: #1 3.1

Ver: 01/16/2019

12/19/2019

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-163227-1
SDG Number:

Login Number: 163227
List Number: 1
Creator: Yeager, Brian A

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	GEOLOGIC
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

ANALYTICAL REPORT

Job Number: 480-163109-1

SDG Number: 480-163109

Job Description: Emerging Contaminants - 215042

For:
Geologic NY Inc
PO BOX 350
37 Copeland Ave
Homer, NY 13077

Attention: Mr. Christopher T Gabriel

Approved for release.
Orlette S Johnson
Senior Project Manager
12/18/2019 1:42 PM

Orlette S Johnson, Senior Project Manager
10 Hazelwood Drive, Amherst, NY, 14228-2298
(484)685-0864
orlette.johnson@testamericainc.com
12/18/2019

The test results in this report meet all NELAP requirements for analytes for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this test report should be directed to the Eurofins TestAmerica Project Manager who has signed this report.

Eurofins TestAmerica Buffalo NELAC Certifications: CADPH 01169CA, FLDOH E87672, ILEPA 200003, KSDOH E-10187, LADEQ 30708, MDH 036-999-337, NHELAP 2973, NJDEP NY455, NYDOH 10026, ORELAP NY200003, PADEP 68-00281, TXCEQ T-104704412-10-1

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

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

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Job Narrative
480-163109-1

Receipt
The samples were received on 11/22/2019 10:39 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1° C.

LCMS
Method 537 (modified): The Ion Ratio associated with Perfluoroheptanesulfonic Acid (PFHpS) fails our in-house defined limits for MW-05 (480-163109-3) , however the result is being reported for the following reasons: 1) both the Quantitative and Qualitative peaks elute at the same retention time, which is also the same as their IDA. 2) While the response for the quantitative peak is lower than expected, we cannot dismiss its presence entirely because it does not meet our ion ratio limits. It is possible that another co-eluting isomer of PFHpS is also present that does not produce the qualitative ion at the same rate the linear isomer does. The linear isomer is used in our calibration and generates the expected ion ratio.

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

Sample Summary

Client: Geologic NY Inc
Project/Site: Emerging Contaminants - 215042

Job ID: 480-163109-1
SDG: 480-163109

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
480-163109-1	MW-01	Water	11/20/19 12:00	11/22/19 10:39	
480-163109-2	MW-03	Water	11/19/19 16:15	11/22/19 10:39	
480-163109-3	MW-05	Water	11/19/19 15:15	11/22/19 10:39	
480-163109-4	DUP	Water	11/19/19 15:15	11/22/19 10:39	
480-163109-5	EQUIPMENT BLANK	Water	11/20/19 16:00	11/22/19 10:39	

Detection Summary

Client: Geologic NY Inc
Project/Site: Emerging Contaminants - 215042

Job ID: 480-163109-1
SDG: 480-163109

Client Sample ID: MW-01 — Lab Sample ID: 480-163109-1

No Detections.

Client Sample ID: MW-03 — Lab Sample ID: 480-163109-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	4.3		1.6	0.80	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	1.7		1.6	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	2.8		1.6	0.61	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	1.4	J	1.6	0.73	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	6.7		1.6	0.65	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.51	J	1.6	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	5.3		1.6	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	4.8		1.6	0.64	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.1		1.6	0.76	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	170		1.6	0.49	ng/L	1		537 (modified)	Total/NA

Client Sample ID: MW-05 — Lab Sample ID: 480-163109-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	5.5		1.6	0.82	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	2.5		1.6	0.52	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	4.2		1.6	0.62	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	2.0		1.6	0.75	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	11		1.6	0.66	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	0.28	J	1.6	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	20		1.6	0.40	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	7.5		1.6	0.66	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	0.92	J I	1.6	0.78	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	33		1.6	0.50	ng/L	1		537 (modified)	Total/NA

Client Sample ID: DUP — Lab Sample ID: 480-163109-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorobutanoic acid (PFBA)	6.9		1.6	0.80	ng/L	1		537 (modified)	Total/NA
Perfluoropentanoic acid (PFPeA)	3.6		1.6	0.50	ng/L	1		537 (modified)	Total/NA
Perfluorohexanoic acid (PFHxA)	5.3		1.6	0.61	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanoic acid (PFHpA)	3.4		1.6	0.73	ng/L	1		537 (modified)	Total/NA
Perfluorooctanoic acid (PFOA)	12		1.6	0.65	ng/L	1		537 (modified)	Total/NA
Perfluorononanoic acid (PFNA)	2.3		1.6	0.22	ng/L	1		537 (modified)	Total/NA
Perfluorodecanoic acid (PFDA)	2.1		1.6	0.61	ng/L	1		537 (modified)	Total/NA
Perfluoroundecanoic acid (PFUnA)	1.9		1.6	0.62	ng/L	1		537 (modified)	Total/NA
Perfluorododecanoic acid (PFDoA)	2.2		1.6	0.47	ng/L	1		537 (modified)	Total/NA
Perfluorotridecanoic acid (PFTriA)	1.9		1.6	0.48	ng/L	1		537 (modified)	Total/NA
Perfluorotetradecanoic acid (PFTeA)	1.9		1.6	0.73	ng/L	1		537 (modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	20		1.6	0.39	ng/L	1		537 (modified)	Total/NA
Perfluorohexanesulfonic acid (PFHxS)	8.4		1.6	0.64	ng/L	1		537 (modified)	Total/NA
Perfluoroheptanesulfonic Acid (PFHpS)	2.6		1.6	0.76	ng/L	1		537 (modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	46		1.6	0.49	ng/L	1		537 (modified)	Total/NA
Perfluorodecanesulfonic acid (PFDS)	1.8		1.6	0.72	ng/L	1		537 (modified)	Total/NA
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.7	J	16	1.4	ng/L	1		537 (modified)	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP (Continued)

Lab Sample ID: 480-163109-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.3	J	16	1.2	ng/L	1		537 (modified)	Total/NA

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-163109-5

No Detections.

Method Summary

Client: Geologic NY Inc
Project/Site: Emerging Contaminants - 215042

Job ID: 480-163109-1
SDG: 480-163109

Method	Method Description	Protocol	Laboratory
537 (modified)	Fluorinated Alkyl Substances	EPA	TAL BUR
3535	Solid-Phase Extraction (SPE)	SW846	TAL BUR

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Client Sample ID: MW-01

Date Collected: 11/20/19 12:00
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-1

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.6	0.81	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluoropentanoic acid (PFPeA)	ND		1.6	0.51	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorohexanoic acid (PFHxA)	ND		1.6	0.62	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.74	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorooctanoic acid (PFOA)	ND		1.6	0.66	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorononanoic acid (PFNA)	ND		1.6	0.22	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.62	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.63	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.75	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.77	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.49	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.73	ng/L		12/02/19 09:31	12/07/19 08:57	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.1	8.1	ng/L		12/02/19 09:31	12/07/19 08:57	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		12/02/19 09:31	12/07/19 08:57	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		12/02/19 09:31	12/07/19 08:57	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.5	ng/L		12/02/19 09:31	12/07/19 08:57	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4	ng/L		12/02/19 09:31	12/07/19 08:57	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*106*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C4 PFHpA	*125*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C4 PFOA	*104*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C4 PFOS	*88*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C5 PFNA	*102*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C4 PFBA	*113*		*25 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C2 PFHxA	*110*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C2 PFDA	*86*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C2 PFUnA	*88*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C2 PFDoA	*68*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C8 FOSA	*77*		*25 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C5 PFPeA	*126*		*25 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C2 PFTeDA	*79*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
d3-NMeFOSAA	*89*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
d5-NEtFOSAA	*69*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
M2-6:2 FTS	*134*		*25 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
M2-8:2 FTS	*116*		*25 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*
13C3 PFBS	*122*		*50 - 150*	*12/02/19 09:31*	*12/07/19 08:57*	*1*

Client Sample ID: MW-03

Date Collected: 11/19/19 16:15
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-2

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**4.3**		1.6	0.80	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluoropentanoic acid (PFPeA)	**1.7**		1.6	0.50	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorohexanoic acid (PFHxA)	**2.8**		1.6	0.61	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluoroheptanoic acid (PFHpA)	**1.4**	**J**	1.6	0.73	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorooctanoic acid (PFOA)	**6.7**		1.6	0.65	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorononanoic acid (PFNA)	**0.51**	**J**	1.6	0.22	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.62	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.62	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.47	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.48	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.74	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorobutanesulfonic acid (PFBS)	**5.3**		1.6	0.39	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorohexanesulfonic acid (PFHxS)	**4.8**		1.6	0.64	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluoroheptanesulfonic Acid (PFHpS)	**2.1**		1.6	0.76	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorooctanesulfonic acid (PFOS)	**170**		1.6	0.49	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.72	ng/L		12/02/19 09:31	12/07/19 09:06	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.0	8.0	ng/L		12/02/19 09:31	12/07/19 09:06	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		12/02/19 09:31	12/07/19 09:06	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		12/02/19 09:31	12/07/19 09:06	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.4	ng/L		12/02/19 09:31	12/07/19 09:06	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3	ng/L		12/02/19 09:31	12/07/19 09:06	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*127*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C4 PFHpA	*108*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C4 PFOA	*112*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C4 PFOS	*97*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C5 PFNA	*103*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C4 PFBA	*80*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C2 PFHxA	*113*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C2 PFDA	*98*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C2 PFUnA	*84*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C2 PFDoA	*84*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C8 FOSA	*87*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C5 PFPeA	*105*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C2 PFTeDA	*85*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
d3-NMeFOSAA	*85*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
d5-NEtFOSAA	*83*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
M2-6:2 FTS	*106*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
M2-8:2 FTS	*110*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*
13C3 PFBS	*111*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:06*	*1*

Client Sample ID: MW-05

Date Collected: 11/19/19 15:15
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-3

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**5.5**		1.6	0.82	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluoropentanoic acid (PFPeA)	**2.5**		1.6	0.52	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorohexanoic acid (PFHxA)	**4.2**		1.6	0.62	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluoroheptanoic acid (PFHpA)	**2.0**		1.6	0.75	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorooctanoic acid (PFOA)	**11**		1.6	0.66	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorononanoic acid (PFNA)	**0.28**	**J**	1.6	0.22	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorodecanoic acid (PFDA)	ND		1.6	0.63	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.64	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.75	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorobutanesulfonic acid (PFBS)	**20**		1.6	0.40	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorohexanesulfonic acid (PFHxS)	**7.5**		1.6	0.66	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	**0.92**	**J I**	1.6	0.78	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorooctanesulfonic acid (PFOS)	**33**		1.6	0.50	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.74	ng/L		12/02/19 09:31	12/07/19 09:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.2	8.2	ng/L		12/02/19 09:31	12/07/19 09:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4	ng/L		12/02/19 09:31	12/07/19 09:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2	ng/L		12/02/19 09:31	12/07/19 09:30	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.5	ng/L		12/02/19 09:31	12/07/19 09:30	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4	ng/L		12/02/19 09:31	12/07/19 09:30	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*111*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C4 PFHpA	*117*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C4 PFOA	*112*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C4 PFOS	*88*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C5 PFNA	*94*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C4 PFBA	*92*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C2 PFHxA	*112*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C2 PFDA	*96*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C2 PFUnA	*81*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C2 PFDoA	*73*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C8 FOSA	*65*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C5 PFPeA	*108*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C2 PFTeDA	*98*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
d3-NMeFOSAA	*86*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
d5-NEtFOSAA	*81*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
M2-6:2 FTS	*130*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
M2-8:2 FTS	*139*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*
13C3 PFBS	*102*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:30*	*1*

Client Sample ID: DUP

Date Collected: 11/19/19 15:15
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-4

Matrix: Water

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	**6.9**		1.6	0.80	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluoropentanoic acid (PFPeA)	**3.6**		1.6	0.50	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorohexanoic acid (PFHxA)	**5.3**		1.6	0.61	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluoroheptanoic acid (PFHpA)	**3.4**		1.6	0.73	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorooctanoic acid (PFOA)	**12**		1.6	0.65	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorononanoic acid (PFNA)	**2.3**		1.6	0.22	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorodecanoic acid (PFDA)	**2.1**		1.6	0.61	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluoroundecanoic acid (PFUnA)	**1.9**		1.6	0.62	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorododecanoic acid (PFDoA)	**2.2**		1.6	0.47	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorotridecanoic acid (PFTriA)	**1.9**		1.6	0.48	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorotetradecanoic acid (PFTeA)	**1.9**		1.6	0.73	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorobutanesulfonic acid (PFBS)	**20**		1.6	0.39	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorohexanesulfonic acid (PFHxS)	**8.4**		1.6	0.64	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluoroheptanesulfonic Acid (PFHpS)	**2.6**		1.6	0.76	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorooctanesulfonic acid (PFOS)	**46**		1.6	0.49	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorodecanesulfonic acid (PFDS)	**1.8**		1.6	0.72	ng/L		12/02/19 09:31	12/07/19 09:38	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.0	8.0	ng/L		12/02/19 09:31	12/07/19 09:38	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	**1.7**	**J**	16	1.4	ng/L		12/02/19 09:31	12/07/19 09:38	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	**2.3**	**J**	16	1.2	ng/L		12/02/19 09:31	12/07/19 09:38	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.4	ng/L		12/02/19 09:31	12/07/19 09:38	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3	ng/L		12/02/19 09:31	12/07/19 09:38	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*110*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C4 PFHpA	*119*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C4 PFOA	*106*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C4 PFOS	*81*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C5 PFNA	*94*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C4 PFBA	*91*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C2 PFHxA	*110*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C2 PFDA	*88*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C2 PFUnA	*88*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C2 PFDoA	*79*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C8 FOSA	*71*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C5 PFPeA	*116*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
13C2 PFTeDA	*99*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
d3-NMeFOSAA	*90*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
d5-NEtFOSAA	*84*		*50 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
M2-6:2 FTS	*121*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*
M2-8:2 FTS	*120*		*25 - 150*	*12/02/19 09:31*	*12/07/19 09:38*	*1*

Client Sample ID: DUP

Lab Sample ID: 480-163109-4

Date Collected: 11/19/19 15:15
Matrix: Water
Date Received: 11/22/19 10:39

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C3 PFBS	108		50 - 150	12/02/19 09:31	12/07/19 09:38	1

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 480-163109-5

Date Collected: 11/20/19 16:00
Matrix: Water
Date Received: 11/22/19 10:39

Method: 537 (modified) - Fluorinated Alkyl Substances

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		1.7	0.83	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluoropentanoic acid (PFPeA)	ND		1.7	0.53	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorohexanoic acid (PFHxA)	ND		1.7	0.63	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.76	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorooctanoic acid (PFOA)	ND		1.7	0.68	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorononanoic acid (PFNA)	ND		1.7	0.23	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorodecanoic acid (PFDA)	ND		1.7	0.64	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.65	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorododecanoic acid (PFDoA)	ND		1.7	0.49	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.50	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.77	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.41	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.67	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.79	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.51	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.75	ng/L		12/02/19 09:31	12/07/19 09:47	1
Perfluorooctanesulfonamide (PFOSA)	ND		8.3	8.3	ng/L		12/02/19 09:31	12/07/19 09:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17	1.4	ng/L		12/02/19 09:31	12/07/19 09:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17	1.3	ng/L		12/02/19 09:31	12/07/19 09:47	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		17	4.6	ng/L		12/02/19 09:31	12/07/19 09:47	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		17	2.4	ng/L		12/02/19 09:31	12/07/19 09:47	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
18O2 PFHxS	116		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C4 PFHpA	106		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C4 PFOA	123		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C4 PFOS	112		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C5 PFNA	105		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C4 PFBA	112		25 - 150	12/02/19 09:31	12/07/19 09:47	1
13C2 PFHxA	102		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C2 PFDA	102		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C2 PFUnA	104		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C2 PFDoA	99		50 - 150	12/02/19 09:31	12/07/19 09:47	1
13C8 FOSA	101		25 - 150	12/02/19 09:31	12/07/19 09:47	1
13C5 PFPeA	119		25 - 150	12/02/19 09:31	12/07/19 09:47	1
13C2 PFTeDA	89		50 - 150	12/02/19 09:31	12/07/19 09:47	1
d3-NMeFOSAA	88		50 - 150	12/02/19 09:31	12/07/19 09:47	1
d5-NEtFOSAA	106		50 - 150	12/02/19 09:31	12/07/19 09:47	1
M2-6:2 FTS	100		25 - 150	12/02/19 09:31	12/07/19 09:47	1

Client Sample ID: EQUIPMENT BLANK

Date Collected: 11/20/19 16:00
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-5

Matrix: Water

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

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
M2-8:2 FTS	115		25 - 150	12/02/19 09:31	12/07/19 09:47	1
13C3 PFBS	117		50 - 150	12/02/19 09:31	12/07/19 09:47	1

Isotope Dilution Summary

Client: Geologic NY Inc
Project/Site: Emerging Contaminants - 215042

Job ID: 480-163109-1
SDG: 480-163109

Method: 537 (modified) - Fluorinated Alkyl Substances

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

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFHxS	PFHpA	PFOA	PFOS	PFNA	PFBA	PFHxA	PFDA
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(50-150)	(50-150)	(50-150)	(25-150)	(50-150)	(50-150)
480-163109-1	MW-01	106	125	104	88	102	113	110	86
480-163109-2	MW-03	127	108	112	97	103	80	113	98
480-163109-2 MS	MW-03	120	125	111	107	108	91	112	101
480-163109-2 MSD	MW-03	127	127	113	102	97	95	122	103
480-163109-3	MW-05	111	117	112	88	94	92	112	96
480-163109-4	DUP	110	119	106	81	94	91	110	88
480-163109-5	EQUIPMENT BLANK	116	106	123	112	105	112	102	102
LCS 200-150277/2-A	Lab Control Sample	108	107	111	106	101	108	97	101
MB 200-150277/1-A	Method Blank	113	105	113	114	109	115	110	107

		Percent Isotope Dilution Recovery (Acceptance Limits)							
		PFUnA	PFDoA	PFOSA	PFPeA	PFTDA	-NMeFOS/	-NEtFOS/	M262FTS
Lab Sample ID	Client Sample ID	(50-150)	(50-150)	(25-150)	(25-150)	(50-150)	(50-150)	(50-150)	(25-150)
480-163109-1	MW-01	88	68	77	126	79	89	69	134
480-163109-2	MW-03	84	84	87	105	85	85	83	106
480-163109-2 MS	MW-03	96	90	88	114	97	75	89	107
480-163109-2 MSD	MW-03	96	88	87	120	94	93	92	118
480-163109-3	MW-05	81	73	65	108	98	86	81	130
480-163109-4	DUP	88	79	71	116	99	90	84	121
480-163109-5	EQUIPMENT BLANK	104	99	101	119	89	88	106	100
LCS 200-150277/2-A	Lab Control Sample	107	91	87	118	88	99	82	104
MB 200-150277/1-A	Method Blank	93	90	79	116	81	96	102	116

		Percent Isotope Dilution Recovery (Acceptance Limits)	
		M282FTS	3C3-PFBS
Lab Sample ID	Client Sample ID	(25-150)	(50-150)
480-163109-1	MW-01	116	122
480-163109-2	MW-03	110	111
480-163109-2 MS	MW-03	119	116
480-163109-2 MSD	MW-03	106	132
480-163109-3	MW-05	139	102
480-163109-4	DUP	120	108
480-163109-5	EQUIPMENT BLANK	115	117
LCS 200-150277/2-A	Lab Control Sample	123	113
MB 200-150277/1-A	Method Blank	118	118

Surrogate Legend

PFHxS = 18O2 PFHxS
PFHpA = 13C4 PFHpA
PFOA = 13C4 PFOA
PFOS = 13C4 PFOS
PFNA = 13C5 PFNA
PFBA = 13C4 PFBA
PFHxA = 13C2 PFHxA
PFDA = 13C2 PFDA
PFUnA = 13C2 PFUnA
PFDoA = 13C2 PFDoA
PFOSA = 13C8 FOSA
PFPeA = 13C5 PFPeA
PFTDA = 13C2 PFTeDA
d3-NMeFOSAA = d3-NMeFOSAA

Isotope Dilution Summary

Client: Geologic NY Inc
Project/Site: Emerging Contaminants - 215042

Job ID: 480-163109-1
SDG: 480-163109

d5-NEtFOSAA = d5-NEtFOSAA
M262FTS = M2-6:2 FTS
M282FTS = M2-8:2 FTS
13C3-PFBS = 13C3 PFBS

Method: 537 (modified) - Fluorinated Alkyl Substances

Lab Sample ID: MB 200-150277/1-A
Matrix: Water
Analysis Batch: 150462

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 150277

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	ND		2.0	1.0	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluoropentanoic acid (PFPeA)	ND		2.0	0.63	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorohexanoic acid (PFHxA)	ND		2.0	0.76	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.91	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorooctanoic acid (PFOA)	ND		2.0	0.81	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorononanoic acid (PFNA)	ND		2.0	0.27	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorodecanoic acid (PFDA)	ND		2.0	0.77	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.78	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorododecanoic acid (PFDoA)	ND		2.0	0.59	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.60	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.92	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.95	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.61	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.90	ng/L		12/02/19 09:31	12/07/19 06:30	1
Perfluorooctanesulfonamide (PFOSA)	ND		10	10	ng/L		12/02/19 09:31	12/07/19 06:30	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	1.7	ng/L		12/02/19 09:31	12/07/19 06:30	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.5	ng/L		12/02/19 09:31	12/07/19 06:30	1
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		20	5.5	ng/L		12/02/19 09:31	12/07/19 06:30	1
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		20	2.9	ng/L		12/02/19 09:31	12/07/19 06:30	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
18O2 PFHxS	*113*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C4 PFHpA	*105*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C4 PFOA	*113*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C4 PFOS	*114*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C5 PFNA	*109*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C4 PFBA	*115*		*25 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C2 PFHxA	*110*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C2 PFDA	*107*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C2 PFUnA	*93*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C2 PFDoA	*90*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C8 FOSA	*79*		*25 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C5 PFPeA	*116*		*25 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C2 PFTeDA	*81*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
d3-NMeFOSAA	*96*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
d5-NEtFOSAA	*102*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
M2-6:2 FTS	*116*		*25 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
M2-8:2 FTS	*118*		*25 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*
13C3 PFBS	*118*		*50 - 150*	*12/02/19 09:31*	*12/07/19 06:30*	*1*

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

Lab Sample ID: LCS 200-150277/2-A
Matrix: Water
Analysis Batch: 150462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150277

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	40.0	38.2		ng/L		96	50 - 150
Perfluoropentanoic acid (PFPeA)	40.0	34.5		ng/L		86	50 - 150
Perfluorohexanoic acid (PFHxA)	40.0	38.6		ng/L		96	70 - 130
Perfluoroheptanoic acid (PFHpA)	40.0	36.8		ng/L		92	70 - 130
Perfluorooctanoic acid (PFOA)	40.0	33.9		ng/L		85	70 - 130
Perfluorononanoic acid (PFNA)	40.0	43.4		ng/L		109	70 - 130
Perfluorodecanoic acid (PFDA)	40.0	40.4		ng/L		101	70 - 130
Perfluoroundecanoic acid (PFUnA)	40.0	37.7		ng/L		94	70 - 130
Perfluorododecanoic acid (PFDoA)	40.0	36.0		ng/L		90	70 - 130
Perfluorotridecanoic acid (PFTriA)	40.0	34.5		ng/L		86	70 - 130
Perfluorotetradecanoic acid (PFTeA)	40.0	41.5		ng/L		104	70 - 130
Perfluorobutanesulfonic acid (PFBS)	35.4	32.9		ng/L		93	70 - 130
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.1		ng/L		99	70 - 130
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	34.4		ng/L		90	50 - 150
Perfluorooctanesulfonic acid (PFOS)	37.1	36.1		ng/L		97	70 - 130
Perfluorodecanesulfonic acid (PFDS)	38.6	35.7		ng/L		93	50 - 150
Perfluorooctanesulfonamide (PFOSA)	40.0	33.8		ng/L		84	50 - 150
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	36.0		ng/L		90	70 - 130
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.3		ng/L		96	70 - 130
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	35.0		ng/L		92	50 - 150
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	38.7		ng/L		101	50 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
18O2 PFHxS	*108*		*50 - 150*
13C4 PFHpA	*107*		*50 - 150*
13C4 PFOA	*111*		*50 - 150*
13C4 PFOS	*106*		*50 - 150*
13C5 PFNA	*101*		*50 - 150*
13C4 PFBA	*108*		*25 - 150*
13C2 PFHxA	*97*		*50 - 150*
13C2 PFDA	*101*		*50 - 150*
13C2 PFUnA	*107*		*50 - 150*
13C2 PFDoA	*91*		*50 - 150*
13C8 FOSA	*87*		*25 - 150*
13C5 PFPeA	*118*		*25 - 150*
13C2 PFTeDA	*88*		*50 - 150*
d3-NMeFOSAA	*99*		*50 - 150*
d5-NEtFOSAA	*82*		*50 - 150*

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

Lab Sample ID: LCS 200-150277/2-A
Matrix: Water
Analysis Batch: 150462

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 150277

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
M2-6:2 FTS	104		25 - 150
M2-8:2 FTS	123		25 - 150
13C3 PFBS	113		50 - 150

Lab Sample ID: 480-163109-2 MS
Matrix: Water
Analysis Batch: 150462

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 150277

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorobutanoic acid (PFBA)	4.3		32.4	33.2		ng/L		89	40 - 160
Perfluoropentanoic acid (PFPeA)	1.7		32.4	27.2		ng/L		79	40 - 160
Perfluorohexanoic acid (PFHxA)	2.8		32.4	31.6		ng/L		89	40 - 160
Perfluoroheptanoic acid (PFHpA)	1.4	J	32.4	29.5		ng/L		86	40 - 160
Perfluorooctanoic acid (PFOA)	6.7		32.4	36.3		ng/L		91	40 - 160
Perfluorononanoic acid (PFNA)	0.51	J	32.4	30.4		ng/L		92	40 - 160
Perfluorodecanoic acid (PFDA)	ND		32.4	31.0		ng/L		95	40 - 160
Perfluoroundecanoic acid (PFUnA)	ND		32.4	27.7		ng/L		85	40 - 160
Perfluorododecanoic acid (PFDoA)	ND		32.4	32.9		ng/L		101	40 - 160
Perfluorotridecanoic acid (PFTriA)	ND		32.4	30.0		ng/L		92	40 - 160
Perfluorotetradecanoic acid (PFTeA)	ND		32.4	30.7		ng/L		95	40 - 160
Perfluorobutanesulfonic acid (PFBS)	5.3		28.7	31.0		ng/L		90	40 - 160
Perfluorohexanesulfonic acid (PFHxS)	4.8		29.5	34.9		ng/L		102	40 - 160
Perfluoroheptanesulfonic Acid (PFHpS)	2.1		30.9	33.5		ng/L		102	40 - 160
Perfluorooctanesulfonic acid (PFOS)	170		30.1	192	4	ng/L		71	40 - 160
Perfluorodecanesulfonic acid (PFDS)	ND		31.3	28.9		ng/L		92	40 - 160
Perfluorooctanesulfonamide (PFOSA)	ND		32.4	32.0		ng/L		99	40 - 160
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		32.4	33.1		ng/L		102	40 - 160
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		32.4	28.9		ng/L		89	40 - 160
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		30.7	27.3		ng/L		89	40 - 160
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		31.1	28.8		ng/L		93	40 - 160

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
18O2 PFHxS	120		50 - 150
13C4 PFHpA	125		50 - 150
13C4 PFOA	111		50 - 150
13C4 PFOS	107		50 - 150
13C5 PFNA	108		50 - 150
13C4 PFBA	91		25 - 150

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

Lab Sample ID: 480-163109-2 MS
Matrix: Water
Analysis Batch: 150462

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 150277

Isotope Dilution	MS %Recovery	MS Qualifier	Limits
13C2 PFHxA	112		50 - 150
13C2 PFDA	101		50 - 150
13C2 PFUnA	96		50 - 150
13C2 PFDoA	90		50 - 150
13C8 FOSA	88		25 - 150
13C5 PFPeA	114		25 - 150
13C2 PFTeDA	97		50 - 150
d3-NMeFOSAA	75		50 - 150
d5-NEtFOSAA	89		50 - 150
M2-6:2 FTS	107		25 - 150
M2-8:2 FTS	119		25 - 150
13C3 PFBS	116		50 - 150

Lab Sample ID: 480-163109-2 MSD
Matrix: Water
Analysis Batch: 150462

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 150277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorobutanoic acid (PFBA)	4.3		34.3	35.5		ng/L		91	40 - 160	7	30
Perfluoropentanoic acid (PFPeA)	1.7		34.3	29.8		ng/L		82	40 - 160	9	30
Perfluorohexanoic acid (PFHxA)	2.8		34.3	34.6		ng/L		93	40 - 160	9	20
Perfluoroheptanoic acid (PFHpA)	1.4	J	34.3	34.4		ng/L		96	40 - 160	16	20
Perfluorooctanoic acid (PFOA)	6.7		34.3	41.1		ng/L		100	40 - 160	12	20
Perfluorononanoic acid (PFNA)	0.51	J	34.3	34.1		ng/L		98	40 - 160	11	20
Perfluorodecanoic acid (PFDA)	ND		34.3	29.1		ng/L		85	40 - 160	6	20
Perfluoroundecanoic acid (PFUnA)	ND		34.3	31.1		ng/L		91	40 - 160	11	20
Perfluorododecanoic acid (PFDoA)	ND		34.3	34.5		ng/L		101	40 - 160	5	20
Perfluorotridecanoic acid (PFTriA)	ND		34.3	27.5		ng/L		80	40 - 160	9	20
Perfluorotetradecanoic acid (PFTeA)	ND		34.3	31.8		ng/L		93	40 - 160	3	20
Perfluorobutanesulfonic acid (PFBS)	5.3		30.3	31.2		ng/L		85	40 - 160	1	20
Perfluorohexanesulfonic acid (PFHxS)	4.8		31.2	35.0		ng/L		97	40 - 160	0	20
Perfluoroheptanesulfonic Acid (PFHpS)	2.1		32.6	42.4		ng/L		123	40 - 160	23	30
Perfluorooctanesulfonic acid (PFOS)	170		31.8	203	4	ng/L		101	40 - 160	5	20
Perfluorodecanesulfonic acid (PFDS)	ND		33.0	30.1		ng/L		91	40 - 160	4	30
Perfluorooctanesulfonamide (PFOSA)	ND		34.3	32.6		ng/L		95	40 - 160	2	30
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		34.3	30.5		ng/L		89	40 - 160	8	20
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		34.3	28.2		ng/L		82	40 - 160	3	20
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		32.5	26.2		ng/L		81	40 - 160	4	30

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

Lab Sample ID: 480-163109-2 MSD
Matrix: Water
Analysis Batch: 150462

Client Sample ID: MW-03
Prep Type: Total/NA
Prep Batch: 150277

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		32.8	30.5		ng/L		93	40 - 160	6	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
18O2 PFHxS	*127*		*50 - 150*
13C4 PFHpA	*127*		*50 - 150*
13C4 PFOA	*113*		*50 - 150*
13C4 PFOS	*102*		*50 - 150*
13C5 PFNA	*97*		*50 - 150*
13C4 PFBA	*95*		*25 - 150*
13C2 PFHxA	*122*		*50 - 150*
13C2 PFDA	*103*		*50 - 150*
13C2 PFUnA	*96*		*50 - 150*
13C2 PFDoA	*88*		*50 - 150*
13C8 FOSA	*87*		*25 - 150*
13C5 PFPeA	*120*		*25 - 150*
13C2 PFTeDA	*94*		*50 - 150*
d3-NMeFOSAA	*93*		*50 - 150*
d5-NEtFOSAA	*92*		*50 - 150*
M2-6:2 FTS	*118*		*25 - 150*
M2-8:2 FTS	*106*		*25 - 150*
13C3 PFBS	*132*		*50 - 150*

Qualifiers

LCMS

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
I	Value is EMPC (estimated maximum possible concentration).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
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)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
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)

LCMS

Prep Batch: 150277

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-163109-1	MW-01	Total/NA	Water	3535	
480-163109-2	MW-03	Total/NA	Water	3535	
480-163109-3	MW-05	Total/NA	Water	3535	
480-163109-4	DUP	Total/NA	Water	3535	
480-163109-5	EQUIPMENT BLANK	Total/NA	Water	3535	
MB 200-150277/1-A	Method Blank	Total/NA	Water	3535	
LCS 200-150277/2-A	Lab Control Sample	Total/NA	Water	3535	
480-163109-2 MS	MW-03	Total/NA	Water	3535	
480-163109-2 MSD	MW-03	Total/NA	Water	3535	

Analysis Batch: 150462

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-163109-1	MW-01	Total/NA	Water	537 (modified)	150277
480-163109-2	MW-03	Total/NA	Water	537 (modified)	150277
480-163109-3	MW-05	Total/NA	Water	537 (modified)	150277
480-163109-4	DUP	Total/NA	Water	537 (modified)	150277
480-163109-5	EQUIPMENT BLANK	Total/NA	Water	537 (modified)	150277
MB 200-150277/1-A	Method Blank	Total/NA	Water	537 (modified)	150277
LCS 200-150277/2-A	Lab Control Sample	Total/NA	Water	537 (modified)	150277
480-163109-2 MS	MW-03	Total/NA	Water	537 (modified)	150277
480-163109-2 MSD	MW-03	Total/NA	Water	537 (modified)	150277

Lab Chronicle

Client: Geologic NY Inc
Project/Site: Emerging Contaminants - 215042

Job ID: 480-163109-1
SDG: 480-163109

Client Sample ID: MW-01
Date Collected: 11/20/19 12:00
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			150277	12/02/19 09:31	MBM	TAL BUR
Total/NA	Analysis	537 (modified)		1	150462	12/07/19 08:57	BWC	TAL BUR

Client Sample ID: MW-03
Date Collected: 11/19/19 16:15
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			150277	12/02/19 09:31	MBM	TAL BUR
Total/NA	Analysis	537 (modified)		1	150462	12/07/19 09:06	BWC	TAL BUR

Client Sample ID: MW-05
Date Collected: 11/19/19 15:15
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			150277	12/02/19 09:31	MBM	TAL BUR
Total/NA	Analysis	537 (modified)		1	150462	12/07/19 09:30	BWC	TAL BUR

Client Sample ID: DUP
Date Collected: 11/19/19 15:15
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			150277	12/02/19 09:31	MBM	TAL BUR
Total/NA	Analysis	537 (modified)		1	150462	12/07/19 09:38	BWC	TAL BUR

Client Sample ID: EQUIPMENT BLANK
Date Collected: 11/20/19 16:00
Date Received: 11/22/19 10:39

Lab Sample ID: 480-163109-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			150277	12/02/19 09:31	MBM	TAL BUR
Total/NA	Analysis	537 (modified)		1	150462	12/07/19 09:47	BWC	TAL BUR

Laboratory References:

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

Accreditation/Certification Summary

Client: Geologic NY Inc
Project/Site: Emerging Contaminants - 215042

Job ID: 480-163109-1
SDG: 480-163109

Laboratory: Eurofins TestAmerica, Buffalo

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

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10026	03-31-20

Laboratory: Eurofins TestAmerica, Burlington

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2336	02-25-20
Connecticut	State	PH-0751	09-30-19 *
Connecticut	State	PH-0751	09-30-21
Connecticut	State Program	PH-0751	09-30-21
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	05-15-20
Florida	NELAP	E87467	06-30-20
Minnesota	NELAP	050-999-436	12-31-19
New Hampshire	NELAP	2006	12-18-19
New Jersey	NELAP	VT972	06-30-20
New York	NELAP	10391	03-31-20
Pennsylvania	NELAP	68-00489	04-30-20
Rhode Island	State	LAO00298	12-30-19
Rhode Island	State Program	LAO00298	12-30-19
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00272	08-09-20
Vermont	State	VT4000	12-31-19
Virginia	NELAP	460209	12-14-19

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

PFC_IDA

Fluorinated Alkyl Substances

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	PFBA #	PFPeA #	PFBS #	PFHxA #	PFHpA #	PFHxS #	M262FTS #	PFOA #
MW-01	480-163109-1	113	126	122	110	125	106	134	104
MW-03	480-163109-2	80	105	111	113	108	127	106	112
MW-05	480-163109-3	92	108	102	112	117	111	130	112
DUP	480-163109-4	91	116	108	110	119	110	121	106
EQUIPMENT BLANK	480-163109-5	112	119	117	102	106	116	100	123
	MB 200-150277/1-A	115	116	118	110	105	113	116	113
	LCS 200-150277/2-A	108	118	113	97	107	108	104	111
MW-03 MS	480-163109-2 MS	91	114	116	112	125	120	107	111
MW-03 MSD	480-163109-2 MSD	95	120	132	122	127	127	118	113

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

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	PFOS #	PFNA #	PFDA #	M282FTS #	PFOSA #	d3NMFOS #	PFUnA #	d5NEFOS #
MW-01	480-163109-1	88	102	86	116	77	89	88	69
MW-03	480-163109-2	97	103	98	110	87	85	84	83
MW-05	480-163109-3	88	94	96	139	65	86	81	81
DUP	480-163109-4	81	94	88	120	71	90	88	84
EQUIPMENT BLANK	480-163109-5	112	105	102	115	101	88	104	106
	MB 200-150277/1-A	114	109	107	118	79	96	93	102
	LCS 200-150277/2-A	106	101	101	123	87	99	107	82
MW-03 MS	480-163109-2 MS	107	108	101	119	88	75	96	89
MW-03 MSD	480-163109-2 MSD	102	97	103	106	87	93	96	92

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

Column to be used to flag recovery values

FORM II 537 (modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	PFDoA #	PFTDA #
MW-01	480-163109-1	68	79
MW-03	480-163109-2	84	85
MW-05	480-163109-3	73	98
DUP	480-163109-4	79	99
EQUIPMENT BLANK	480-163109-5	99	89
	MB 200-150277/1-A	90	81
	LCS 200-150277/2-A	91	88
MW-03 MS	480-163109-2 MS	90	97
MW-03 MSD	480-163109-2 MSD	88	94

	QC LIMITS
PFDoA = 13C2 PFDoA	50-150
PFTDA = 13C2 PFTeDA	50-150

Column to be used to flag recovery values

FORM II 537 (modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low Lab File ID: SC120619F003.d

Lab ID: LCS 200-150277/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	40.0	38.2	96	50-150	
Perfluoropentanoic acid (PFPeA)	40.0	34.5	86	50-150	
Perfluorohexanoic acid (PFHxA)	40.0	38.6	96	70-130	
Perfluoroheptanoic acid (PFHpA)	40.0	36.8	92	70-130	
Perfluorooctanoic acid (PFOA)	40.0	33.9	85	70-130	
Perfluorononanoic acid (PFNA)	40.0	43.4	109	70-130	
Perfluorodecanoic acid (PFDA)	40.0	40.4	101	70-130	
Perfluoroundecanoic acid (PFUnA)	40.0	37.7	94	70-130	
Perfluorododecanoic acid (PFDoA)	40.0	36.0	90	70-130	
Perfluorotridecanoic acid (PFTriA)	40.0	34.5	86	70-130	
Perfluorotetradecanoic acid (PFTeA)	40.0	41.5	104	70-130	
Perfluorobutanesulfonic acid (PFBS)	35.4	32.9	93	70-130	
Perfluorohexanesulfonic acid (PFHxS)	36.4	36.1	99	70-130	
Perfluoroheptanesulfonic Acid (PFHpS)	38.1	34.4	90	50-150	
Perfluorooctanesulfonic acid (PFOS)	37.1	36.1	97	70-130	
Perfluorodecanesulfonic acid (PFDS)	38.6	35.7	93	50-150	
Perfluorooctanesulfonamide (PFOSA)	40.0	33.8	84	50-150	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	40.0	36.0	90	70-130	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	40.0	38.3	96	70-130	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	37.9	35.0	92	50-150	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.3	38.7	101	50-150	
18O2 PFHxS	94.6	102	108	50-150	
13C4 PFHpA	100	107	107	50-150	
13C4 PFOA	100	111	111	50-150	
13C4 PFOS	95.6	101	106	50-150	
13C5 PFNA	100	101	101	50-150	
13C4 PFBA	100	108	108	25-150	
13C2 PFHxA	100	97.4	97	50-150	
13C2 PFDA	100	101	101	50-150	
13C2 PFUnA	100	107	107	50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low Lab File ID: SC120619F003.d

Lab ID: LCS 200-150277/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
13C2 PFDoA	100	90.9	91	50-150	
13C8 FOSA	100	87.2	87	25-150	
13C5 PFPeA	100	118	118	25-150	
13C2 PFTeDA	100	87.9	88	50-150	
d3-NMeFOSAA	100	98.6	99	50-150	
d5-NEtFOSAA	100	81.8	82	50-150	
M2-6:2 FTS	95.0	98.7	104	25-150	
M2-8:2 FTS	95.8	118	123	25-150	
13C3 PFBS	93.0	105	113	50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low Lab File ID: SC120619F022.d

Lab ID: 480-163109-2 MS Client ID: MW-03 MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	32.4	4.3	33.2	89	40-160	
Perfluoropentanoic acid (PFPeA)	32.4	1.7	27.2	79	40-160	
Perfluorohexanoic acid (PFHxA)	32.4	2.8	31.6	89	40-160	
Perfluoroheptanoic acid (PFHpA)	32.4	1.4 J	29.5	86	40-160	
Perfluorooctanoic acid (PFOA)	32.4	6.7	36.3	91	40-160	
Perfluorononanoic acid (PFNA)	32.4	0.51 J	30.4	92	40-160	
Perfluorodecanoic acid (PFDA)	32.4	ND	31.0	95	40-160	
Perfluoroundecanoic acid (PFUnA)	32.4	ND	27.7	85	40-160	
Perfluorododecanoic acid (PFDoA)	32.4	ND	32.9	101	40-160	
Perfluorotridecanoic acid (PFTriA)	32.4	ND	30.0	92	40-160	
Perfluorotetradecanoic acid (PFTeA)	32.4	ND	30.7	95	40-160	
Perfluorobutanesulfonic acid (PFBS)	28.7	5.3	31.0	90	40-160	
Perfluorohexanesulfonic acid (PFHxS)	29.5	4.8	34.9	102	40-160	
Perfluoroheptanesulfonic Acid (PFHpS)	30.9	2.1	33.5	102	40-160	
Perfluorooctanesulfonic acid (PFOS)	30.1	170	192	71	40-160	4
Perfluorodecanesulfonic acid (PFDS)	31.3	ND	28.9	92	40-160	
Perfluorooctanesulfonamide (PFOSA)	32.4	ND	32.0	99	40-160	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	32.4	ND	33.1	102	40-160	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	32.4	ND	28.9	89	40-160	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	30.7	ND	27.3	89	40-160	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	31.1	ND	28.8	93	40-160	
18O2 PFHxS	76.7	96	91.8	120	50-150	
13C4 PFHpA	81.1	86	102	125	50-150	
13C4 PFOA	81.1	90	89.7	111	50-150	
13C4 PFOS	77.5	75	82.9	107	50-150	
13C5 PFNA	81.1	82	87.5	108	50-150	
13C4 PFBA	81.1	64	73.5	91	25-150	
13C2 PFHxA	81.1	90	91.0	112	50-150	
13C2 PFDA	81.1	78	82.0	101	50-150	
13C2 PFUnA	81.1	67	77.8	96	50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low Lab File ID: SC120619F022.d

Lab ID: 480-163109-2 MS Client ID: MW-03 MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
13C2 PFDoA	81.1	67	73.1	90	50-150	
13C8 FOSA	81.1	70	71.4	88	25-150	
13C5 PFPeA	81.1	84	92.2	114	25-150	
13C2 PFTeDA	81.1	68	78.5	97	50-150	
d3-NMeFOSAA	81.1	68	61.2	75	50-150	
d5-NEtFOSAA	81.1	66	71.9	89	50-150	
M2-6:2 FTS	77.0	81	82.3	107	25-150	
M2-8:2 FTS	77.7	85	92.7	119	25-150	
13C3 PFBS	75.4	83	87.8	116	50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low Lab File ID: SC120619F023.d

Lab ID: 480-163109-2 MSD Client ID: MW-03 MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorobutanoic acid (PFBA)	34.3	35.5	91	7	30	40-160	
Perfluoropentanoic acid (PFPeA)	34.3	29.8	82	9	30	40-160	
Perfluorohexanoic acid (PFHxA)	34.3	34.6	93	9	20	40-160	
Perfluoroheptanoic acid (PFHpA)	34.3	34.4	96	16	20	40-160	
Perfluorooctanoic acid (PFOA)	34.3	41.1	100	12	20	40-160	
Perfluorononanoic acid (PFNA)	34.3	34.1	98	11	20	40-160	
Perfluorodecanoic acid (PFDA)	34.3	29.1	85	6	20	40-160	
Perfluoroundecanoic acid (PFUnA)	34.3	31.1	91	11	20	40-160	
Perfluorododecanoic acid (PFDoA)	34.3	34.5	101	5	20	40-160	
Perfluorotridecanoic acid (PFTriA)	34.3	27.5	80	9	20	40-160	
Perfluorotetradecanoic acid (PFTeA)	34.3	31.8	93	3	20	40-160	
Perfluorobutanesulfonic acid (PFBS)	30.3	31.2	85	1	20	40-160	
Perfluorohexanesulfonic acid (PFHxS)	31.2	35.0	97	0	20	40-160	
Perfluoroheptanesulfonic Acid (PFHpS)	32.6	42.4	123	23	30	40-160	
Perfluorooctanesulfonic acid (PFOS)	31.8	203	101	5	20	40-160	4
Perfluorodecanesulfonic acid (PFDS)	33.0	30.1	91	4	30	40-160	
Perfluorooctanesulfonamide (PFOSA)	34.3	32.6	95	2	30	40-160	
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	34.3	30.5	89	8	20	40-160	
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	34.3	28.2	82	3	20	40-160	
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	32.5	26.2	81	4	30	40-160	
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	32.8	30.5	93	6	30	40-160	
18O2 PFHxS	81.0	103	127			50-150	
13C4 PFHpA	85.6	109	127			50-150	
13C4 PFOA	85.6	96.8	113			50-150	
13C4 PFOS	81.9	83.7	102			50-150	
13C5 PFNA	85.6	83.2	97			50-150	
13C4 PFBA	85.6	81.7	95			25-150	
13C2 PFHxA	85.6	105	122			50-150	
13C2 PFDA	85.6	88.0	103			50-150	
13C2 PFUnA	85.6	81.8	96			50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Matrix: Water Level: Low Lab File ID: SC120619F023.d

Lab ID: 480-163109-2 MSD Client ID: MW-03 MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
13C2 PFDoA	85.6	75.7	88			50-150	
13C8 FOSA	85.6	74.5	87			25-150	
13C5 PFPeA	85.6	103	120			25-150	
13C2 PFTeDA	85.6	80.3	94			50-150	
d3-NMeFOSAA	85.6	79.4	93			50-150	
d5-NEtFOSAA	85.6	78.9	92			50-150	
M2-6:2 FTS	81.4	96.0	118			25-150	
M2-8:2 FTS	82.0	87.0	106			25-150	
13C3 PFBS	79.7	105	132			50-150	

Column to be used to flag recovery and RPD values

FORM III 537 (modified)

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab File ID: SC120619F002.d Lab Sample ID: MB 200-150277/1-A

Matrix: Water Date Extracted: 12/02/2019 09:31

Instrument ID: LC812 Date Analyzed: 12/07/2019 06:30

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 200-150277/2-A	SC120619F003.d	12/07/2019 06:38
MW-01	480-163109-1	SC120619F020.d	12/07/2019 08:57
MW-03	480-163109-2	SC120619F021.d	12/07/2019 09:06
MW-03 MS	480-163109-2 MS	SC120619F022.d	12/07/2019 09:14
MW-03 MSD	480-163109-2 MSD	SC120619F023.d	12/07/2019 09:22
MW-05	480-163109-3	SC120619F024.d	12/07/2019 09:30
DUP	480-163109-4	SC120619F025.d	12/07/2019 09:38
EQUIPMENT BLANK	480-163109-5	SC120619F026.d	12/07/2019 09:47

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Sample No.: ICIS 200-150448/8 Date Analyzed: 12/06/2019 14:57

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm)

Lab File ID (Standard): SC120619ICAL008.d Heated Purge: (Y/N) N

Calibration ID: 42812

		13PFOA					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		1852009	3.43				
UPPER LIMIT		2778014	3.63				
LOWER LIMIT		926005	3.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 200-150448/12		2193286	3.43				
CCV 200-150462/1		1976738	3.44				
MB 200-150277/1-A		2358715	3.44				
LCS 200-150277/2-A		2483356	3.44				
CCV 200-150462/14		1987567	3.45				
480-163109-1	MW-01	2084504	3.44				
480-163109-2	MW-03	2110586	3.44				
480-163109-2 MS	MW-03 MS	1807670	3.45				
480-163109-2 MSD	MW-03 MSD	1724517	3.45				
480-163109-3	MW-05	2092234	3.45				
480-163109-4	DUP	2035934	3.44				
480-163109-5	EQUIPMENT BLANK	1807550	3.45				
CCV 200-150462/27		1767189	3.44				

13PFOA = 13C2 PFOA

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.2 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537 (MODIFIED)

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-01 Lab Sample ID: 480-163109-1

Matrix: Water Lab File ID: SC120619F020.d

Analysis Method: 537 (modified) Date Collected: 11/20/2019 12:00

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 308.1(mL) Date Analyzed: 12/07/2019 08:57

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		1.6	0.81
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.6	0.51
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.6	0.62
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.6	0.74
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.6	0.66
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.6	0.22
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.6	0.62
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.63
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.75
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.6	0.40
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.6	0.65
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.6	0.77
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.6	0.49
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.73
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		8.1	8.1
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.5
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-01 Lab Sample ID: 480-163109-1

Matrix: Water Lab File ID: SC120619F020.d

Analysis Method: 537 (modified) Date Collected: 11/20/2019 12:00

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 308.1(mL) Date Analyzed: 12/07/2019 08:57

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	106		50-150
STL01892	13C4 PFHpA	125		50-150
STL00990	13C4 PFOA	104		50-150
STL00991	13C4 PFOS	88		50-150
STL00995	13C5 PFNA	102		50-150
STL00992	13C4 PFBA	113		25-150
STL00993	13C2 PFHxA	110		50-150
STL00996	13C2 PFDA	86		50-150
STL00997	13C2 PFUnA	88		50-150
STL00998	13C2 PFDoA	68		50-150
STL01056	13C8 FOSA	77		25-150
STL01893	13C5 PFPeA	126		25-150
STL02116	13C2 PFTeDA	79		50-150
STL02118	d3-NMeFOSAA	89		50-150
STL02117	d5-NEtFOSAA	69		50-150
STL02279	M2-6:2 FTS	134		25-150
STL02280	M2-8:2 FTS	116		25-150
STL02337	13C3 PFBS	122		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d
Lims ID: 480-163109-A-1-A
Client ID: MW-01
Sample Type: Client
Inject. Date: 07-Dec-2019 08:57:59 ALS Bottle#: 20 Worklist Smp#: 20
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 480-163109-A-1-A
Misc. Info.: 200-0039120-020 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 15:19:47
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.907	1.917	-0.010	0.555	2505310	2.84		113	27214	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.917	1.926	-0.009	1.005	15876	0.0159			4.6	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.660	2122904	3.14		126	6514	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.271	2.285	-0.014	1.000	12855	0.0134			1.0	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.284	2.298	-0.014	1.000	2671	0.002503	Target=2.03		1.6	
298.90 > 99.00	2.298	2.298	0.0	1.006	1893		1.41(1.01-3.04)		1.7	
D 47 13C3 PFBS										
301.90 > 80.00	2.284	2.312	-0.028	0.664	2283151	2.83		122	196040	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.660	2.673	-0.013	1.000	7654	0.009017	Target=13.76		2.1	M
313.00 > 119.00	2.685	2.673	0.012	1.009	450		17.01(6.88-20.64)		1.1	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.660	2.673	-0.013	0.774	2078572	2.76		110	4900	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.055	3.055	0.0	1.000	3165	0.003348	Target=3.95		1.5	M
363.00 > 169.00	3.067	3.055	0.011	1.004	1185		2.67(1.97-5.92)		3.6	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.044	3.055	-0.011	0.885	1590792	2.50		106	5225	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.889	2235505	3.13		125	4862	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.004	8734	0.0115	Target=3.90		13.8	M
399.00 > 99.00	3.055	3.055	0.0	1.004	1804		4.84(1.95-5.85)		3.3	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 1H,1H,2H,2H-perfluorooctanesulfoni										M
427.00 > 407.00	3.413	3.430	-0.017	0.998	326	0.002355			3.3	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.421	3.430	-0.009	0.995	348412	3.19		134	831	
D 14 13C4 PFOA										
417.00 > 372.00	3.438	3.438	0.0	1.000	1976737	2.61		104	3943	
* 62 13C2 PFOA										
415.00 > 370.00	3.438	3.438	0.0		2084504	2.50			3883	
15 Perfluorooctanoic acid										RM
413.00 > 369.00	3.438	3.447	-0.009	1.000	9898	0.0113	Target=2.40		2.8	RM
413.00 > 169.00	3.438	3.447	-0.009	1.000	2655		3.73(1.20-3.60)		21.7	M
17 Perfluorooctanesulfonic acid										RM
499.00 > 80.00	3.805	3.817	-0.012	1.000	2420	0.005048	Target=5.74		6.7	RM
499.00 > 99.00	3.805	3.817	-0.012	1.000	906		2.67(2.87-8.61)		4.2	M
D 18 13C4 PFOS										
503.00 > 80.00	3.805	3.817	-0.012	1.107	1061265	2.10		88.0	2821	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.829	3.829	0.0	1.000	2957	0.004235	Target=7.01		1.2	M
463.00 > 169.00	3.805	3.829	-0.024	0.994	345		8.57(3.50-10.51)		6.3	M
D 19 13C5 PFNA										
468.00 > 423.00	3.829	3.842	-0.013	1.114	1780178	2.56		102	5819	
D 23 13C2 PFDA										
515.00 > 470.00	4.164	4.175	-0.011	1.211	1469697	2.14		85.6	5968	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.174	4.185	-0.011	1.214	363047	2.79		116	1408	
25 1H,1H,2H,2H-perfluorodecanesulfoni										M
527.00 > 507.00	4.164	4.185	-0.021	0.997	64	0.000915			1.9	M
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.239	4.239	0.0	1.000	843	0.001223			14.1	M
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.233	1731026	1.93		77.1	9386	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.317	4.317	-0.001	1.255	147580	2.23		89.3	3057	
D 30 13C2 PFUnA										
565.00 > 520.00	4.442	4.456	-0.014	1.292	1278814	2.19		87.7	4859	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.442	4.456	-0.014	1.000	3716	0.008568	Target=5.78		3.5	
563.00 > 169.00	4.442	4.456	-0.014	1.000	812		4.58(2.89-8.67)		10.9	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.296	126000	1.72		68.8	958	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.442	4.469	-0.027	0.997	74	0.001774			1.5	M
D 36 13C2 PFDoA										
615.00 > 570.00	4.683	4.693	-0.011	1.362	1093811	1.71		68.4	5577	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.085	5.094	-0.009	1.479	1057886	1.97		78.9	10098	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.085	5.094	-0.009	1.000	331	0.003894	Target=1.05		5.3	M
713.00 > 219.00	5.085	5.094	-0.009	1.000	312		1.06(0.52-1.57)		7.8	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:19:53 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d

Injection Date: 07-Dec-2019 08:57:59 Instrument ID: LC812

Lims ID: 480-163109-A-1-A Lab Sample ID: 200-163109-1

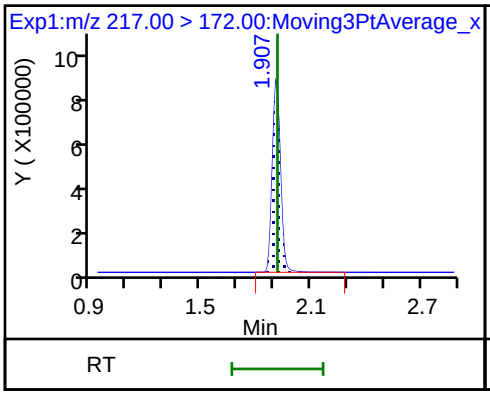
Client ID: MW-01

Operator ID: lc812tech ALS Bottle#: 20 Worklist Smp#: 20

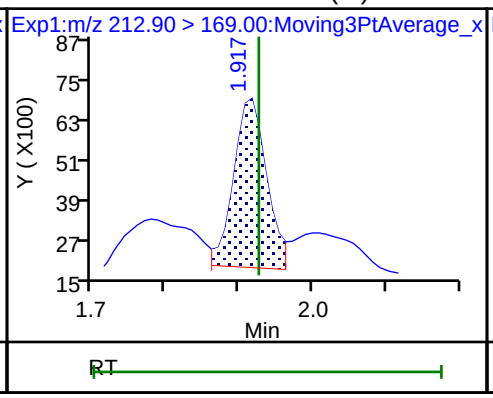
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

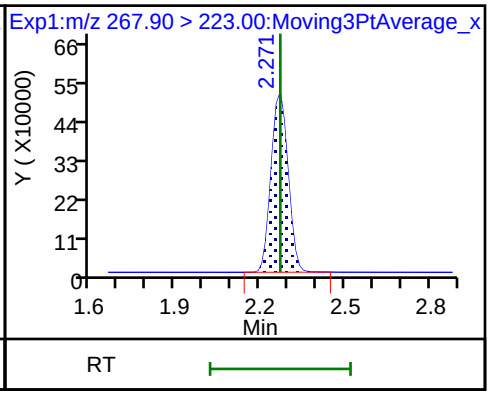
D 1 13C4 PFBA



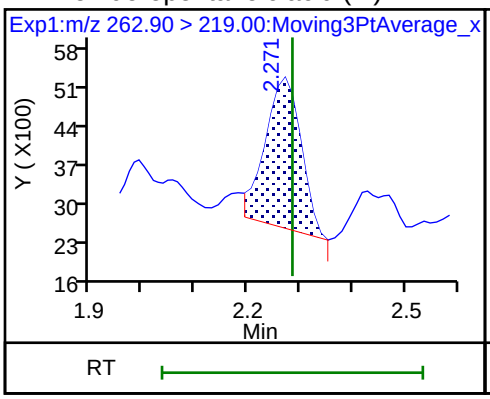
2 Perfluorobutanoic acid (M)



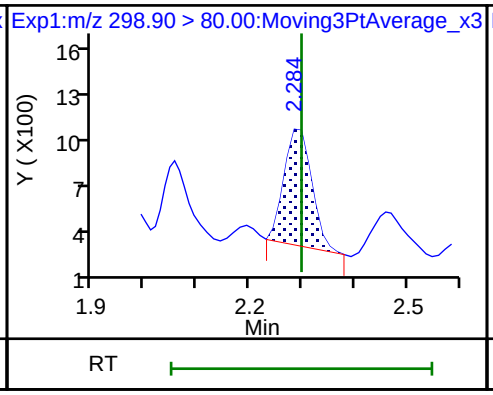
D 3 13C5 PFPeA



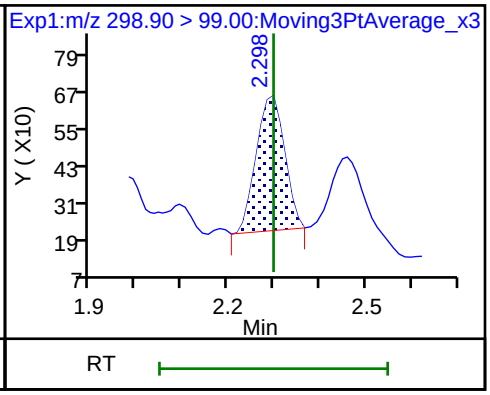
4 Perfluoropentanoic acid (M)



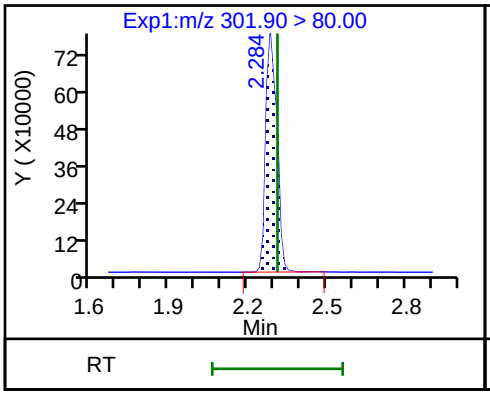
5 Perfluorobutanesulfonic acid



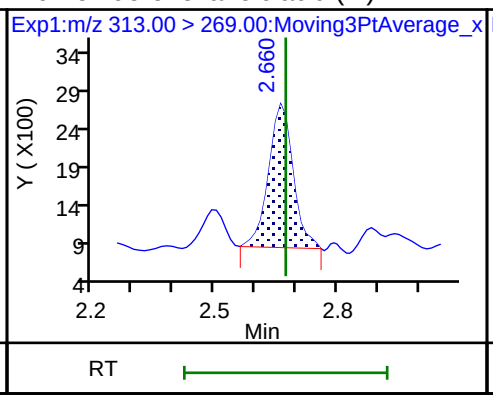
5 Perfluorobutanesulfonic acid



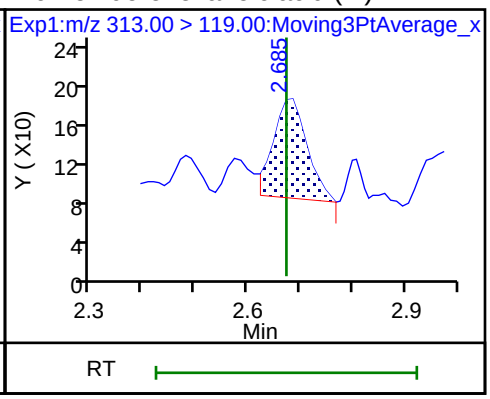
D 47 13C3 PFBS



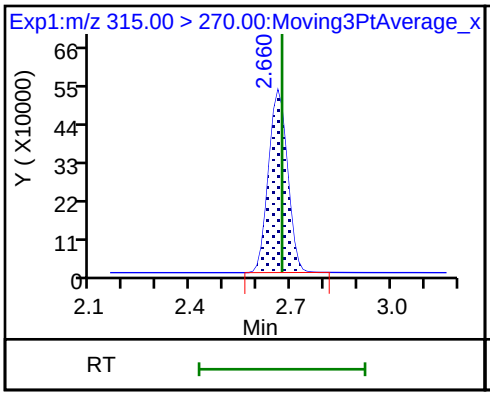
6 Perfluorohexanoic acid (M)



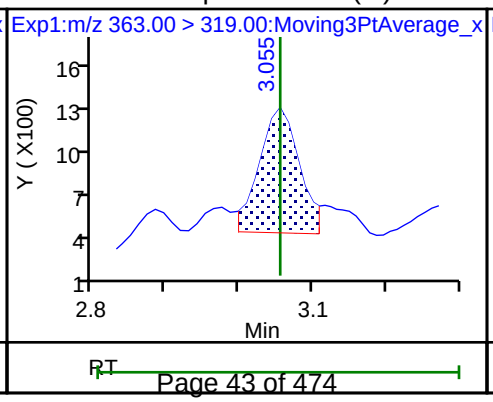
6 Perfluorohexanoic acid (M)



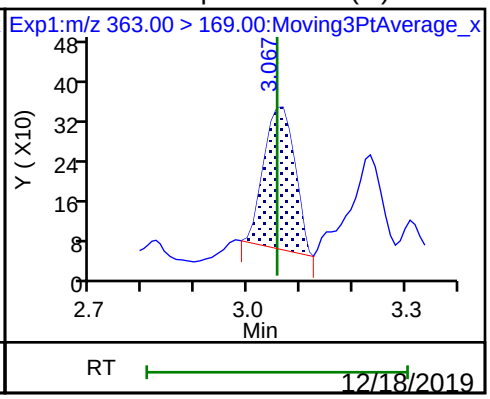
D 7 13C2 PFHxA



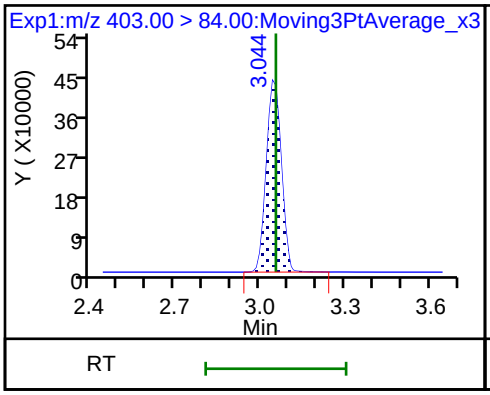
10 Perfluoroheptanoic acid (M)



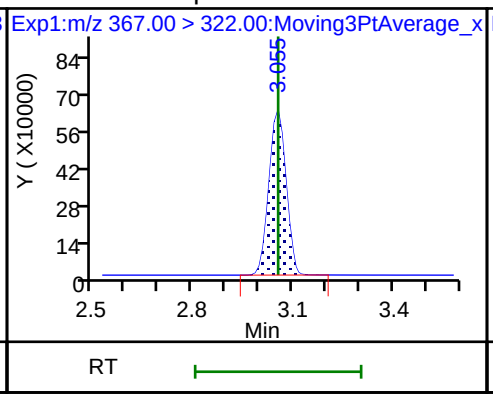
10 Perfluoroheptanoic acid (M)



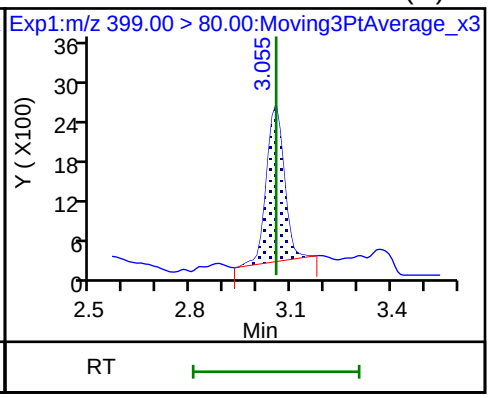
D 11 18O2 PFHxS



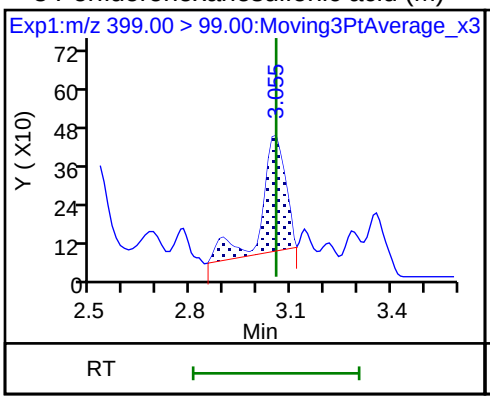
D 9 13C4 PFHpA



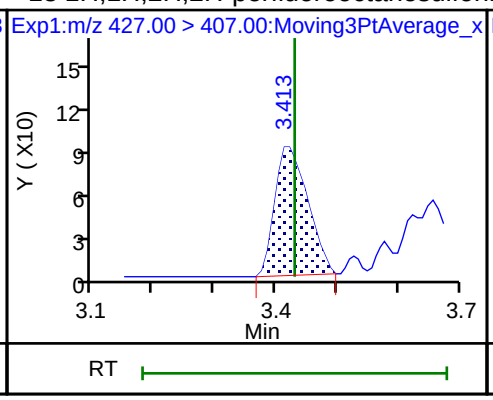
8 Perfluorohexanesulfonic acid (M)



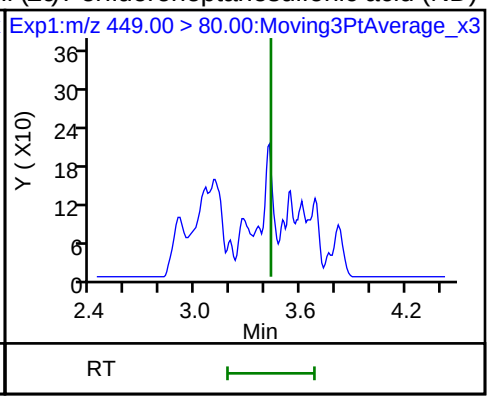
8 Perfluorohexanesulfonic acid (M)



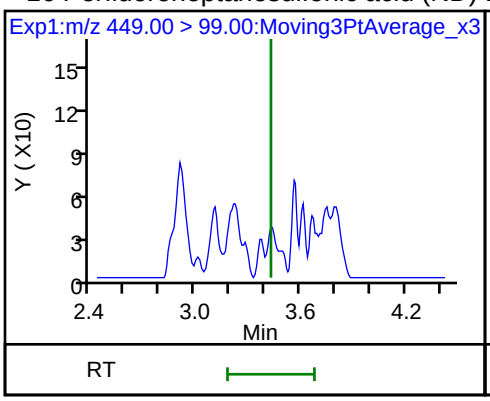
13 1H,1H,2H,2H-perfluorooctanesulfoni (M)



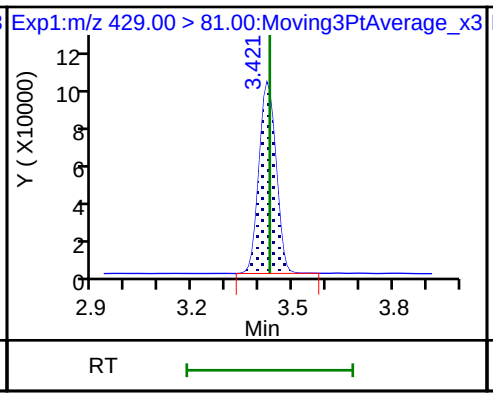
16 Perfluoroheptanesulfonic acid (ND)



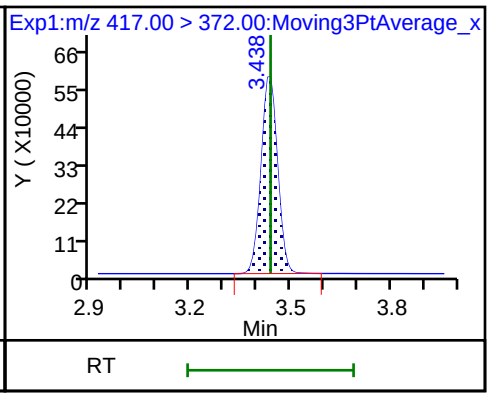
16 Perfluoroheptanesulfonic acid (ND)



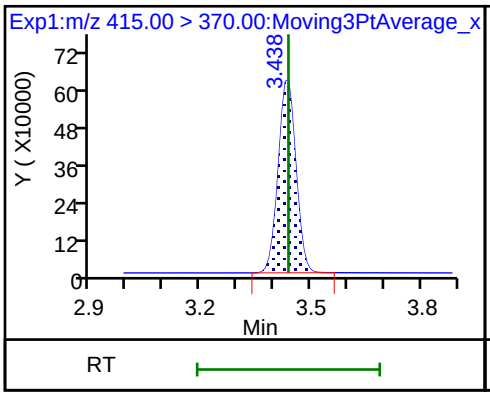
D 12 M2-6:2 FTS



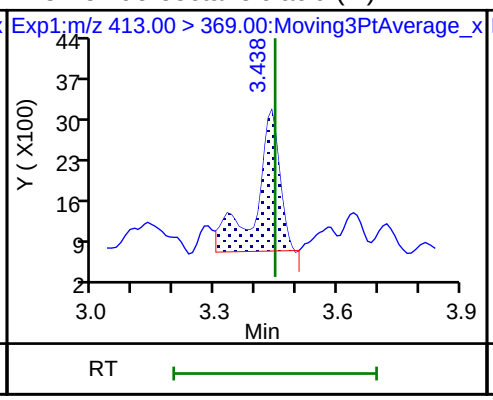
D 14 13C4 PFOA



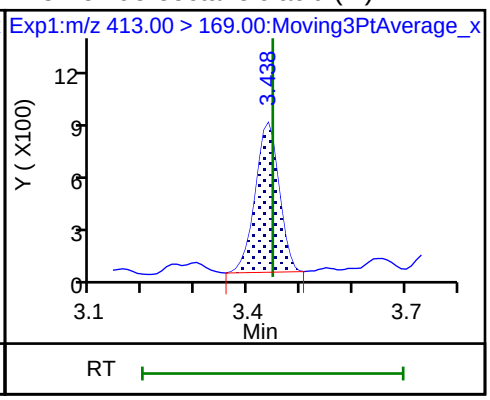
* 62 13C2 PFOA



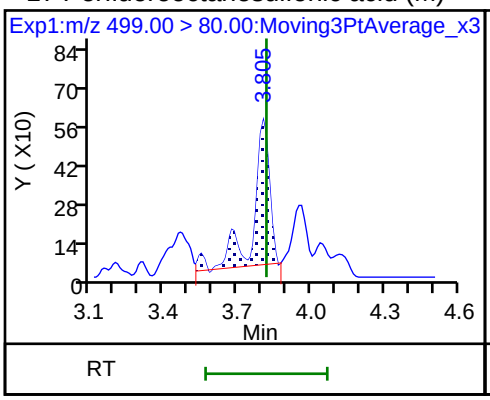
15 Perfluorooctanoic acid (M)



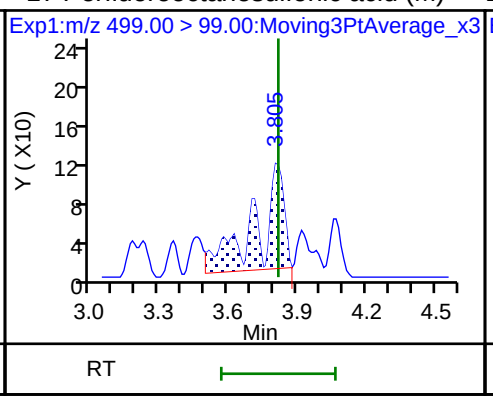
15 Perfluorooctanoic acid (M)



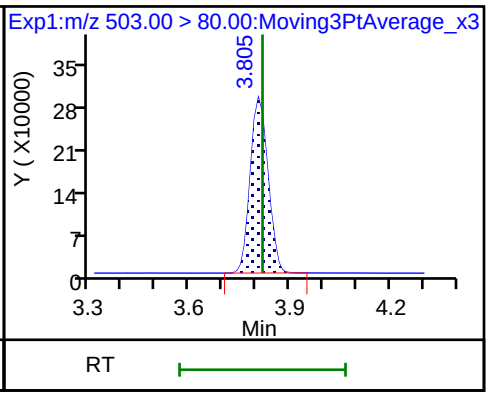
17 Perfluorooctanesulfonic acid (M)



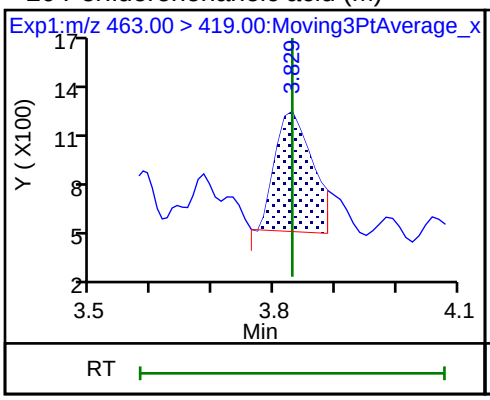
17 Perfluorooctanesulfonic acid (M)



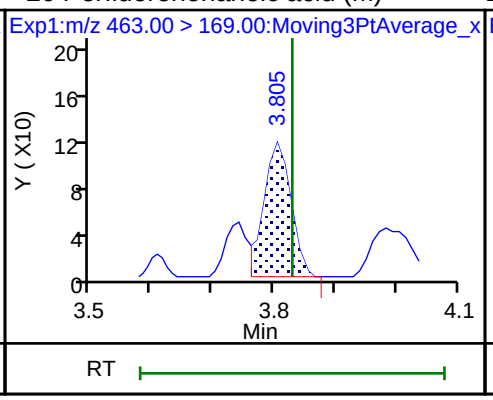
D 18 13C4 PFOS



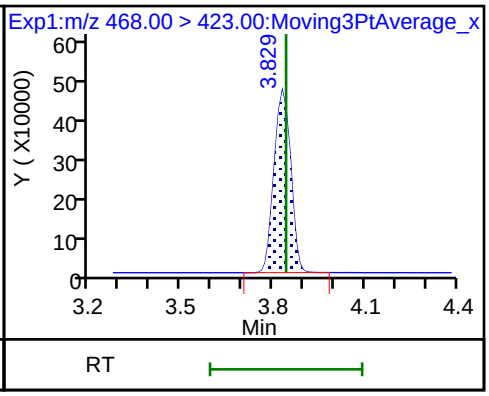
20 Perfluorononanoic acid (M)



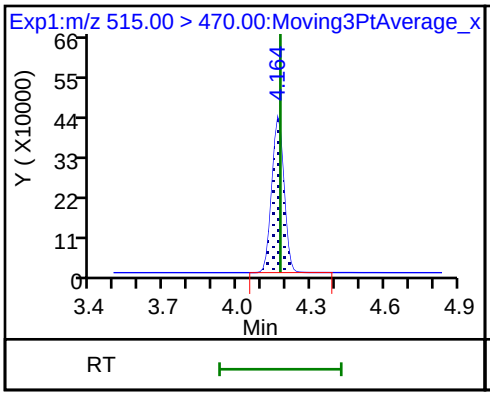
20 Perfluorononanoic acid (M)



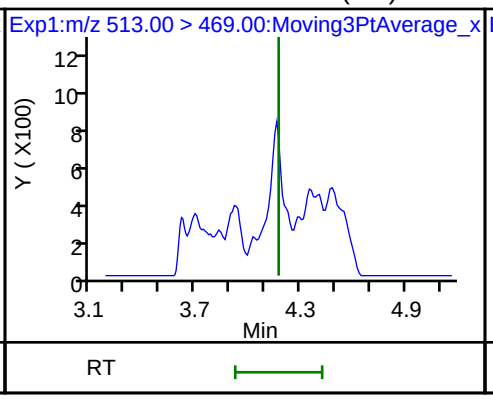
D 19 13C5 PFNA



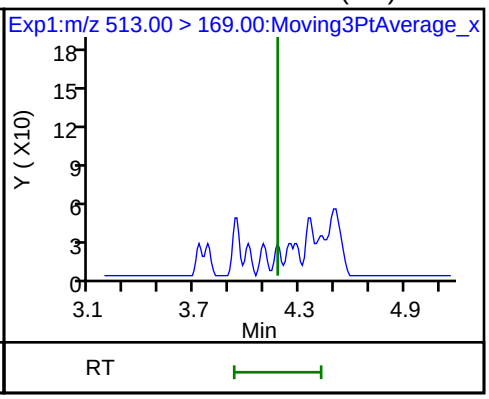
D 23 13C2 PFDA



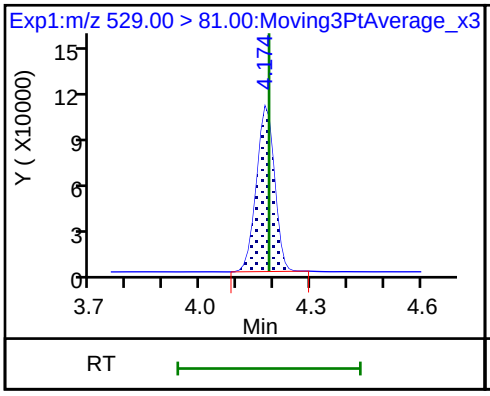
24 Perfluorodecanoic acid (ND)



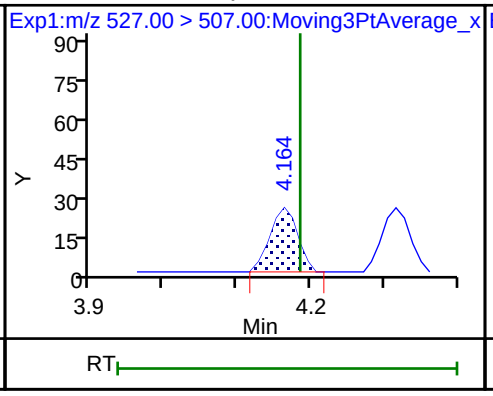
24 Perfluorodecanoic acid (ND)



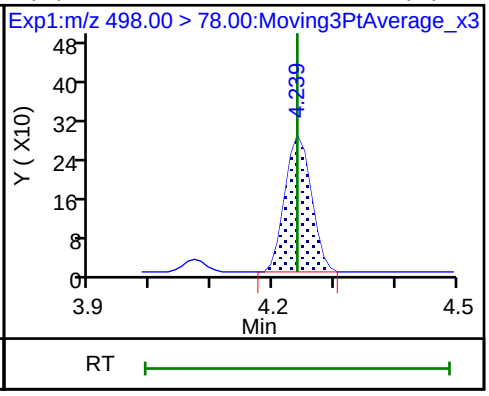
D 26 M2-8:2 FTS



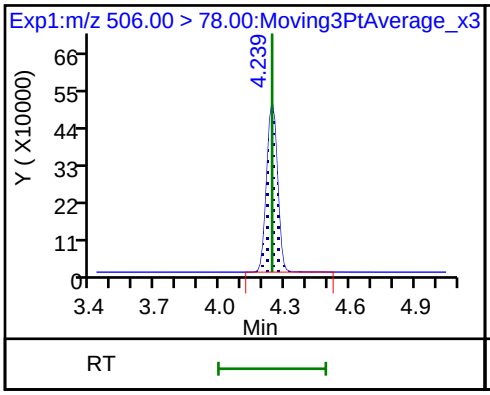
25 1H,1H,2H,2H-perfluorodecanesulfoni



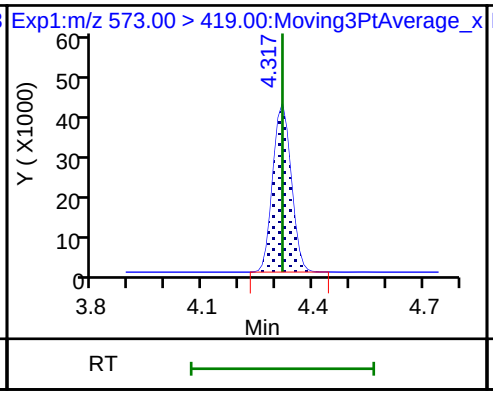
22 Perfluorooctanesulfonamide (M)



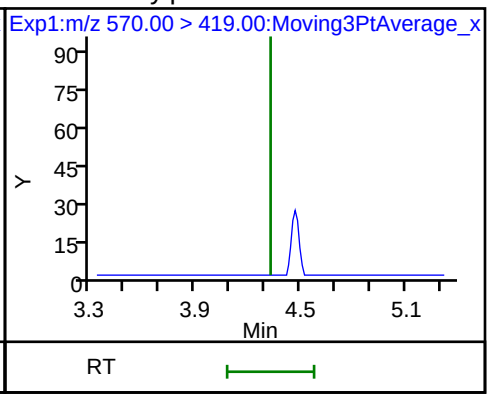
D 21 13C8 FOSA



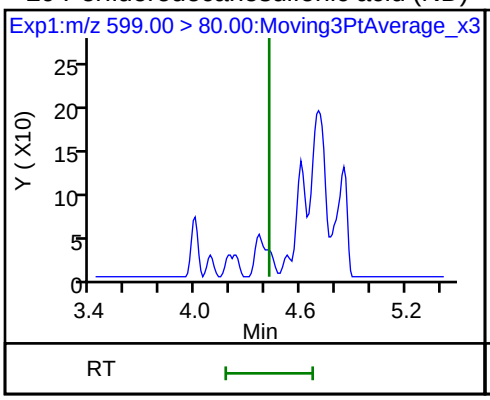
D 27 d3-NMeFOSAA



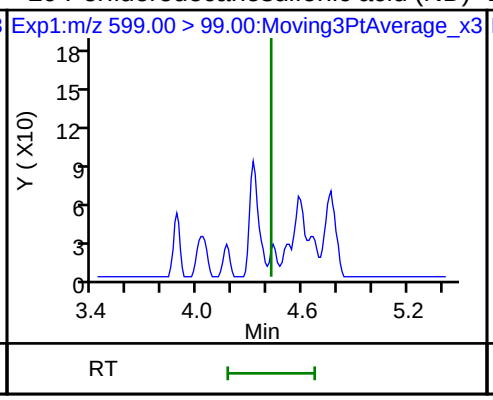
28 N-methylperfluorooctanesulfonamido (ND)



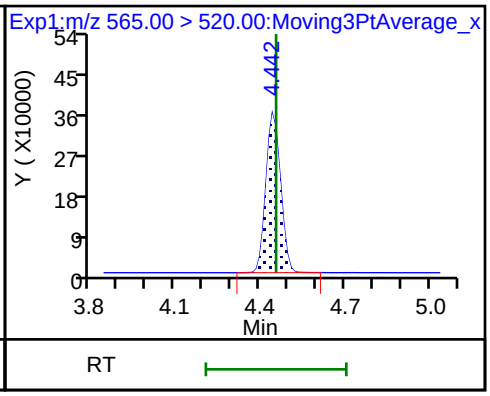
29 Perfluorodecanesulfonic acid (ND)



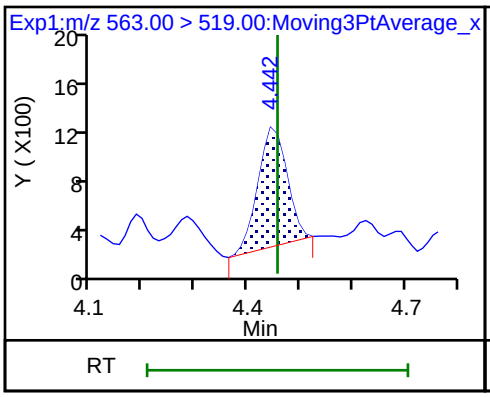
29 Perfluorodecanesulfonic acid (ND)



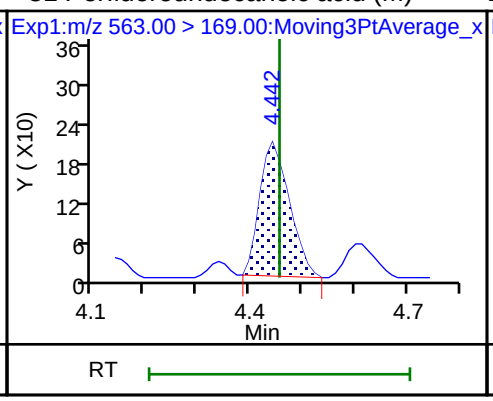
D 30 13C2 PFUnA



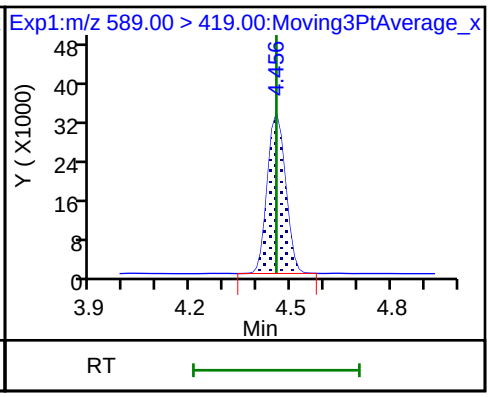
31 Perfluoroundecanoic acid



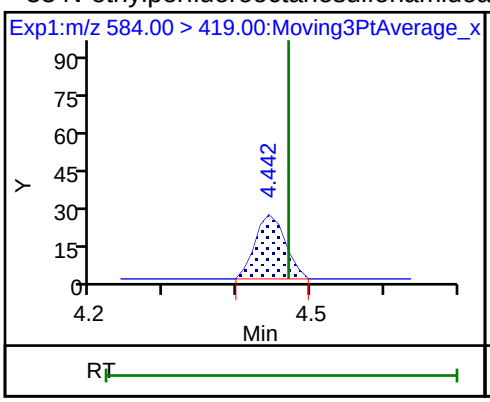
31 Perfluoroundecanoic acid (M)



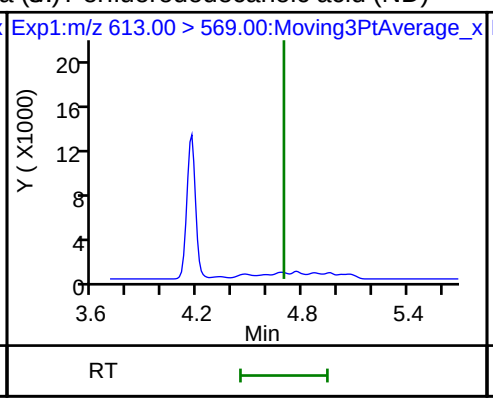
D 32 d5-NEtFOSAA



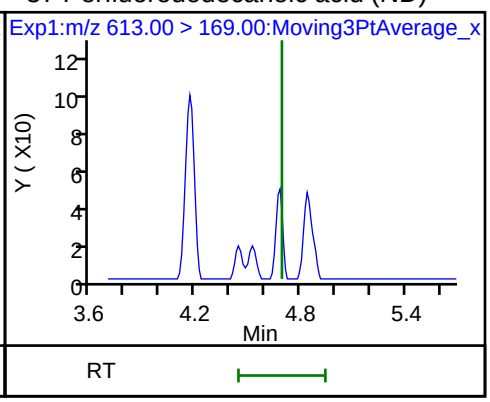
33 N-ethylperfluorooctanesulfonamidoa (M)



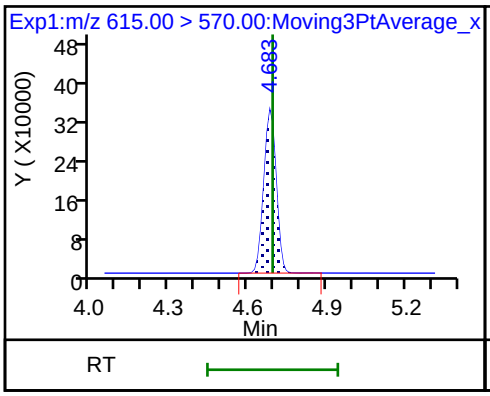
37 Perfluorododecanoic acid (ND)



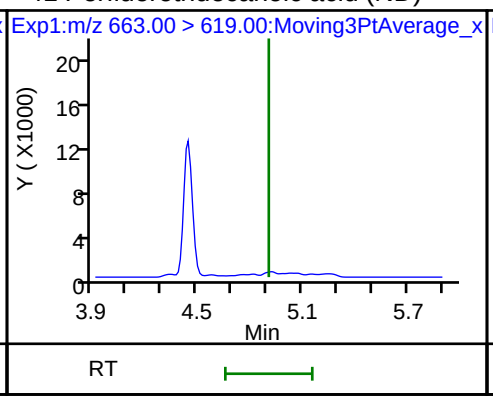
37 Perfluorododecanoic acid (ND)



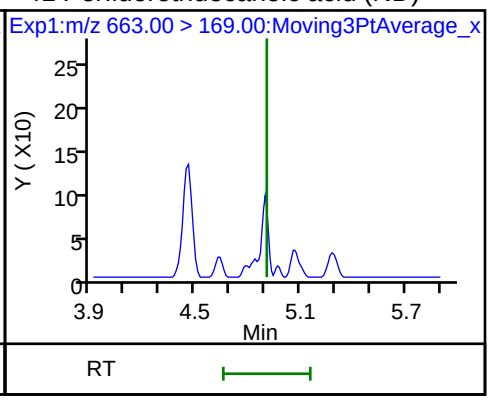
D 36 13C2 PFDoA



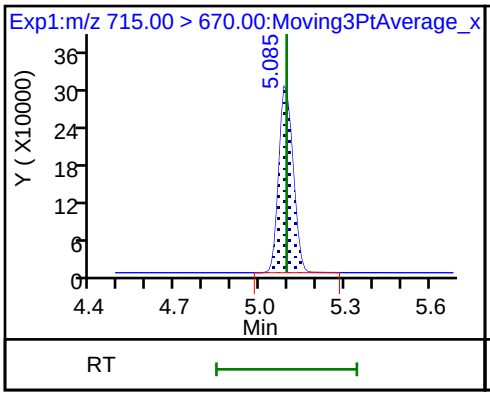
41 Perfluorotridecanoic acid (ND)



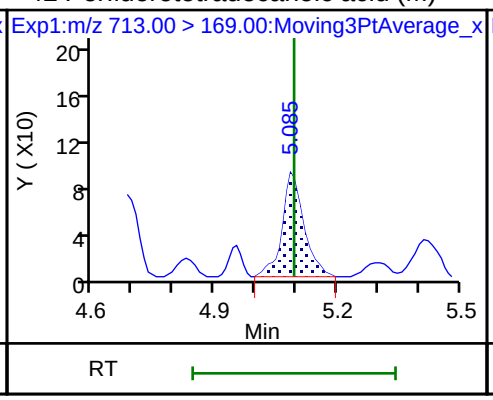
41 Perfluorotridecanoic acid (ND)



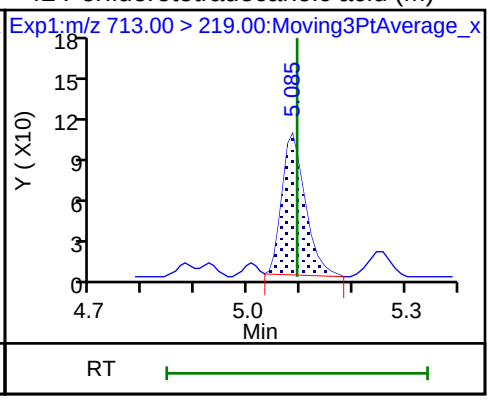
D 43 13C2 PFTeDA



42 Perfluorotetradecanoic acid (M)



42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

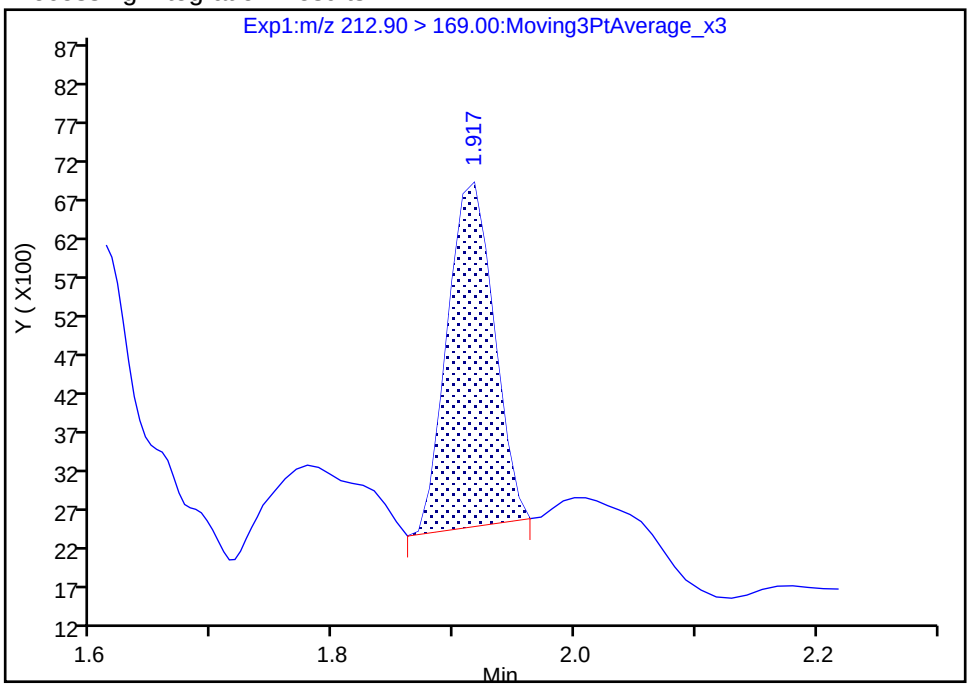
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

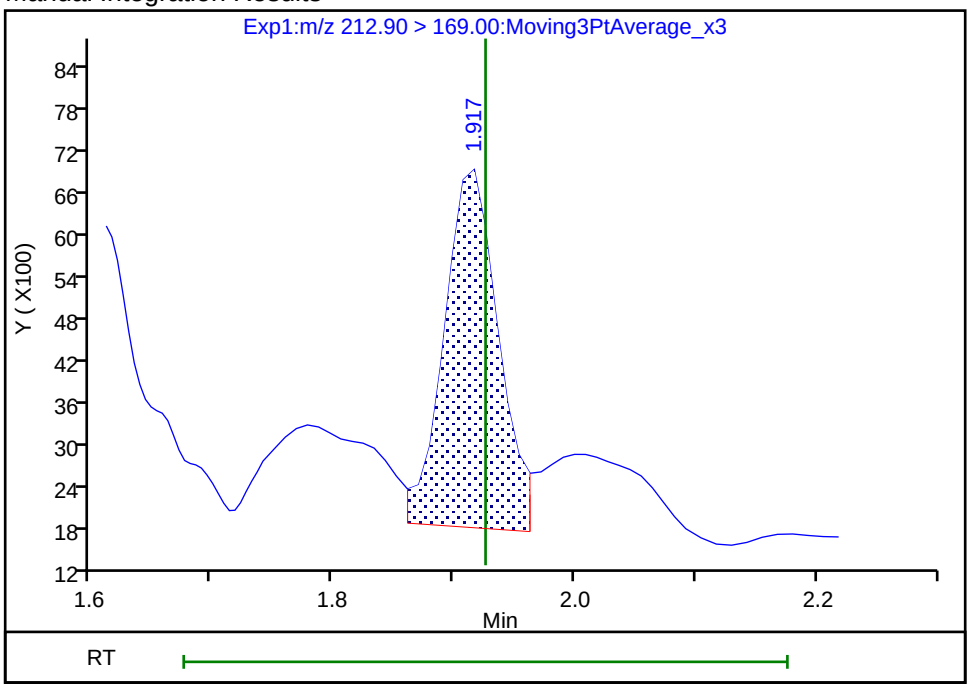
Processing Integration Results

RT: 1.92
Area: 11868
Amount: 0.011903
Amount Units: ng/ml



Manual Integration Results

RT: 1.92
Area: 15876
Amount: 0.015923
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:59:52
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

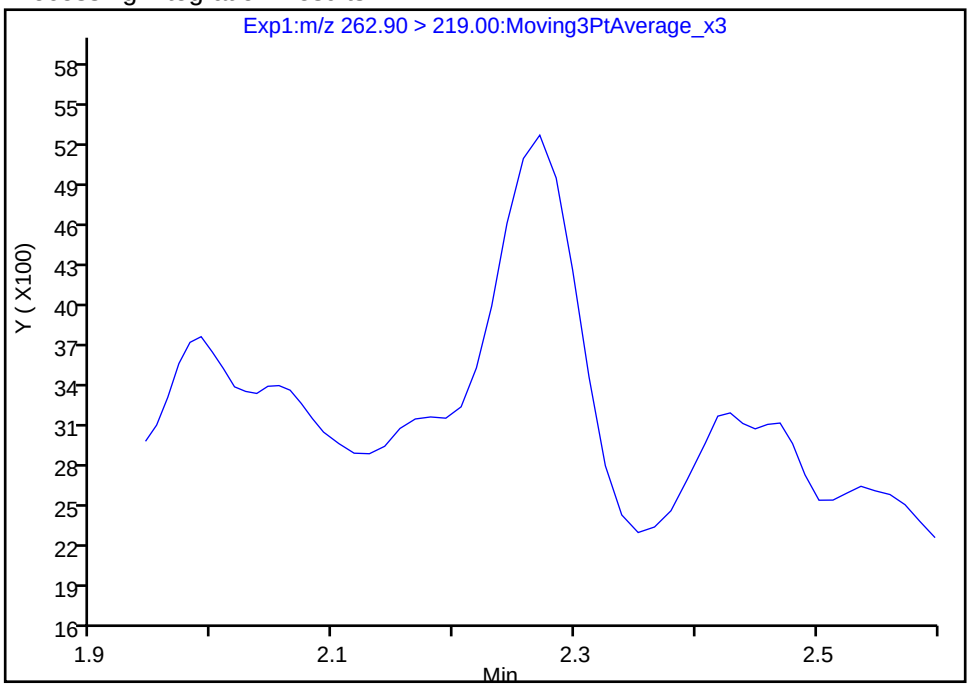
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

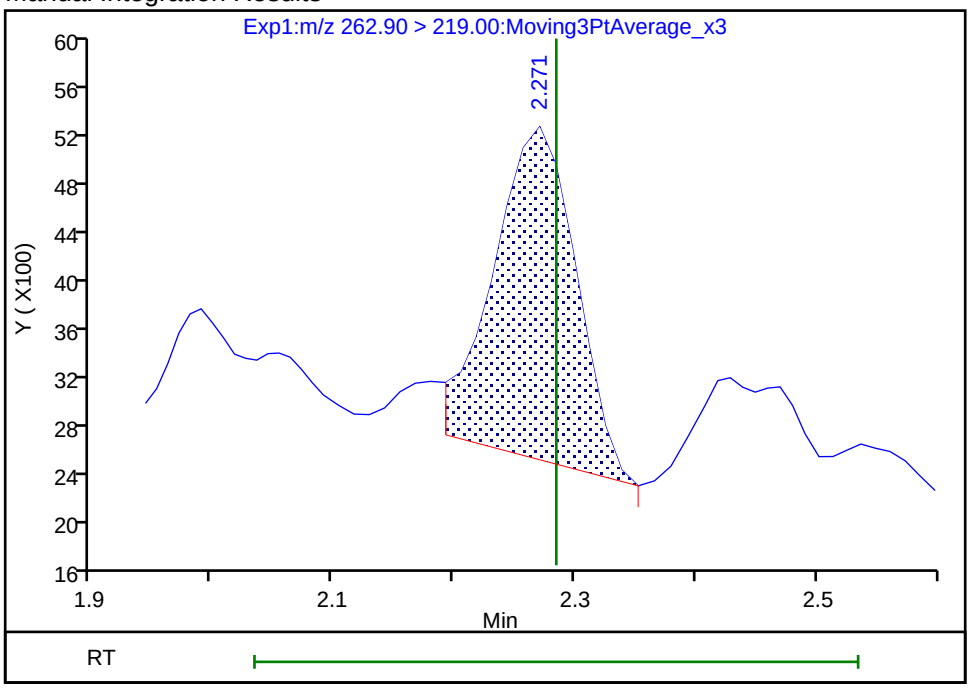
Not Detected
Expected RT: 2.28

Processing Integration Results



Manual Integration Results

RT: 2.27
Area: 12855
Amount: 0.013369
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:16:17
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

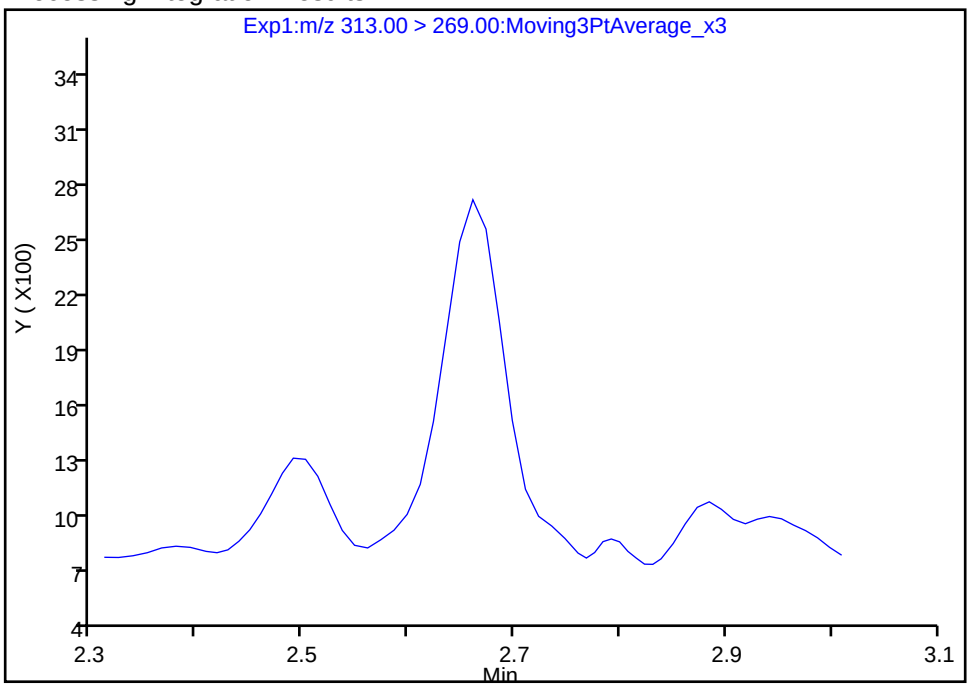
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

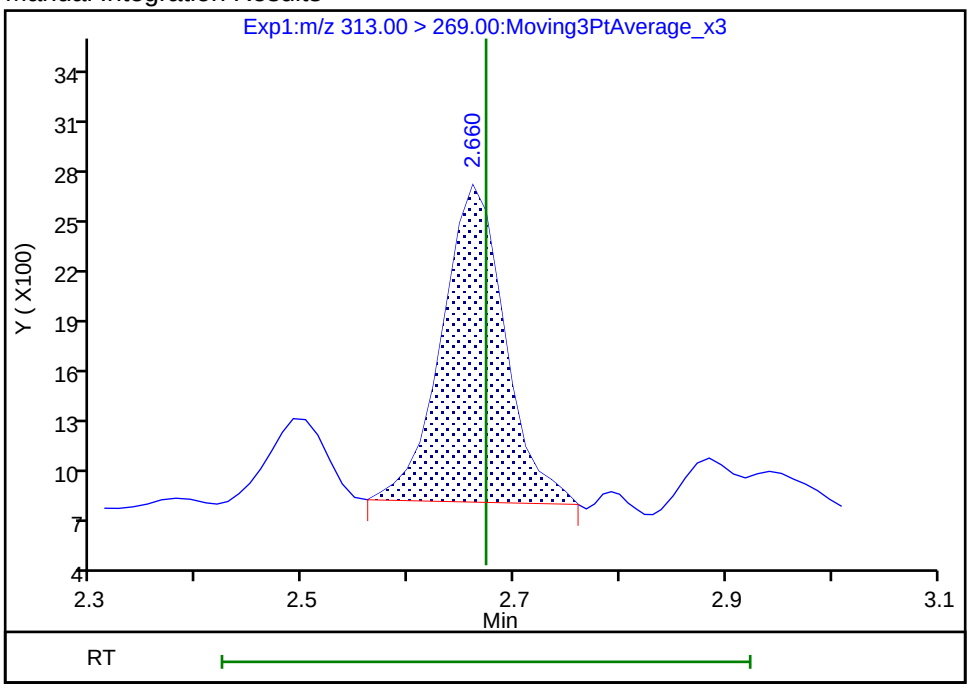
Not Detected
Expected RT: 2.67

Processing Integration Results



Manual Integration Results

RT: 2.66
Area: 7654
Amount: 0.009017
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:16:32
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

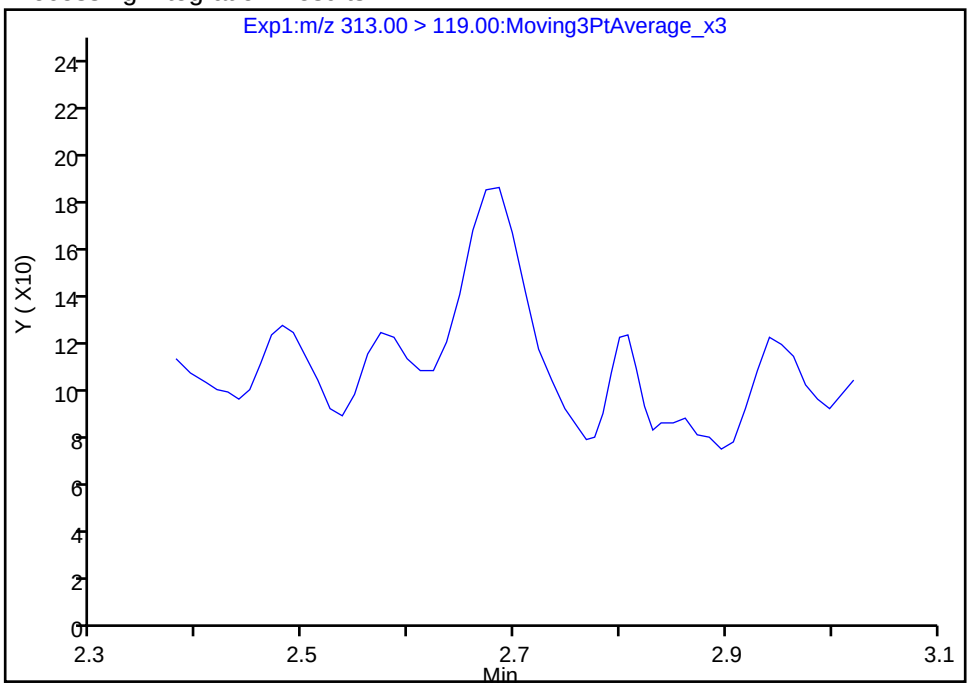
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

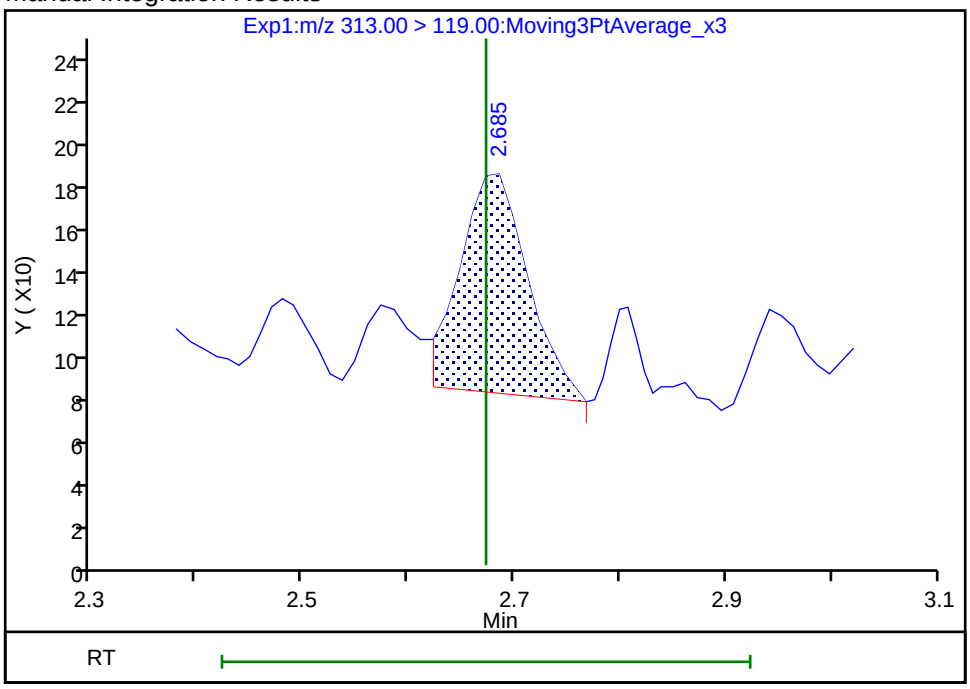
Not Detected
Expected RT: 2.67

Processing Integration Results



Manual Integration Results

RT: 2.69
Area: 450
Amount: 0.009017
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:16:40
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

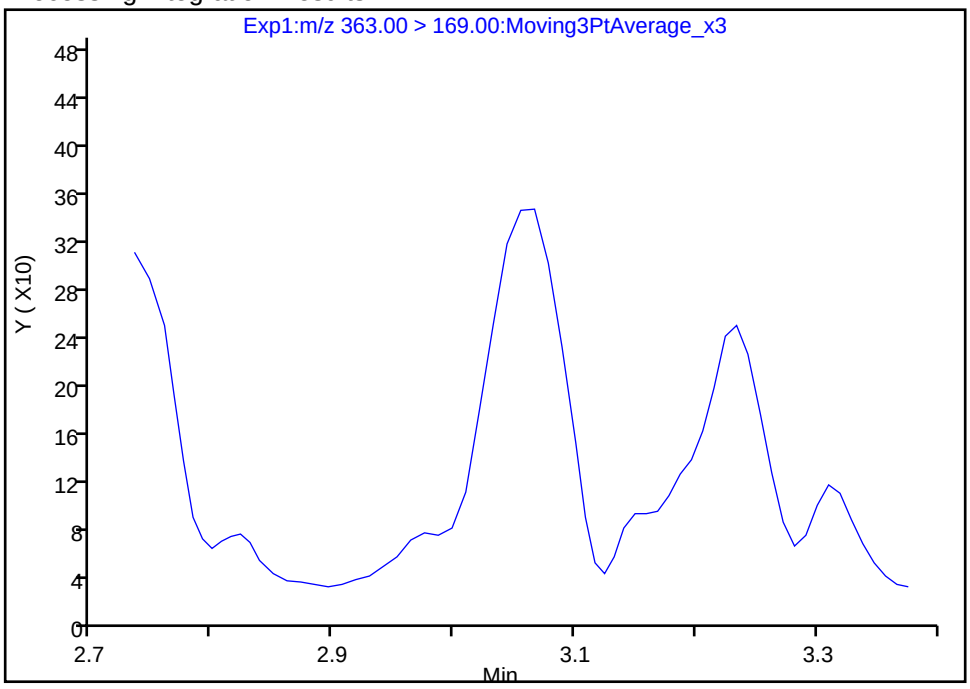
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

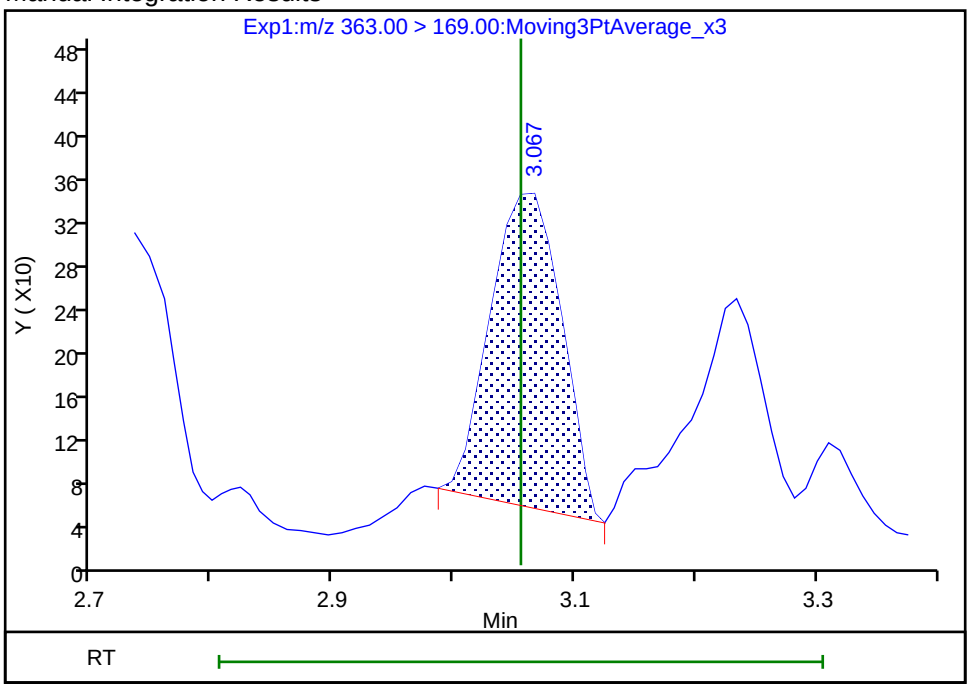
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.07
Area: 1185
Amount: 0.003348
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:17:04
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

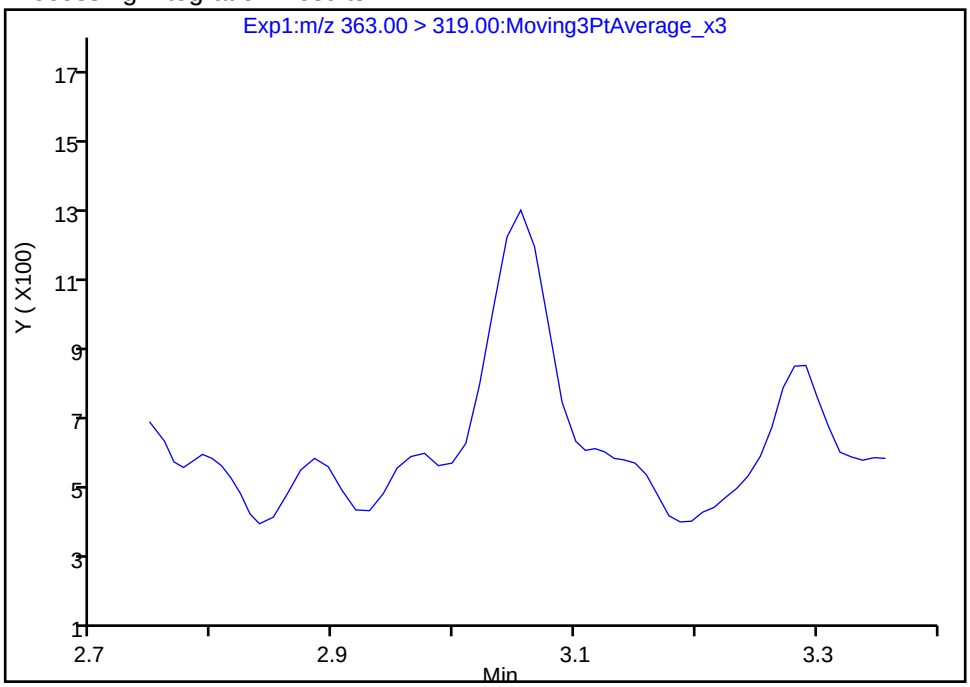
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

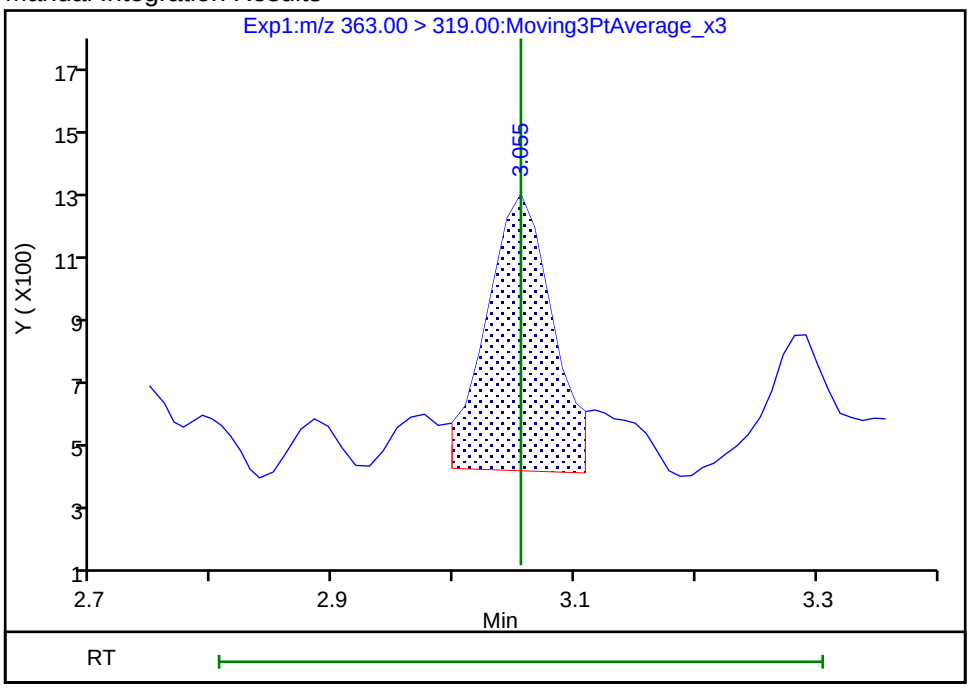
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 3165
Amount: 0.003348
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:00:21
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

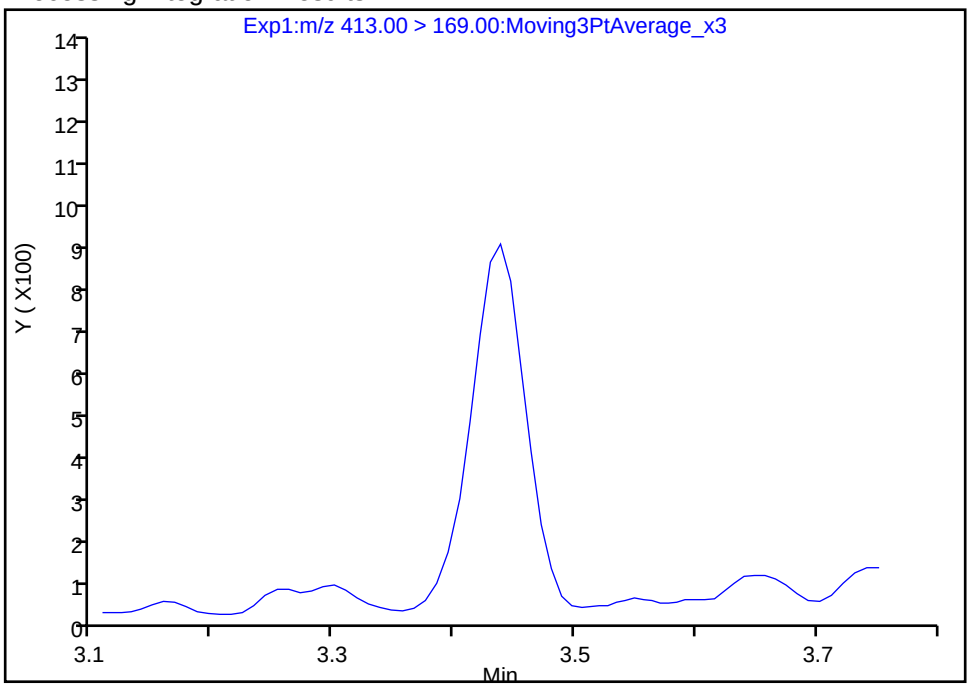
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

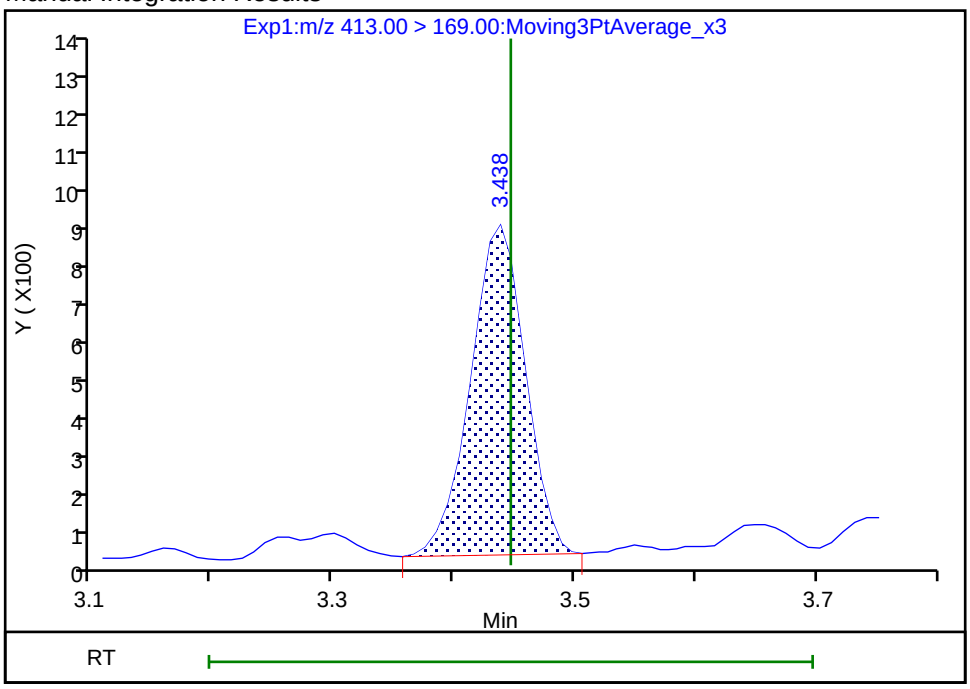
Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results

RT: 3.44
Area: 2655
Amount: 0.011282
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:17:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

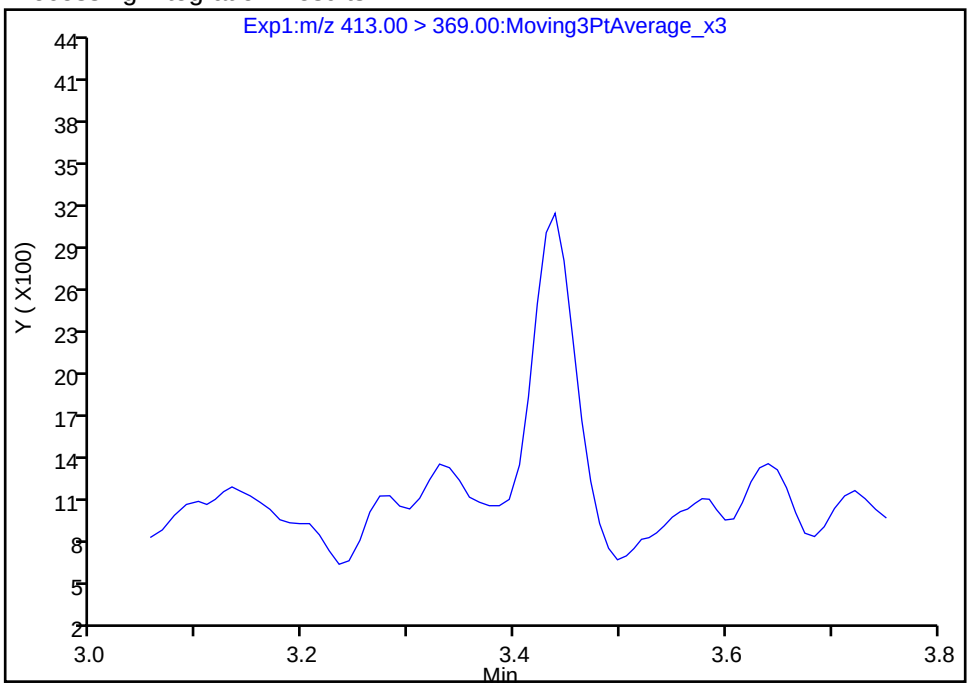
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

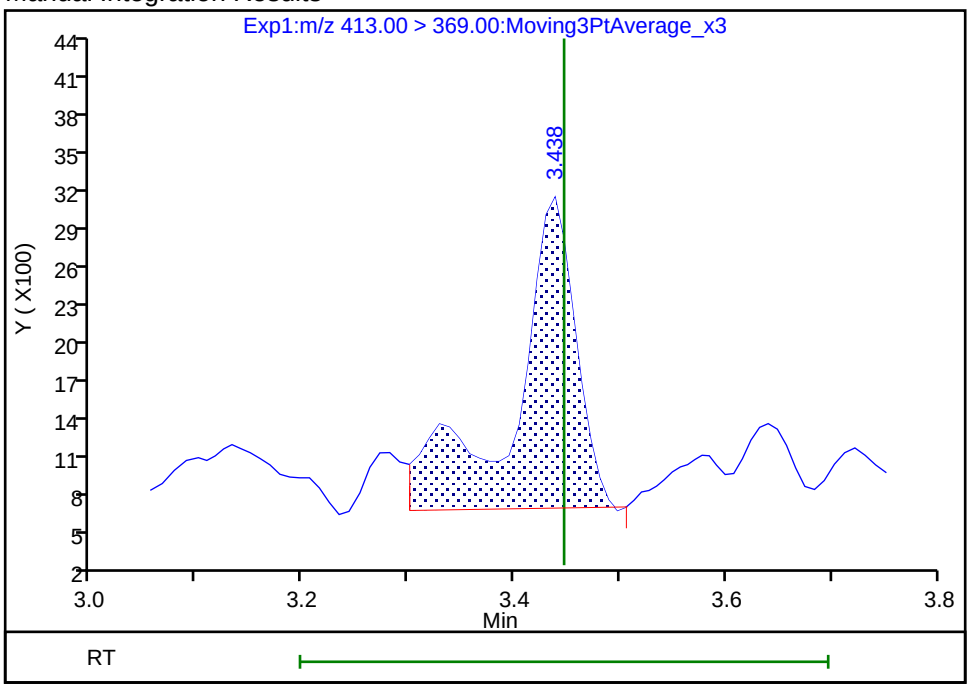
Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results

RT: 3.44
Area: 9898
Amount: 0.011282
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:01:14
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

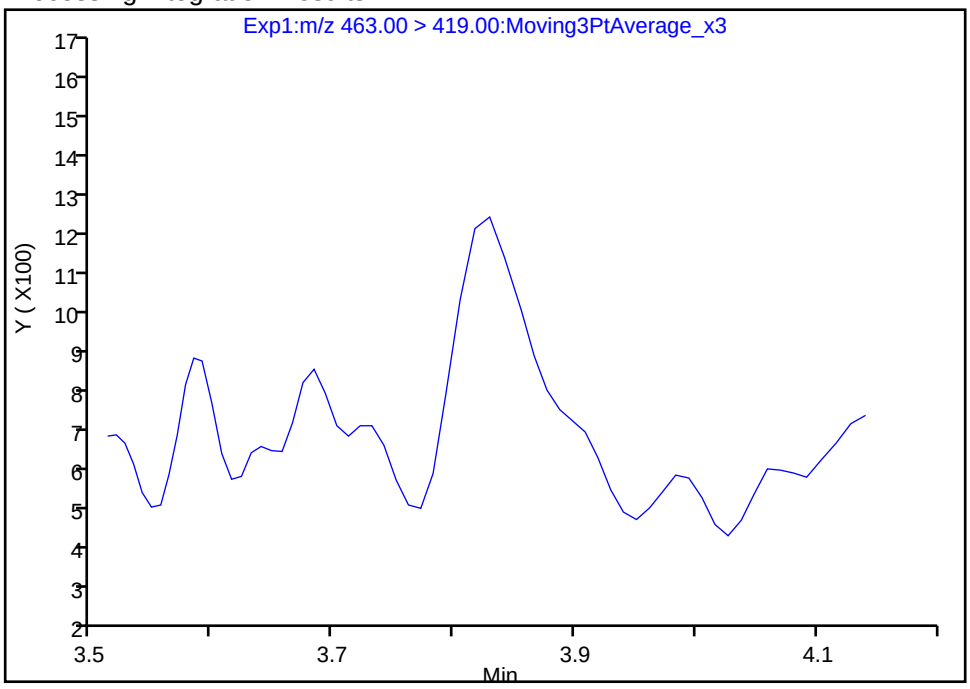
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

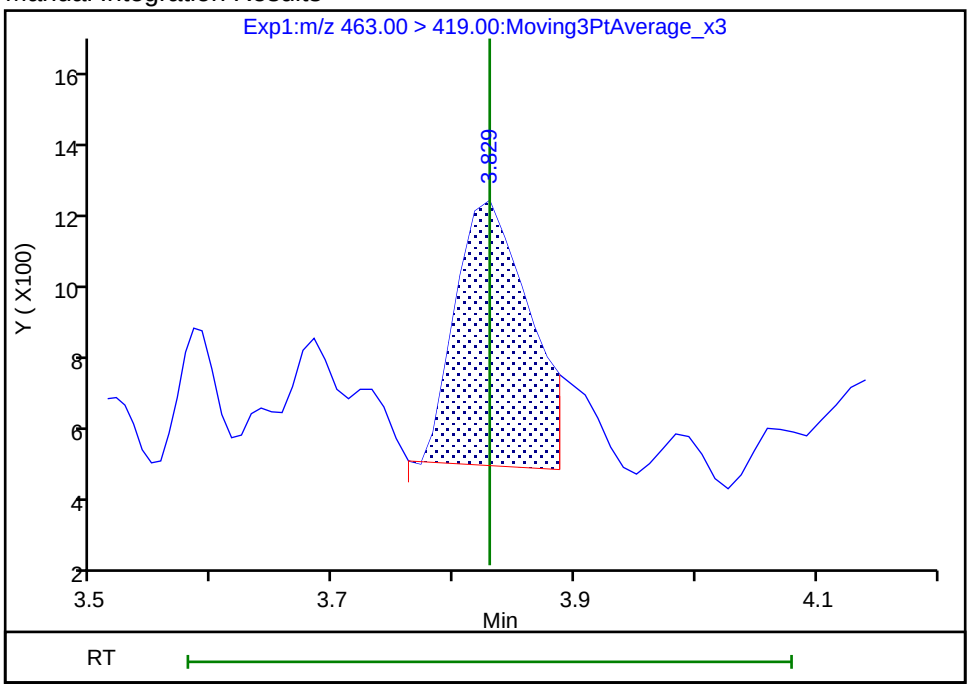
Not Detected
Expected RT: 3.83

Processing Integration Results



Manual Integration Results

RT: 3.83
Area: 2957
Amount: 0.004235
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:03:01
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

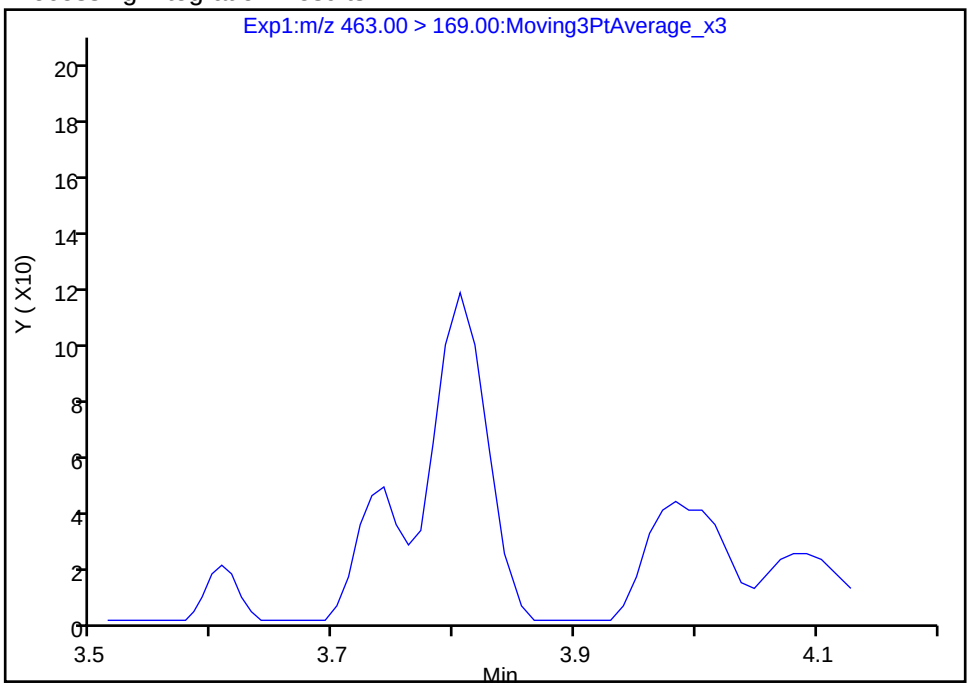
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

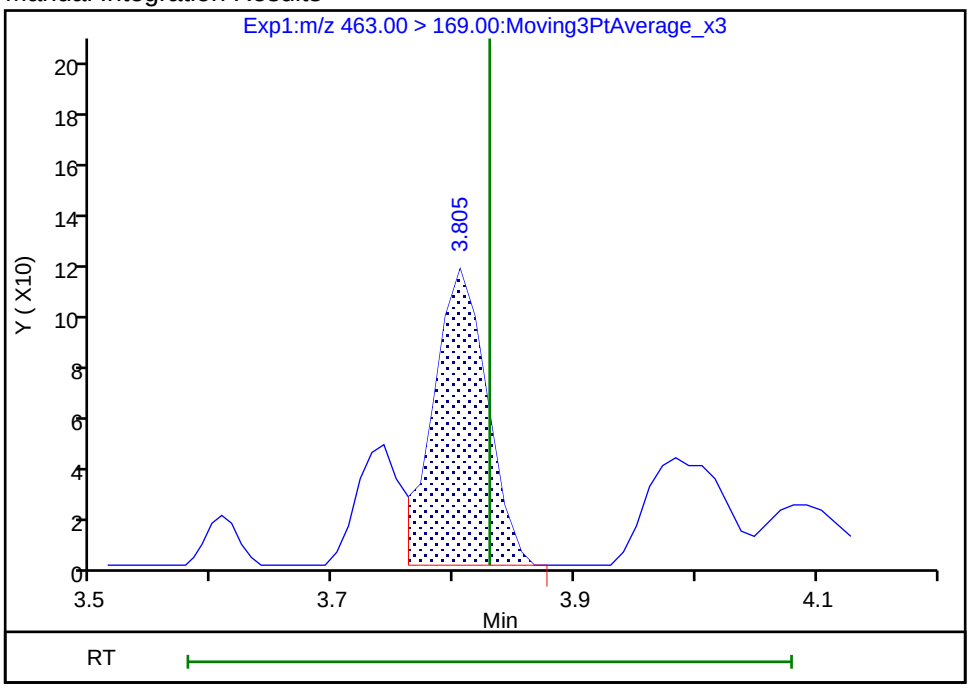
Not Detected
Expected RT: 3.83

Processing Integration Results



Manual Integration Results

RT: 3.80
Area: 345
Amount: 0.004235
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:03:04
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

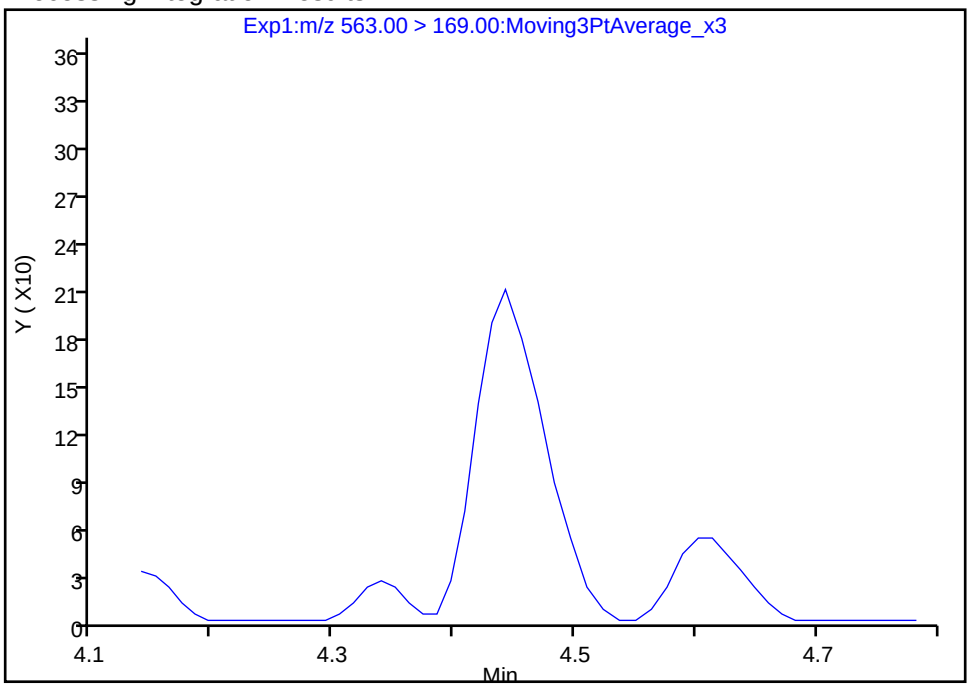
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

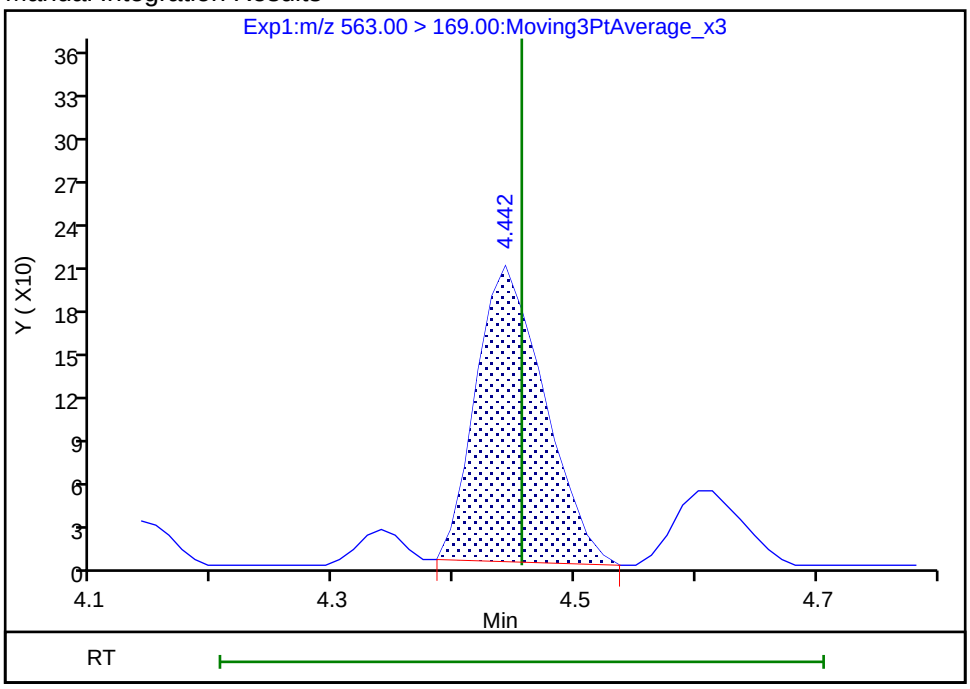
Not Detected
Expected RT: 4.46

Processing Integration Results



Manual Integration Results

RT: 4.44
Area: 812
Amount: 0.008568
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:18:55
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

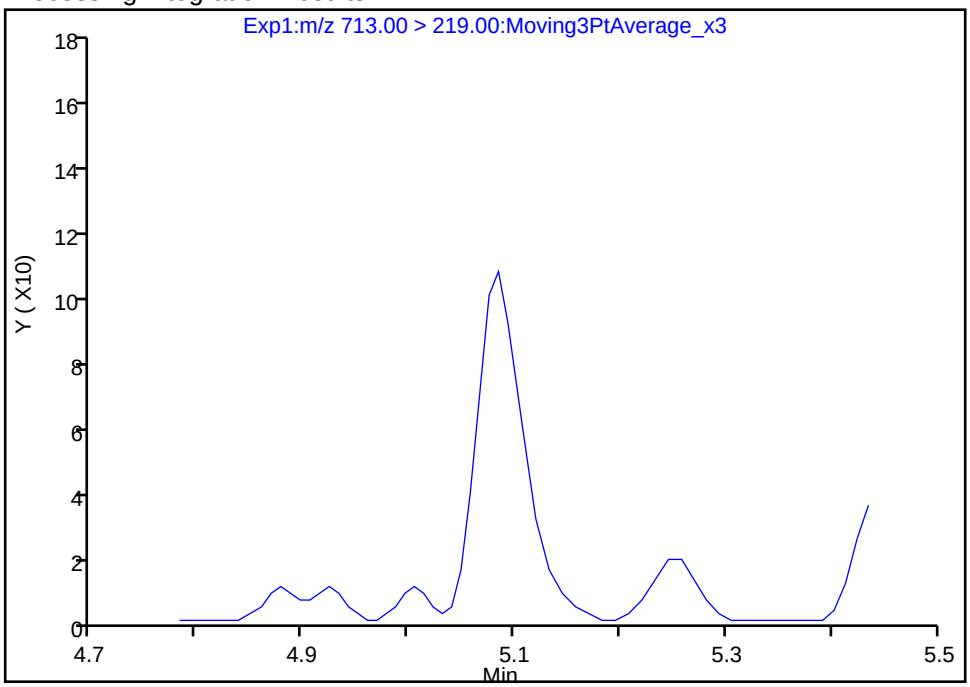
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

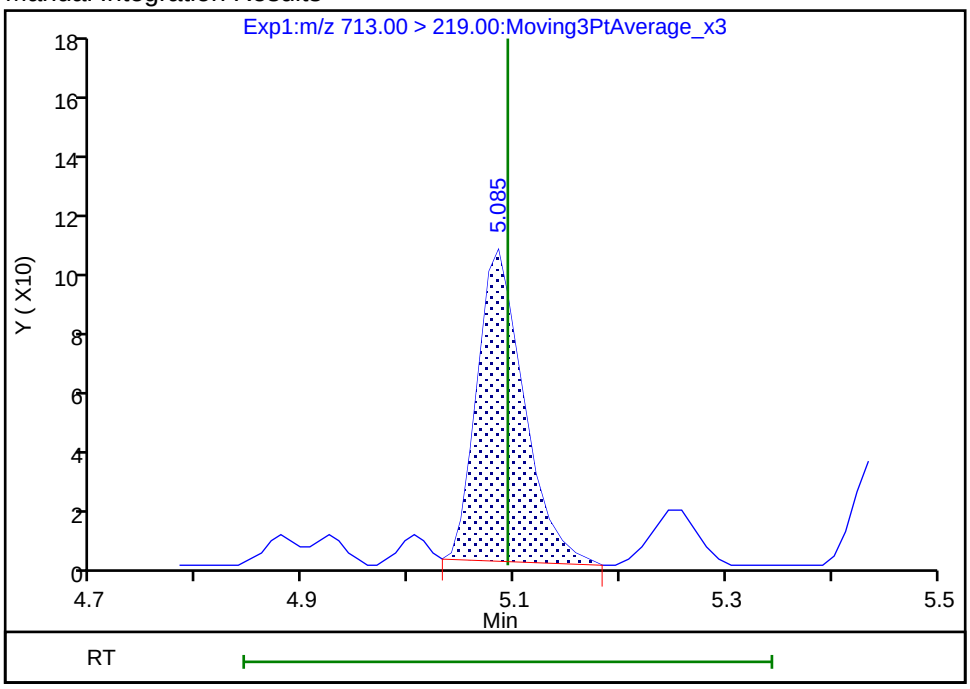
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.08
Area: 312
Amount: 0.003894
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:19:15
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

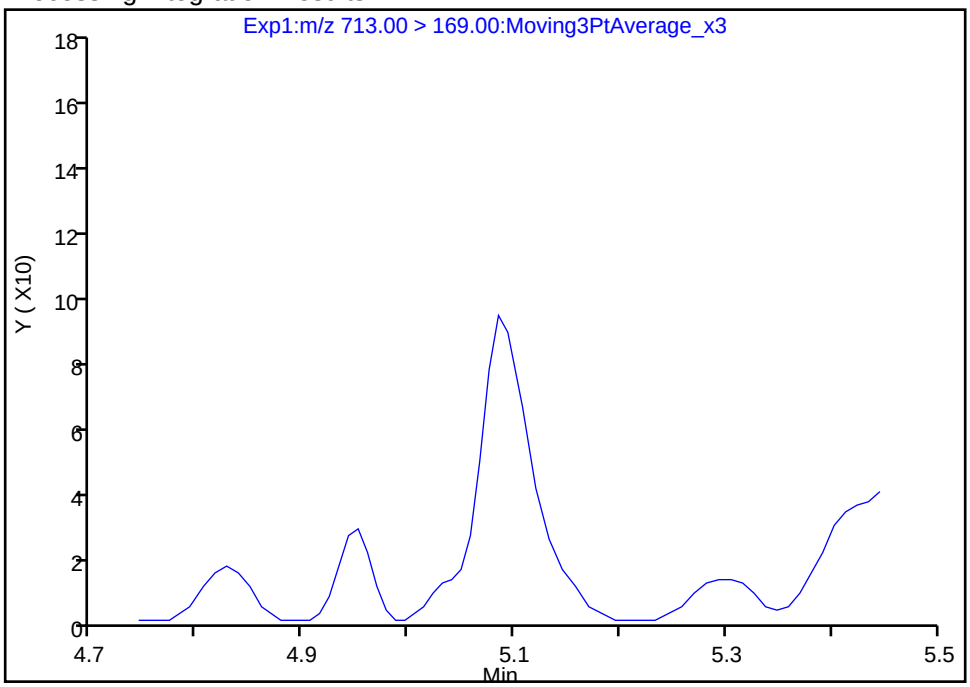
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

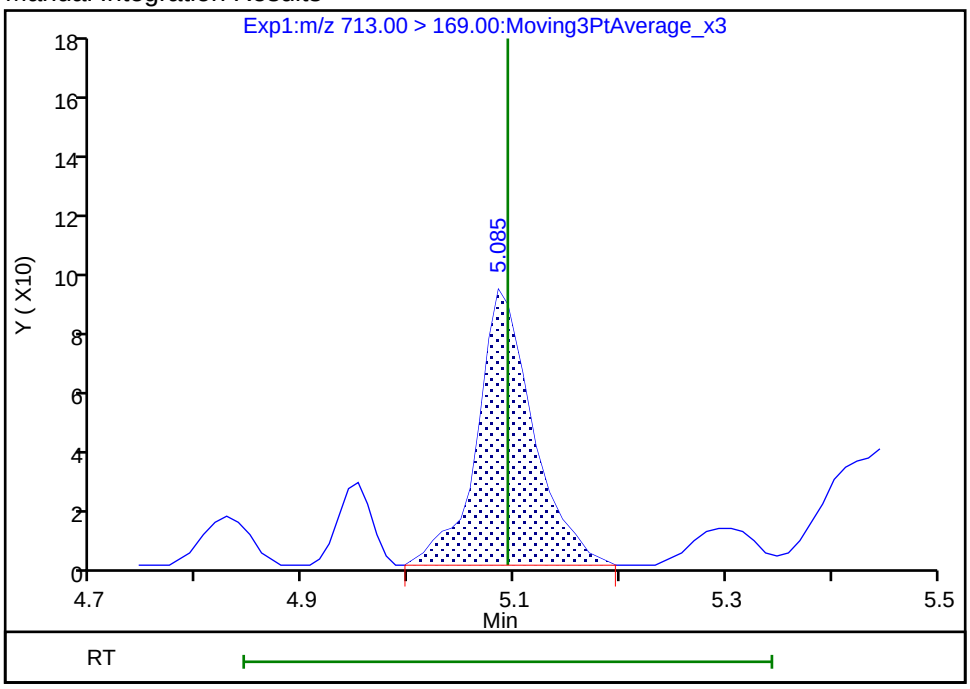
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.08
Area: 331
Amount: 0.003894
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:19:18
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

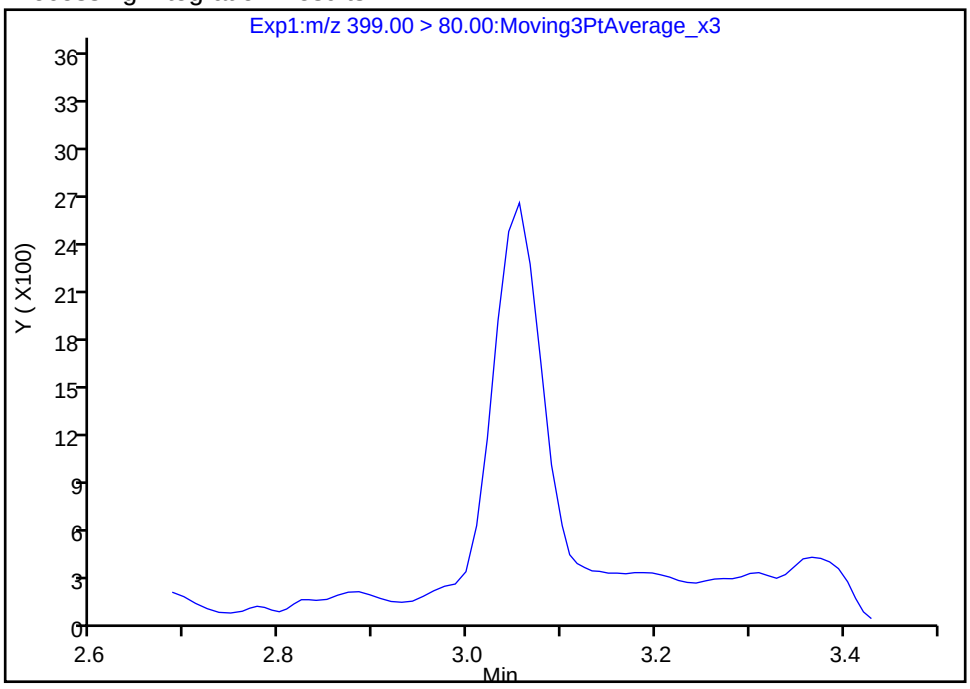
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

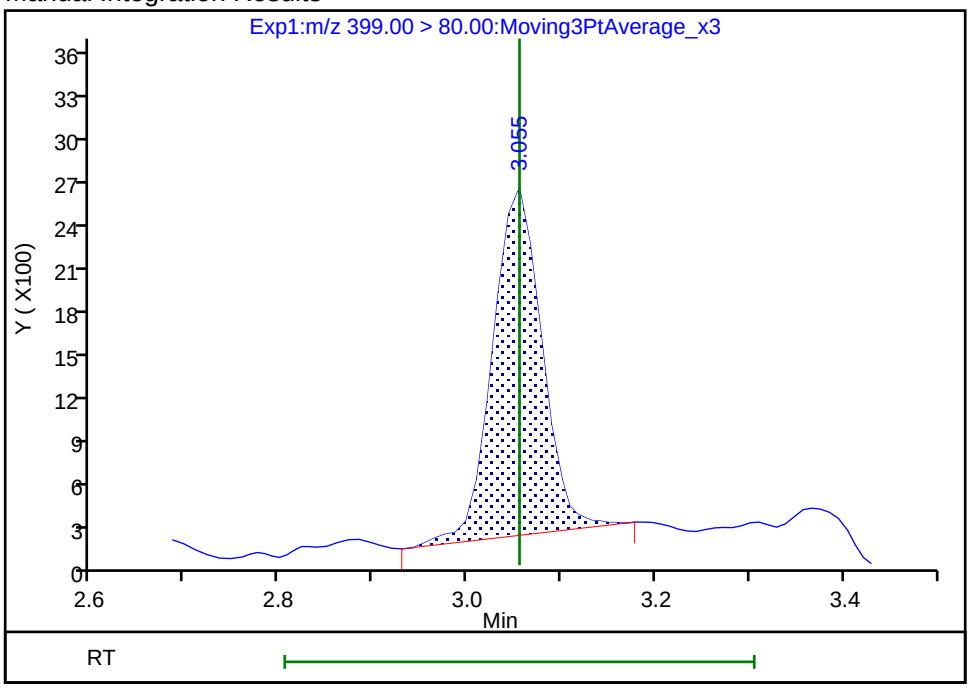
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 8734
Amount: 0.011473
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:17:32
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

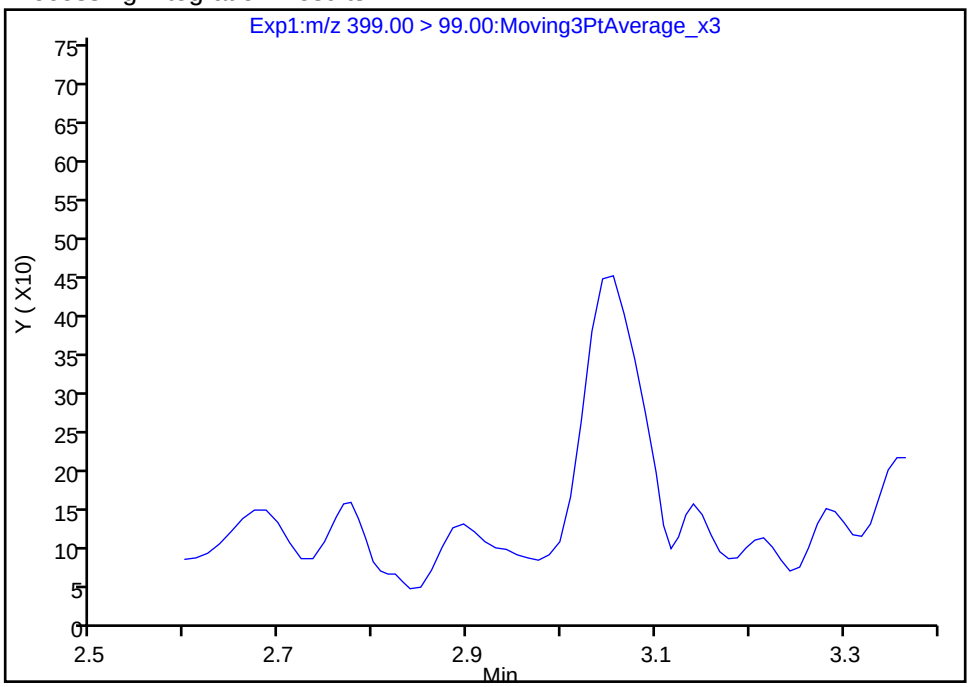
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

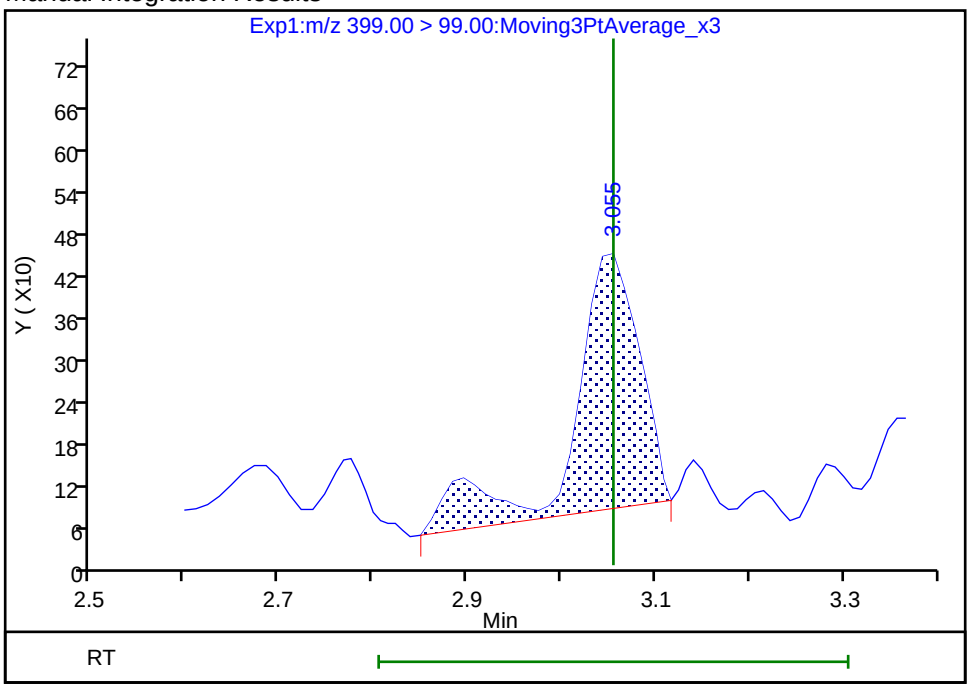
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 1804
Amount: 0.011473
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:17:36
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

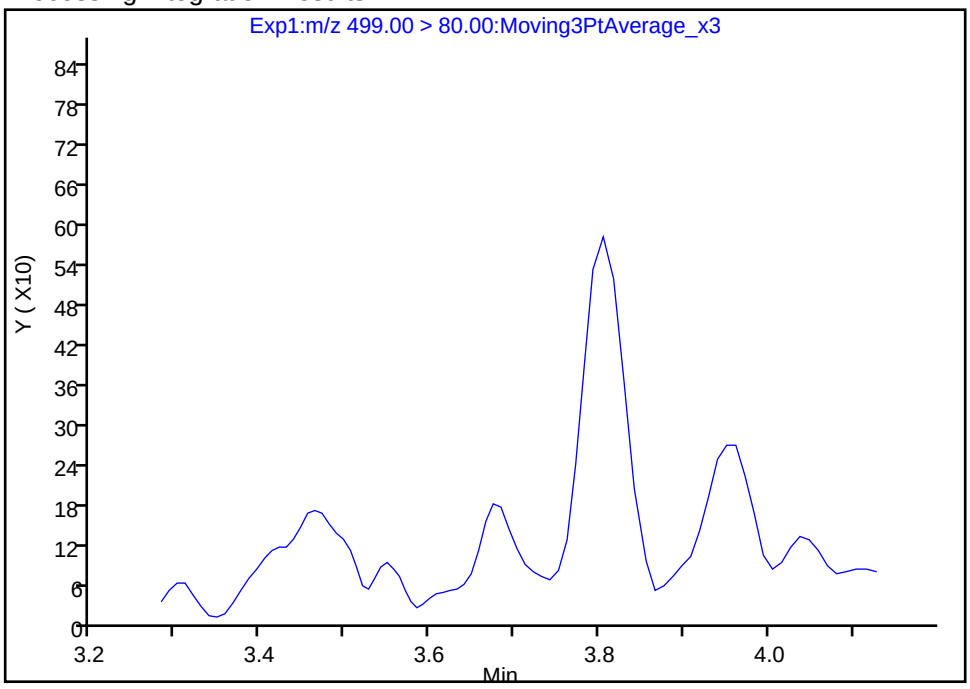
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

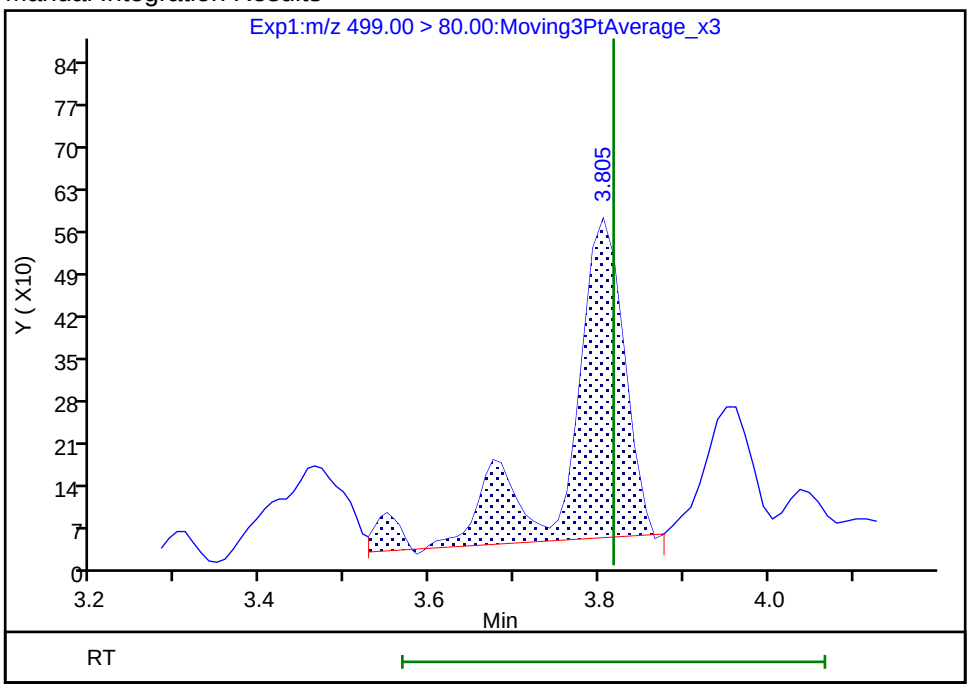
Not Detected
Expected RT: 3.82

Processing Integration Results



Manual Integration Results

RT: 3.80
Area: 2420
Amount: 0.005048
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:02:02
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

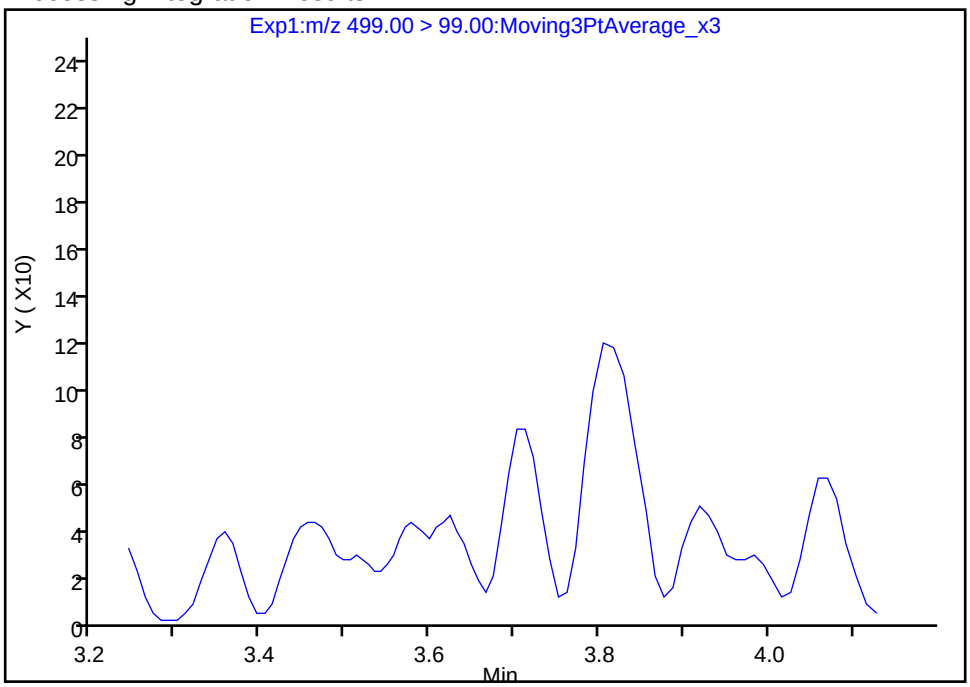
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

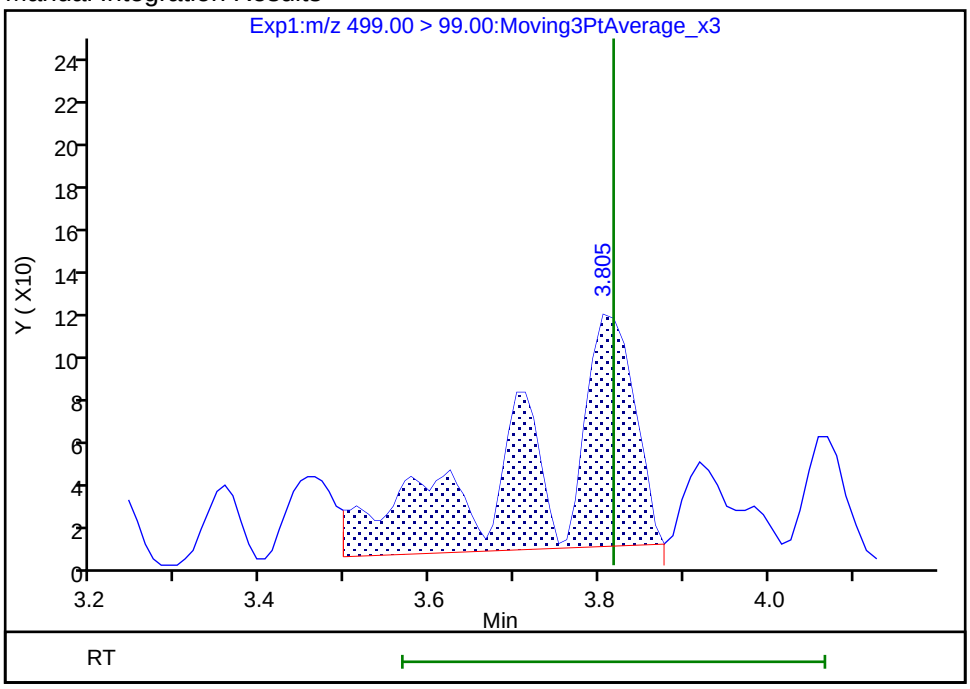
Not Detected
Expected RT: 3.82

Processing Integration Results



Manual Integration Results

RT: 3.80
Area: 906
Amount: 0.005048
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:02:36
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

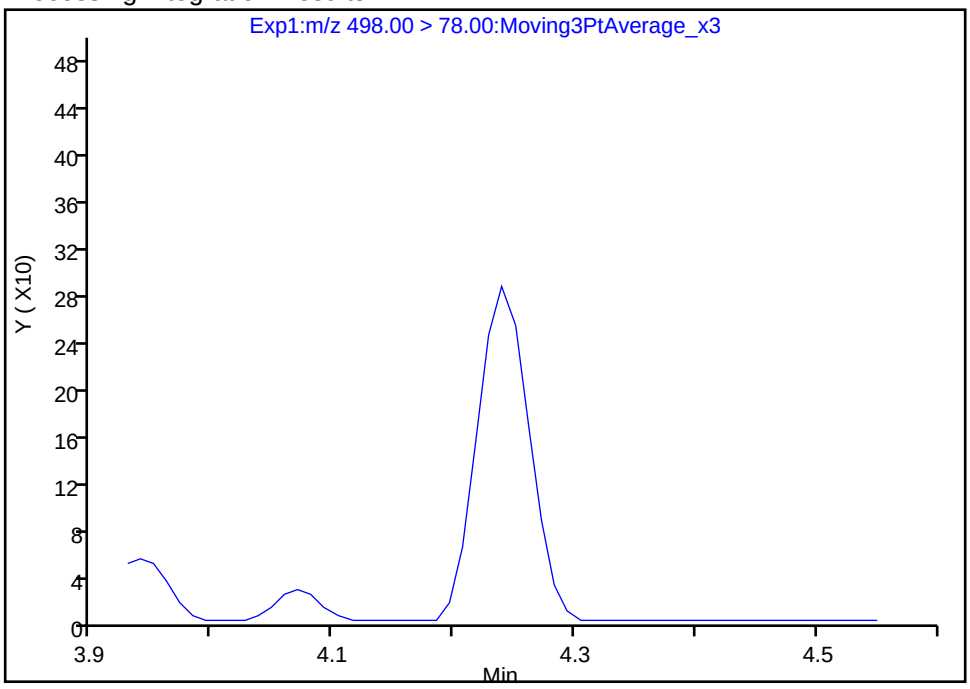
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

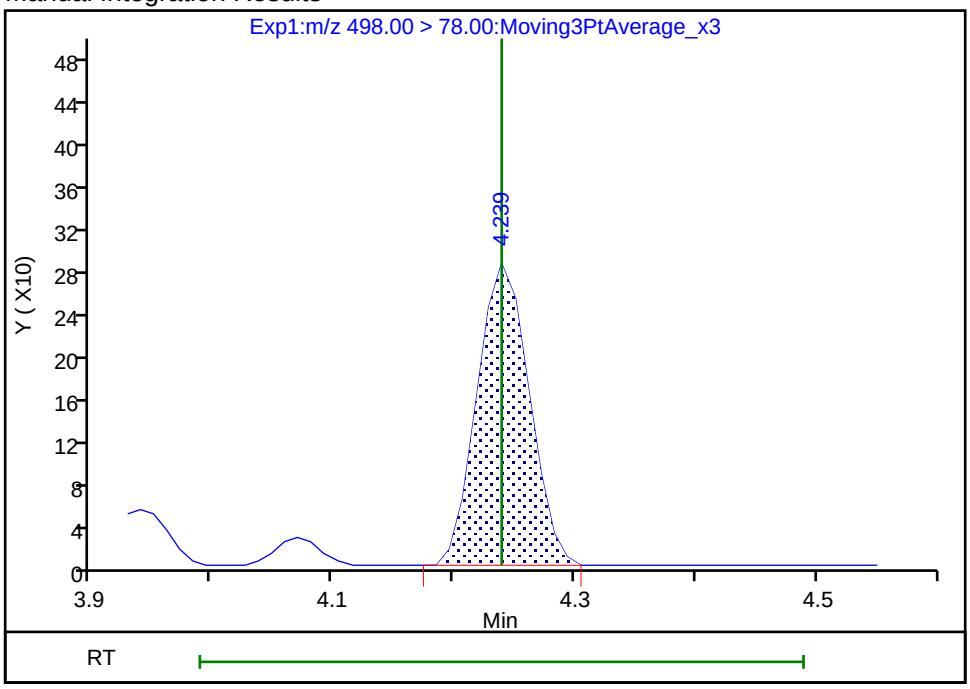
Not Detected
Expected RT: 4.24

Processing Integration Results



Manual Integration Results

RT: 4.24
Area: 843
Amount: 0.001223
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:18:43
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

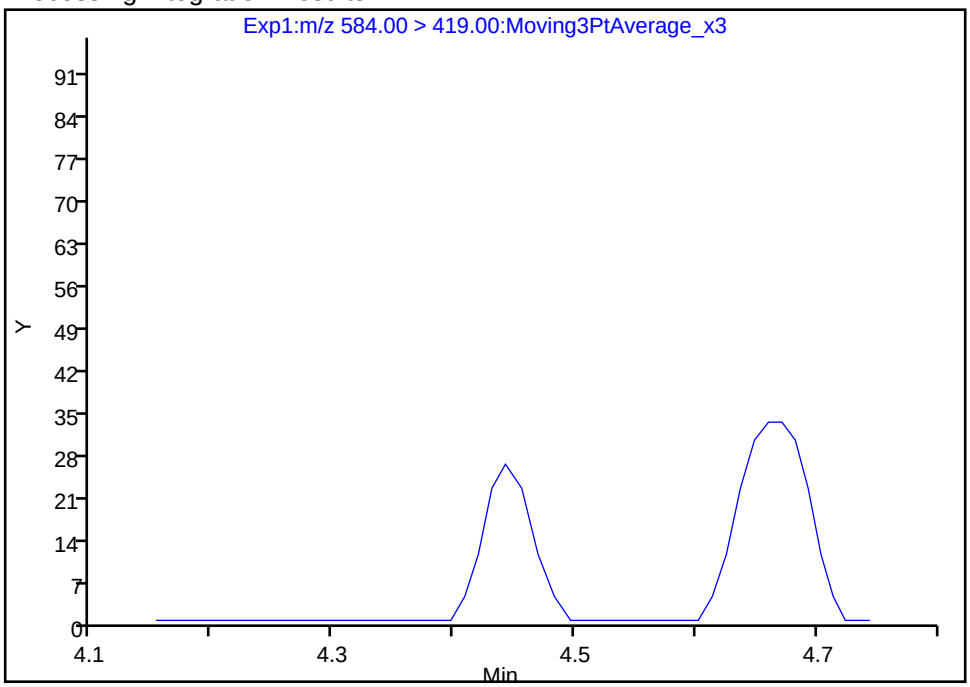
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

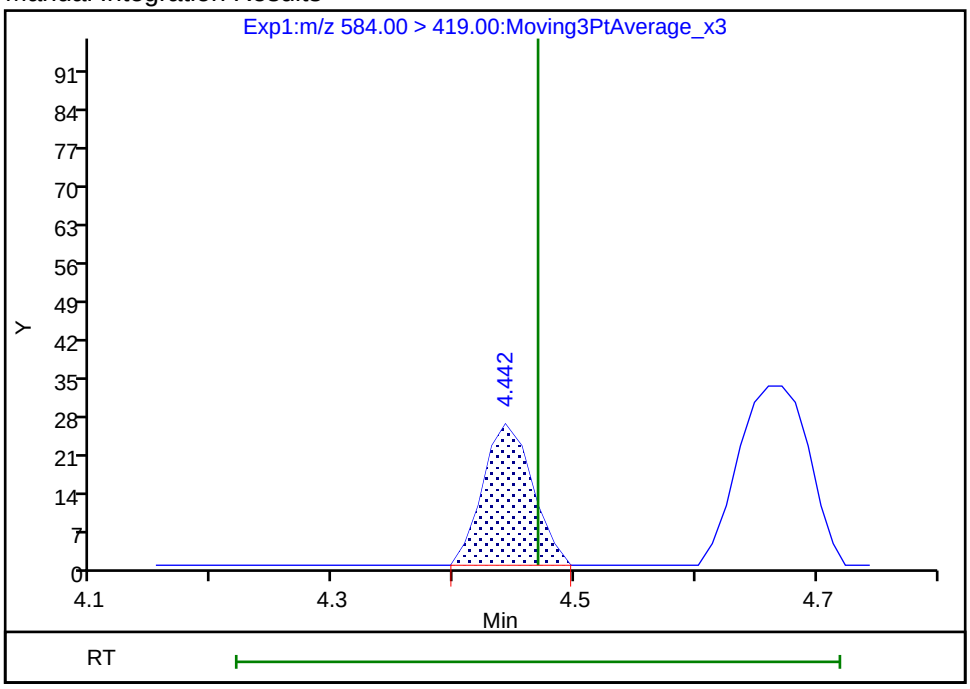
Not Detected
Expected RT: 4.47

Processing Integration Results



Manual Integration Results

RT: 4.44
Area: 74
Amount: 0.001774
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:19:01
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

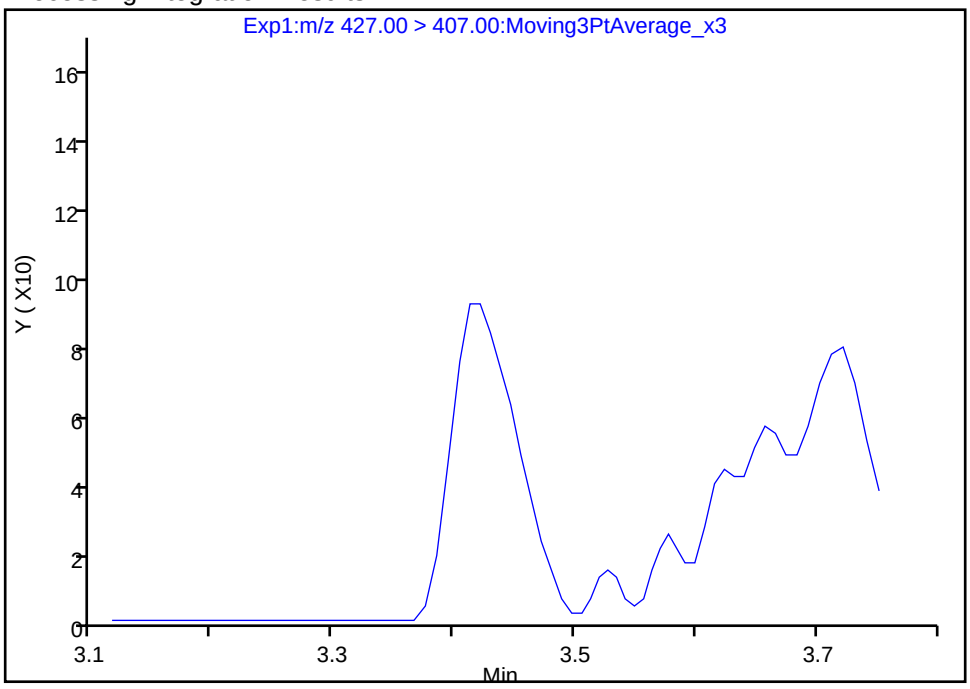
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

13 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:, CAS: 27619-97-2

Signal: 1

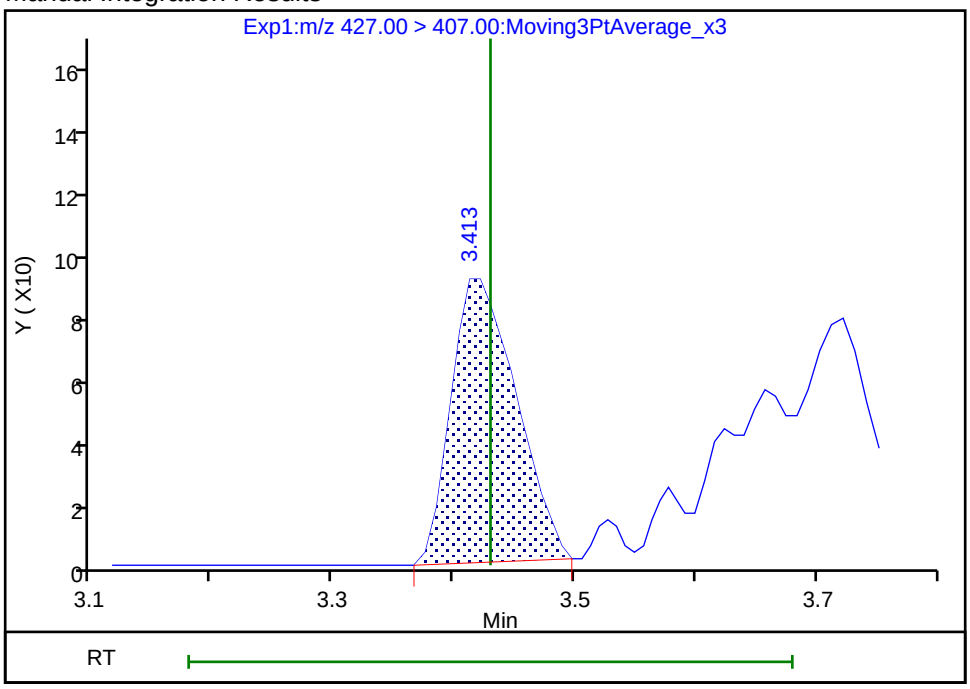
Not Detected
Expected RT: 3.43

Processing Integration Results



Manual Integration Results

RT: 3.41
Area: 326
Amount: 0.002355
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:17:49
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

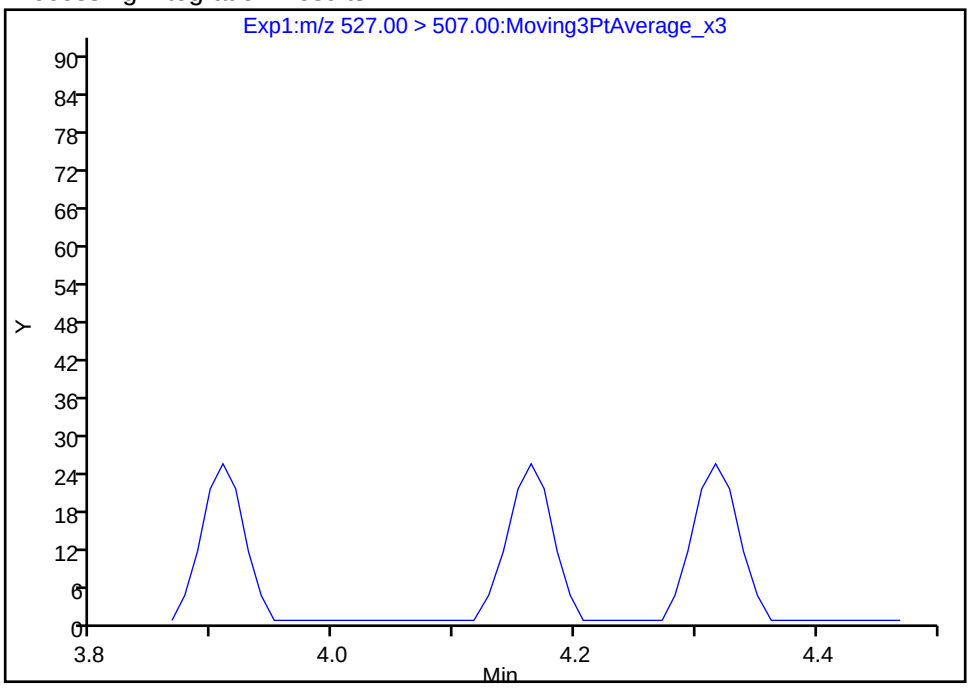
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F020.d				
Injection Date:	07-Dec-2019 08:57:59	Instrument ID:	LC812		
Lims ID:	480-163109-A-1-A	Lab Sample ID:	200-163109-1		
Client ID:	MW-01				
Operator ID:	lc812tech	ALS Bottle#:	20	Worklist Smp#:	20
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:, CAS: 39108-34-4

Signal: 1

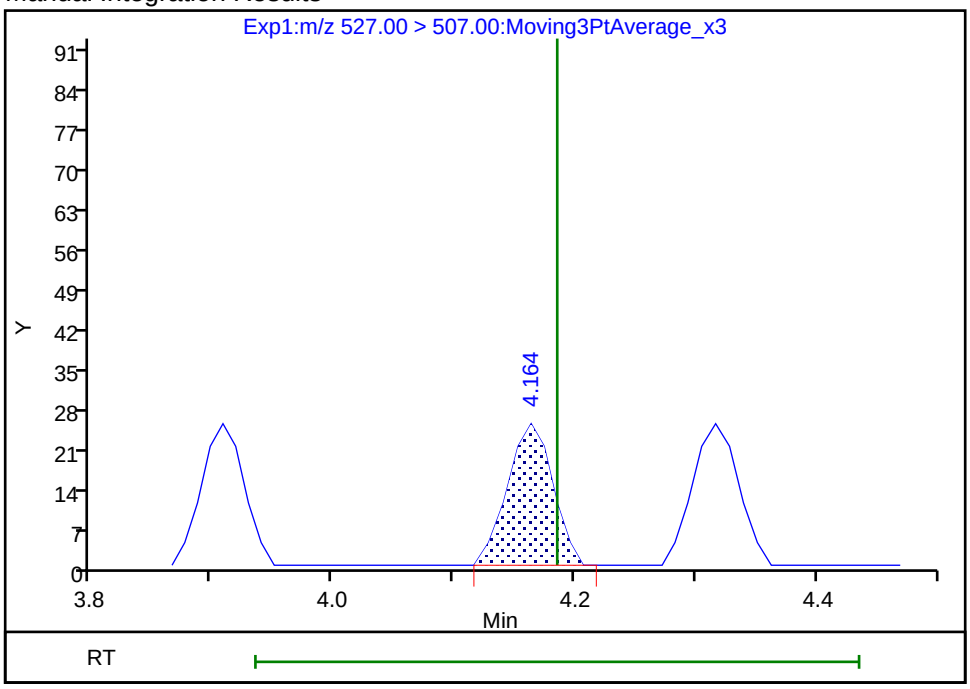
Not Detected
Expected RT: 4.19

Processing Integration Results



Manual Integration Results

RT: 4.16
Area: 64
Amount: 0.000915
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:18:37
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-03 Lab Sample ID: 480-163109-2

Matrix: Water Lab File ID: SC120619F021.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 16:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 312.1(mL) Date Analyzed: 12/07/2019 09:06

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	4.3		1.6	0.80
2706-90-3	Perfluoropentanoic acid (PFPeA)	1.7		1.6	0.50
307-24-4	Perfluorohexanoic acid (PFHxA)	2.8		1.6	0.61
375-85-9	Perfluoroheptanoic acid (PFHpA)	1.4	J	1.6	0.73
335-67-1	Perfluorooctanoic acid (PFOA)	6.7		1.6	0.65
375-95-1	Perfluorononanoic acid (PFNA)	0.51	J	1.6	0.22
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.6	0.62
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.62
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.6	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.48
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.74
375-73-5	Perfluorobutanesulfonic acid (PFBS)	5.3		1.6	0.39
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	4.8		1.6	0.64
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	2.1		1.6	0.76
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	170		1.6	0.49
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.72
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		8.0	8.0
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.4
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-03 Lab Sample ID: 480-163109-2

Matrix: Water Lab File ID: SC120619F021.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 16:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 312.1(mL) Date Analyzed: 12/07/2019 09:06

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	127		50-150
STL01892	13C4 PFHpA	108		50-150
STL00990	13C4 PFOA	112		50-150
STL00991	13C4 PFOS	97		50-150
STL00995	13C5 PFNA	103		50-150
STL00992	13C4 PFBA	80		25-150
STL00993	13C2 PFHxA	113		50-150
STL00996	13C2 PFDA	98		50-150
STL00997	13C2 PFUnA	84		50-150
STL00998	13C2 PFDoA	84		50-150
STL01056	13C8 FOSA	87		25-150
STL01893	13C5 PFPeA	105		25-150
STL02116	13C2 PFTeDA	85		50-150
STL02118	d3-NMeFOSAA	85		50-150
STL02117	d5-NEtFOSAA	83		50-150
STL02279	M2-6:2 FTS	106		25-150
STL02280	M2-8:2 FTS	110		25-150
STL02337	13C3 PFBS	111		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d
Lims ID: 480-163109-A-2-A
Client ID: MW-03
Sample Type: Client
Inject. Date: 07-Dec-2019 09:06:10 ALS Bottle#: 21 Worklist Smp#: 21
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 480-163109-A-2-A
Misc. Info.: 200-0039120-021 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 15:26:33
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.557	1795499	2.01		80.3	15081	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.917	1.926	-0.009	1.000	95770	0.1340			20.6	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.660	1792061	2.62		105	2921	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.271	2.285	-0.014	1.000	43488	0.0536			1.2	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	162324	0.1652	Target=2.03		14.4	
298.90 > 99.00	2.298	2.298	0.0	1.000	81462		1.99(1.01-3.04)		23.1	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.312	-0.014	0.668	2101307	2.58		111	112951	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.636	-0.013	0.763	200989	2.64		113	46.1	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.673	0.0	0.875	31332	0.0330	Target=3.50		5.9	
349.00 > 99.00	2.673	2.673	0.0	0.875	13963		2.24(1.75-5.25)		10.5	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.660	2.673	-0.013	1.000	75793	0.0865	Target=13.76		4.3	
313.00 > 119.00	2.673	2.673	0.0	1.005	5291		14.32(6.88-20.64)		8.2	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.660	2.673	-0.013	0.774	2146069	2.81		113	7932	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.783	2.792	-0.009	0.810	66265	1.99		79.6	438	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.055	3.055	0.0	1.000	37309	0.0453	Target=3.95		3.9	M
363.00 > 169.00	3.055	3.055	0.0	1.000	9543		3.91(1.97-5.92)		24.5	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.889	1934453	3.00		127	7046	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.889	1949527	2.70		108	5238	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	139660	0.1509	Target=3.90		37.0	M
399.00 > 99.00	3.044	3.055	-0.011	0.996	63763		2.19(1.95-5.85)		80.8	M
77 DONA										M
377.00 > 251.00	3.101	3.101	0.0	0.815	999	0.000568	Target=2.49		2.9	
377.00 > 85.00	3.078	3.101	-0.023	0.809	816		1.22(1.24-3.73)		0.8	M
13 1H,1H,2H,2H-perfluorooctanesulfoni										M
427.00 > 407.00	3.421	3.430	-0.009	1.000	451	0.004075			7.0	M
16 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	3.421	3.430	-0.009	0.899	40770	0.0669	Target=6.46		13.6	M
449.00 > 99.00	3.413	3.430	-0.017	0.897	12359		3.30(3.23-9.69)		10.4	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.421	3.430	-0.009	0.995	278526	2.52		106	190	
D 14 13C4 PFOA										
417.00 > 372.00	3.438	3.438	0.0	1.000	2145496	2.80		112	6821	
* 62 13C2 PFOA										
415.00 > 370.00	3.438	3.438	0.0		2110586	2.50			5087	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.438	3.447	-0.009	1.000	199397	0.2094	Target=2.40		21.4	
413.00 > 169.00	3.438	3.447	-0.009	1.000	82067		2.43(1.20-3.60)		258	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.805	3.817	-0.012	1.000	2857765	5.32	Target=5.74		999	M
499.00 > 99.00	3.805	3.817	-0.012	1.000	910152		3.14(2.87-8.61)		813	M
D 18 13C4 PFOS										
503.00 > 80.00	3.805	3.817	-0.012	1.107	1189134	2.33		97.4	789	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.829	3.829	0.0	1.000	11323	0.0159	Target=7.01		2.8	
463.00 > 169.00	3.829	3.829	0.0	1.000	1286		8.80(3.50-10.51)		9.0	M
D 19 13C5 PFNA										
468.00 > 423.00	3.829	3.842	-0.013	1.114	1810029	2.57		103	4576	
69 9-Chlorohexadecafluoro-3-oxanonane										M
531.00 > 351.00	3.994	3.994	0.0	1.050	468	0.000763			2.1	M
D 23 13C2 PFDA										
515.00 > 470.00	4.164	4.175	-0.011	1.211	1696687	2.44		97.6	5746	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.174	4.185	-0.011	1.214	347760	2.64		110	429	
25 1H,1H,2H,2H-perfluorodecanesulfoni										M
527.00 > 507.00	4.185	4.185	0.0	1.003	308	0.004595			6.2	M
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.239	4.239	0.0	1.000	871	0.001102			11.3	M
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.233	1985728	2.18		87.4	3997	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.316	4.317	-0.001	1.255	142327	2.13		85.1	1477	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.196	4.328	-0.132	0.972	392	0.007924			2.3	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.442	4.456	-0.014	1.292	1239123	2.10		83.9	4128	
31 Perfluoroundecanoic acid										RM
563.00 > 519.00	4.442	4.456	-0.014	1.000	3176	0.007557	Target=5.78		2.8	R
563.00 > 169.00	4.431	4.456	-0.025	0.997	336		9.45(2.89-8.67)		6.1	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.296	153752	2.07		82.9	1732	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.510	4.469	0.041	1.012	235	0.004616			2.3	M
66 11-Chloroeicosafluoro-3-oxaundecan										M
631.00 > 451.00	4.537	4.550	-0.013	1.192	449	0.000776			4.8	M
D 36 13C2 PFDoA										
615.00 > 570.00	4.682	4.693	-0.011	1.362	1362506	2.10		84.1	6284	
74 1H,1H,2H,2H-perfluorododecanesulfo										M
627.00 > 607.00	4.704	4.714	-0.010	1.127	86	0.002021				M
75 Perfluorododecanesulfonic acid (PF										RM
699.00 > 80.00	4.879	4.860	0.019	1.282	542	0.003982	Target=0.45		1.4	RM
699.00 > 99.00	4.860	4.860	0.0	1.277	362		1.50(0.22-0.67)		5.0	M
41 Perfluorotridecanoic acid										RM
663.00 > 619.00	4.897	4.906	-0.009	1.046	724	0.001513	Target=3.82		0.3	RM
663.00 > 169.00	4.897	4.906	-0.009	1.046	427		1.70(1.91-5.74)		3.8	M
D 43 13C2 PFTeDA										
715.00 > 670.00	5.093	5.094	-0.001	1.481	1152450	2.12		84.9	7409	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.093	5.094	-0.001	1.000	311	0.003358	Target=1.05		5.5	M
713.00 > 219.00	5.085	5.094	-0.010	0.998	496		0.63(0.52-1.57)		8.6	M
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.456	5.457	-0.001	1.002	9614	-0.002997	Target=3.20		3.2	
813.00 > 169.00	5.446	5.457	-0.011	1.000	3759		2.56(1.60-4.80)		58.8	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.446	5.457	-0.011	1.584	1028859	2.06		82.4	5051	
46 Perfluorooctadecanoic acid										M
913.00 > 869.00	5.812	5.823	-0.011	1.067	524	0.001763	Target=2.86		0.3	M
913.00 > 169.00	5.812	5.823	-0.011	1.067	163		3.21(1.43-4.29)		4.6	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:19:57 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d

Injection Date: 07-Dec-2019 09:06:10 Instrument ID: LC812

Lims ID: 480-163109-A-2-A Lab Sample ID: 200-163109-2

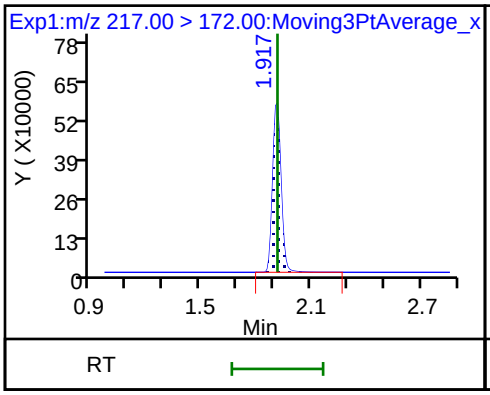
Client ID: MW-03

Operator ID: lc812tech ALS Bottle#: 21 Worklist Smp#: 21

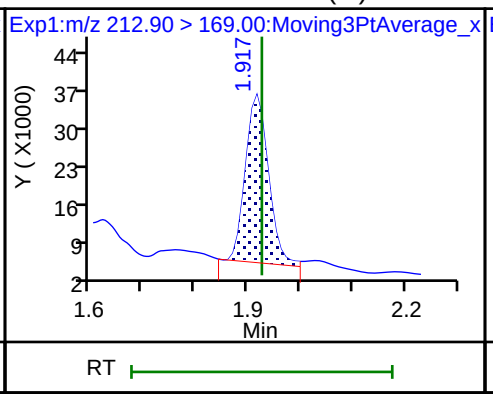
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

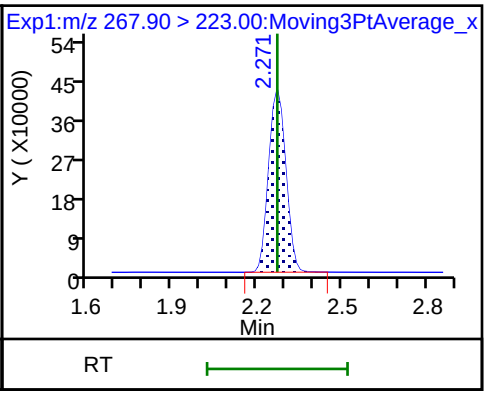
D 1 13C4 PFBA



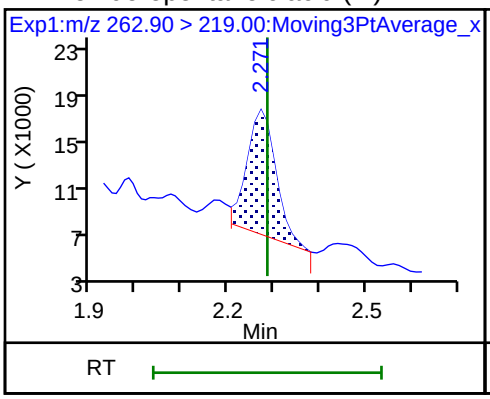
2 Perfluorobutanoic acid (M)



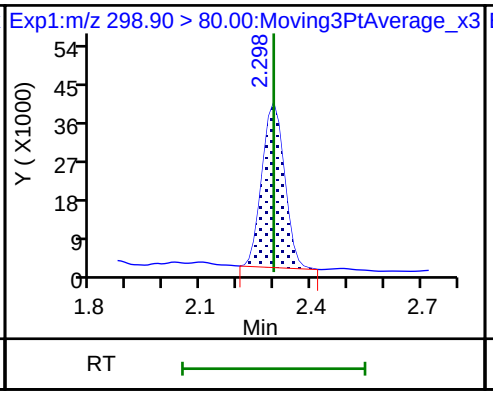
D 3 13C5 PFPeA



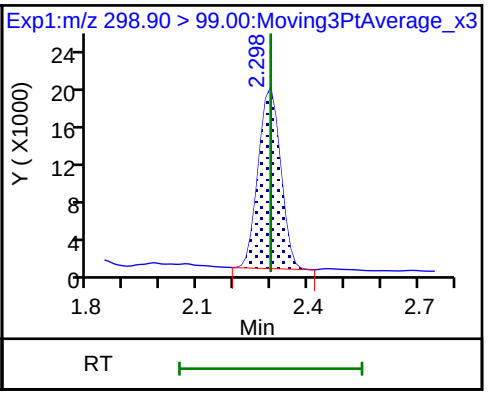
4 Perfluoropentanoic acid (M)



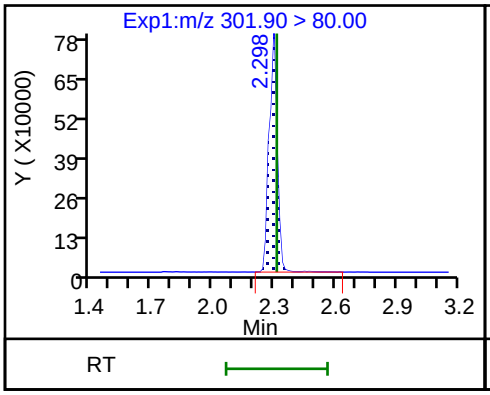
5 Perfluorobutanesulfonic acid



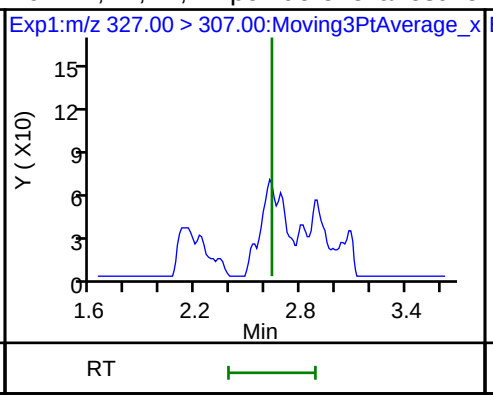
5 Perfluorobutanesulfonic acid



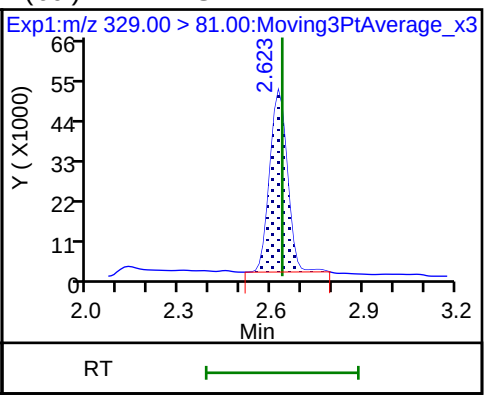
D 47 13C3 PFBS



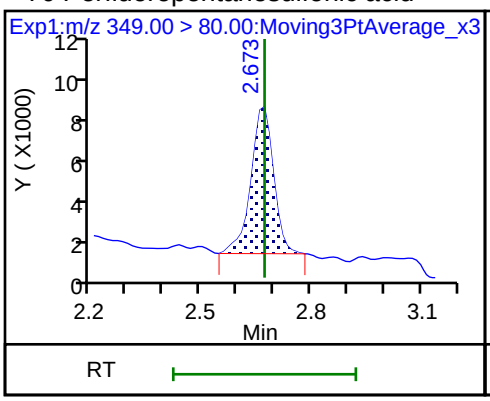
61 1H,1H,2H,2H-perfluorohexanesulfonic acid (M2



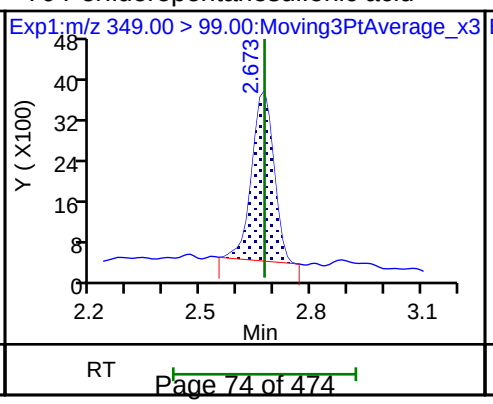
D 80 M2-4:2 FTS



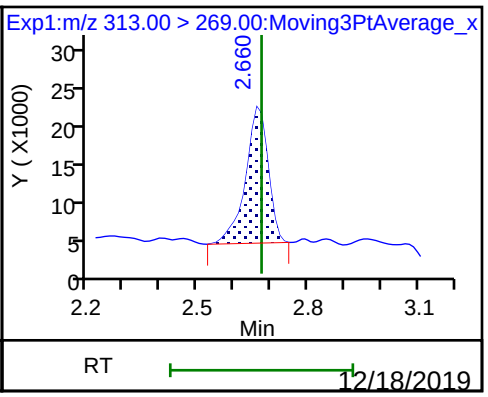
70 Perfluoropentanesulfonic acid



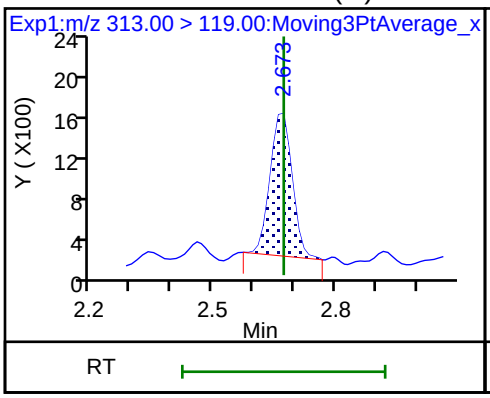
70 Perfluoropentanesulfonic acid



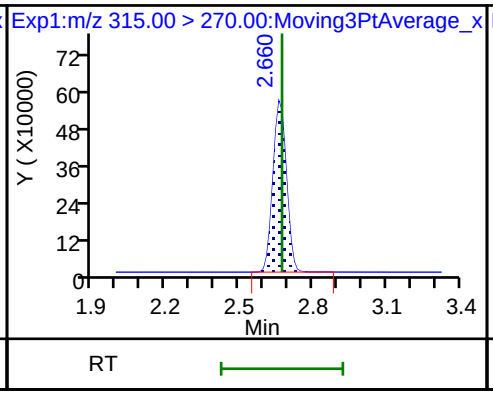
6 Perfluorohexanoic acid



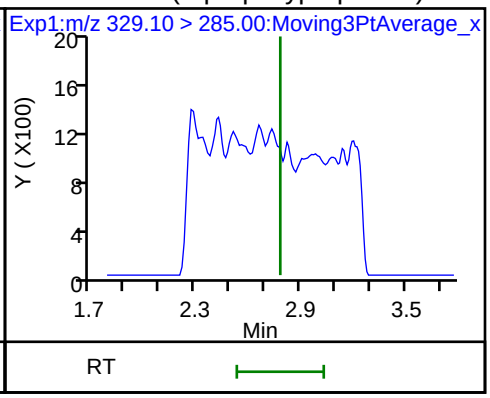
6 Perfluorohexanoic acid (M)



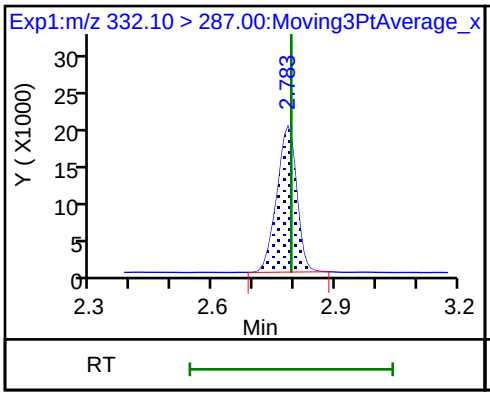
D 7 13C2 PFHxA



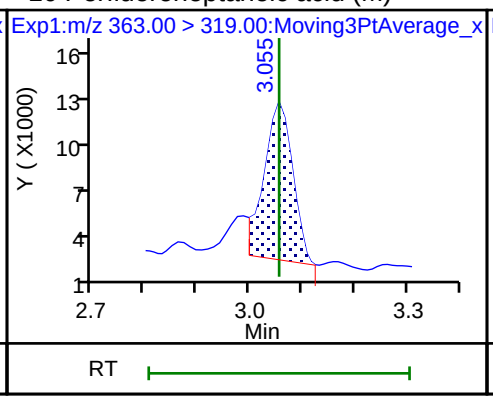
67 Perfluoro(2-propoxypropanoic) acid (ND)



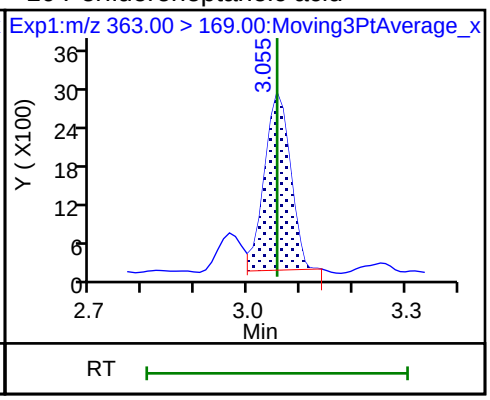
D 64 13C3 HFPO-DA



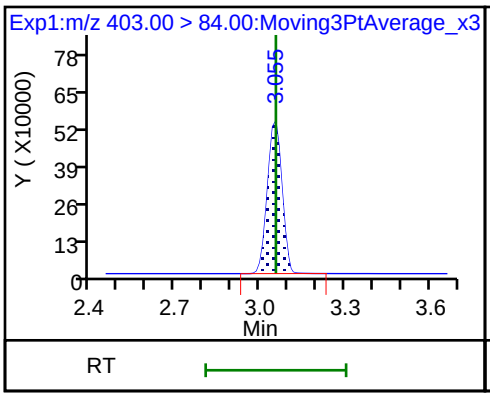
10 Perfluoroheptanoic acid (M)



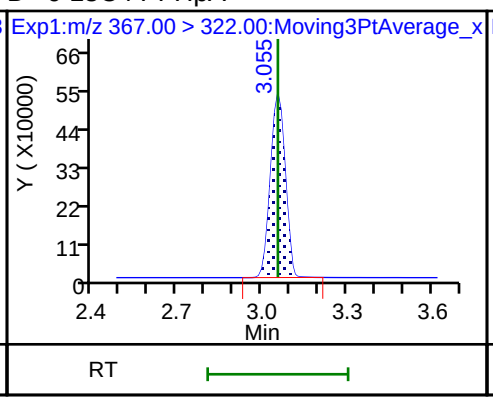
10 Perfluoroheptanoic acid



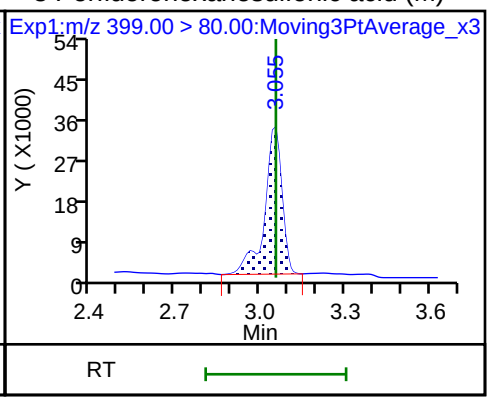
D 11 18O2 PFHxS



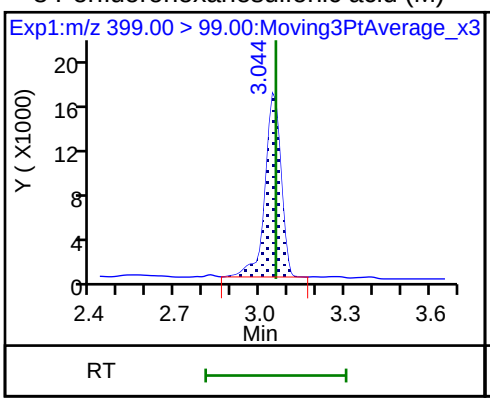
D 9 13C4 PFHpA



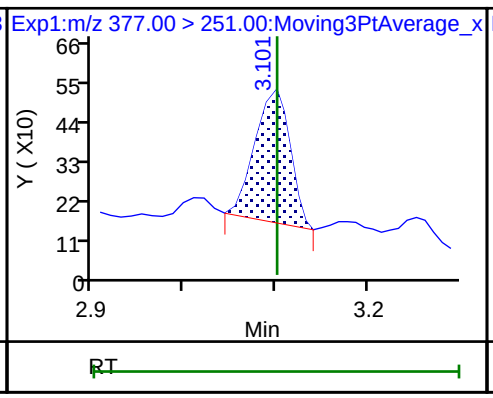
8 Perfluorohexanesulfonic acid (M)



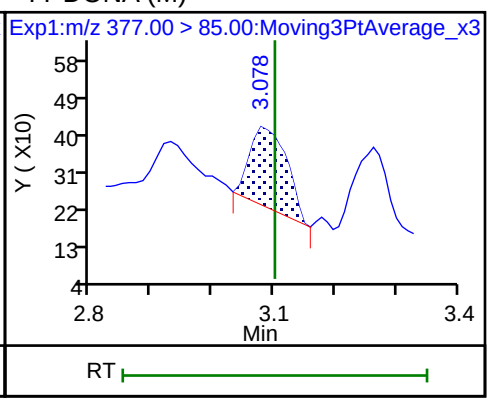
8 Perfluorohexanesulfonic acid (M)



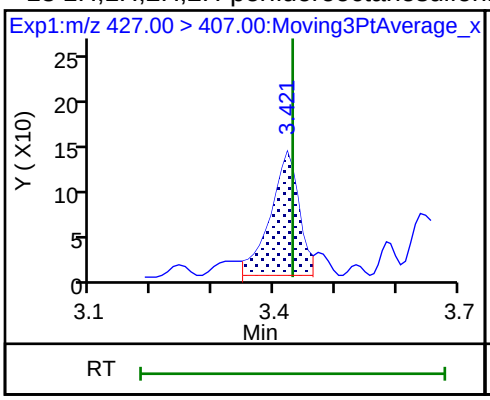
77 DONA



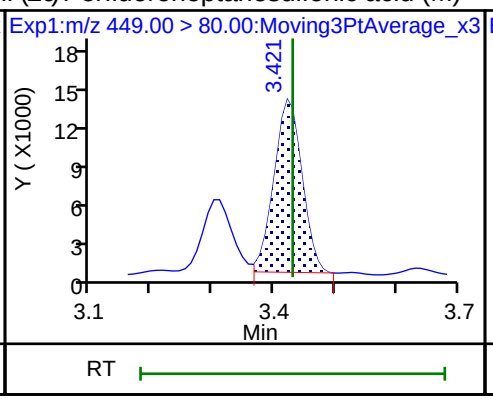
77 DONA (M)



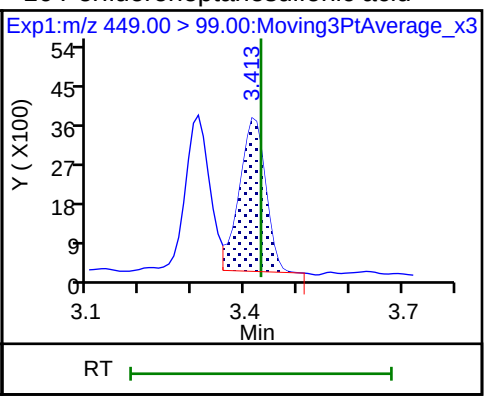
13 1H,1H,2H,2H-perfluorooctanesulfoni (M)



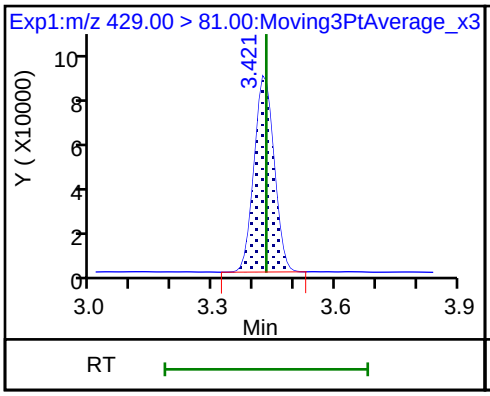
16 Perfluoroheptanesulfonic acid (M)



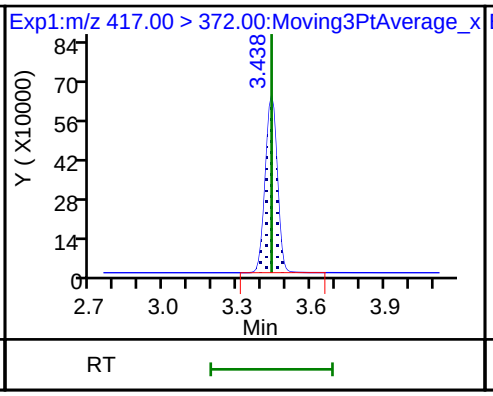
16 Perfluoroheptanesulfonic acid



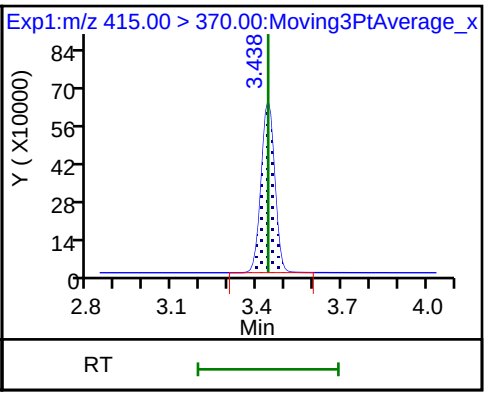
D 12 M2-6:2 FTS



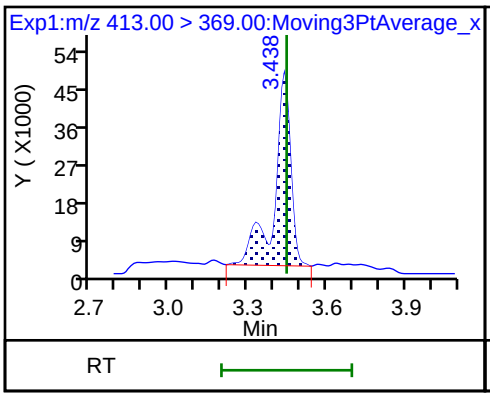
D 14 13C4 PFOA



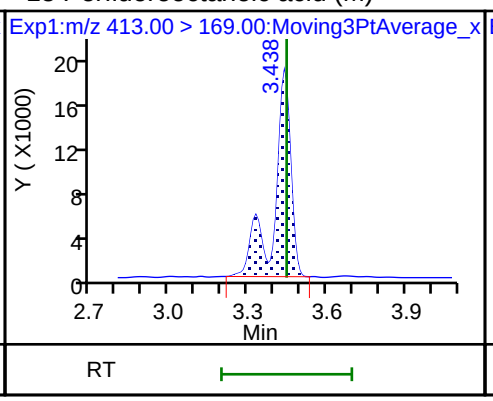
* 62 13C2 PFOA



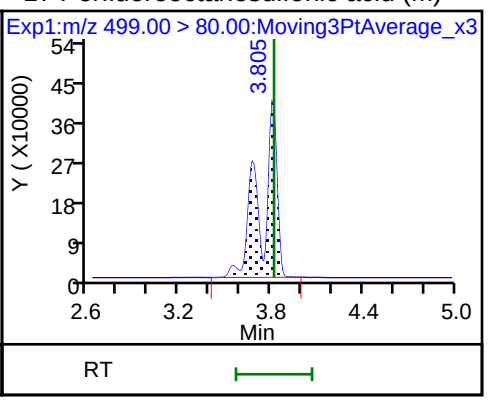
15 Perfluorooctanoic acid



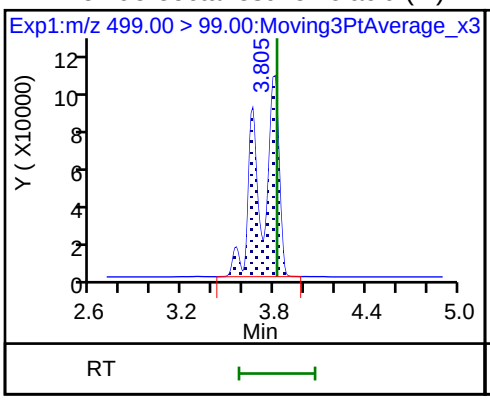
15 Perfluorooctanoic acid (M)



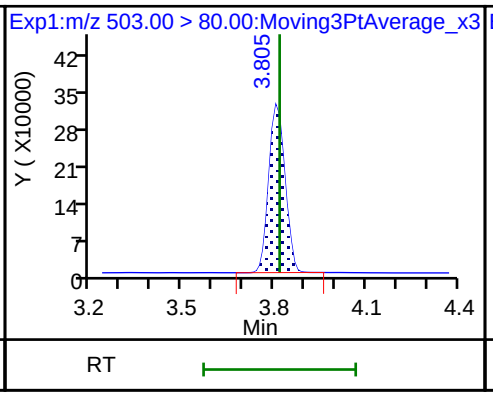
17 Perfluorooctanesulfonic acid (M)



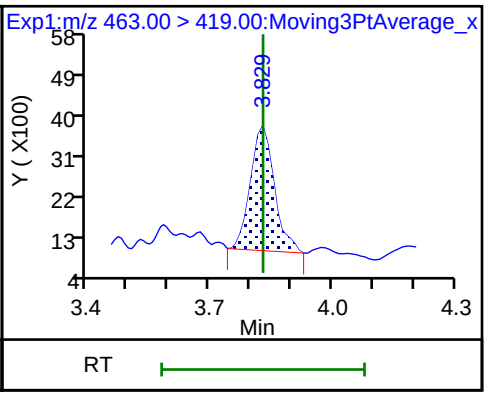
17 Perfluorooctanesulfonic acid (M)



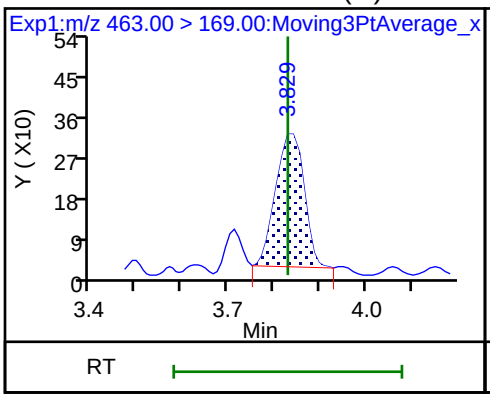
D 18 13C4 PFOS



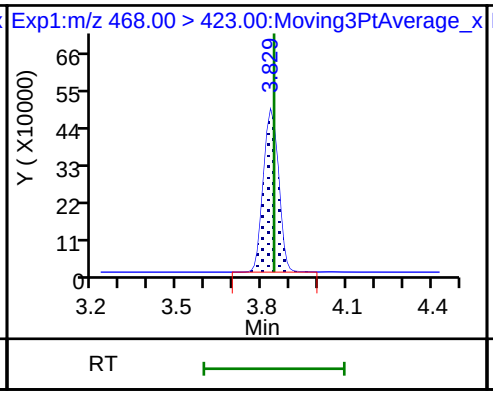
20 Perfluorononanoic acid



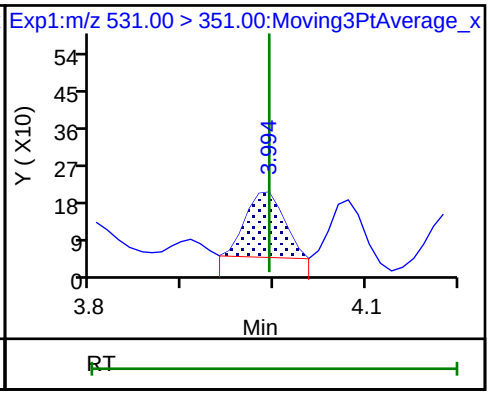
20 Perfluorononanoic acid (M)



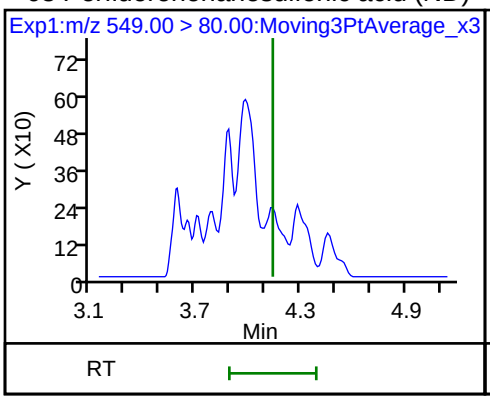
D 19 13C5 PFNA



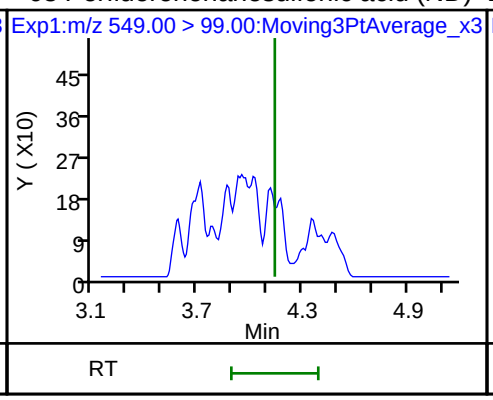
69 9-Chlorohexadecafluoro-3-oxanonane (M)



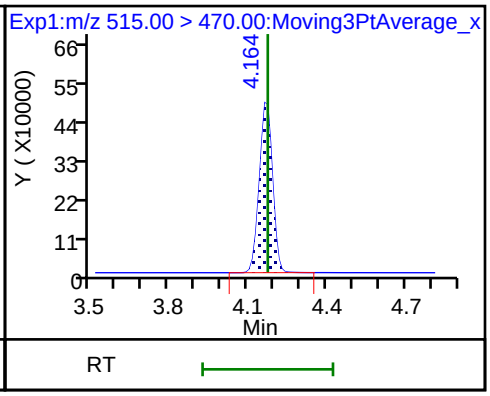
68 Perfluorononanesulfonic acid (ND)



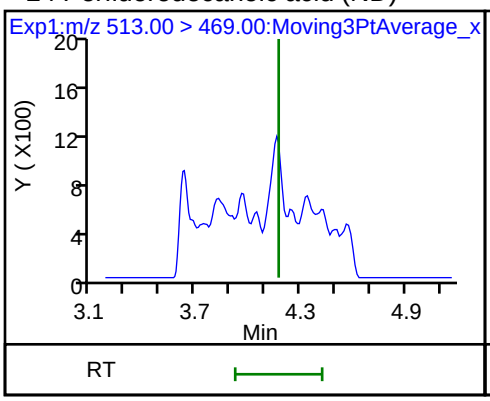
68 Perfluorononanesulfonic acid (ND)



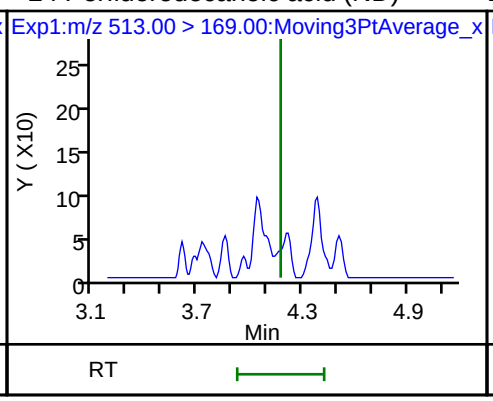
D 23 13C2 PFDA



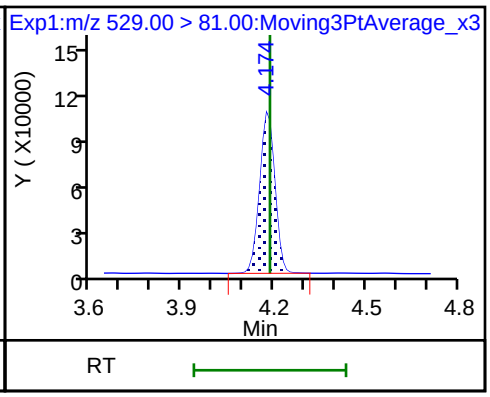
24 Perfluorodecanoic acid (ND)



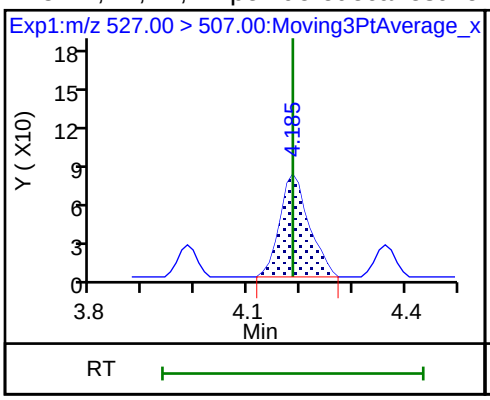
24 Perfluorodecanoic acid (ND)



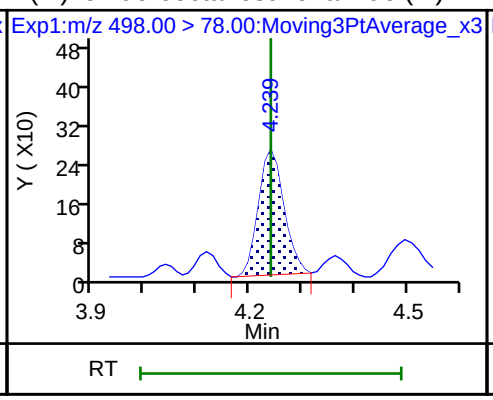
D 26 M2-8:2 FTS



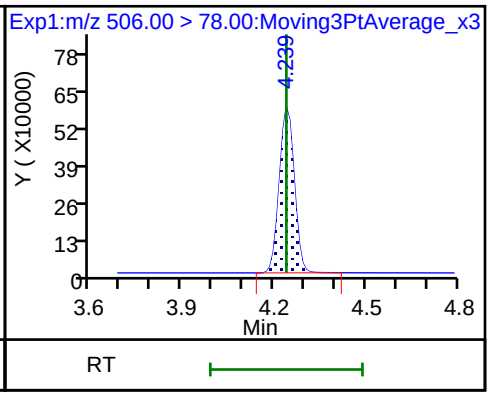
25 1H,1H,2H,2H-perfluorodecanesulfoni (M)



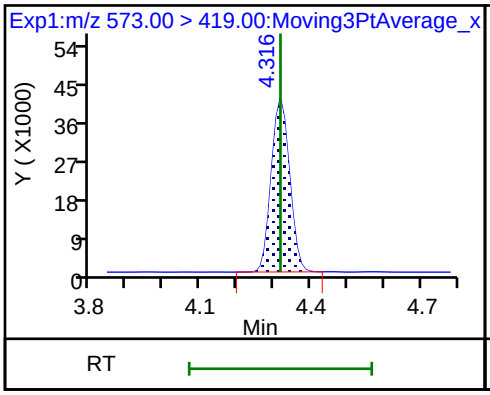
22 Perfluorooctanesulfonamide (M)



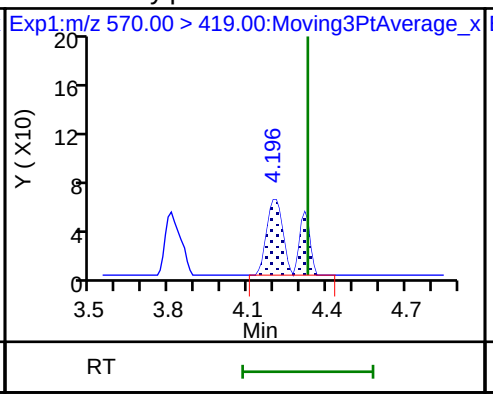
D 21 13C8 FOSA



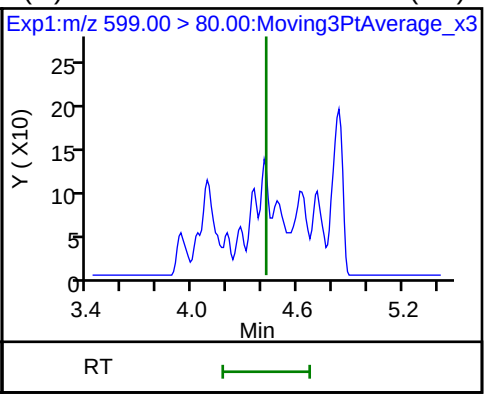
D 27 d3-NMeFOSAA



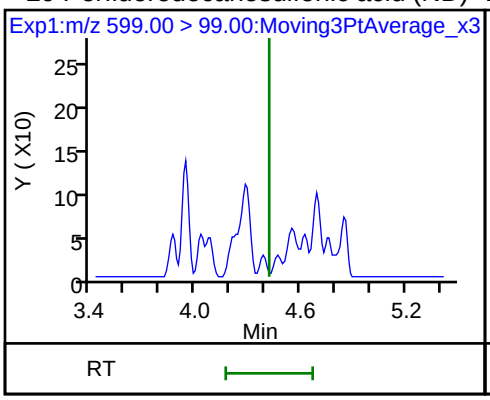
28 N-methylperfluorooctanesulfonamido (M)



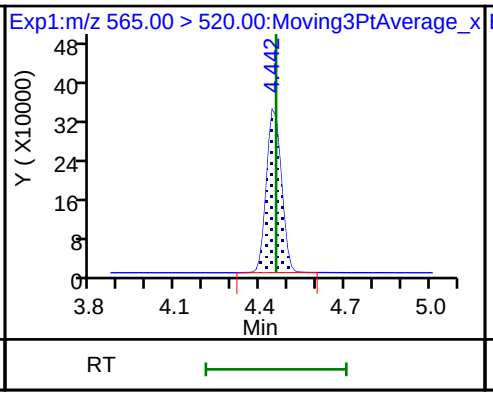
29 Perfluorodecanesulfonic acid (ND)



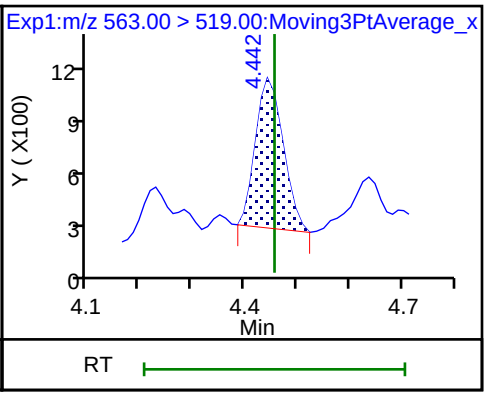
29 Perfluorodecanesulfonic acid (ND)



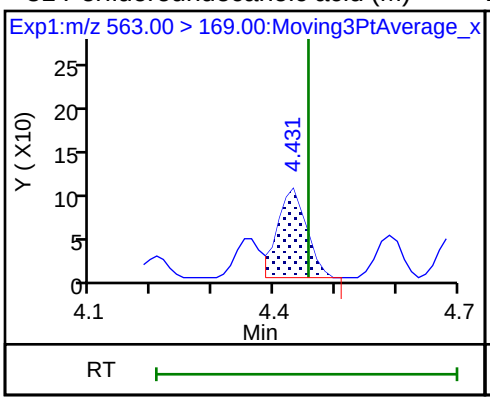
D 30 13C2 PFUnA



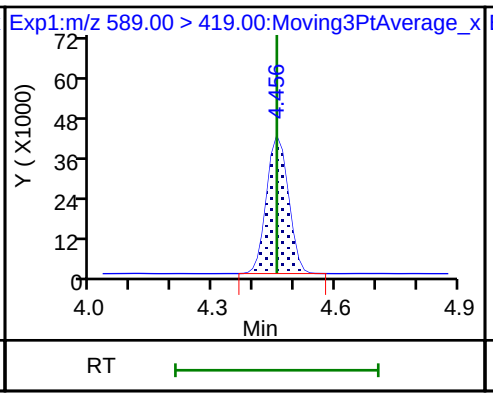
31 Perfluoroundecanoic acid



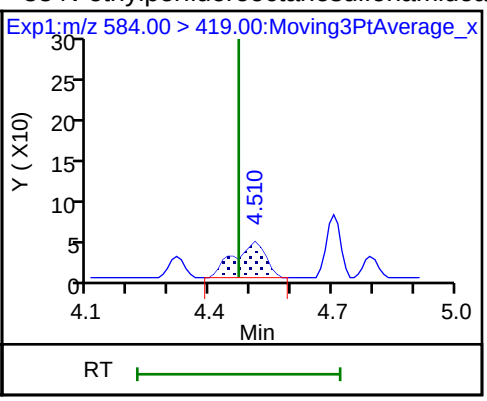
31 Perfluoroundecanoic acid (M)



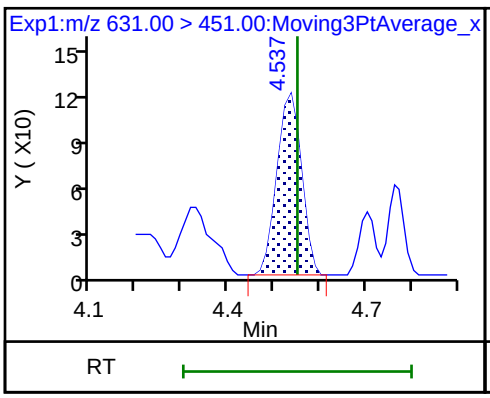
D 32 d5-NEtFOSAA



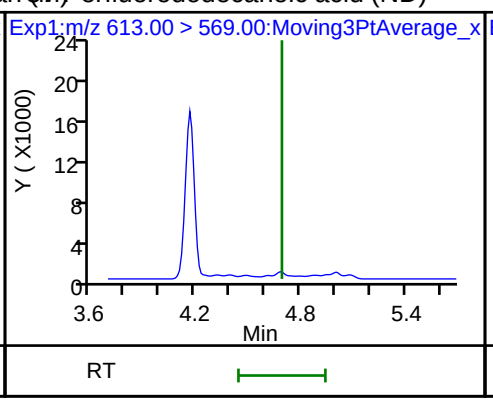
33 N-ethylperfluorooctanesulfonamidoa (M)



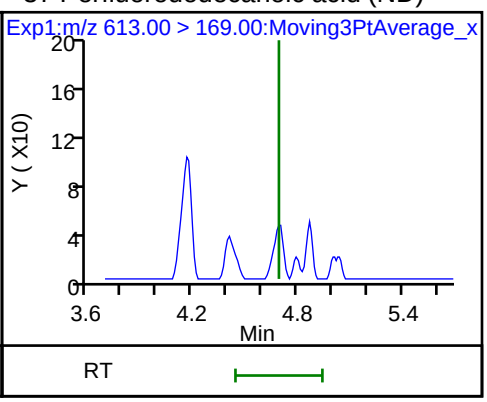
66 11-Chloroeicosafluoro-3-oxaundecan (M)



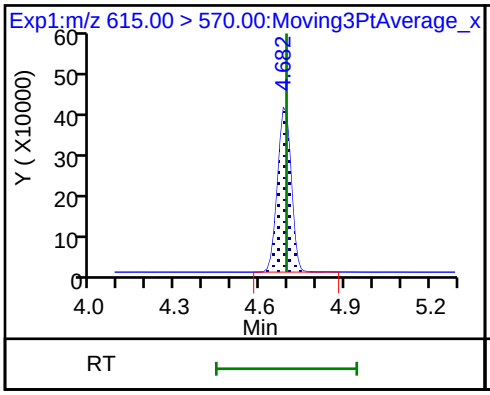
37 Perfluorododecanoic acid (ND)



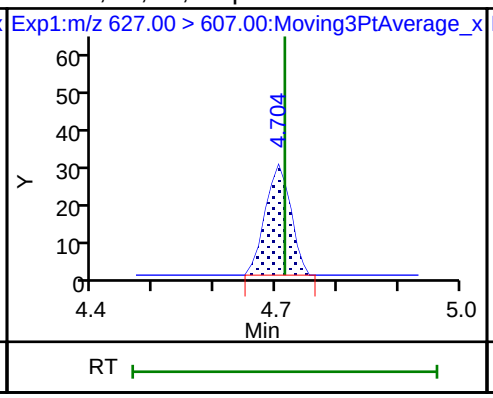
37 Perfluorododecanoic acid (ND)



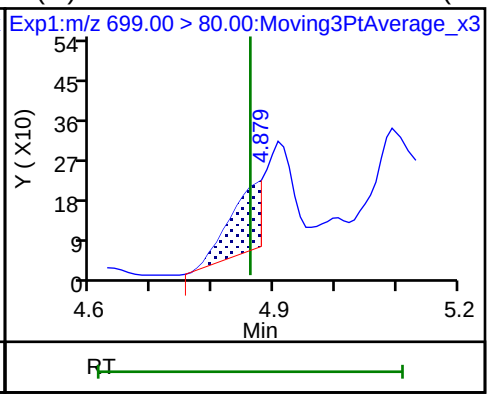
D 36 13C2 PFDoA



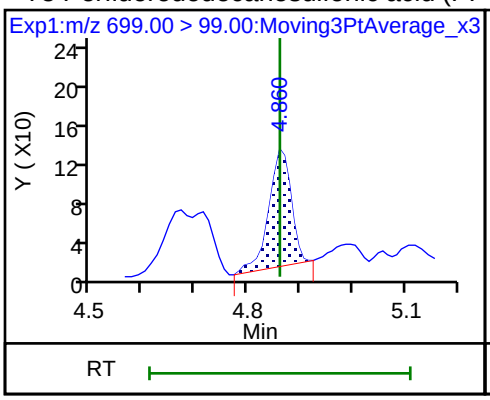
74 1H,1H,2H,2H-perfluorododecanesulfonic acid (M)



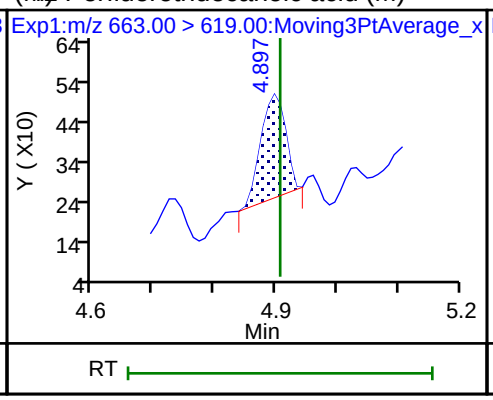
75 Perfluorododecanesulfonic acid (PF (M)



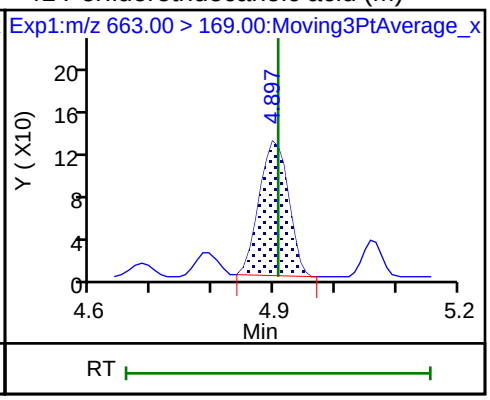
75 Perfluorododecanesulfonic acid (PF (M)



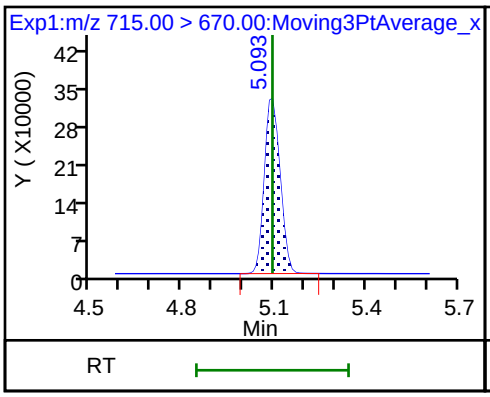
41 Perfluorotridecanoic acid (M)



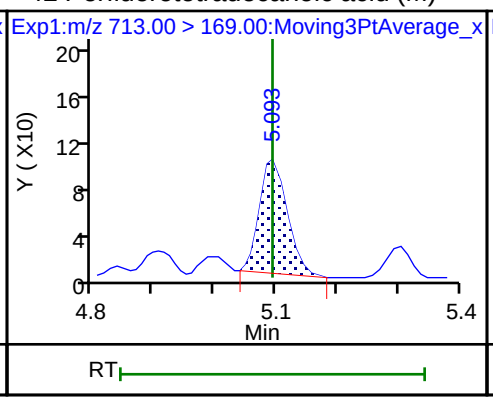
41 Perfluorotridecanoic acid (M)



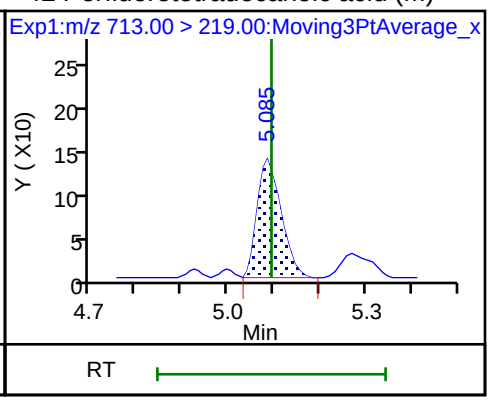
D 43 13C2 PFTeDA



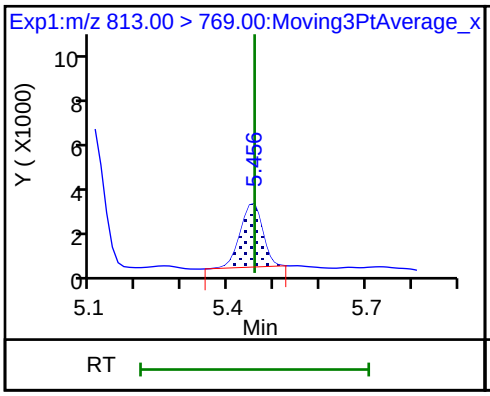
42 Perfluorotetradecanoic acid (M)



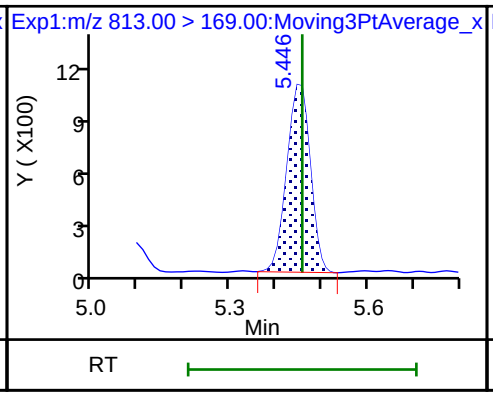
42 Perfluorotetradecanoic acid (M)



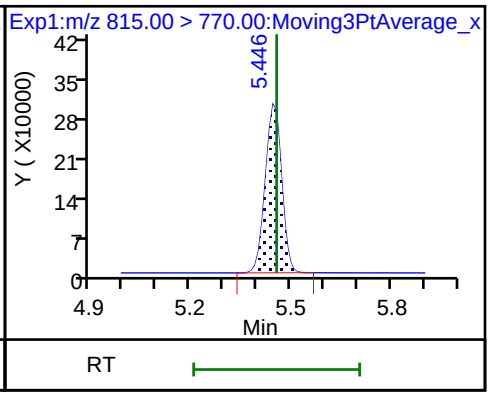
45 Perfluorohexadecanoic acid



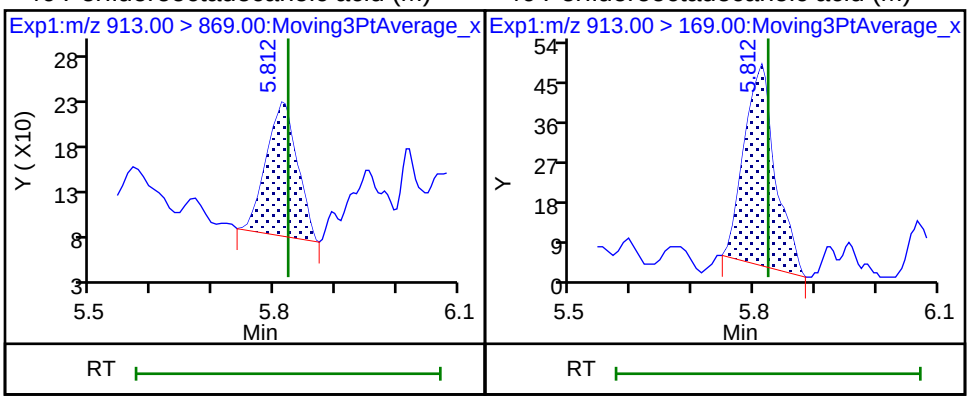
45 Perfluorohexadecanoic acid



D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid (M) 46 Perfluorooctadecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

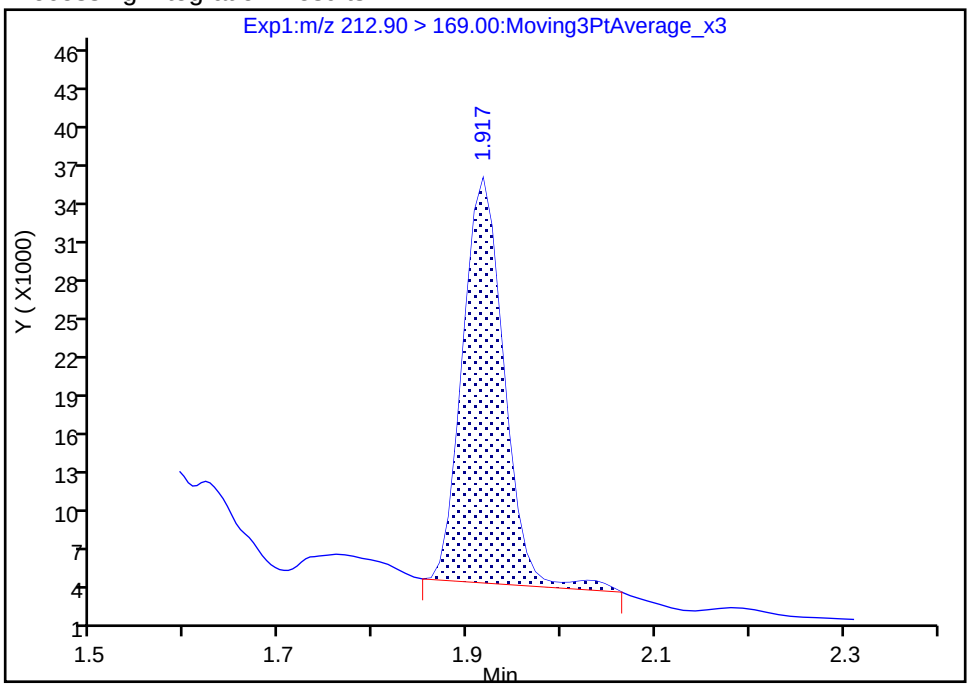
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

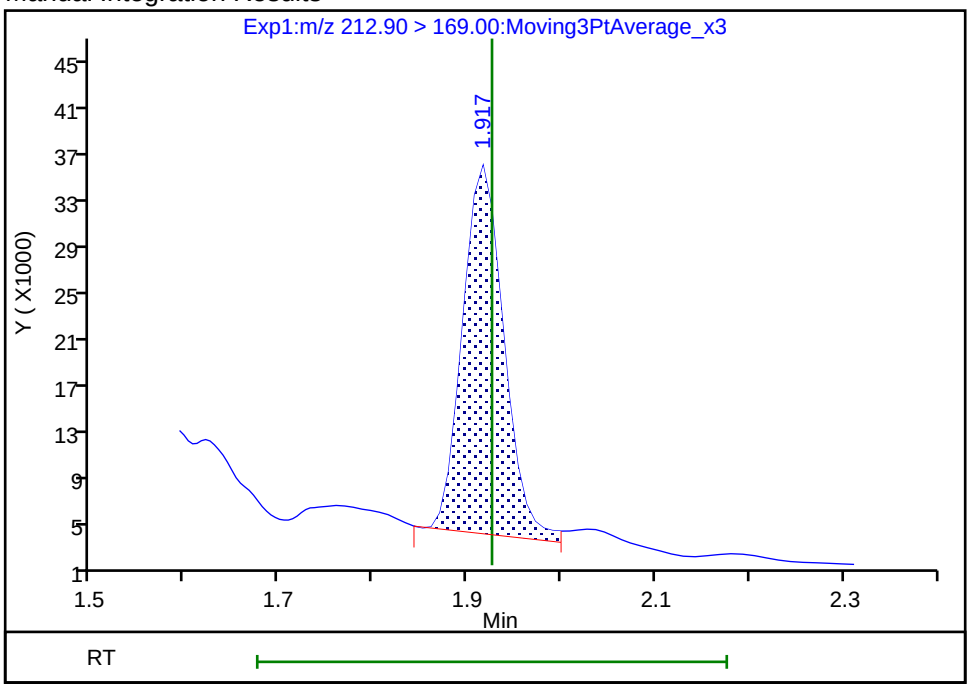
Processing Integration Results

RT: 1.92
Area: 95698
Amount: 0.133929
Amount Units: ng/ml



Manual Integration Results

RT: 1.92
Area: 95770
Amount: 0.134029
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:06:41
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

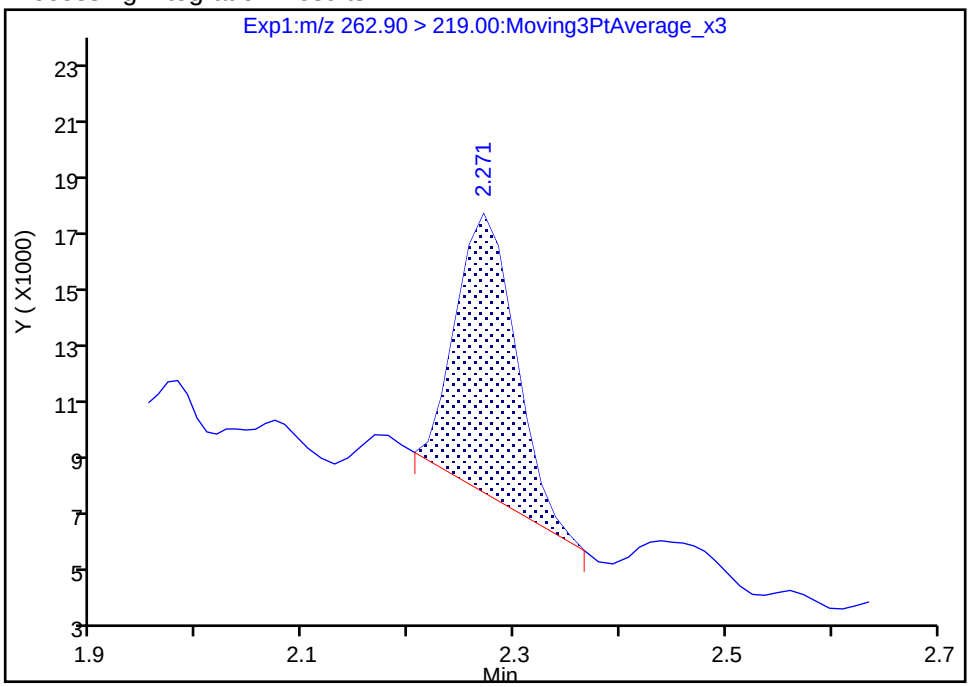
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

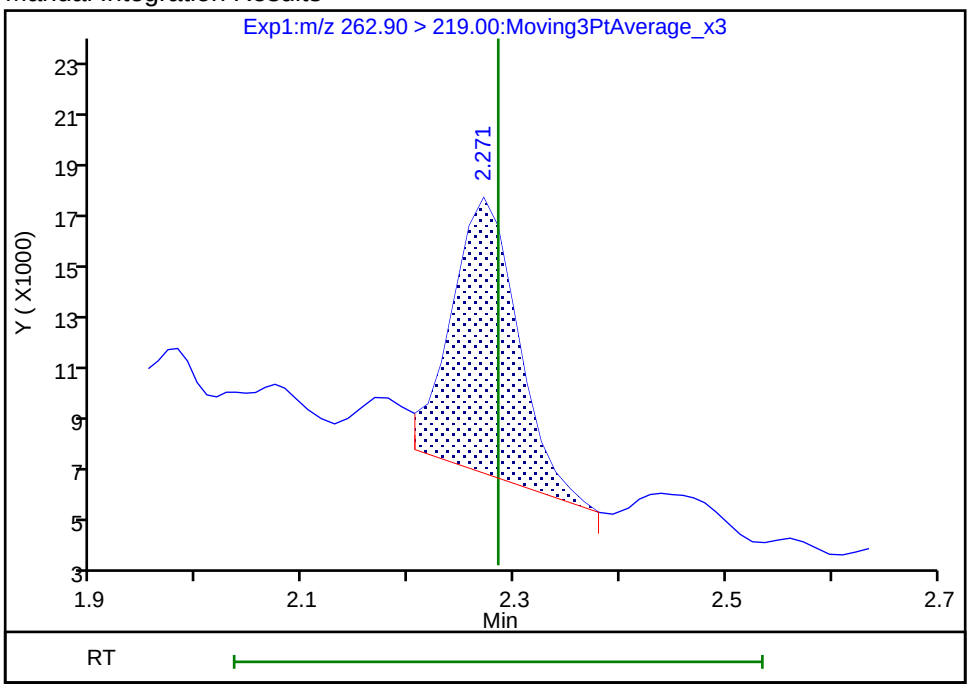
Processing Integration Results

RT: 2.27
Area: 36173
Amount: 0.044563
Amount Units: ng/ml



Manual Integration Results

RT: 2.27
Area: 43488
Amount: 0.053575
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:06:15
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

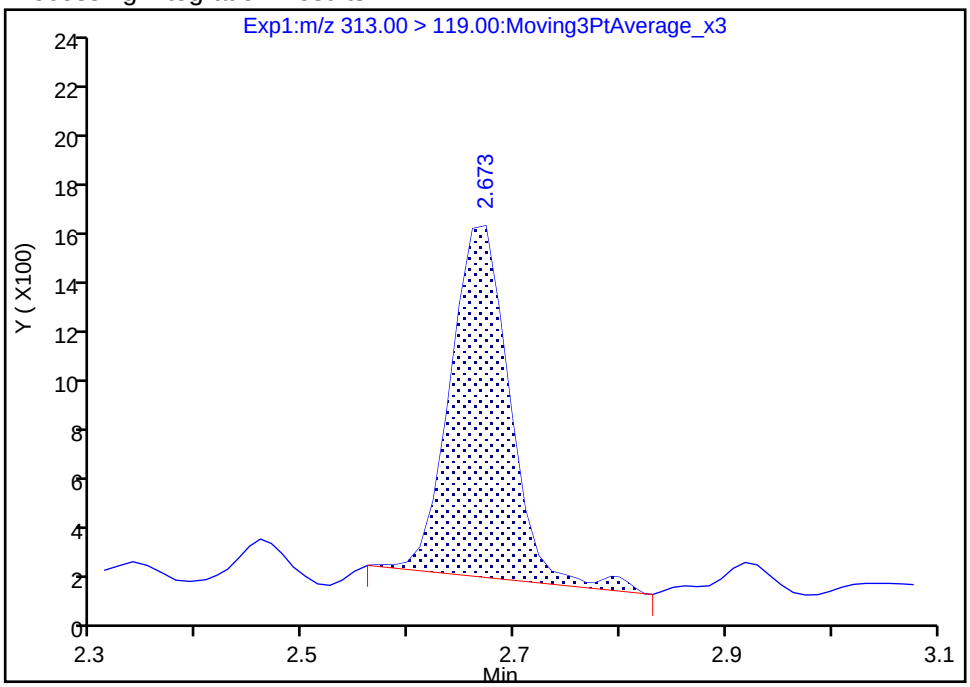
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

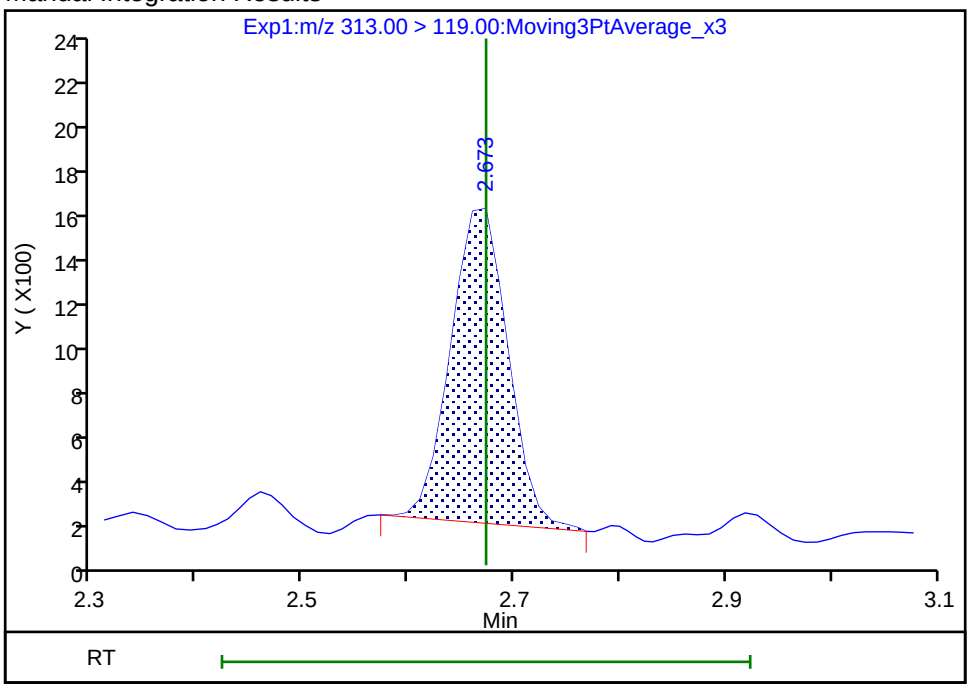
Processing Integration Results

RT: 2.67
Area: 5569
Amount: 0.086478
Amount Units: ng/ml



Manual Integration Results

RT: 2.67
Area: 5291
Amount: 0.086478
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:20:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

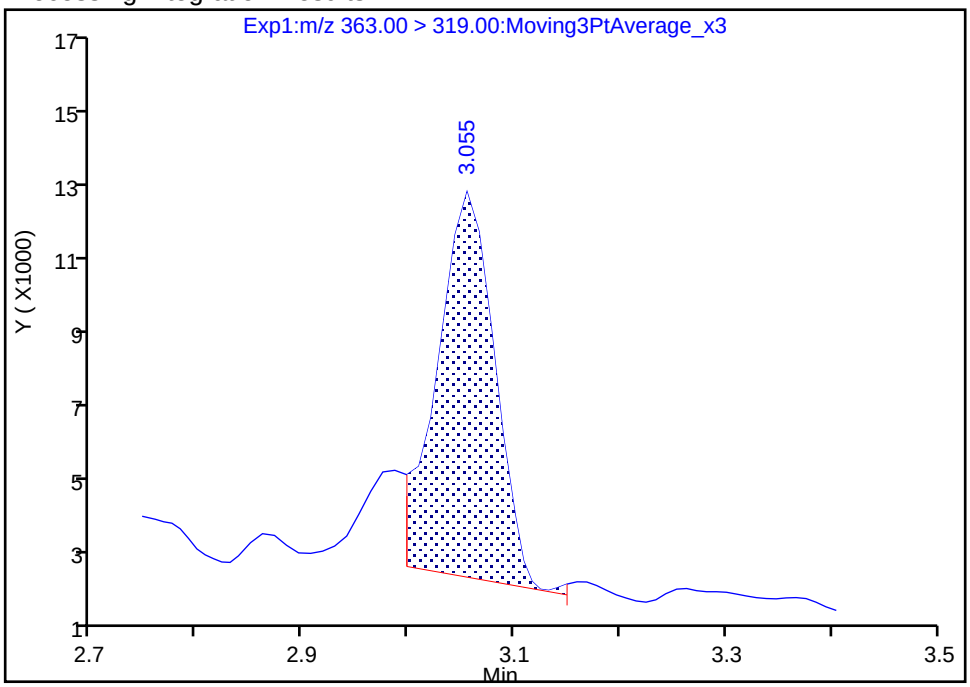
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

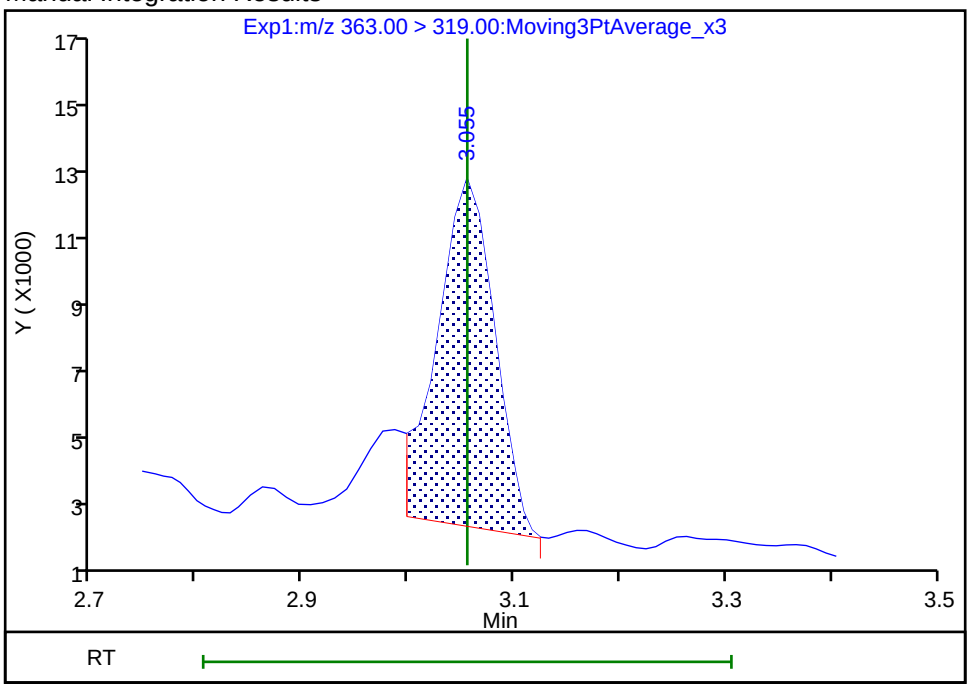
Processing Integration Results

RT: 3.05
Area: 37450
Amount: 0.045424
Amount Units: ng/ml



Manual Integration Results

RT: 3.05
Area: 37309
Amount: 0.045253
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:20:55
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

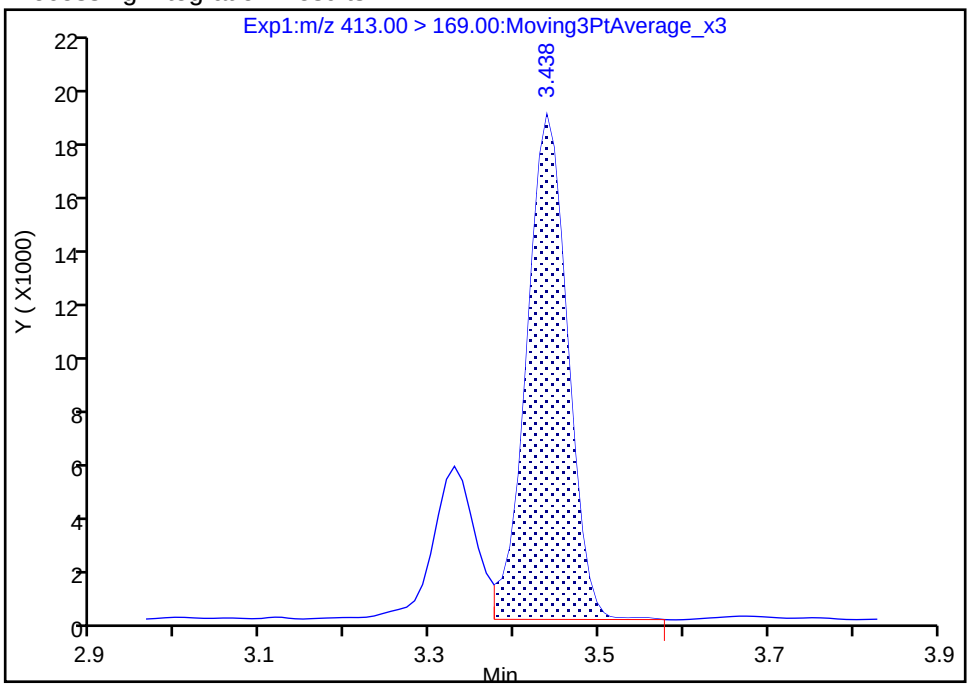
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

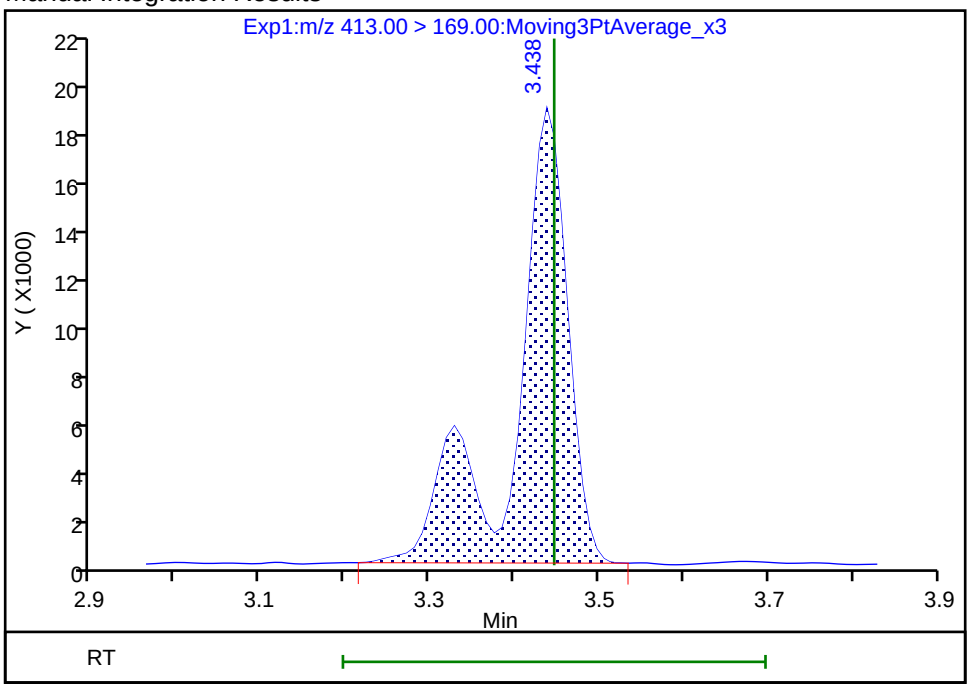
Processing Integration Results

RT: 3.44
Area: 63429
Amount: 0.209408
Amount Units: ng/ml



Manual Integration Results

RT: 3.44
Area: 82067
Amount: 0.209408
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:22:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

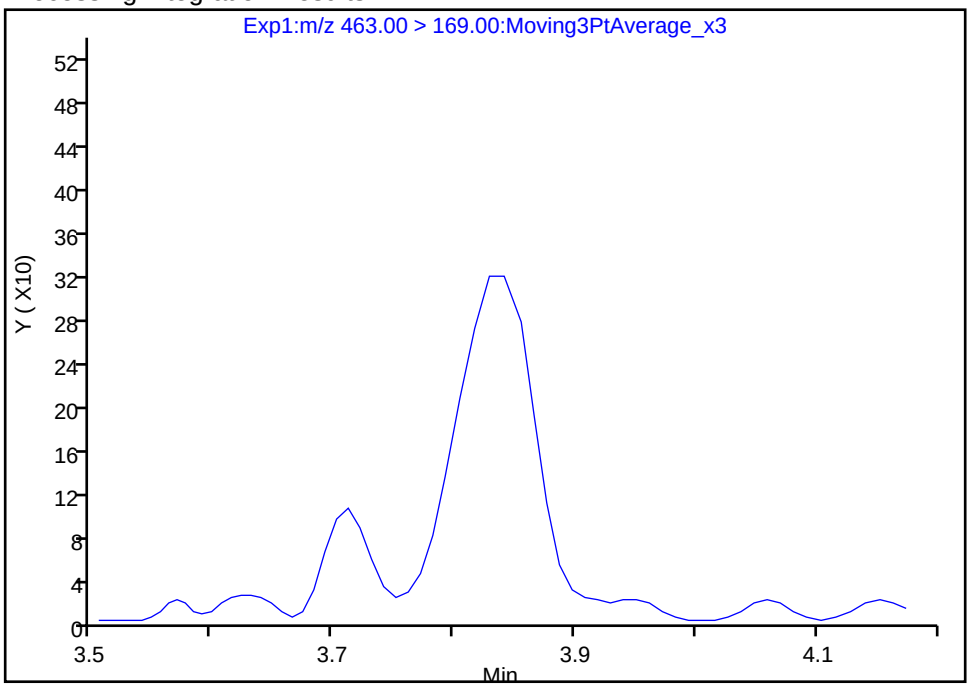
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

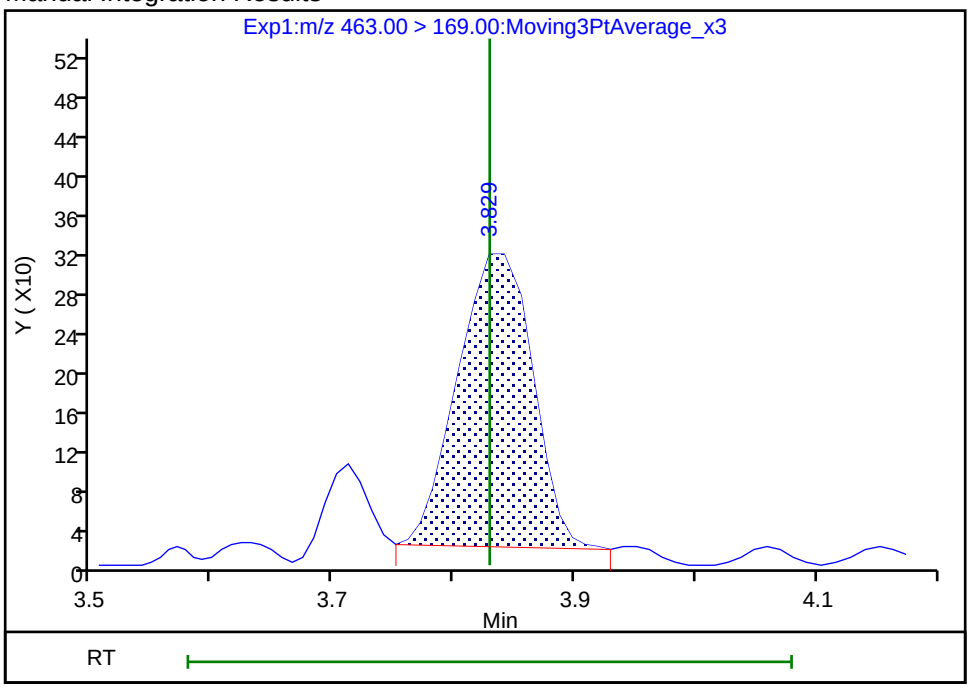
Not Detected
Expected RT: 3.83

Processing Integration Results



Manual Integration Results

RT: 3.83
Area: 1286
Amount: 0.015950
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:23:01
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

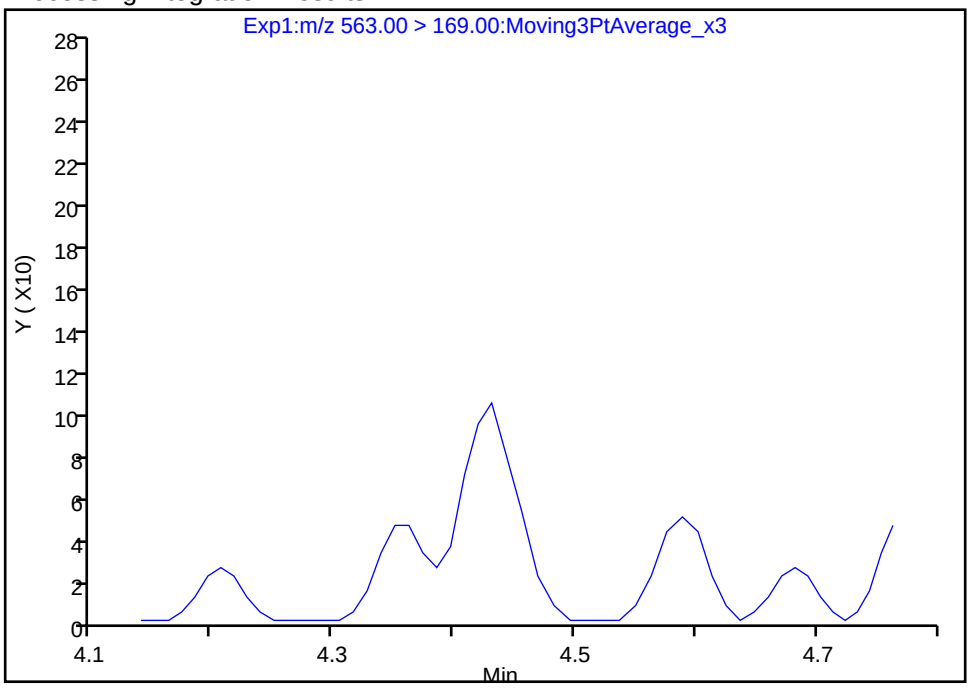
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

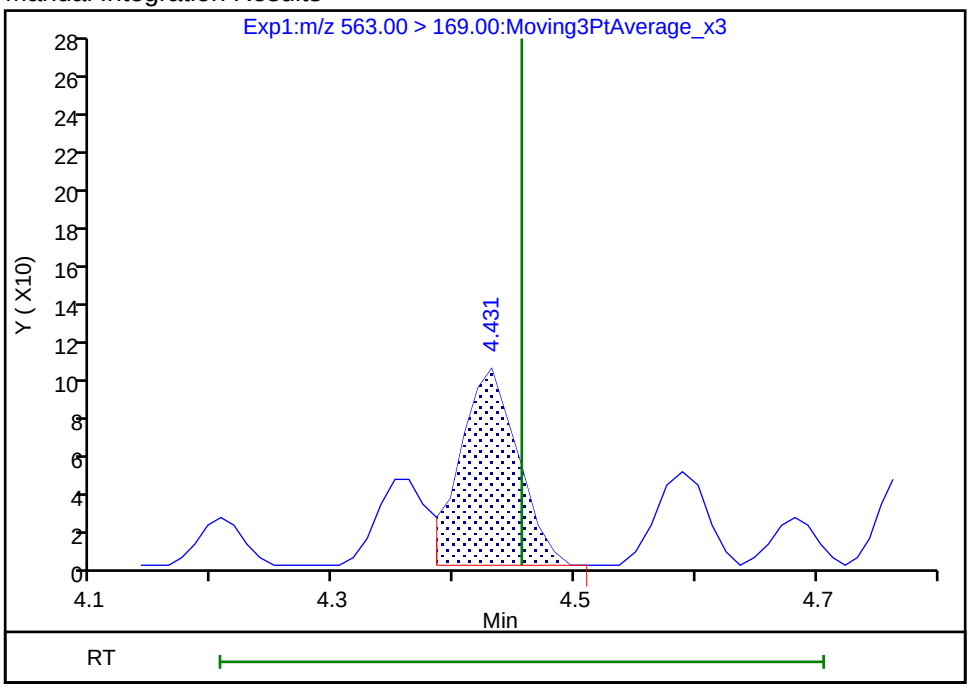
Not Detected
Expected RT: 4.46

Processing Integration Results



RT: 4.43
Area: 336
Amount: 0.007557
Amount Units: ng/ml

Manual Integration Results



Reviewer: manopan, 09-Dec-2019 15:23:57
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

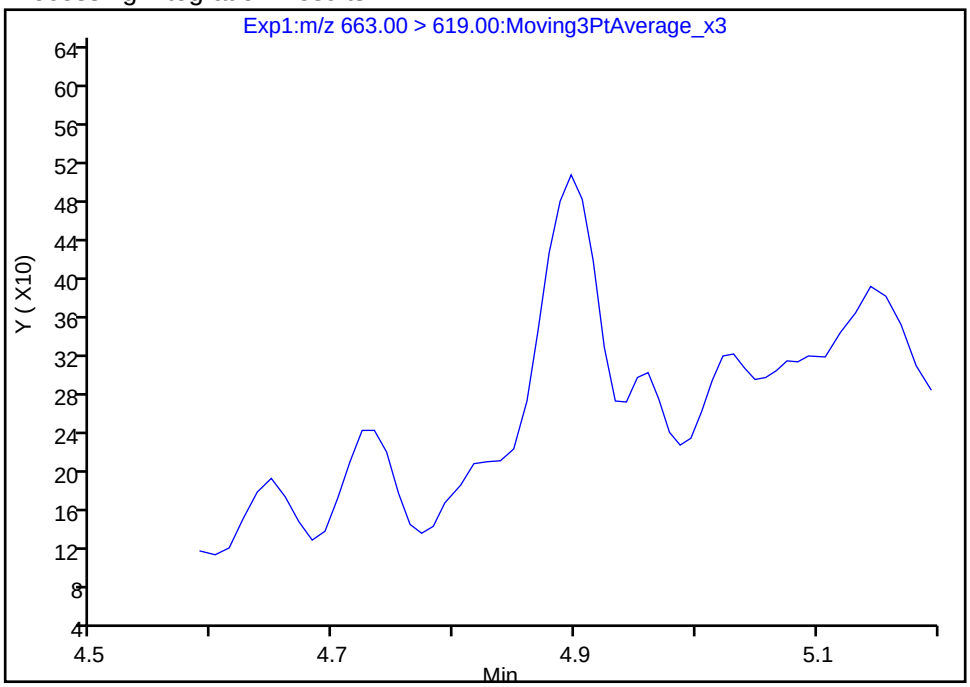
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

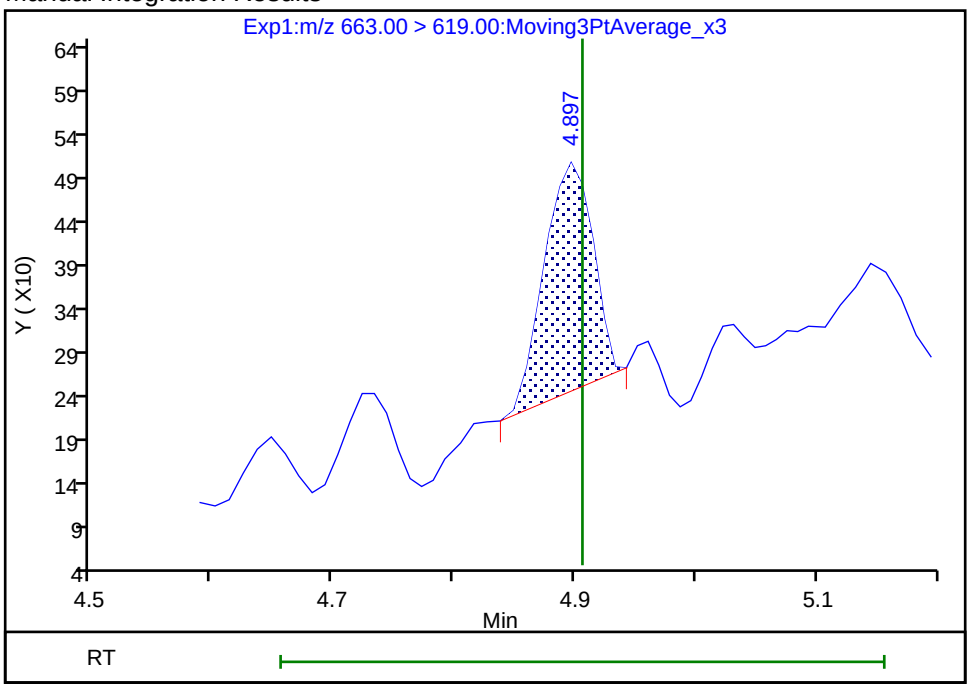
Not Detected
Expected RT: 4.91

Processing Integration Results



Manual Integration Results

RT: 4.90
Area: 724
Amount: 0.001513
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:25:03
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

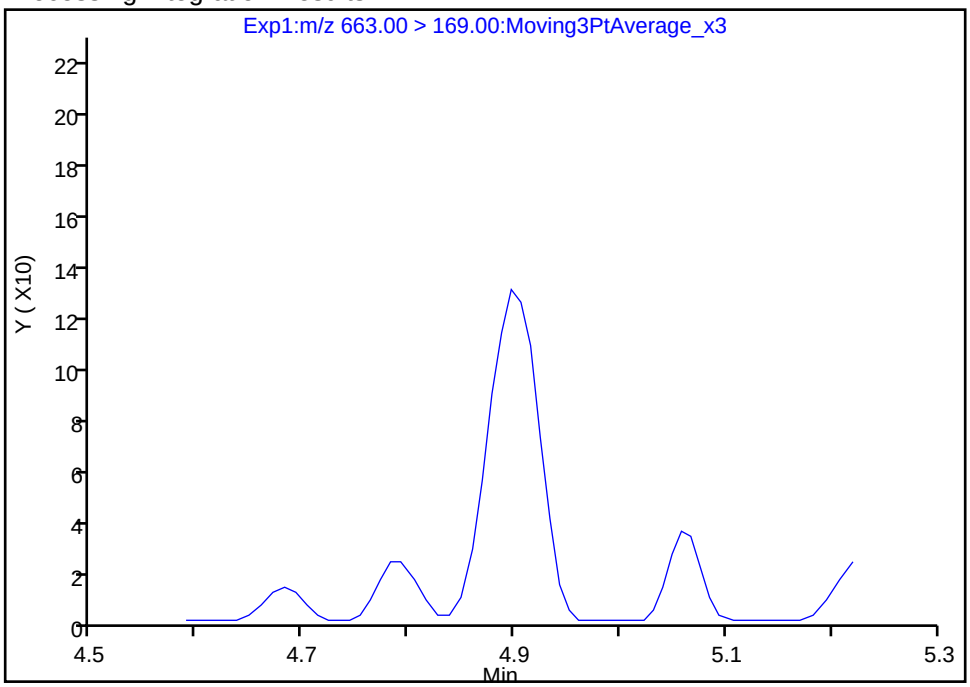
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

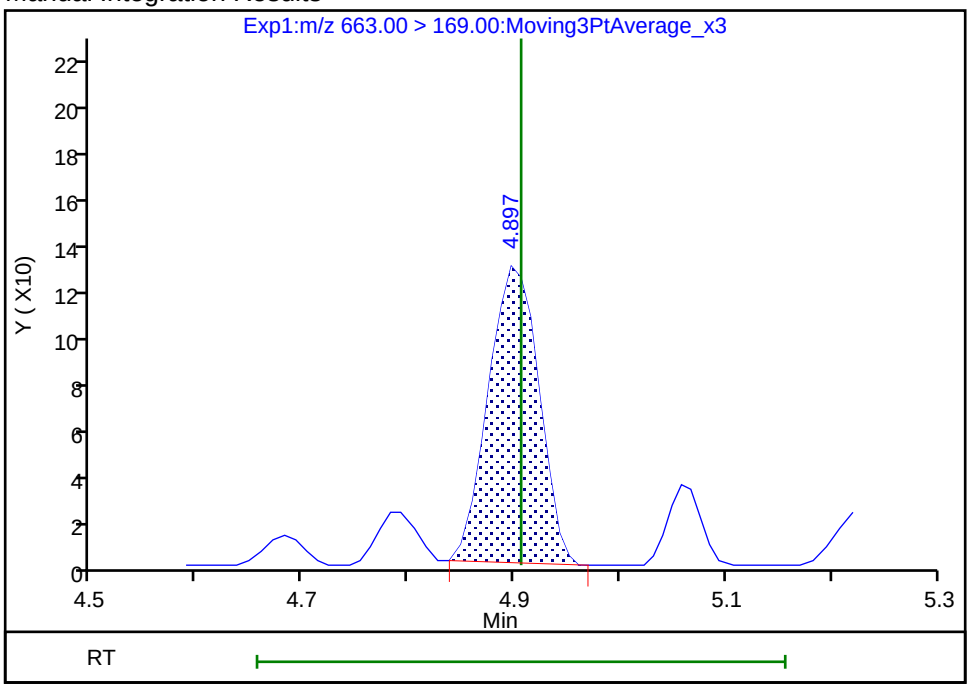
Not Detected
Expected RT: 4.91

Processing Integration Results



Manual Integration Results

RT: 4.90
Area: 427
Amount: 0.001513
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:25:08
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

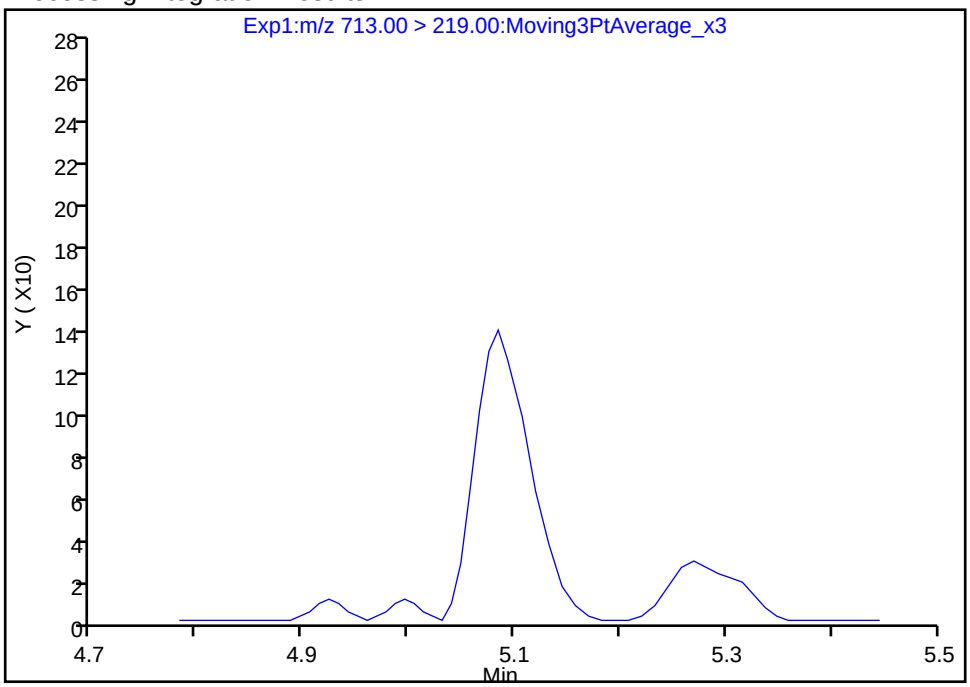
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

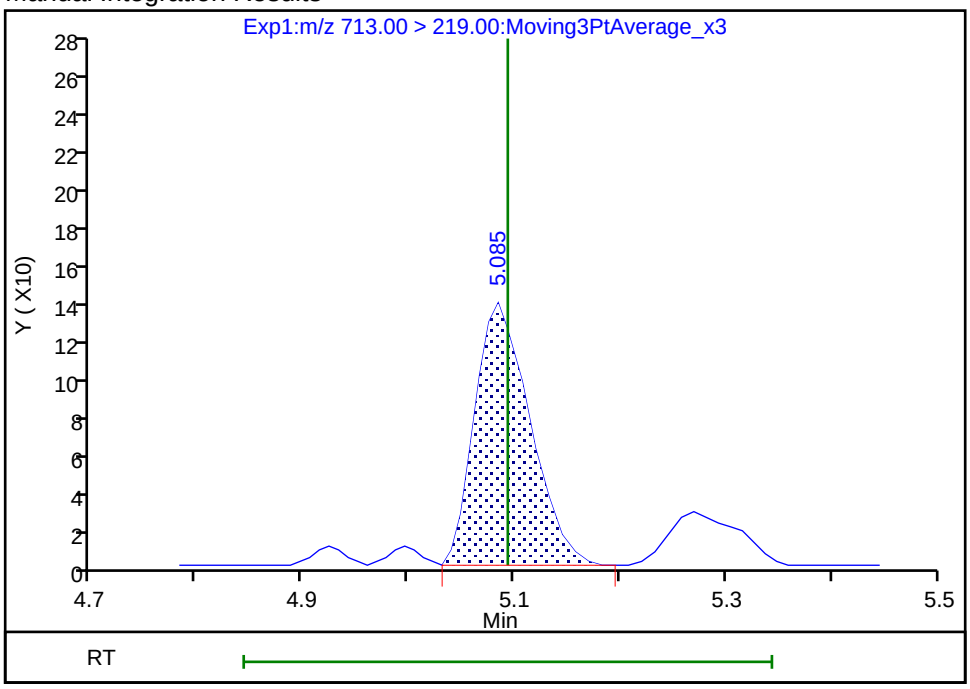
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.08
Area: 496
Amount: 0.003358
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:25:15
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

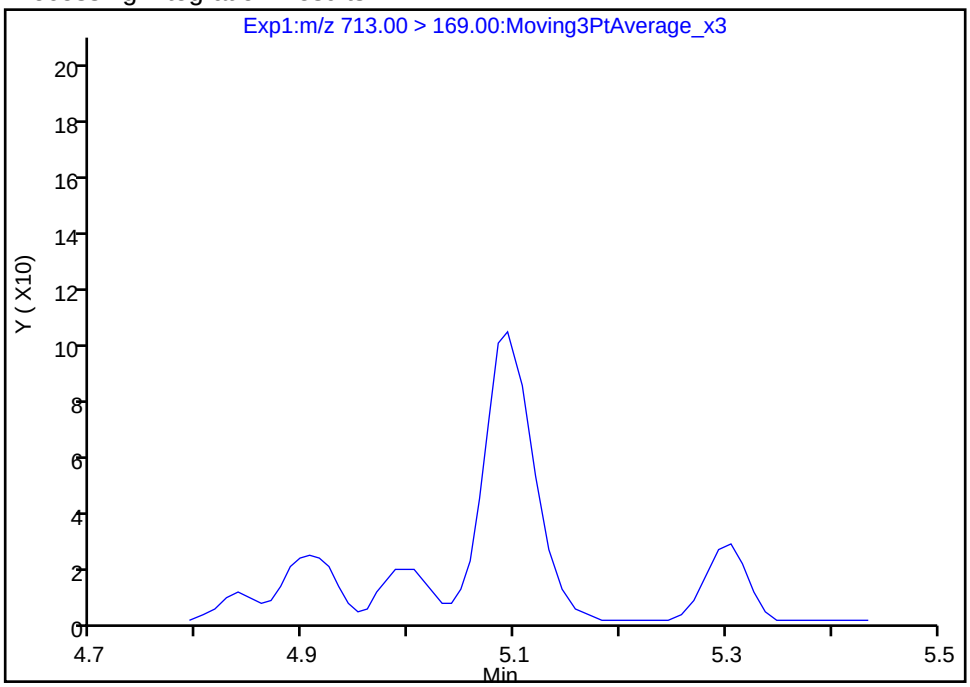
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

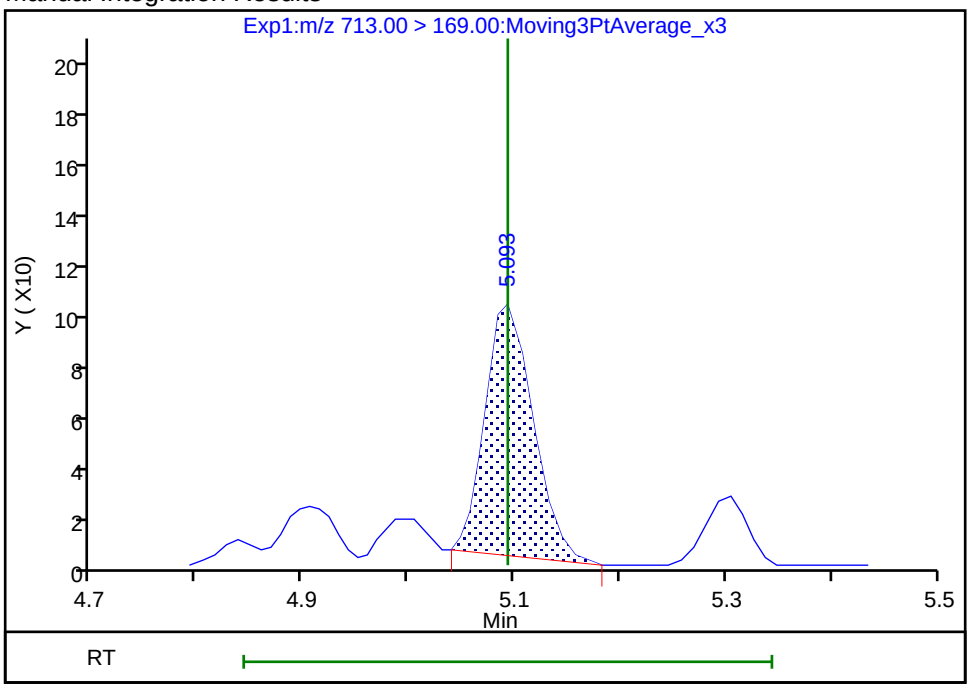
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.09
Area: 311
Amount: 0.003358
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:25:19
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

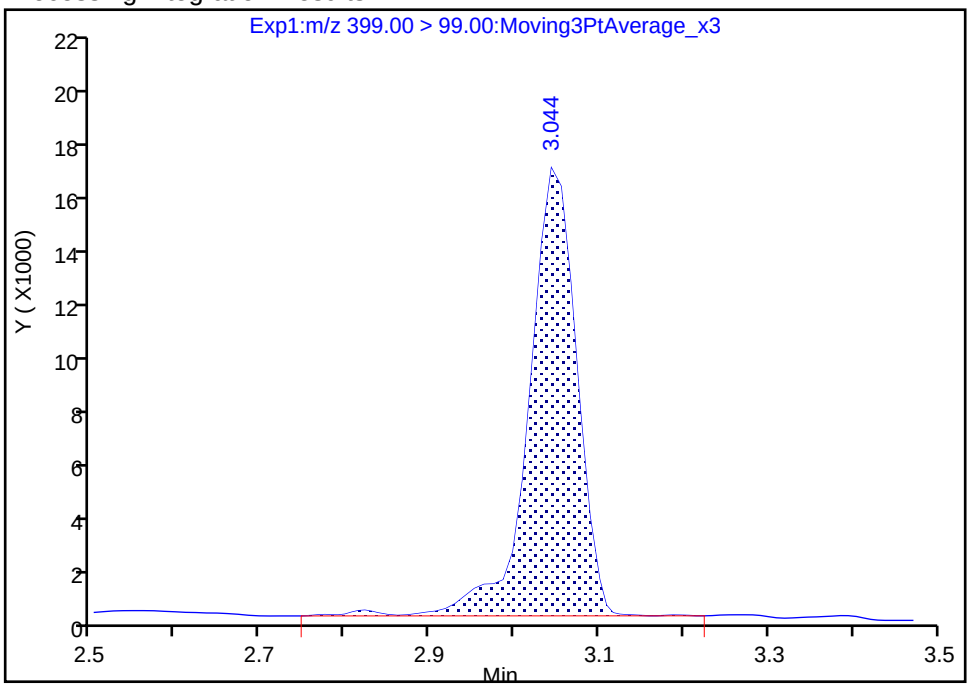
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

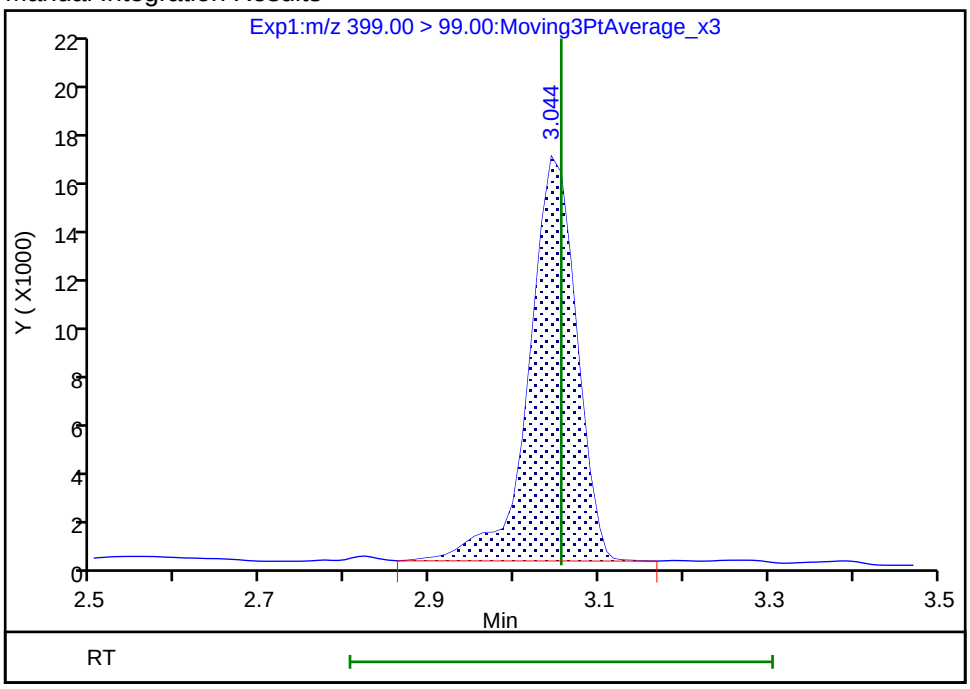
Processing Integration Results

RT: 3.04
Area: 64506
Amount: 0.153368
Amount Units: ng/ml



Manual Integration Results

RT: 3.04
Area: 63763
Amount: 0.150866
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:21:09

Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

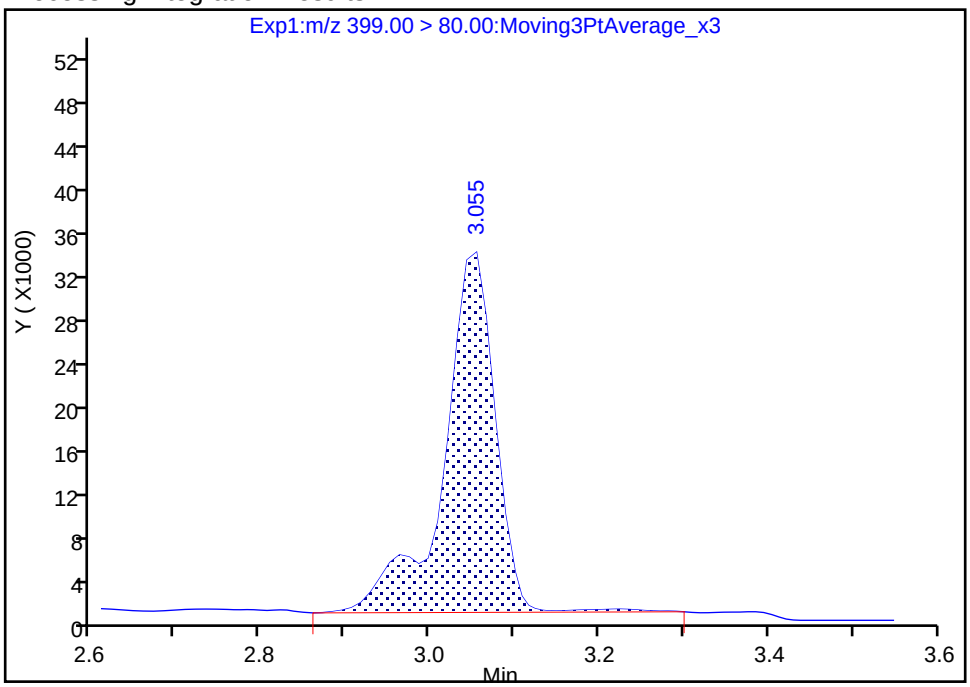
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

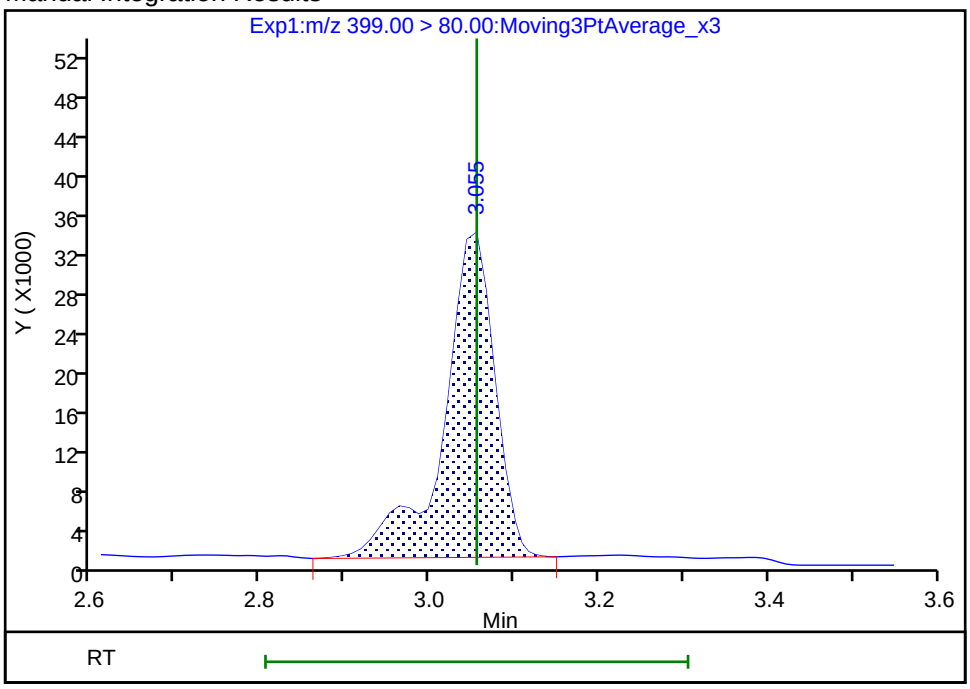
Processing Integration Results

RT: 3.05
Area: 141976
Amount: 0.153368
Amount Units: ng/ml



Manual Integration Results

RT: 3.05
Area: 139660
Amount: 0.150866
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:21:13
Audit Action: Manually Integrated Audit Reason: Other

Eurofins TestAmerica, Burlington

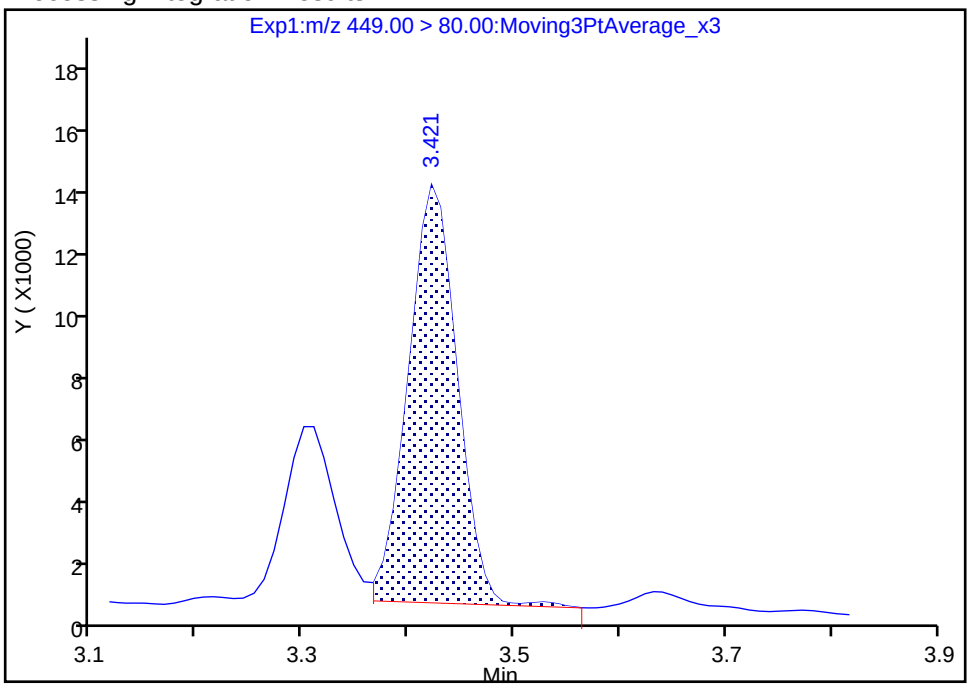
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

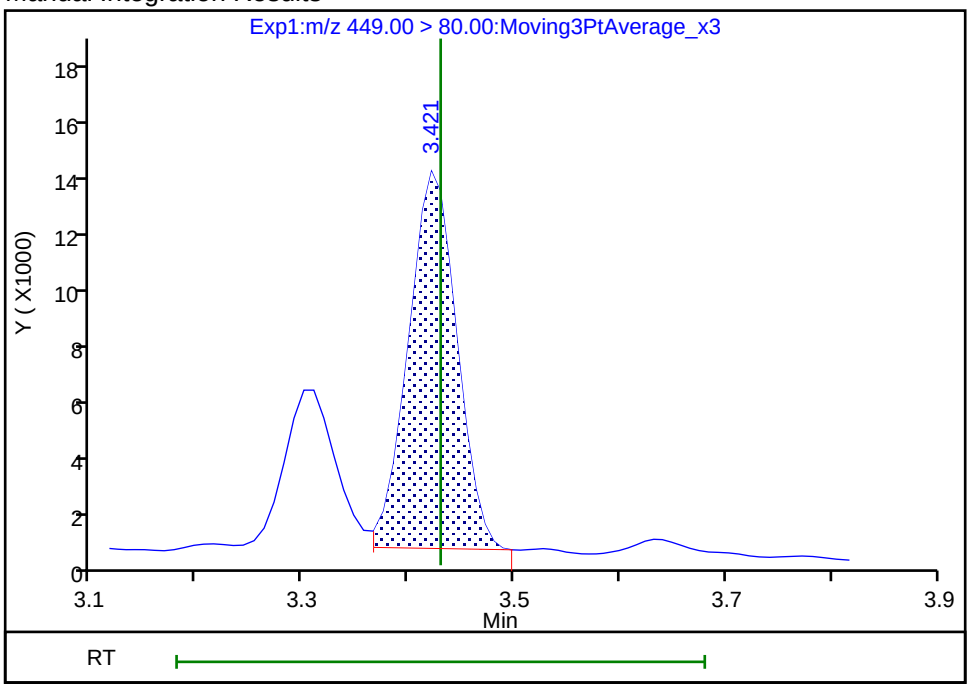
Processing Integration Results

RT: 3.42
Area: 41402
Amount: 0.067937
Amount Units: ng/ml



Manual Integration Results

RT: 3.42
Area: 40770
Amount: 0.066900
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:22:01
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

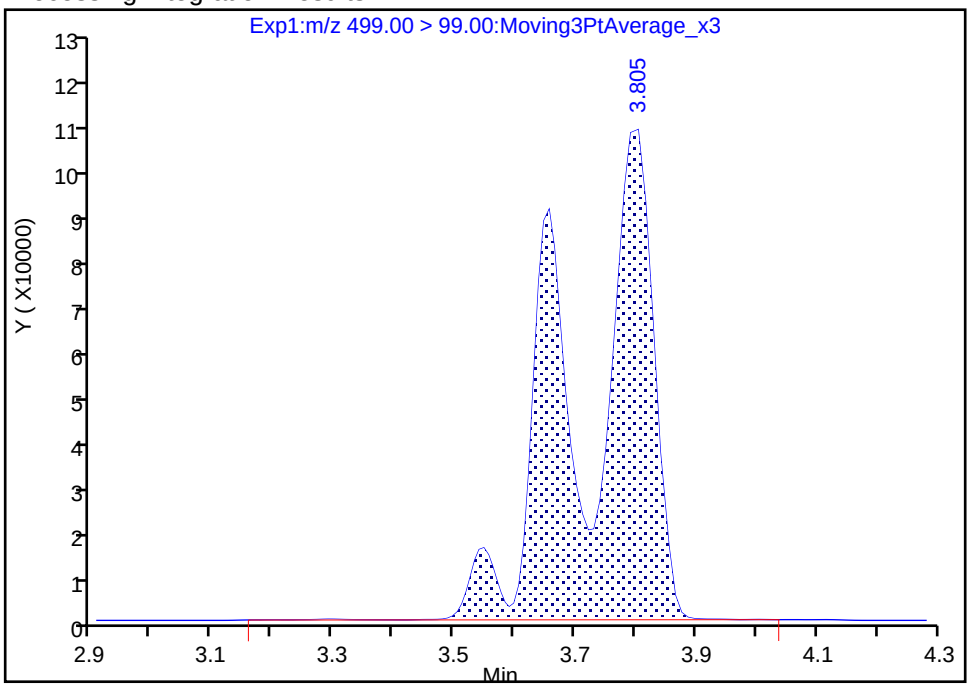
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

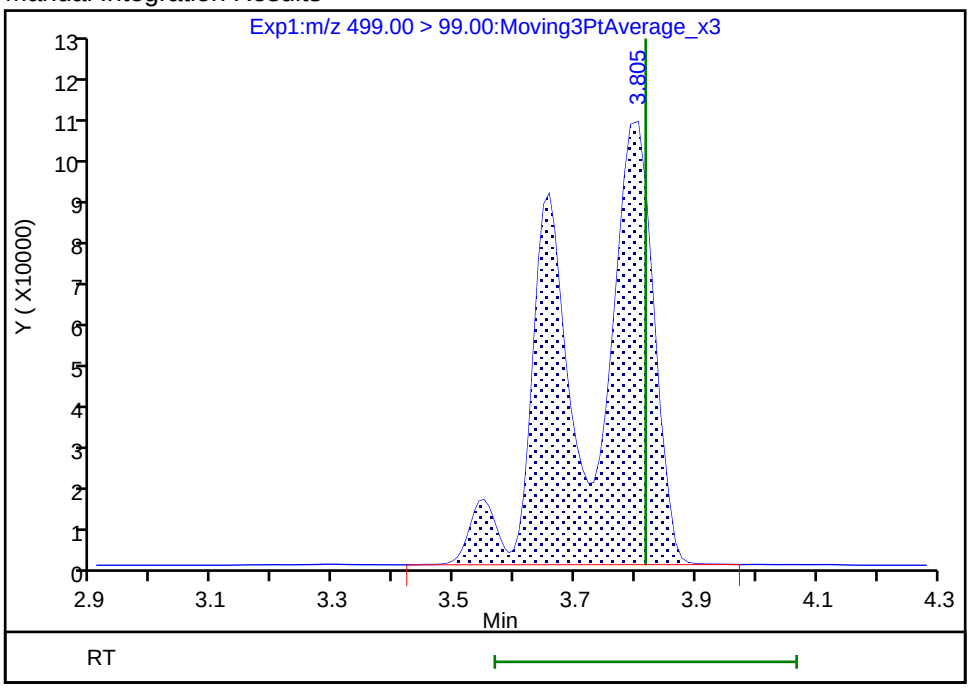
Processing Integration Results

RT: 3.80
Area: 911493
Amount: 5.341662
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 910152
Amount: 5.320564
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:22:37

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

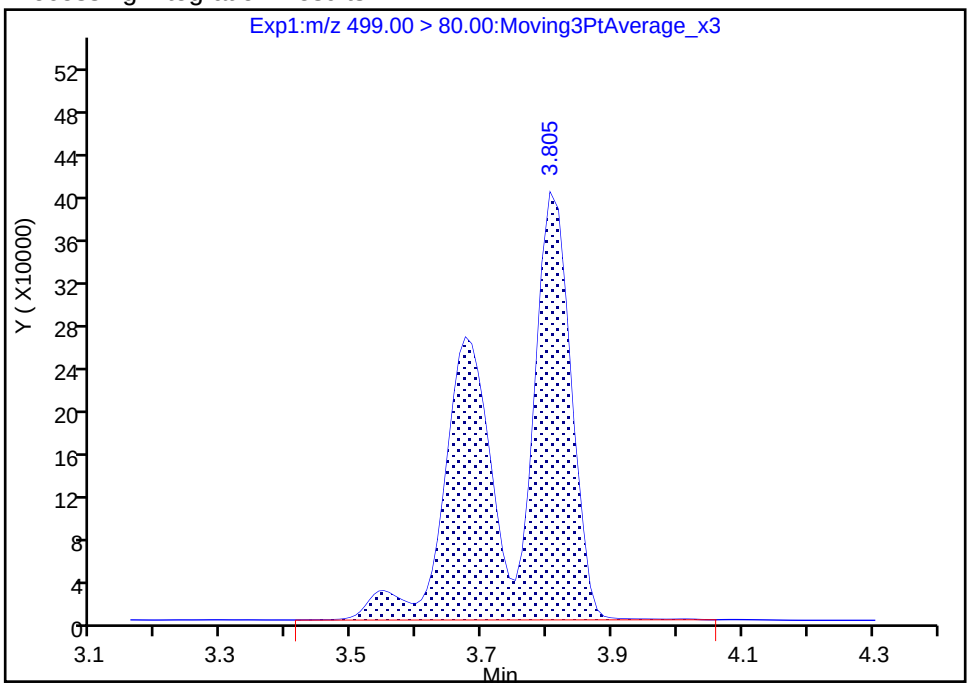
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

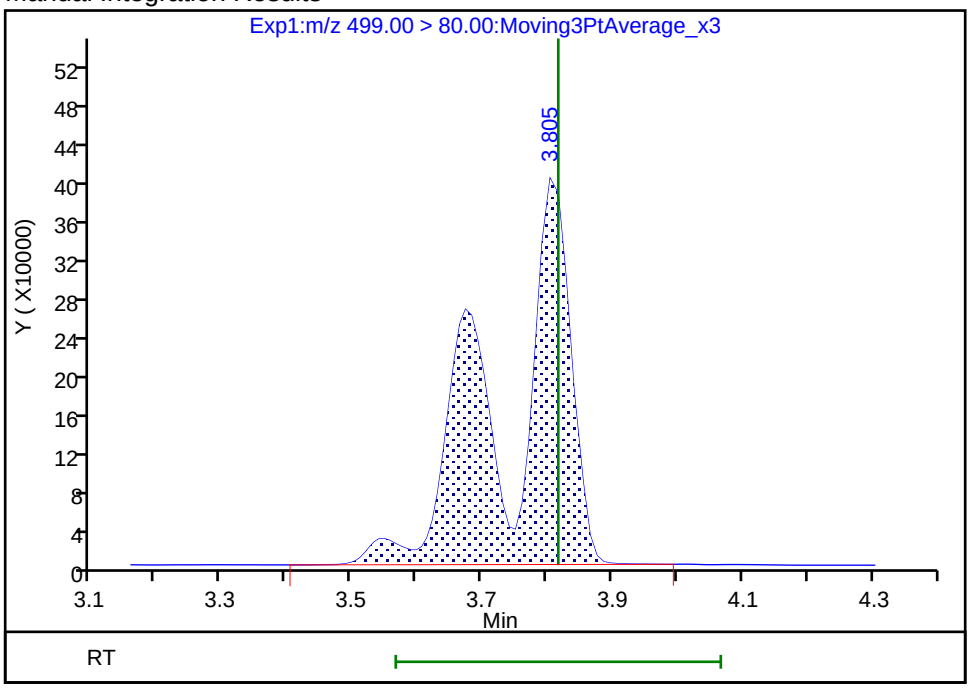
Processing Integration Results

RT: 3.80
Area: 2869097
Amount: 5.341662
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 2857765
Amount: 5.320564
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:22:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

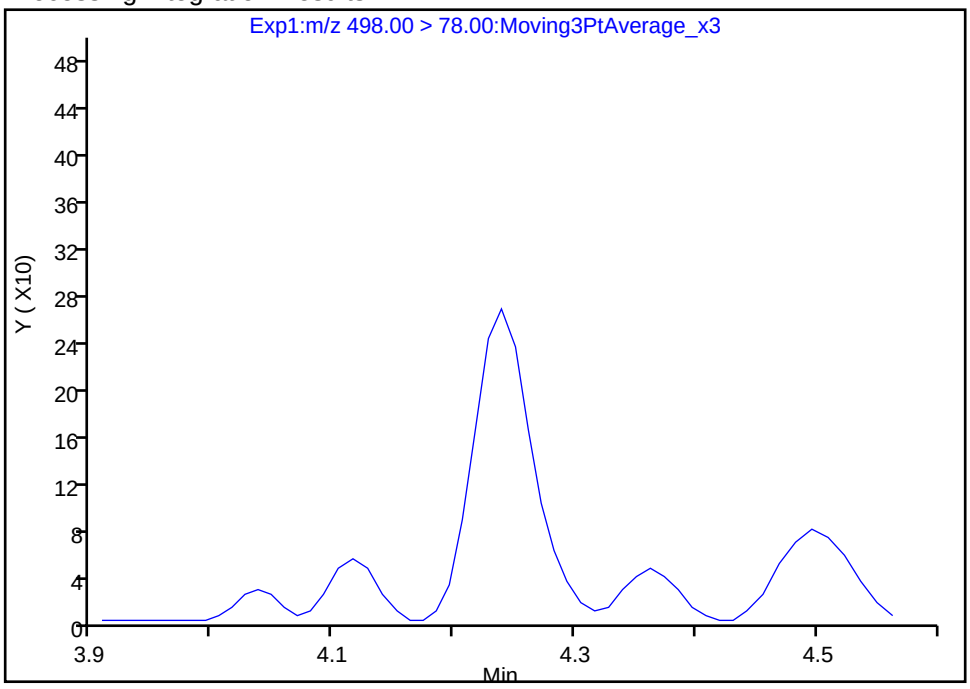
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

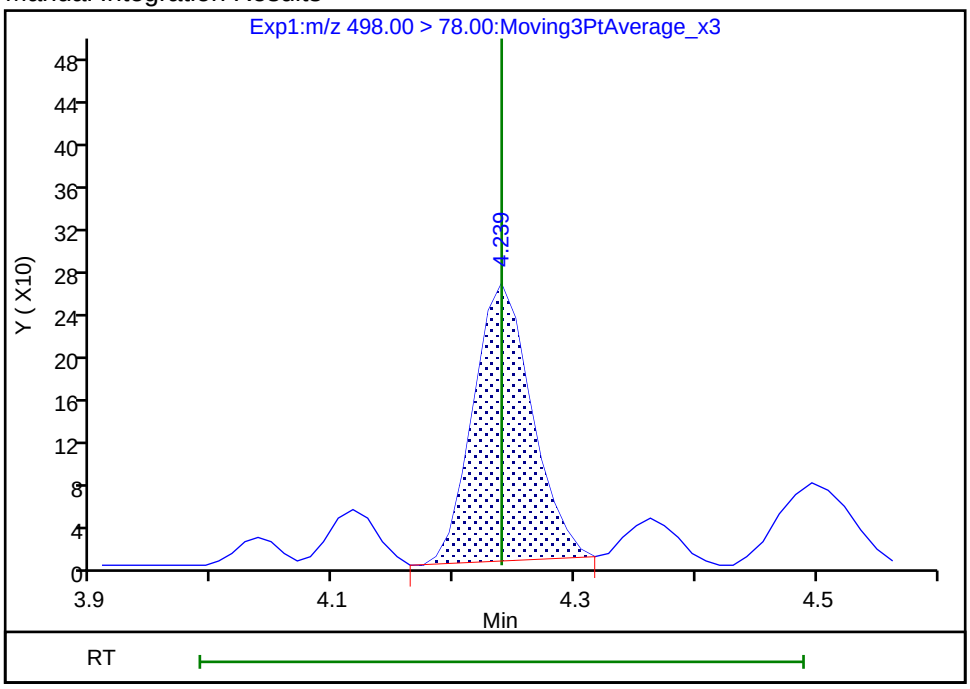
Not Detected
Expected RT: 4.24

Processing Integration Results



Manual Integration Results

RT: 4.24
Area: 871
Amount: 0.001102
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:23:27
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

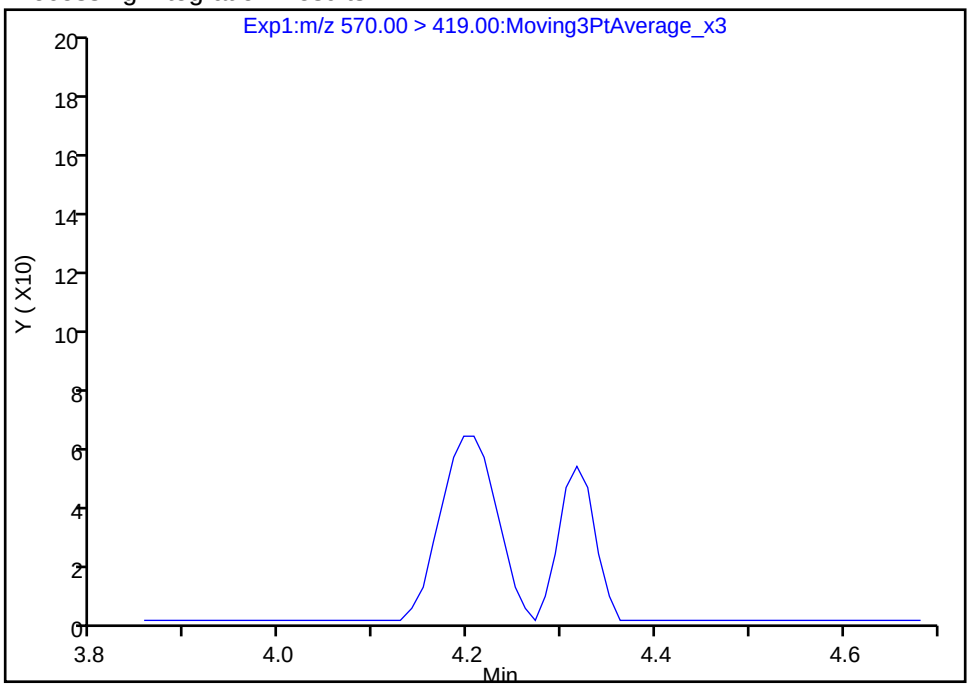
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

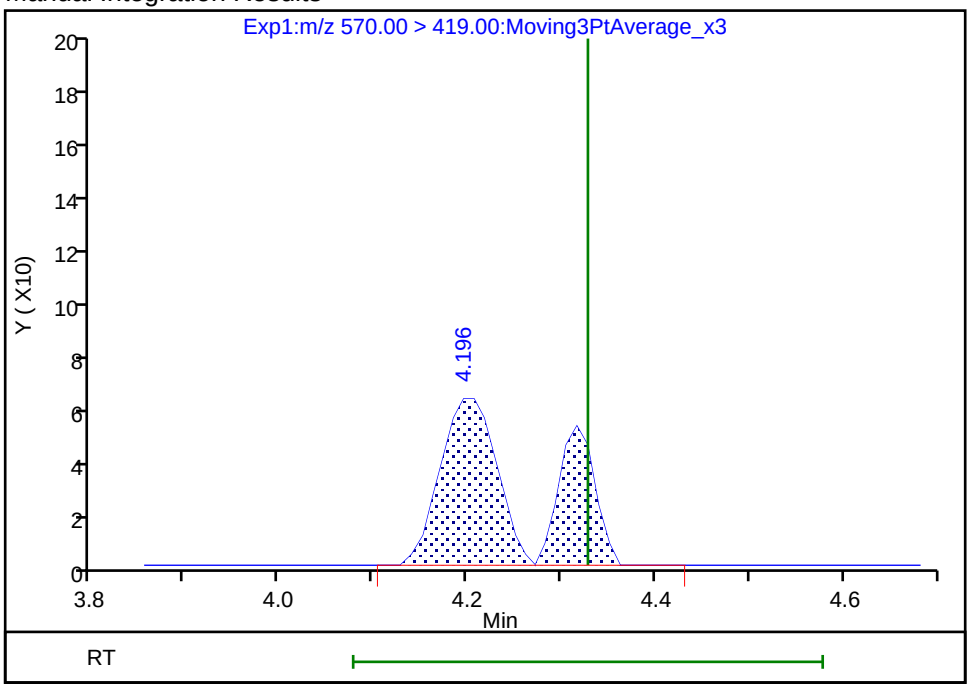
Not Detected
Expected RT: 4.33

Processing Integration Results



Manual Integration Results

RT: 4.20
Area: 392
Amount: 0.007924
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:23:40
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

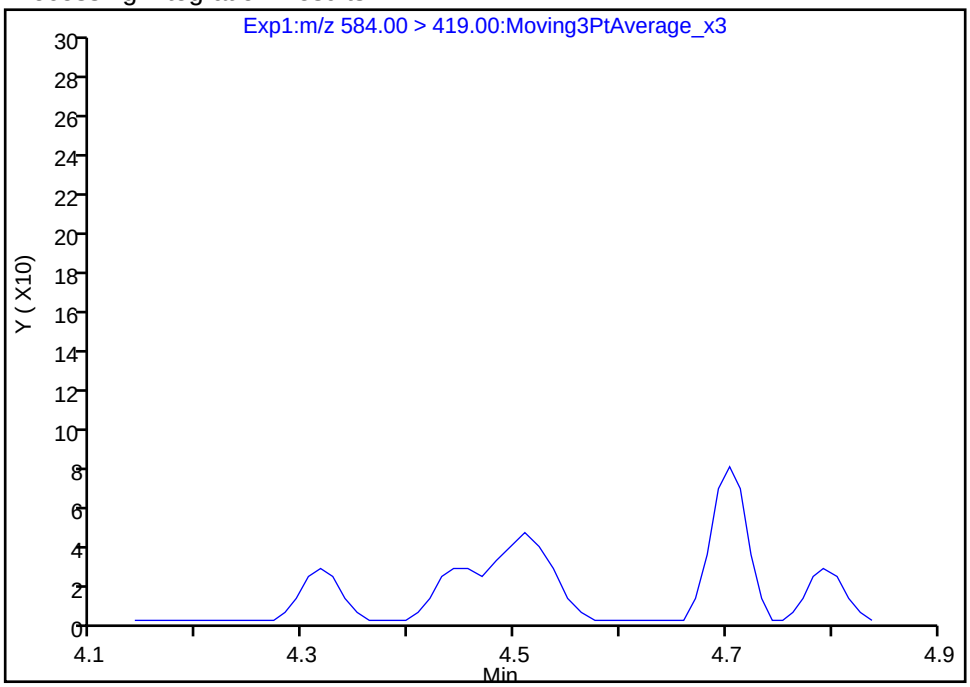
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

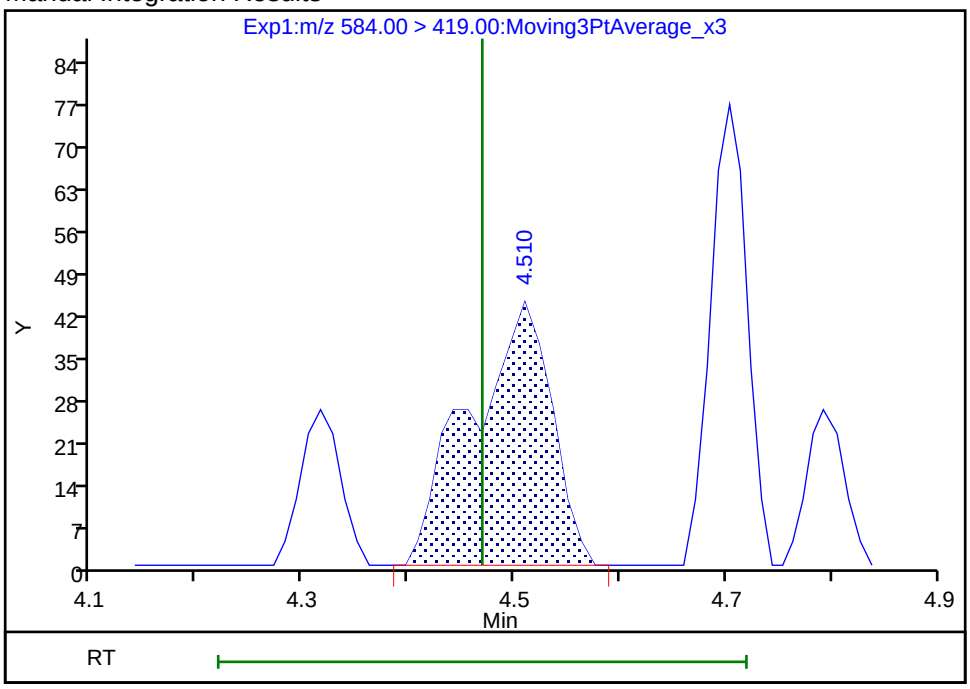
Not Detected
Expected RT: 4.47

Processing Integration Results



Manual Integration Results

RT: 4.51
Area: 235
Amount: 0.004616
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:24:14
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

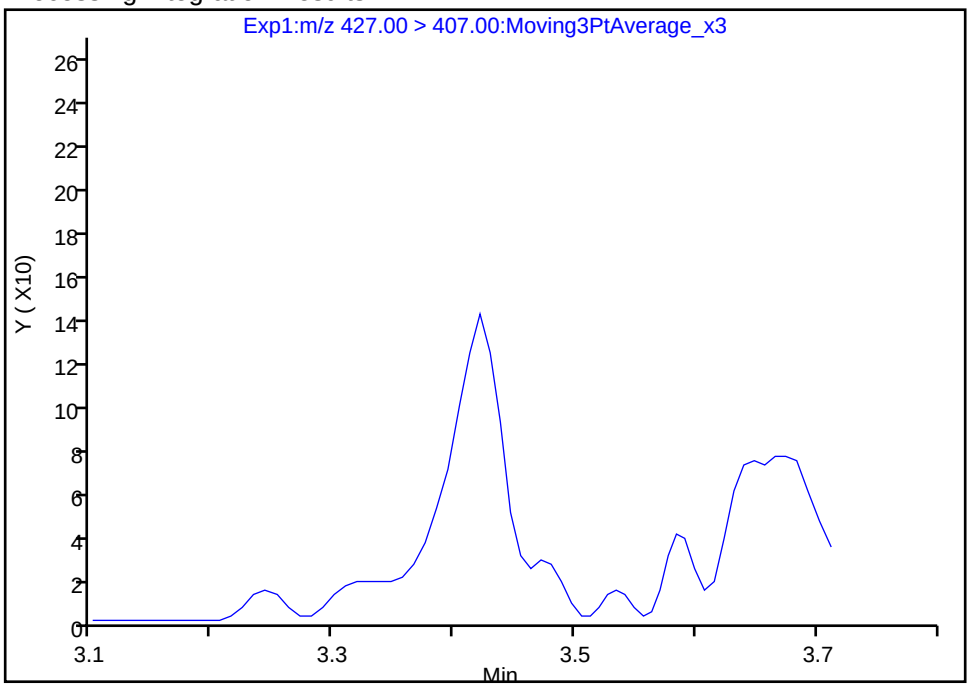
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

13 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:, CAS: 27619-97-2

Signal: 1

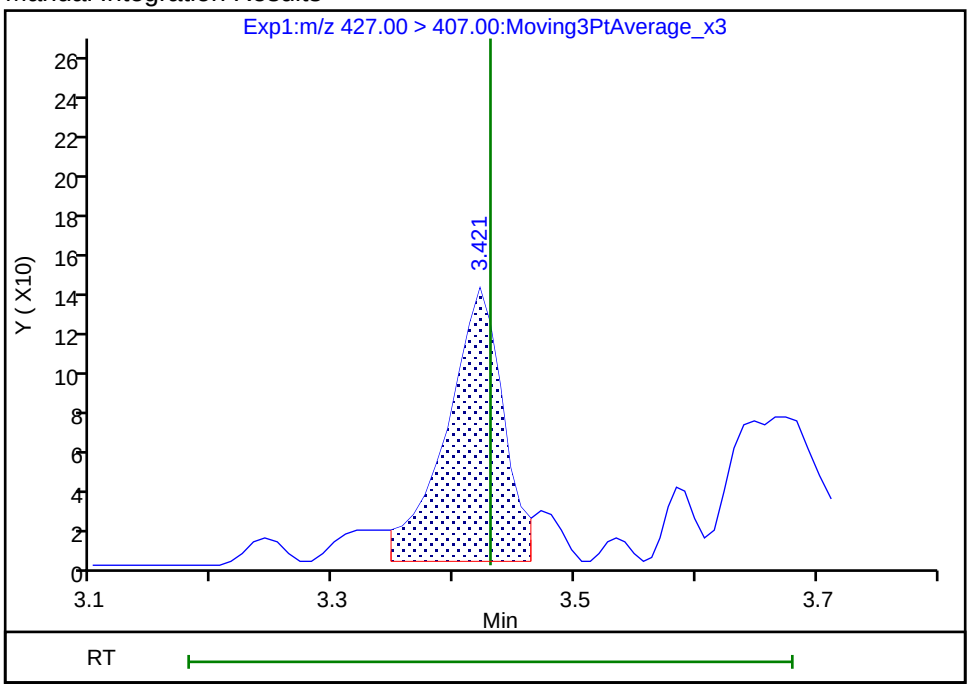
Not Detected
Expected RT: 3.43

Processing Integration Results



Manual Integration Results

RT: 3.42
Area: 451
Amount: 0.004075
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:05:26
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

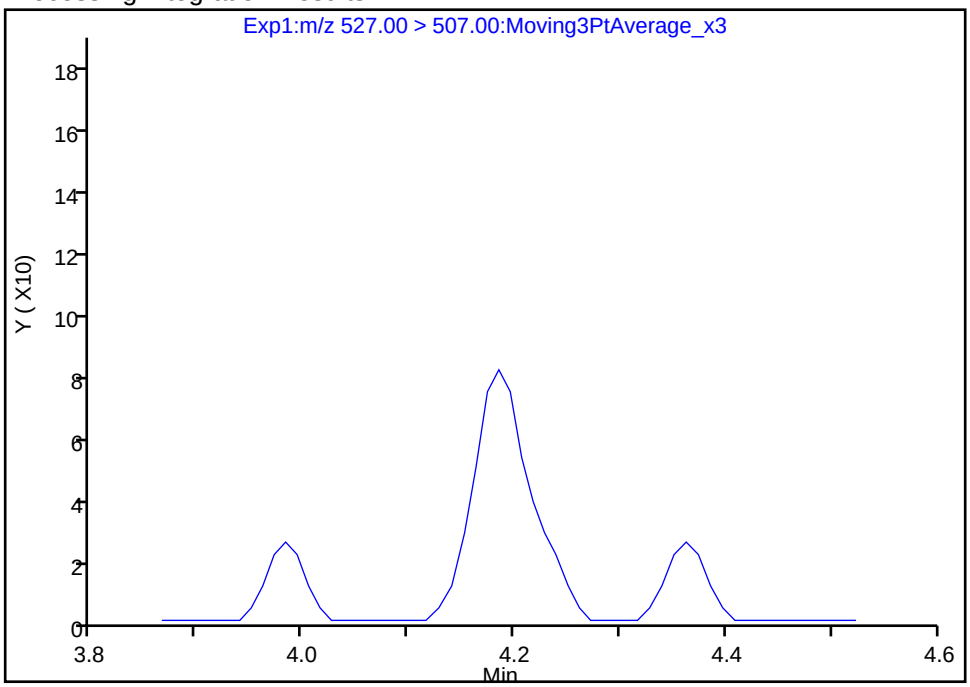
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F021.d				
Injection Date:	07-Dec-2019 09:06:10	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-A	Lab Sample ID:	200-163109-2		
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	21	Worklist Smp#:	21
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:, CAS: 39108-34-4

Signal: 1

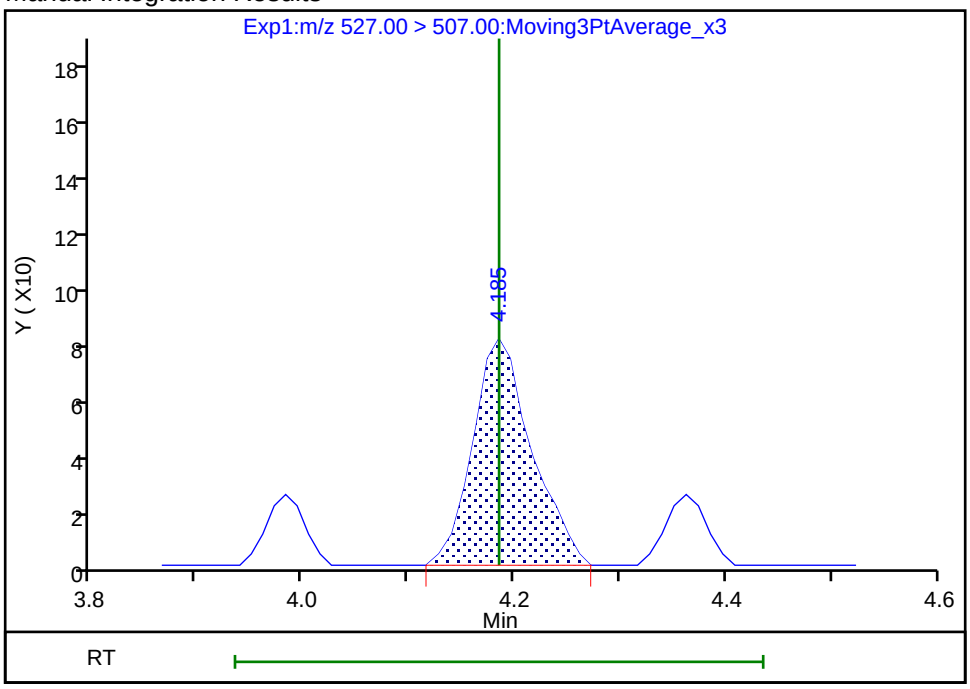
Not Detected
Expected RT: 4.19

Processing Integration Results



Manual Integration Results

RT: 4.19
Area: 308
Amount: 0.004595
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:23:21
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-05 Lab Sample ID: 480-163109-3

Matrix: Water Lab File ID: SC120619F024.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 15:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 305(mL) Date Analyzed: 12/07/2019 09:30

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	5.5		1.6	0.82
2706-90-3	Perfluoropentanoic acid (PFPeA)	2.5		1.6	0.52
307-24-4	Perfluorohexanoic acid (PFHxA)	4.2		1.6	0.62
375-85-9	Perfluoroheptanoic acid (PFHpA)	2.0		1.6	0.75
335-67-1	Perfluorooctanoic acid (PFOA)	11		1.6	0.66
375-95-1	Perfluorononanoic acid (PFNA)	0.28	J	1.6	0.22
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.6	0.63
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.6	0.64
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.6	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.6	0.49
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.6	0.75
375-73-5	Perfluorobutanesulfonic acid (PFBS)	20		1.6	0.40
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	7.5		1.6	0.66
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	0.92	J I	1.6	0.78
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	33		1.6	0.50
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.6	0.74
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		8.2	8.2
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		16	1.4
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		16	1.2
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.5
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.4

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-05 Lab Sample ID: 480-163109-3

Matrix: Water Lab File ID: SC120619F024.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 15:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 305(mL) Date Analyzed: 12/07/2019 09:30

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	111		50-150
STL01892	13C4 PFHpA	117		50-150
STL00990	13C4 PFOA	112		50-150
STL00991	13C4 PFOS	88		50-150
STL00995	13C5 PFNA	94		50-150
STL00992	13C4 PFBA	92		25-150
STL00993	13C2 PFHxA	112		50-150
STL00996	13C2 PFDA	96		50-150
STL00997	13C2 PFUnA	81		50-150
STL00998	13C2 PFDoA	73		50-150
STL01056	13C8 FOSA	65		25-150
STL01893	13C5 PFPeA	108		25-150
STL02116	13C2 PFTeDA	98		50-150
STL02118	d3-NMeFOSAA	86		50-150
STL02117	d5-NEtFOSAA	81		50-150
STL02279	M2-6:2 FTS	130		25-150
STL02280	M2-8:2 FTS	139		25-150
STL02337	13C3 PFBS	102		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d
Lims ID: 480-163109-A-3-A
Client ID: MW-05
Sample Type: Client
Inject. Date: 07-Dec-2019 09:30:45 ALS Bottle#: 24 Worklist Smp#: 24
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 480-163109-A-3-A
Misc. Info.: 200-0039120-024 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 15:33:21
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.556	2032949	2.29		91.7	16464	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.917	1.926	-0.009	1.000	135269	0.1672			21.5	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.659	1824860	2.69		108	2780	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.284	2.285	-0.001	1.006	63854	0.0773			1.9	M
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.298	2.298	0.0	1.006	550297	0.6129	Target=2.03		12.7	M
298.90 > 99.00	2.298	2.298	0.0	1.006	289054		1.90(1.01-3.04)		60.2	
D 47 13C3 PFBS										
301.90 > 80.00	2.284	2.312	-0.028	0.663	1920608	2.38		102	35156	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.673	2.673	0.0	1.000	110773	0.1284	Target=13.76		7.2	
313.00 > 119.00	2.673	2.673	0.0	1.000	7444		14.88(6.88-20.64)		10.1	
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.775	2113238	2.80		112	8557	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.066	3.055	0.011	1.000	52818	0.0598	Target=3.95		6.5	
363.00 > 169.00	3.066	3.055	0.011	1.000	12985		4.07(1.97-5.92)		22.3	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.886	1677449	2.63		111	10233	
D 9 13C4 PFHpA										
367.00 > 322.00	3.066	3.055	0.011	0.890	2088303	2.91		117	7684	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	183564	0.2287	Target=3.90		27.7	M
399.00 > 99.00	3.055	3.055	0.0	1.000	56864		3.23(1.95-5.85)		83.5	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.438	3.430	0.008	1.002	10436	0.0774			156	
16 Perfluoroheptanesulfonic acid										RM
449.00 > 80.00	3.430	3.430	0.0	0.899	15436	0.0282	Target=6.46		2.8	RM
449.00 > 99.00	3.430	3.430	0.0	0.899	4938		3.13(3.23-9.69)		5.8	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.995	339416	3.09		130	156	
D 14 13C4 PFOA										
417.00 > 372.00	3.447	3.438	0.009	1.000	2122461	2.79		112	5816	
* 62 13C2 PFOA										
415.00 > 370.00	3.447	3.438	0.009		2092234	2.50			4712	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.447	3.447	0.0	1.000	307045	0.3260	Target=2.40		37.9	M
413.00 > 169.00	3.447	3.447	0.0	1.000	133313		2.30(1.20-3.60)		393	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.693	3.817	-0.124	0.967	486233	1.01	Target=5.74		121	M
499.00 > 99.00	3.666	3.817	-0.151	0.960	110690		4.39(2.87-8.61)		215	
D 18 13C4 PFOS										
503.00 > 80.00	3.817	3.817	0.0	1.107	1068138	2.11		88.2	444	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.841	3.829	0.012	1.000	5543	0.008578	Target=7.01		1.6	
463.00 > 169.00	3.829	3.829	0.0	0.997	967		5.73(3.50-10.51)		6.7	M
D 19 13C5 PFNA										
468.00 > 423.00	3.841	3.842	-0.001	1.115	1647609	2.36		94.3	5493	
D 23 13C2 PFDA										
515.00 > 470.00	4.174	4.175	-0.001	1.211	1653140	2.40		96.0	1991	
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.174	4.175	-0.001	1.000	3490	0.005455	Target=7.28		1.8	M
513.00 > 169.00	4.174	4.175	-0.001	1.000	500		6.98(3.64-10.91)		9.4	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.185	4.185	0.0	1.214	435391	3.33		139	216	
25 1H,1H,2H,2H-perfluorodecanesulfoni										M
527.00 > 507.00	4.185	4.185	0.0	1.000	367	0.004373			9.6	M
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.251	4.239	0.012	1.000	3003	0.005132			40.2	M
D 21 13C8 FOSA										
506.00 > 78.00	4.251	4.239	0.012	1.233	1469918	1.63		65.3	3657	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.328	4.317	0.011	1.256	143401	2.16		86.5	2550	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.305	4.328	-0.023	0.995	67	0.001344			1.9	M
29 Perfluorodecanesulfonic acid										M
599.00 > 80.00	4.431	4.420	0.011	1.161	1185	0.003685	Target=2.76		3.6	M
599.00 > 99.00	4.431	4.420	0.011	1.161	480		2.47(1.38-4.14)		5.0	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.456	4.456	0.0	1.293	1188686	2.03		81.2	5435	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
31 Perfluoroundecanoic acid										RM
563.00 > 519.00	4.456	4.456	0.0	1.000	7134	0.0177	Target=5.78		6.1	RM
563.00 > 169.00	4.456	4.456	0.0	1.000	605		11.79(2.89-8.67)		10.0	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.469	4.456	0.013	1.297	149421	2.03		81.3	1275	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.483	4.469	0.014	1.003	238	0.004811			4.3	M
37 Perfluorododecanoic acid										M
613.00 > 569.00	4.693	4.693	0.0	1.000	3308	0.007653	Target=5.13		0.9	M
613.00 > 169.00	4.704	4.693	0.011	1.002	547		6.05(2.56-7.69)		11.1	M
D 36 13C2 PFDoA										
615.00 > 570.00	4.693	4.693	0.0	1.362	1169386	1.82		72.8	4822	
41 Perfluorotridecanoic acid										M
663.00 > 619.00	4.906	4.906	0.0	1.045	2210	0.005382	Target=3.82		1.0	M
663.00 > 169.00	4.915	4.906	0.009	1.047	536		4.12(1.91-5.74)		7.7	M
D 43 13C2 PFTeDA										
715.00 > 670.00	5.093	5.094	-0.001	1.478	1319447	2.45		98.0	8282	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.093	5.094	-0.001	1.000	663	0.006253	Target=1.05		15.6	M
713.00 > 219.00	5.093	5.094	-0.001	1.000	462		1.44(0.52-1.57)		8.3	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:20:05 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d

Injection Date: 07-Dec-2019 09:30:45 Instrument ID: LC812

Lims ID: 480-163109-A-3-A Lab Sample ID: 200-163109-3

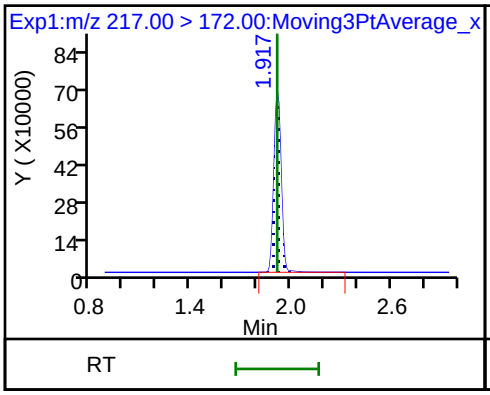
Client ID: MW-05

Operator ID: lc812tech ALS Bottle#: 24 Worklist Smp#: 24

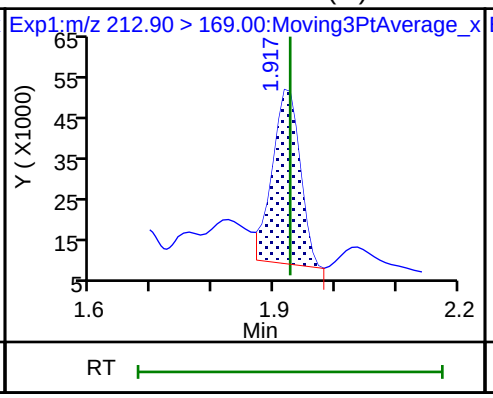
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

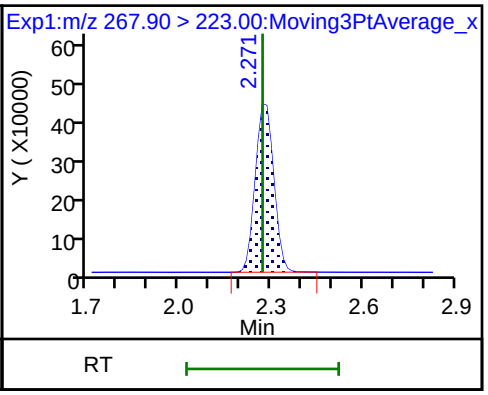
D 1 13C4 PFBA



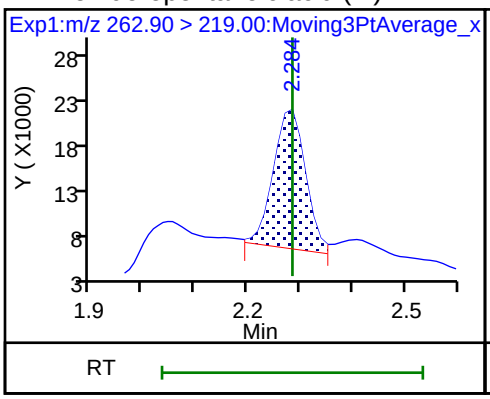
2 Perfluorobutanoic acid (M)



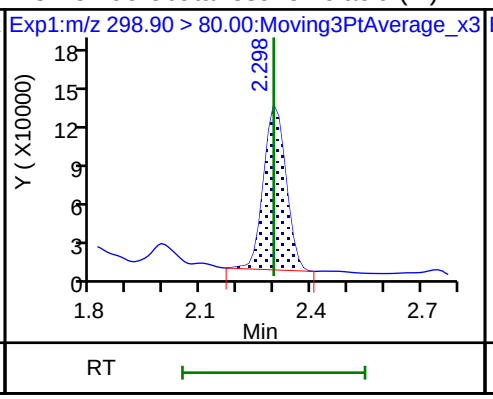
D 3 13C5 PFPeA



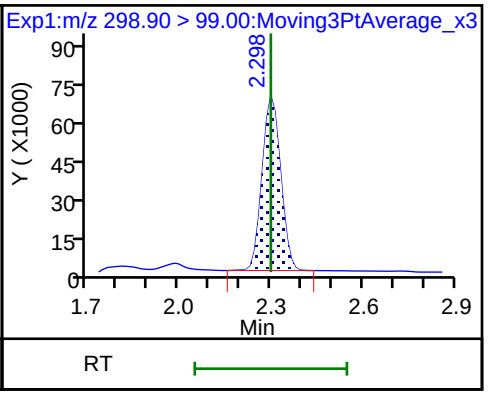
4 Perfluoropentanoic acid (M)



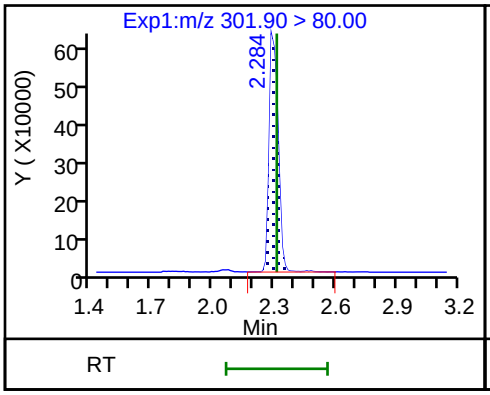
5 Perfluorobutanesulfonic acid (M)



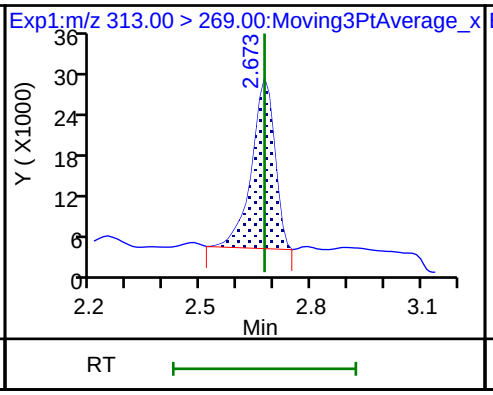
5 Perfluorobutanesulfonic acid



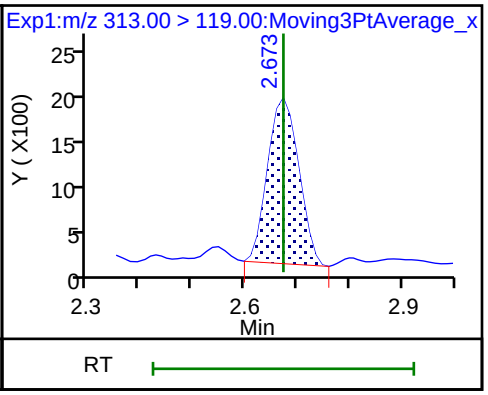
D 47 13C3 PFBS



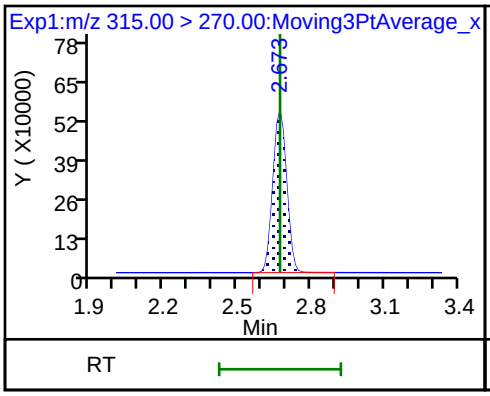
6 Perfluorohexanoic acid



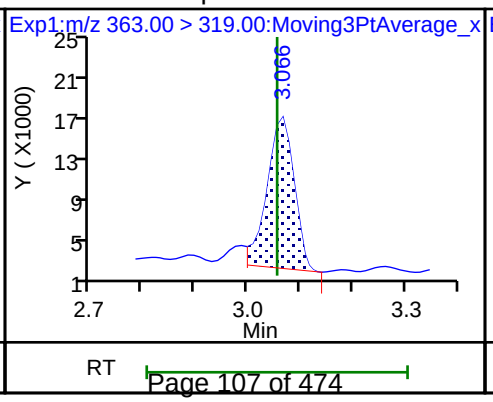
6 Perfluorohexanoic acid



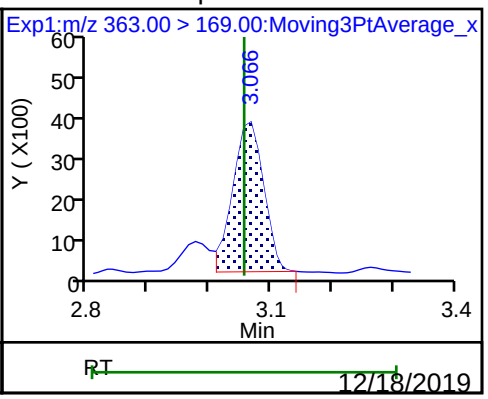
D 7 13C2 PFHxA



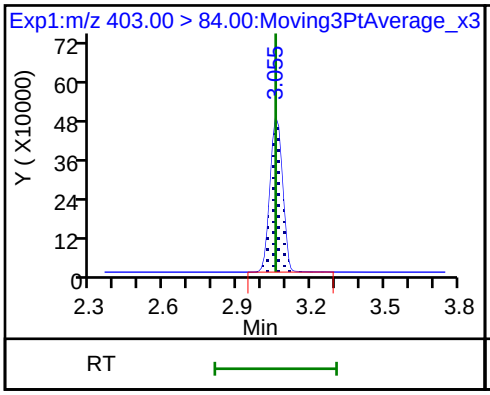
10 Perfluoroheptanoic acid



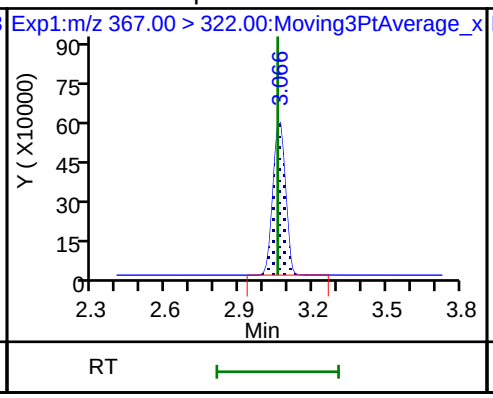
10 Perfluoroheptanoic acid



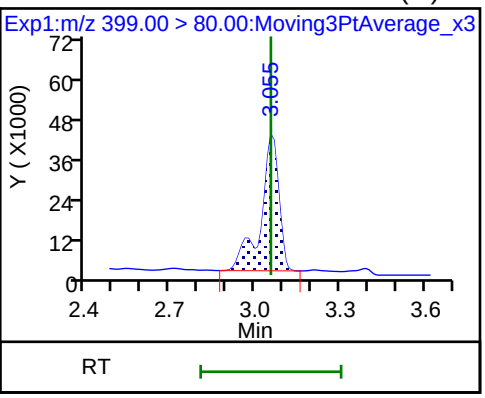
D 11 18O2 PFHxS



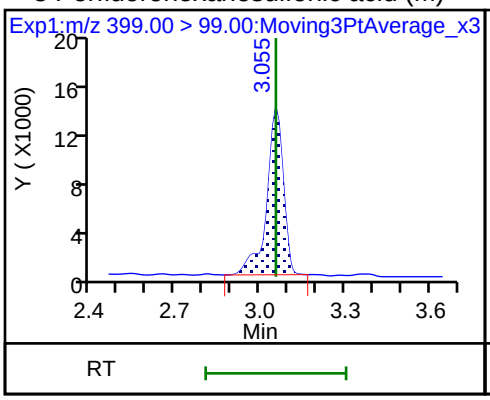
D 9 13C4 PFHpA



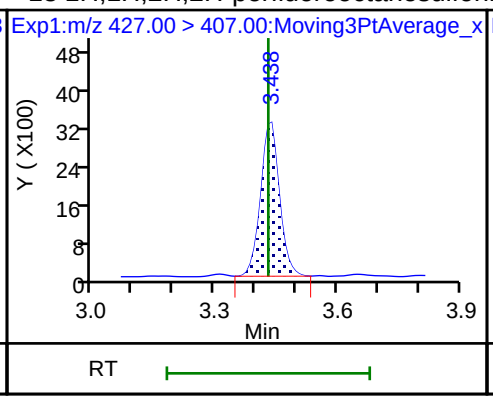
8 Perfluorohexanesulfonic acid (M)



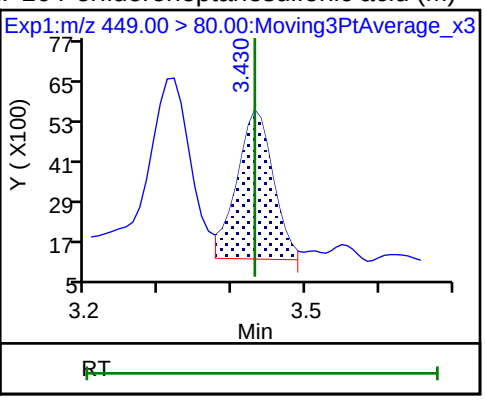
8 Perfluorohexanesulfonic acid (M)



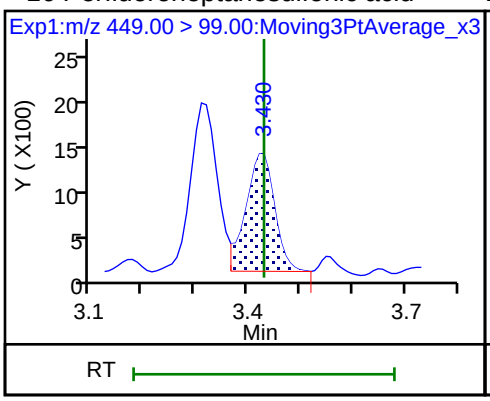
13 1H,1H,2H,2H-perfluorooctanesulfoni



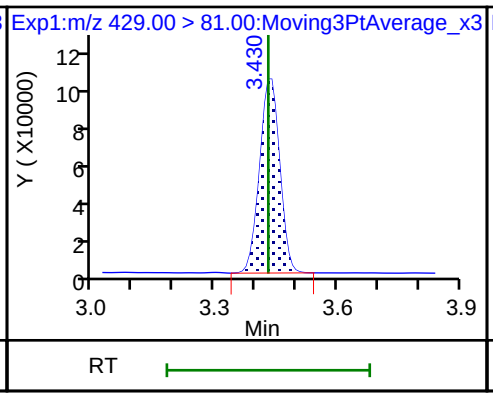
16 Perfluoroheptanesulfonic acid (M)



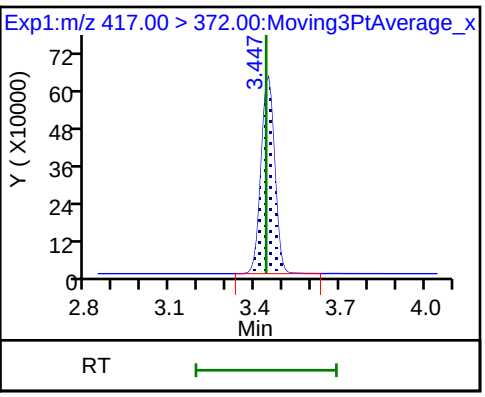
16 Perfluoroheptanesulfonic acid



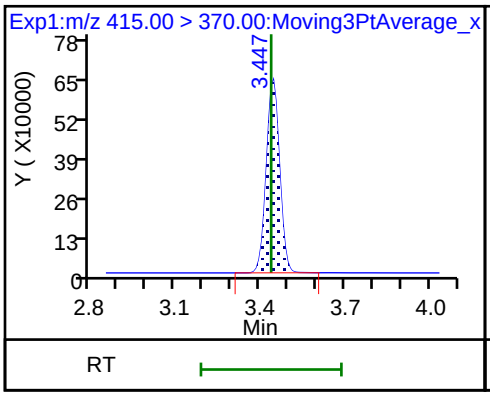
D 12 M2-6:2 FTS



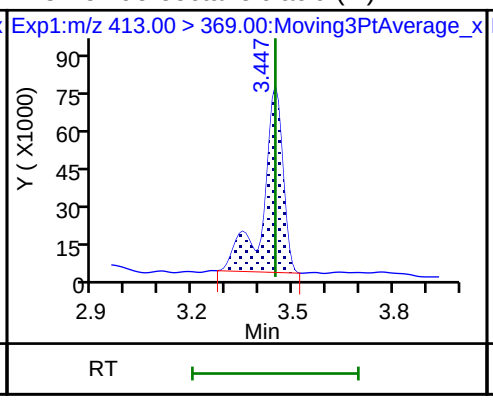
D 14 13C4 PFOA



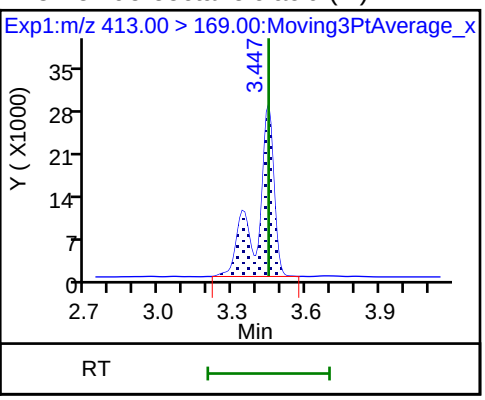
* 62 13C2 PFOA



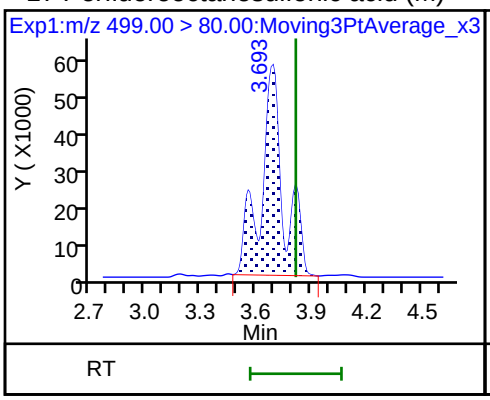
15 Perfluorooctanoic acid (M)



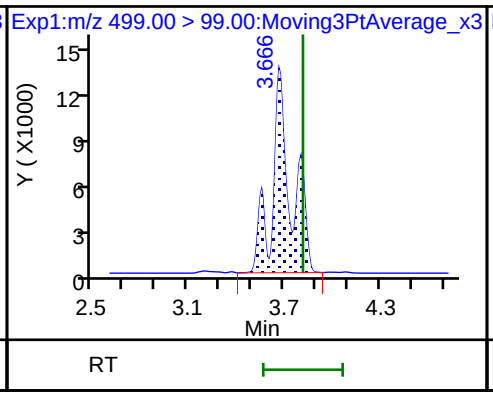
15 Perfluorooctanoic acid (M)



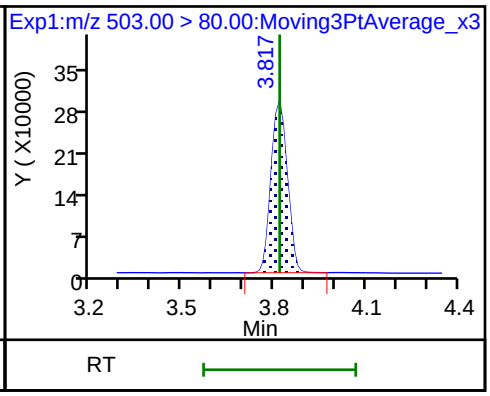
17 Perfluorooctanesulfonic acid (M)



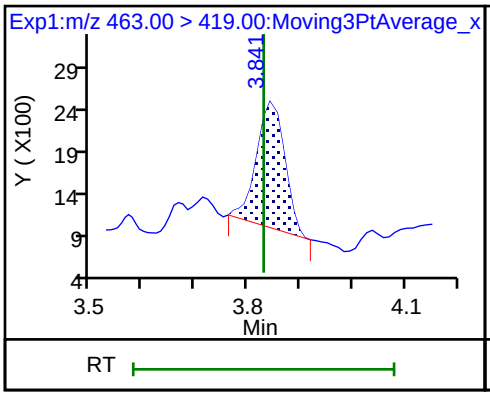
17 Perfluorooctanesulfonic acid



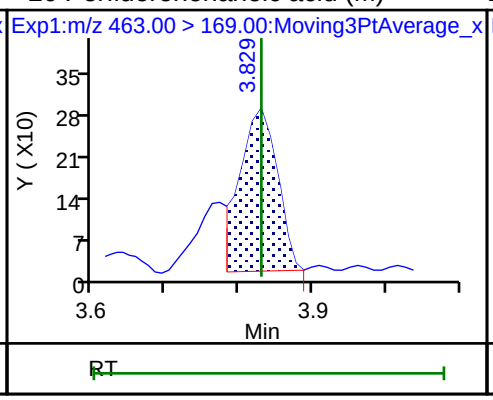
D 18 13C4 PFOS



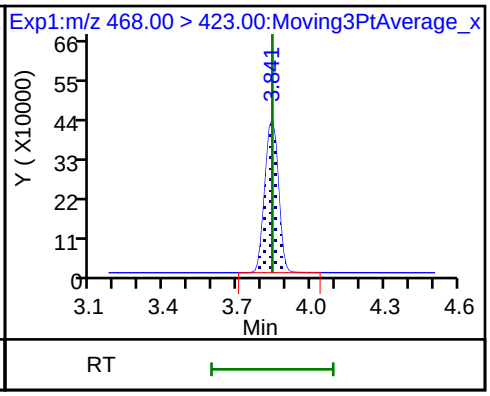
20 Perfluorononanoic acid



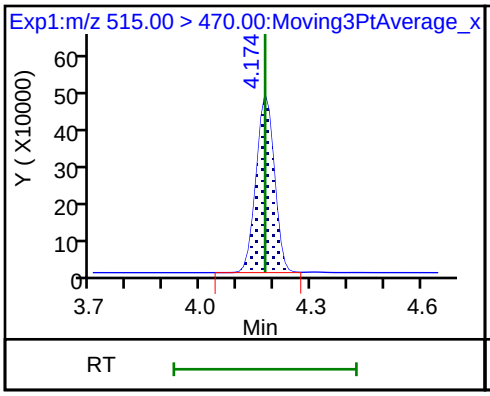
20 Perfluorononanoic acid (M)



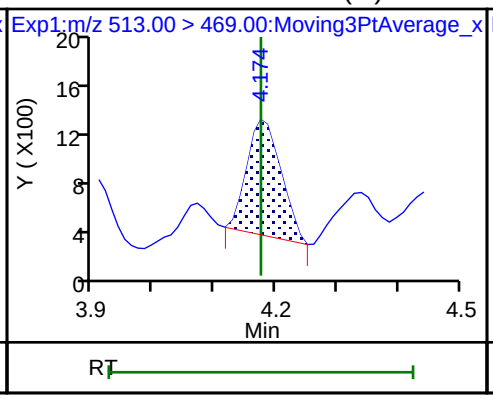
D 19 13C5 PFNA



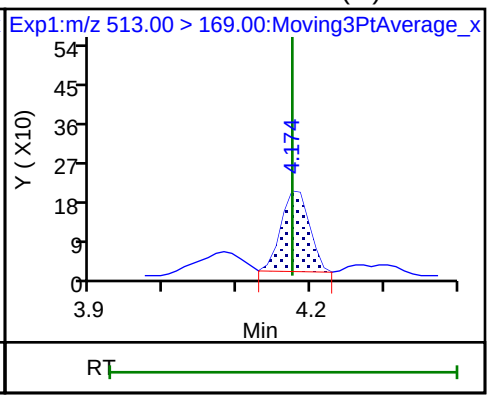
D 23 13C2 PFDA



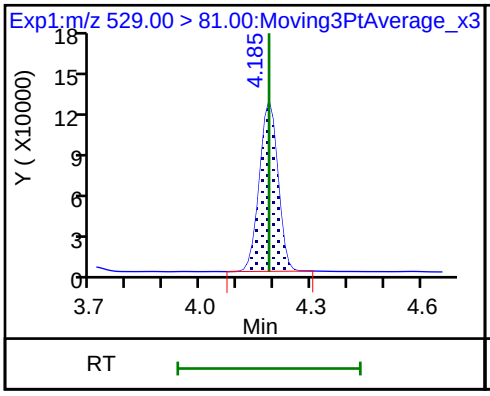
24 Perfluorodecanoic acid (M)



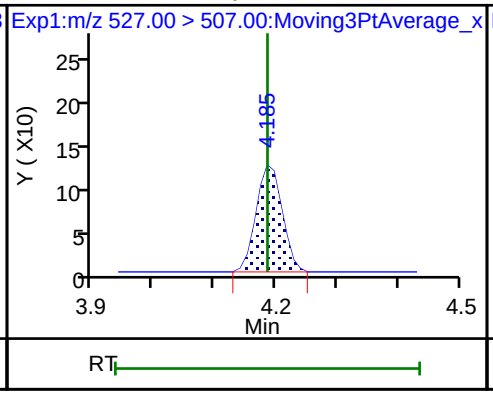
24 Perfluorodecanoic acid (M)



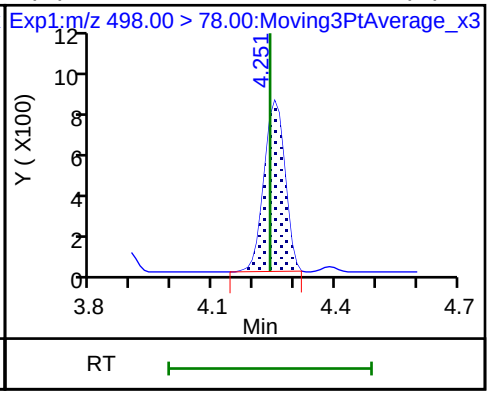
D 26 M2-8:2 FTS



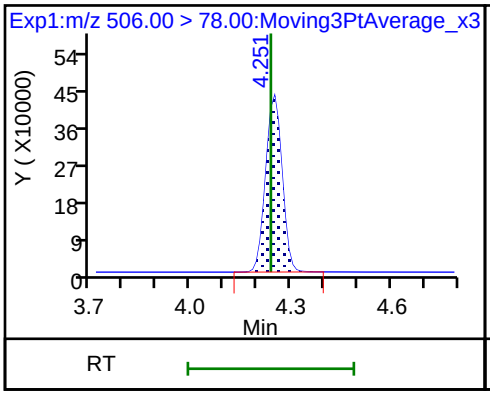
25 1H,1H,2H,2H-perfluorodecanesulfoni



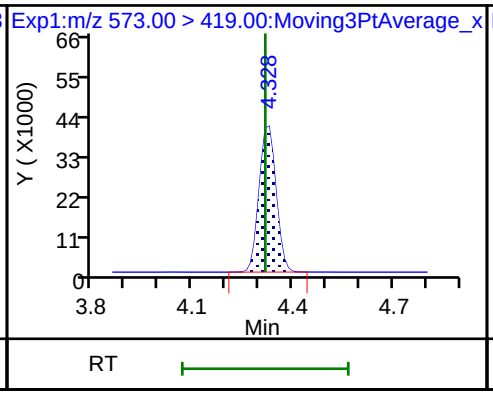
22 Perfluorooctanesulfonamide (M)



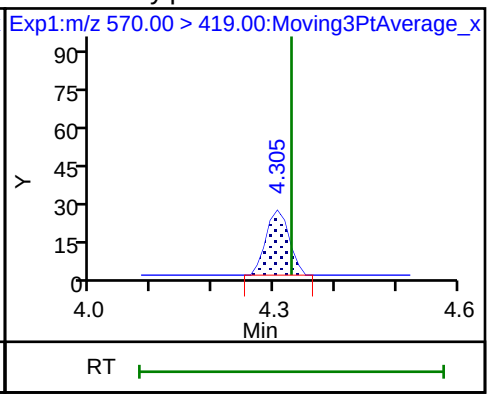
D 21 13C8 FOSA



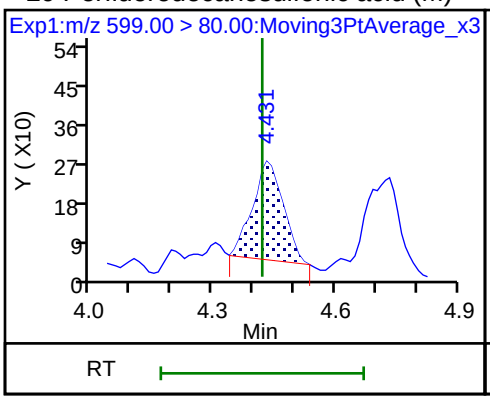
D 27 d3-NMeFOSAA



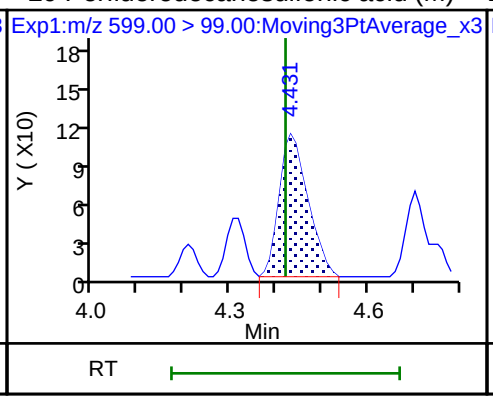
28 N-methylperfluorooctanesulfonamido (M)



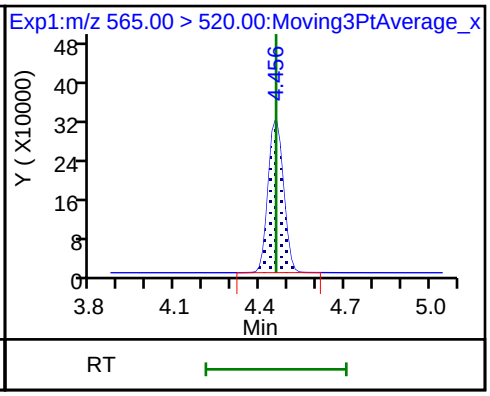
29 Perfluorodecanesulfonic acid (M)



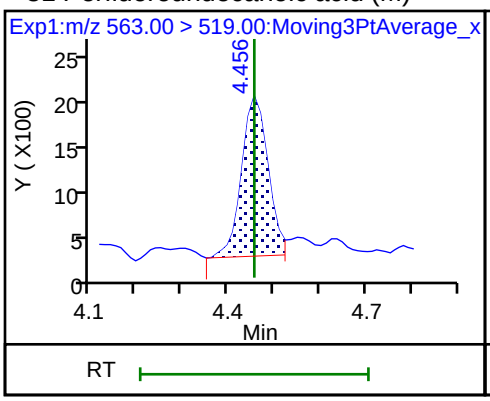
29 Perfluorodecanesulfonic acid (M)



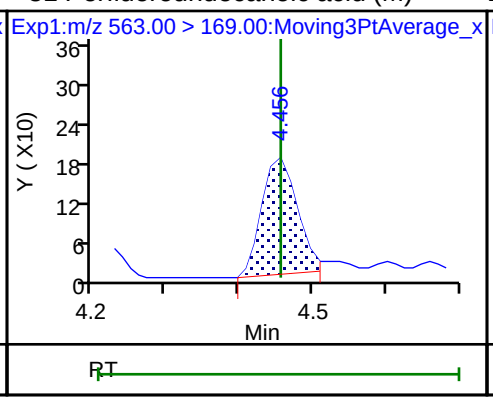
D 30 13C2 PFUnA



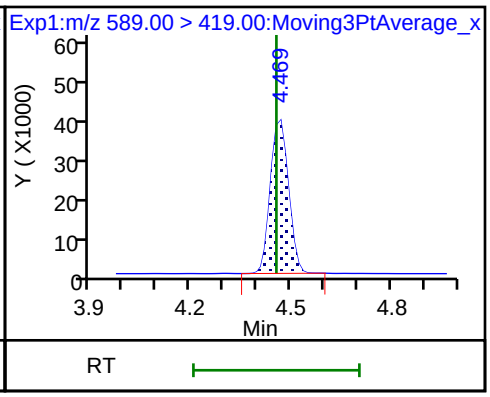
31 Perfluoroundecanoic acid (M)



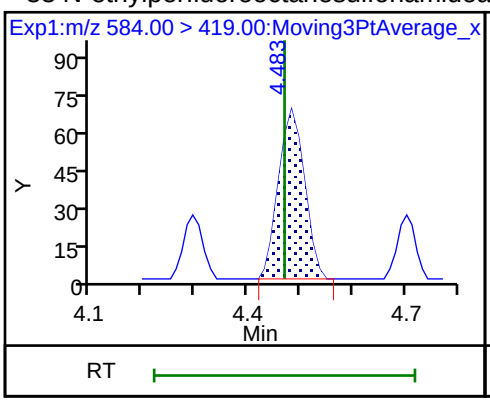
31 Perfluoroundecanoic acid (M)



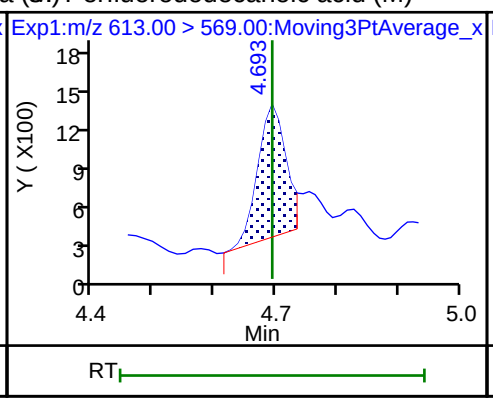
D 32 d5-NEtFOSAA



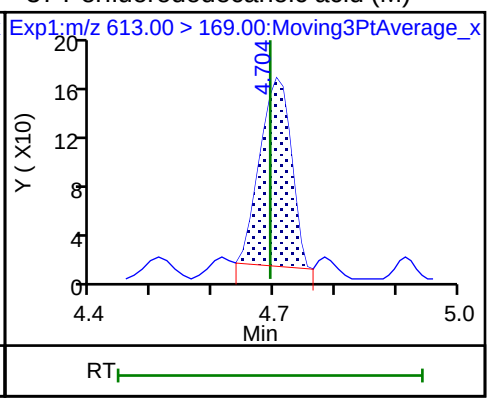
33 N-ethylperfluorooctanesulfonamidoa (M)



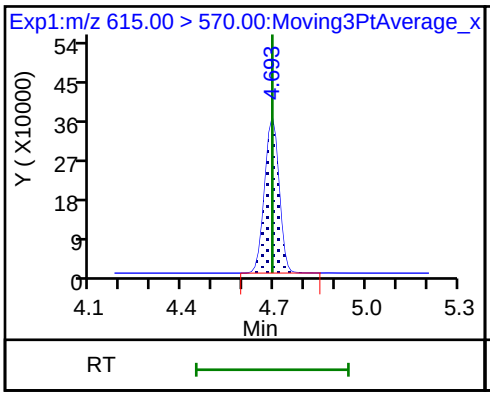
37 Perfluorododecanoic acid (M)



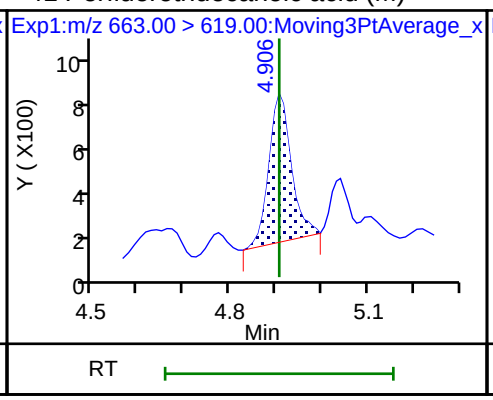
37 Perfluorododecanoic acid (M)



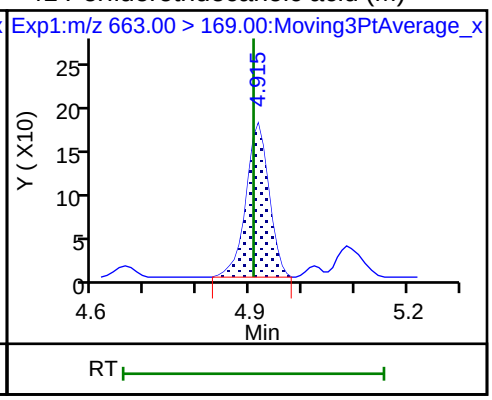
D 36 13C2 PFDoA



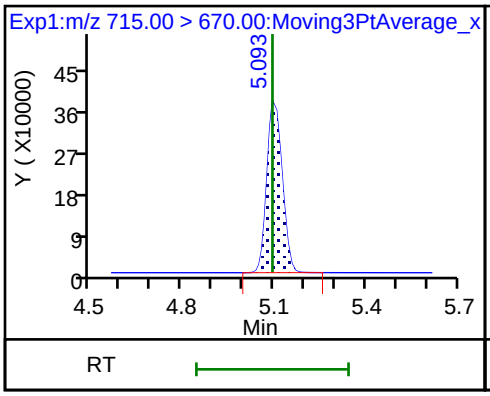
41 Perfluorotridecanoic acid (M)



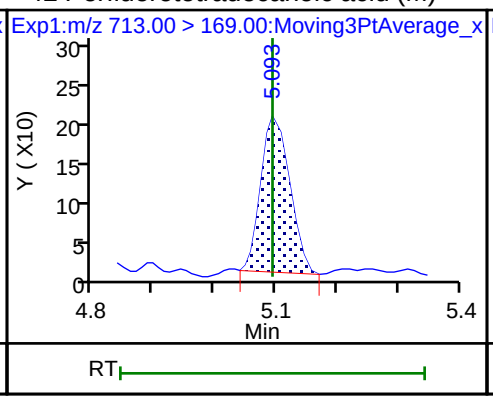
41 Perfluorotridecanoic acid (M)



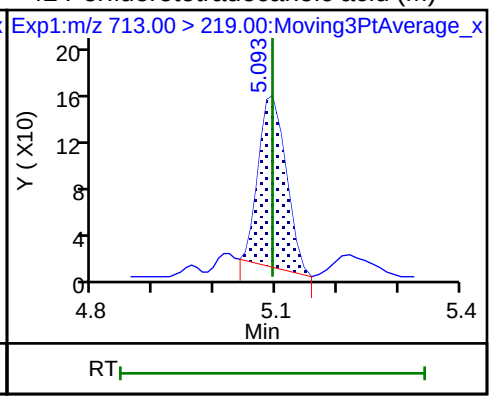
D 43 13C2 PFTeDA



42 Perfluorotetradecanoic acid (M)



42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

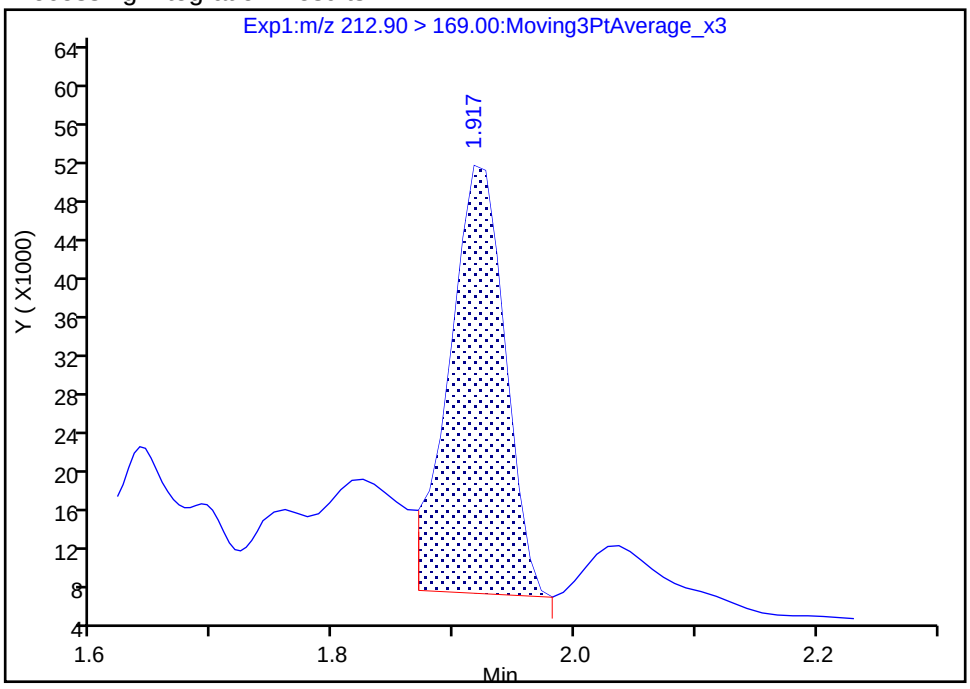
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

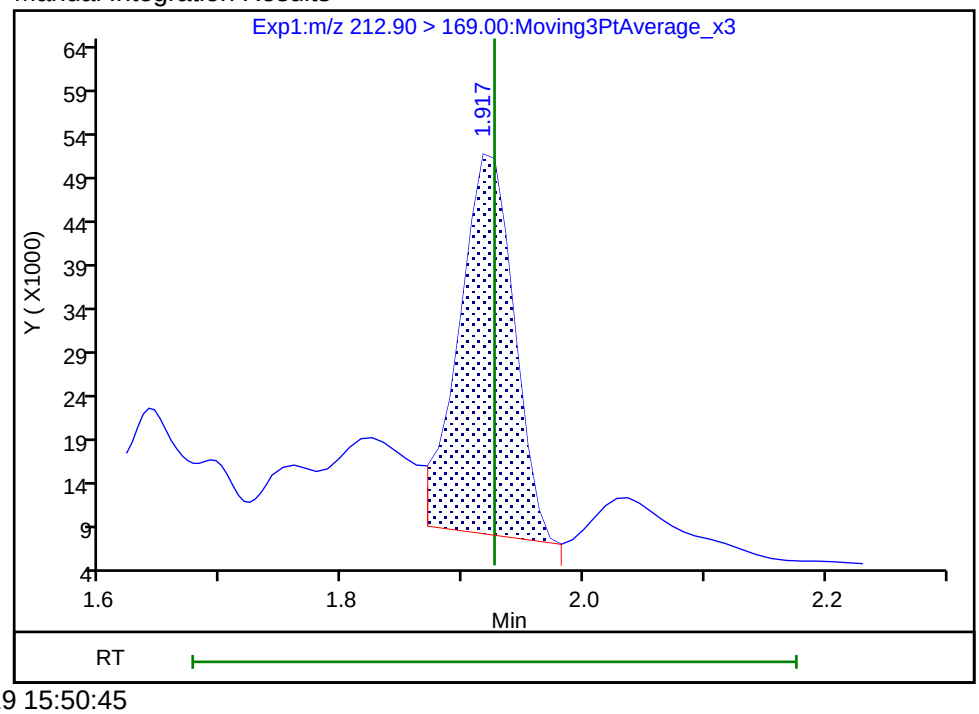
Processing Integration Results

RT: 1.92
Area: 139794
Amount: 0.172790
Amount Units: ng/ml



Manual Integration Results

RT: 1.92
Area: 135269
Amount: 0.167197
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:50:45

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

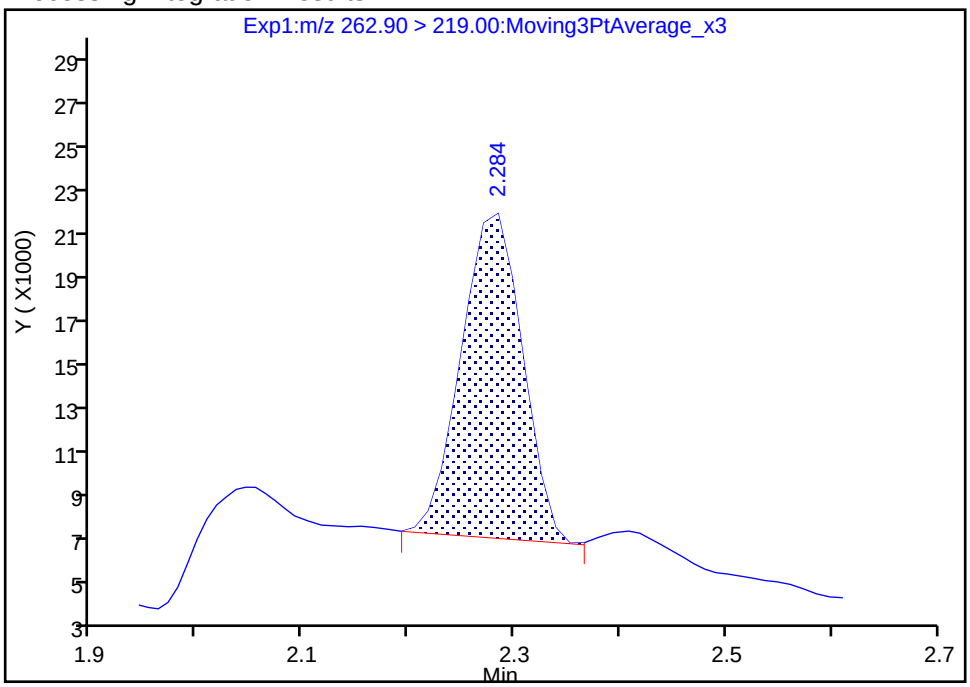
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

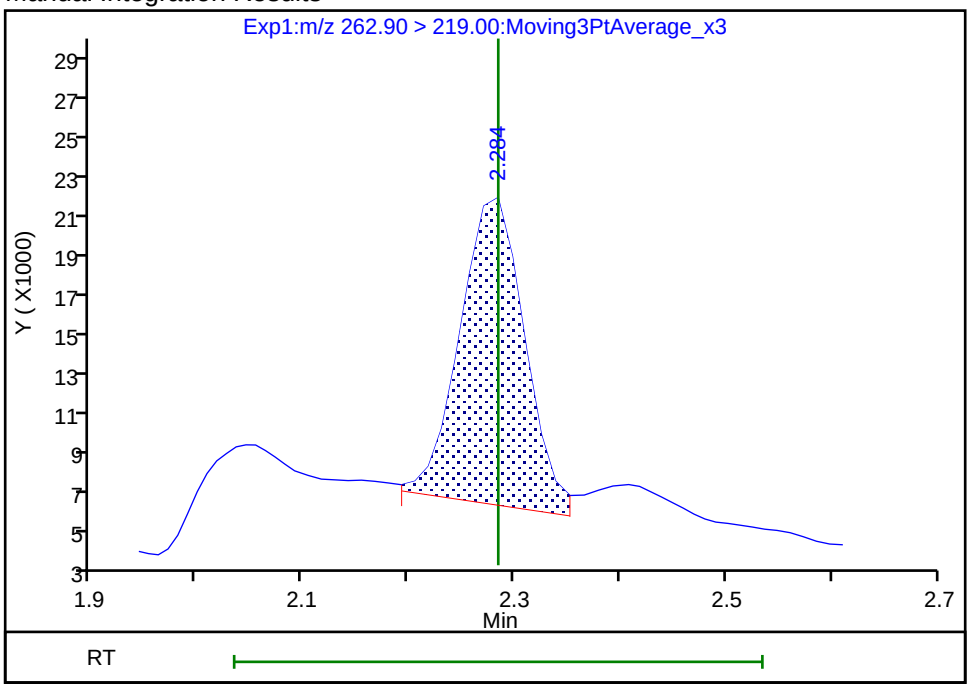
Processing Integration Results

RT: 2.28
Area: 57794
Amount: 0.069920
Amount Units: ng/ml



Manual Integration Results

RT: 2.28
Area: 63854
Amount: 0.077251
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:10:00
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

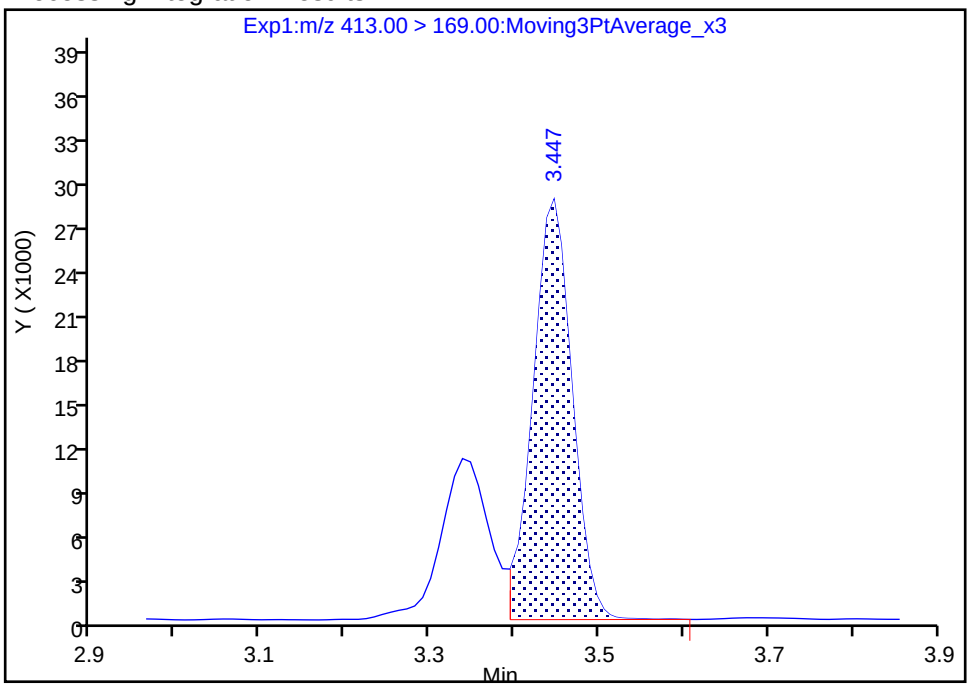
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

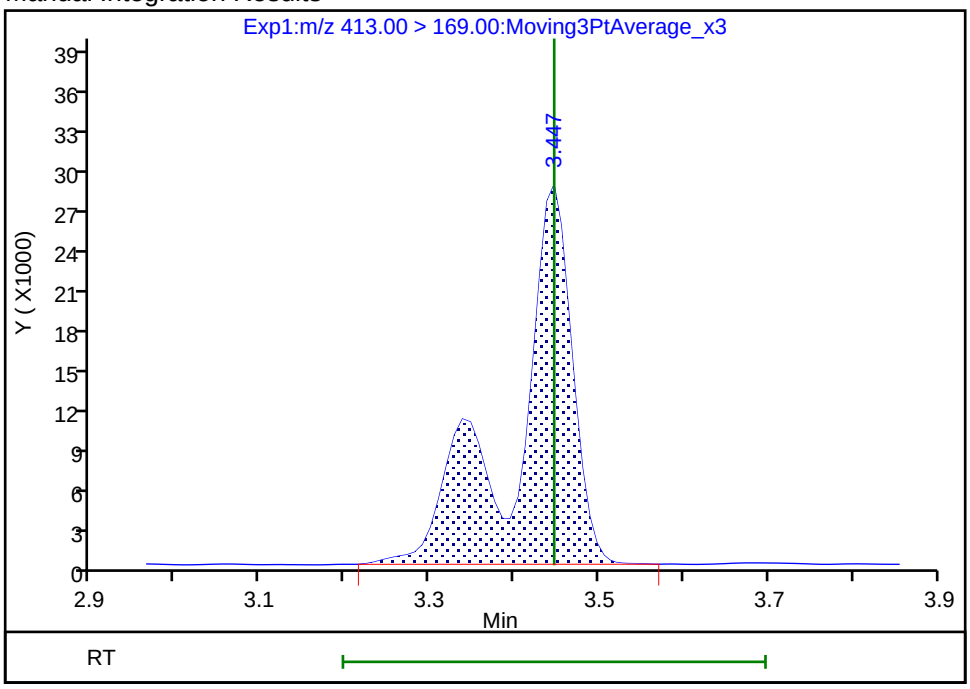
Processing Integration Results

RT: 3.45
Area: 90446
Amount: 0.334432
Amount Units: ng/ml



Manual Integration Results

RT: 3.45
Area: 133313
Amount: 0.325961
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:29:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

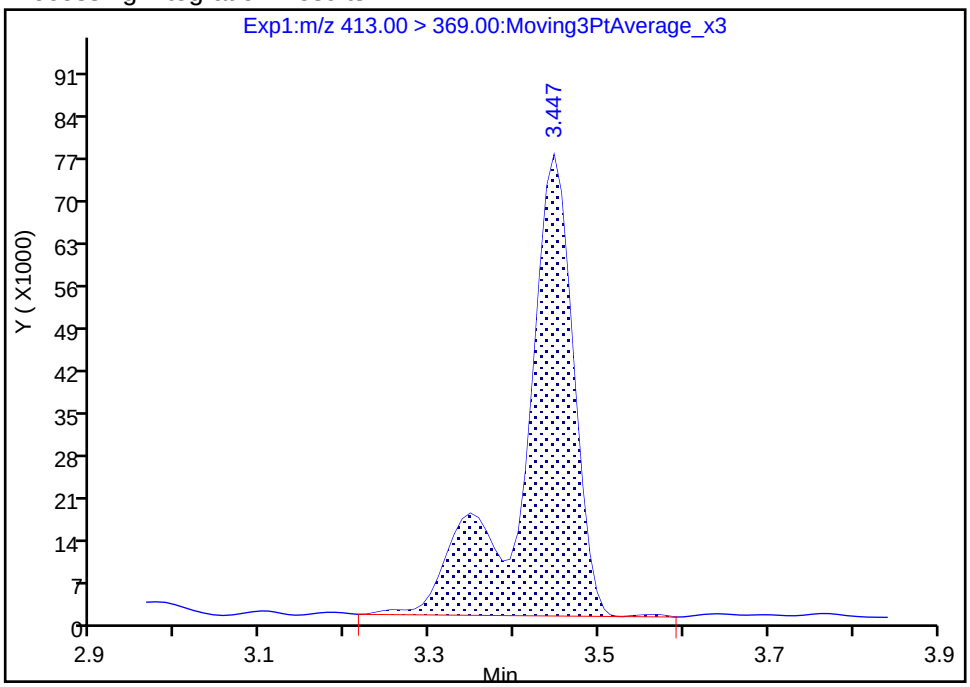
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

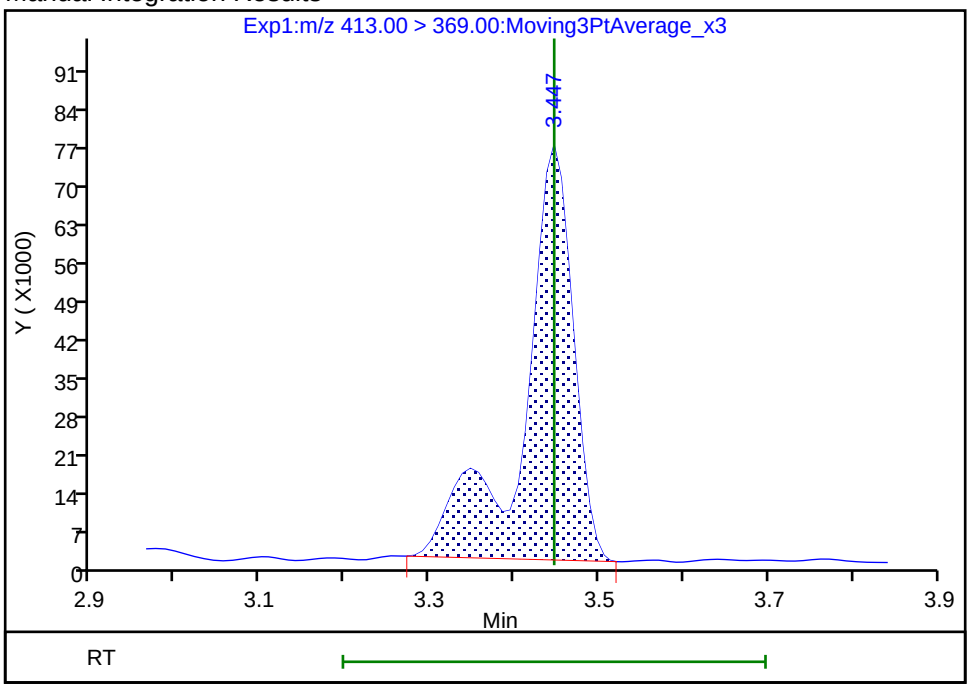
Processing Integration Results

RT: 3.45
Area: 315025
Amount: 0.334432
Amount Units: ng/ml



Manual Integration Results

RT: 3.45
Area: 307045
Amount: 0.325961
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:29:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

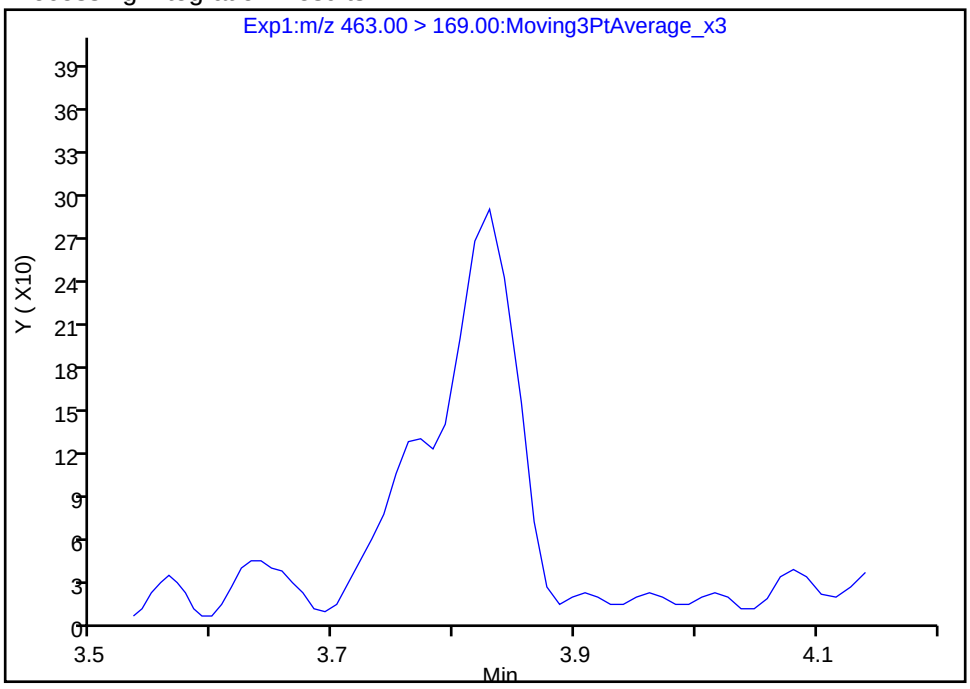
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

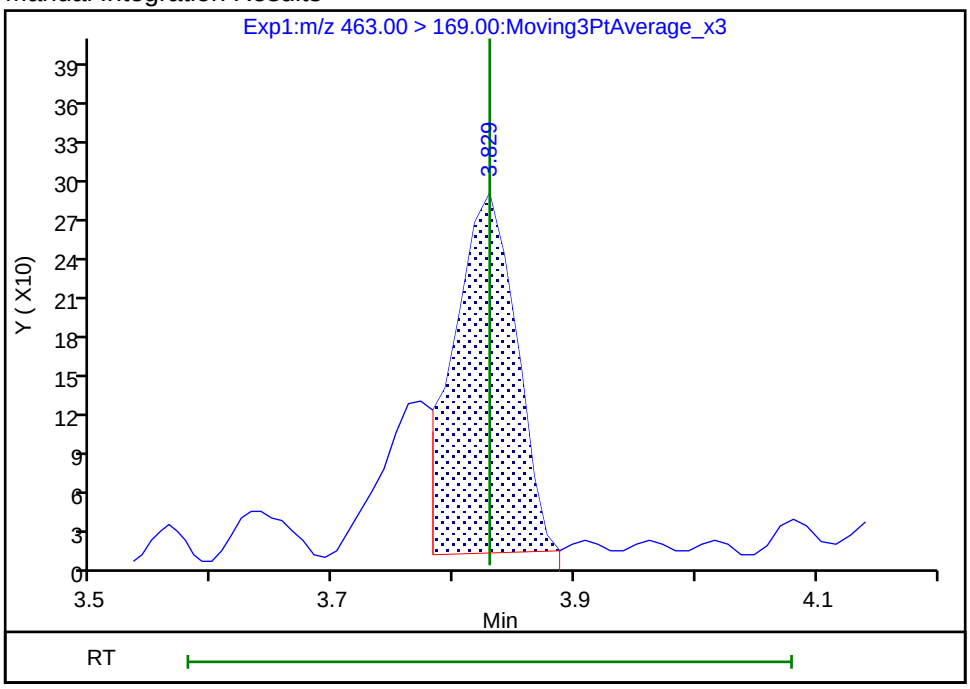
Not Detected
Expected RT: 3.83

Processing Integration Results



Manual Integration Results

RT: 3.83
Area: 967
Amount: 0.008578
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:30:36
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

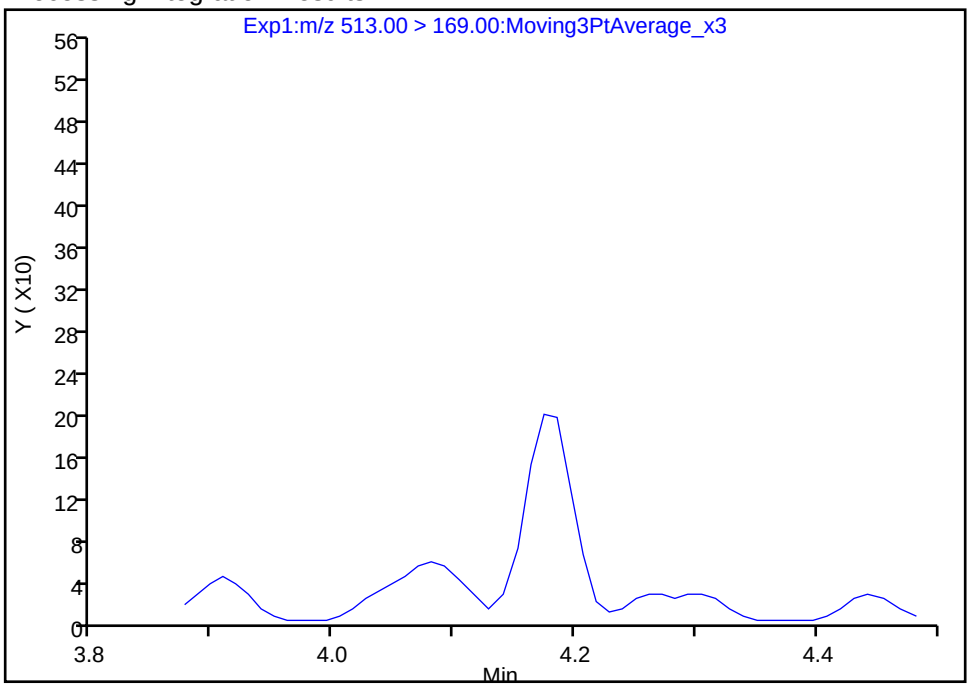
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

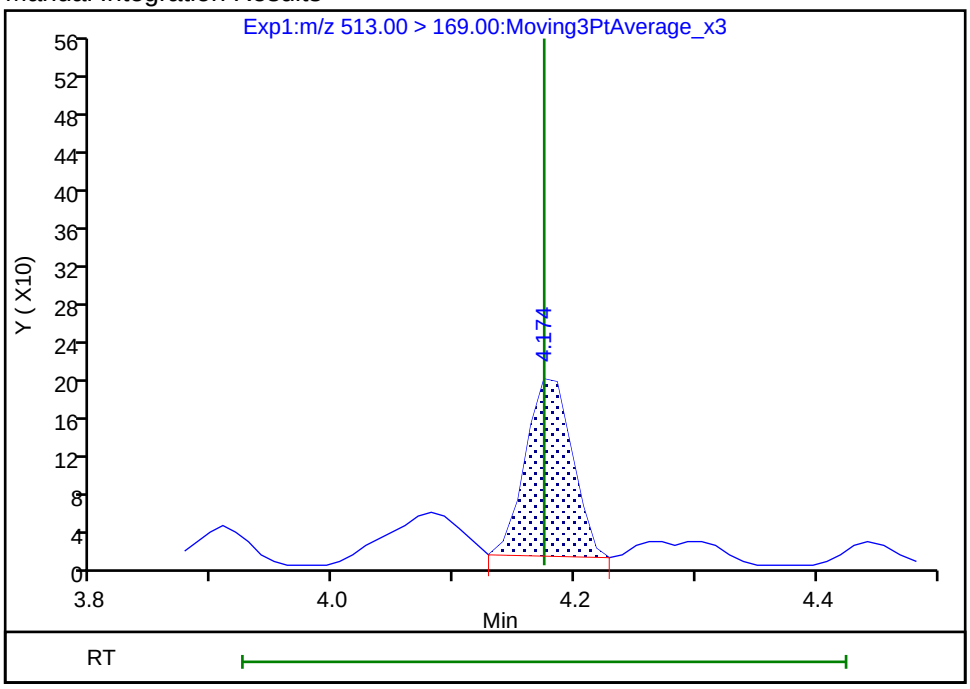
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.17
Area: 500
Amount: 0.005455
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:30:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

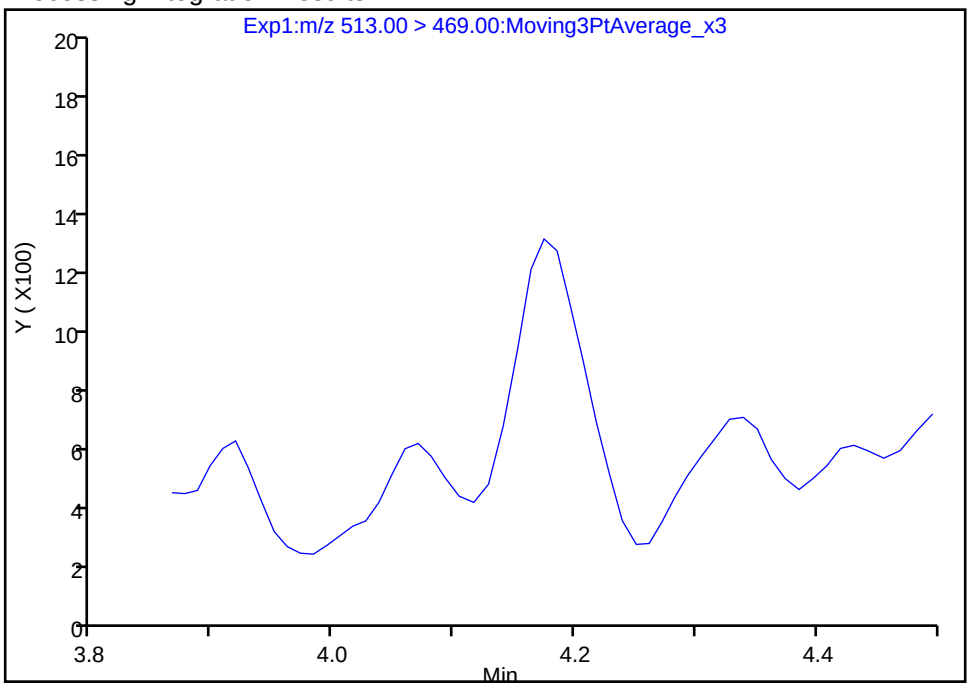
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

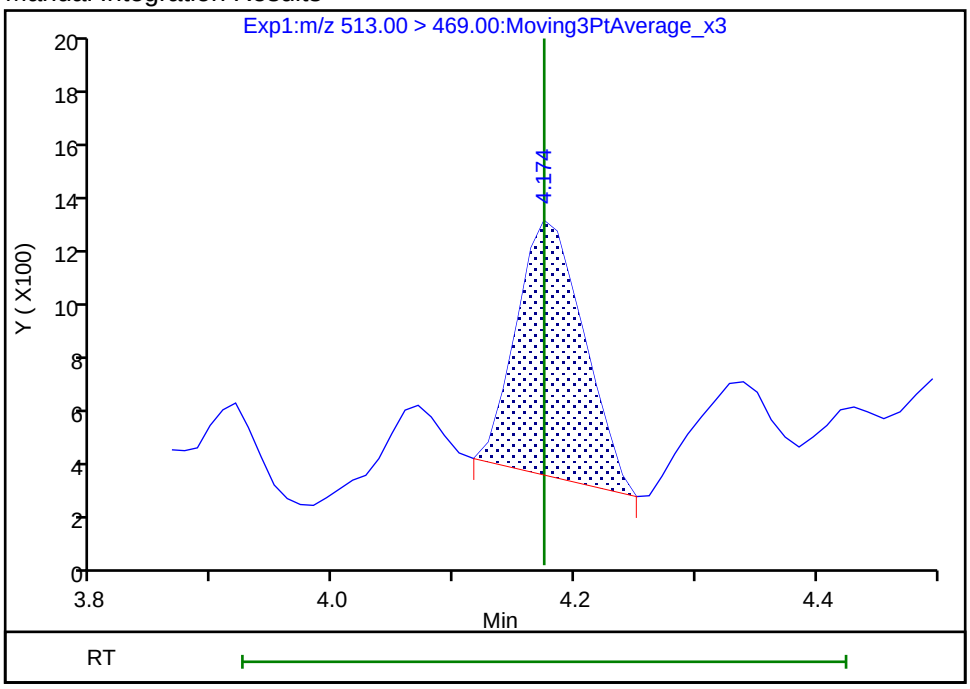
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.17
Area: 3490
Amount: 0.005455
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:30:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

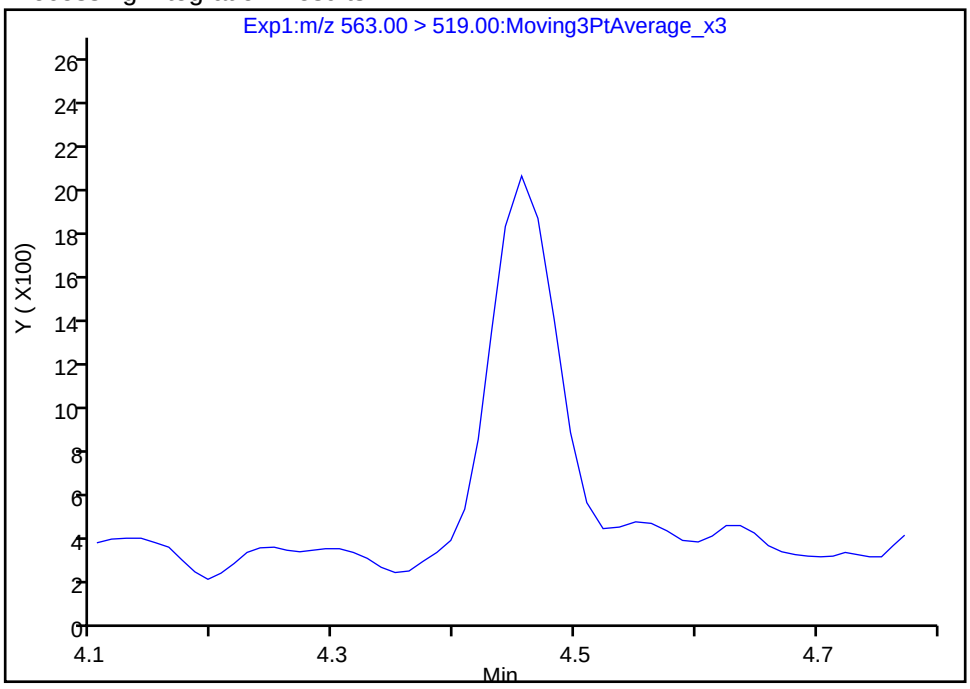
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

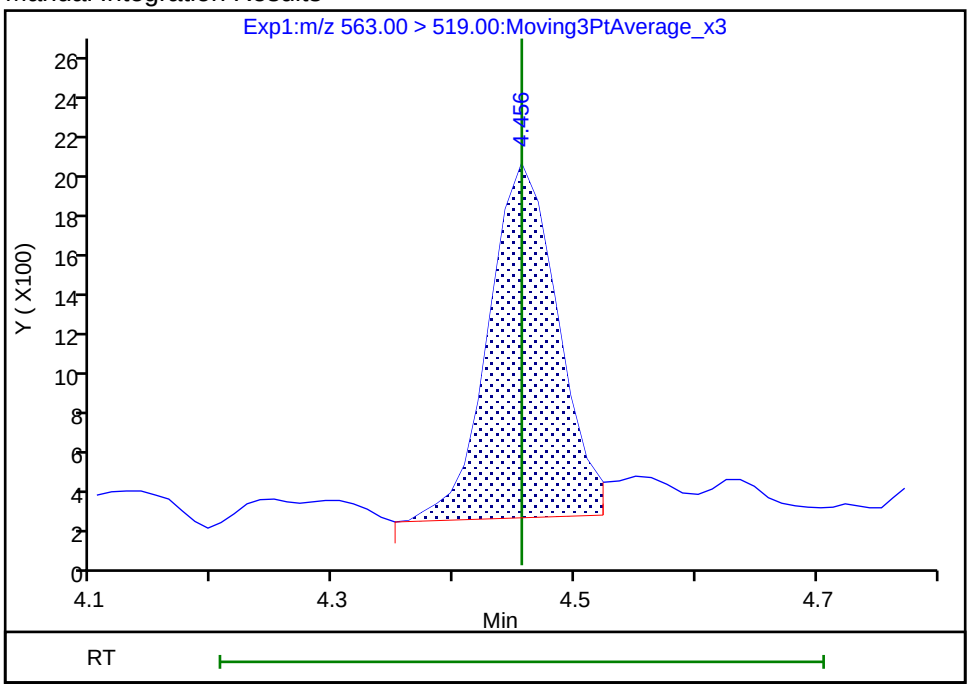
Not Detected
Expected RT: 4.46

Processing Integration Results



Manual Integration Results

RT: 4.46
Area: 7134
Amount: 0.017696
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:09:00
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

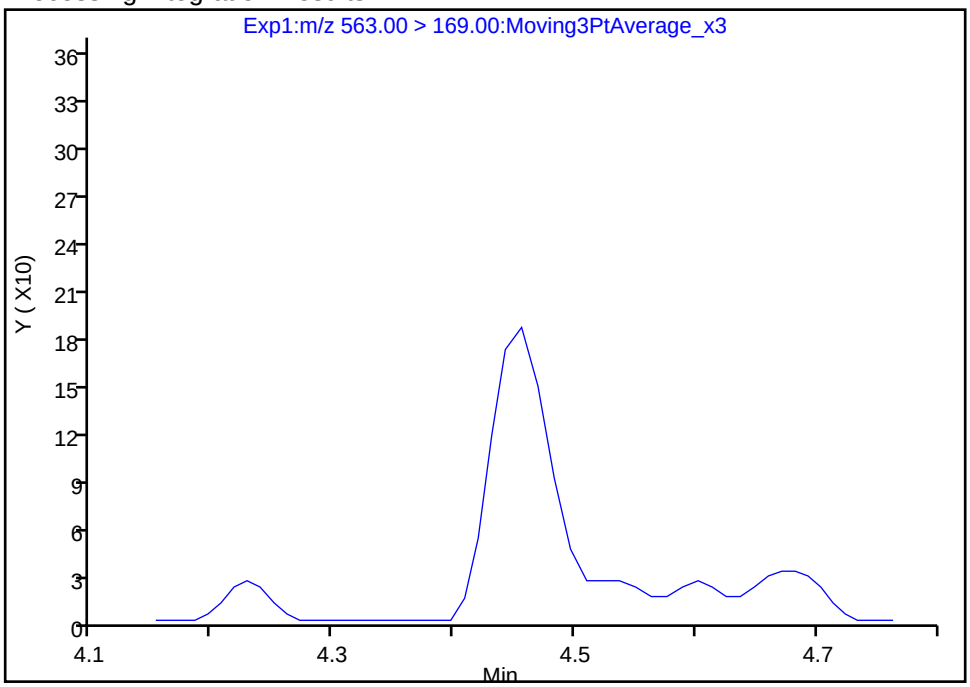
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

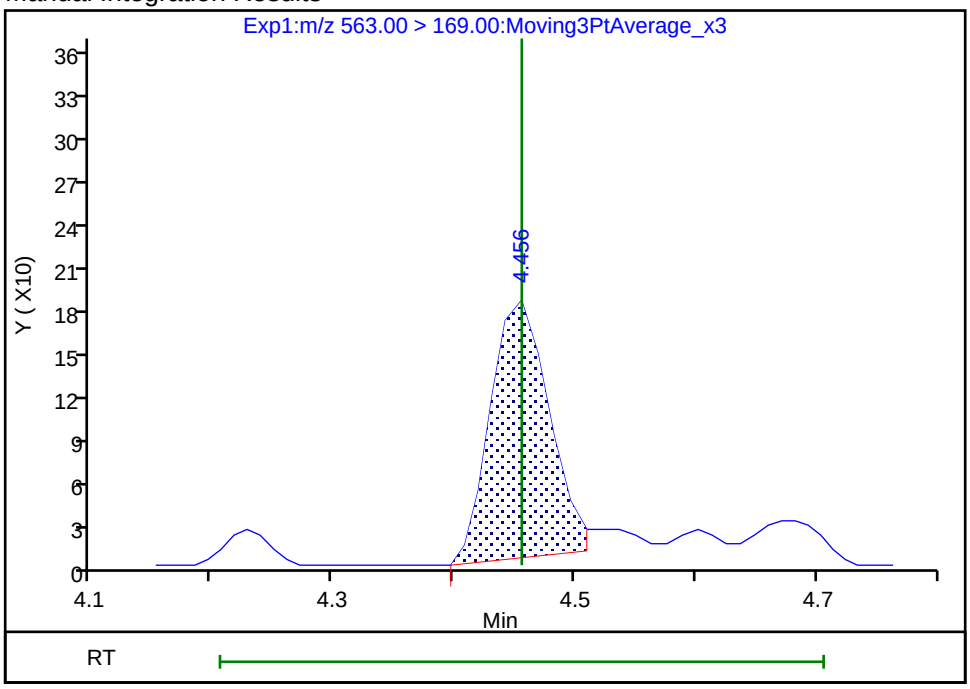
Not Detected
Expected RT: 4.46

Processing Integration Results



Manual Integration Results

RT: 4.46
Area: 605
Amount: 0.017696
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:10:38
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

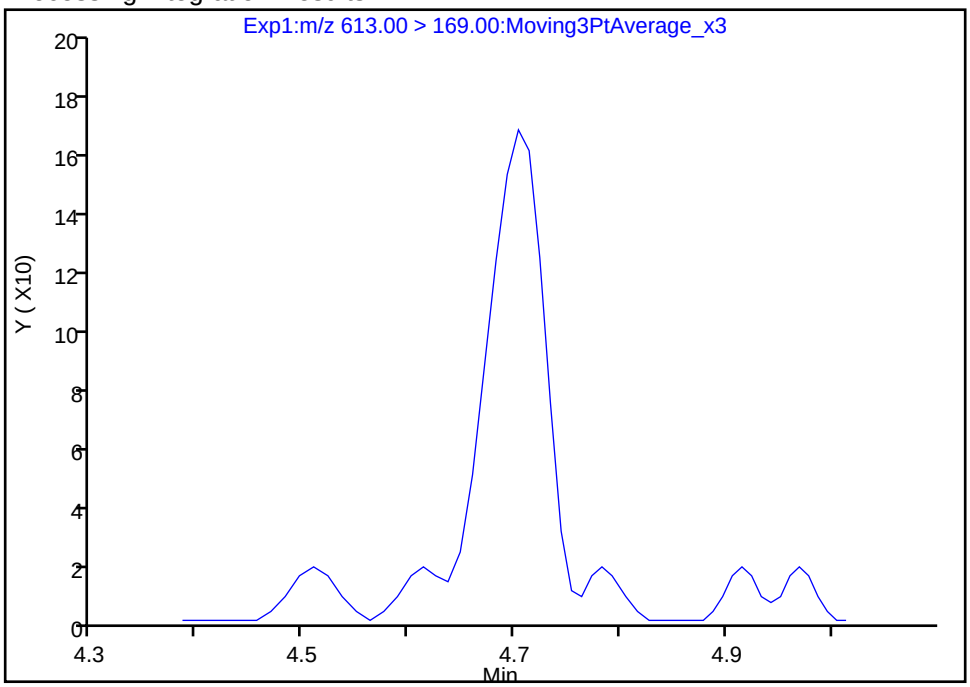
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

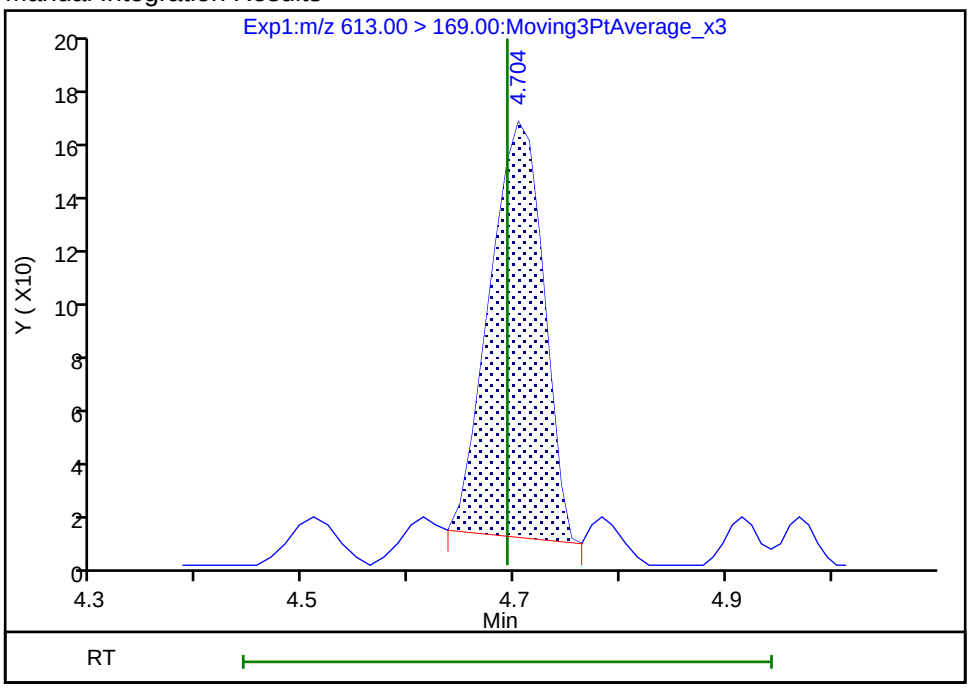
Not Detected
Expected RT: 4.69

Processing Integration Results



Manual Integration Results

RT: 4.70
Area: 547
Amount: 0.007653
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:32:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

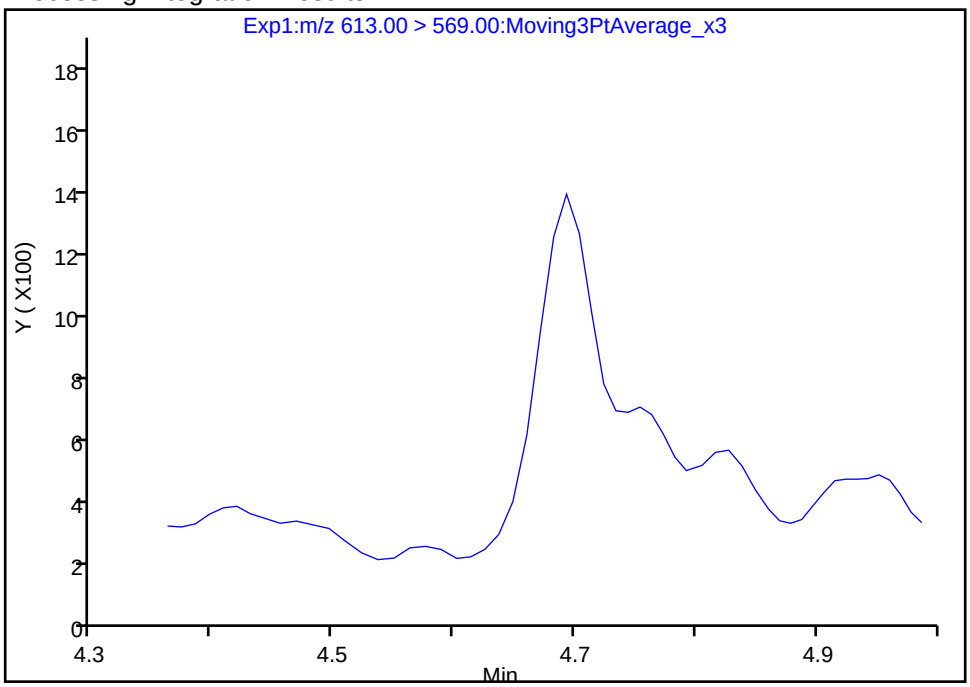
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

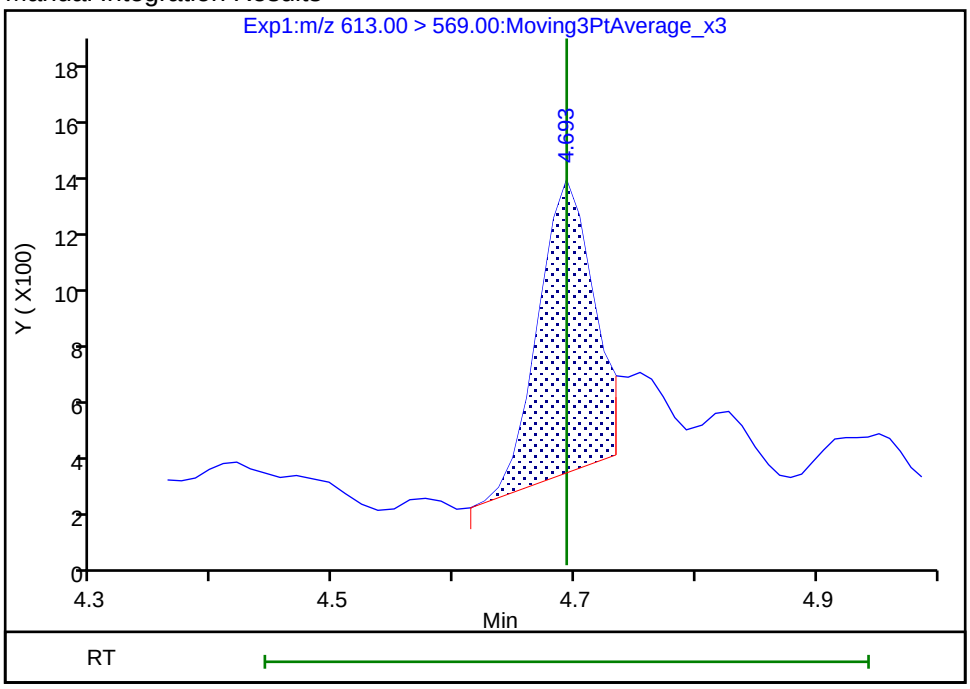
Not Detected
Expected RT: 4.69

Processing Integration Results



Manual Integration Results

RT: 4.69
Area: 3308
Amount: 0.007653
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:32:04
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

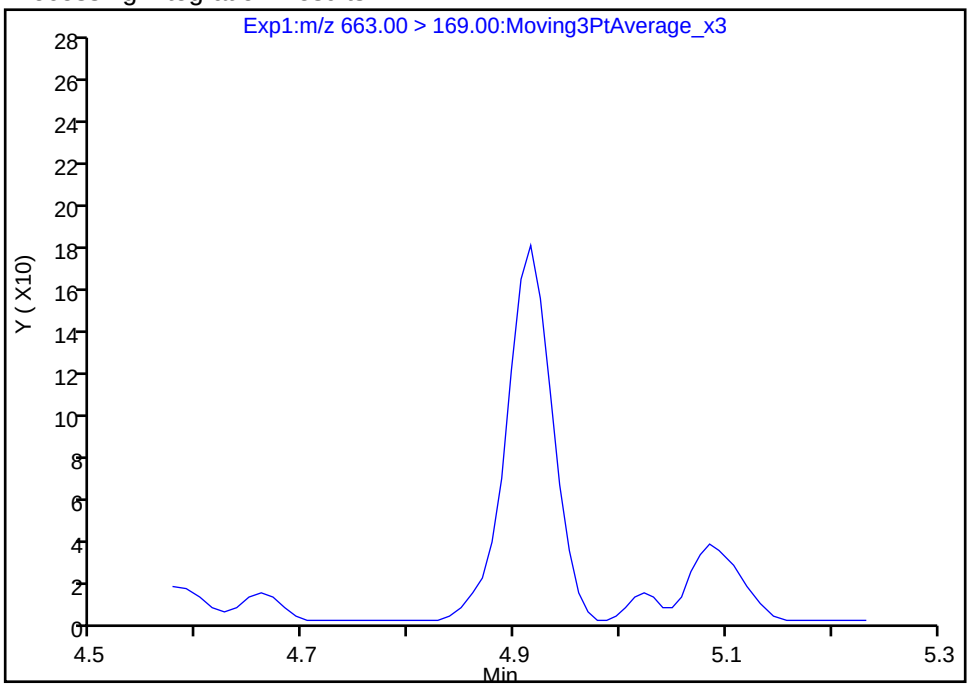
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

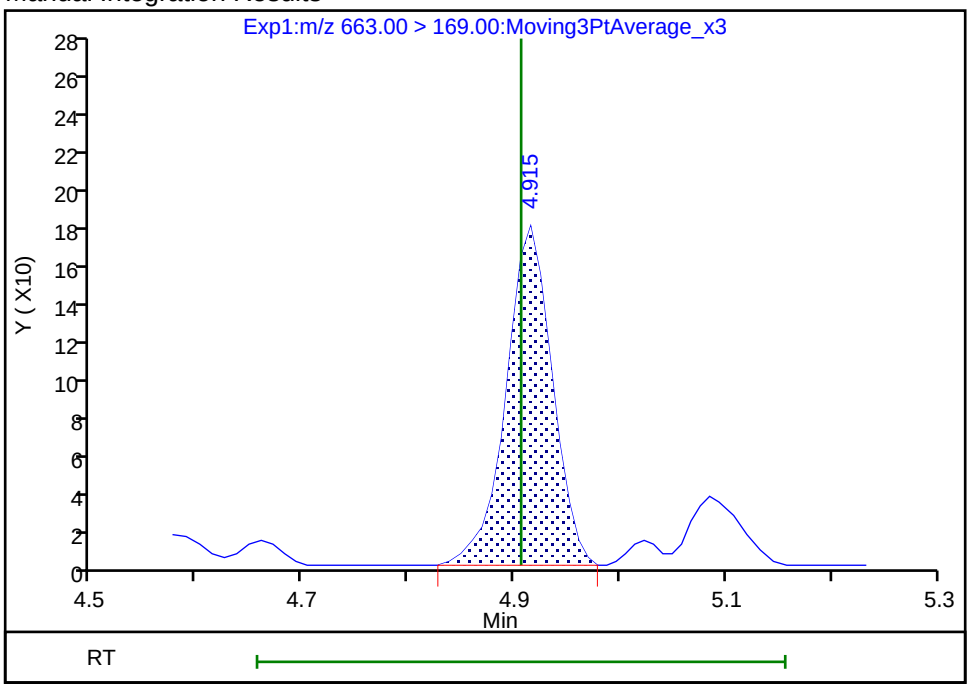
Not Detected
Expected RT: 4.91

Processing Integration Results



Manual Integration Results

RT: 4.92
Area: 536
Amount: 0.005382
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:32:16
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

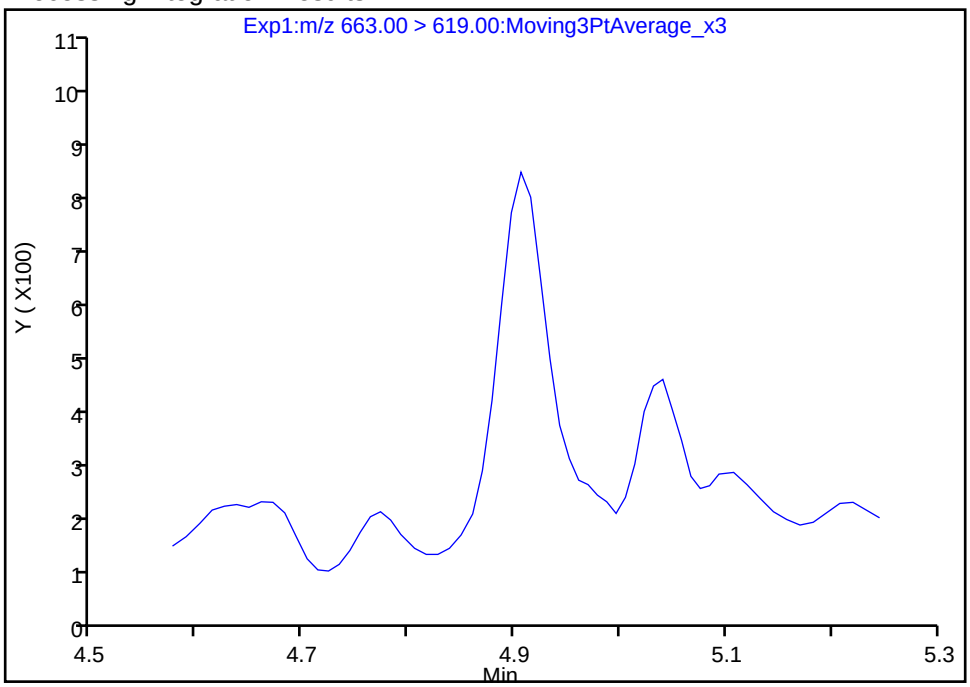
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

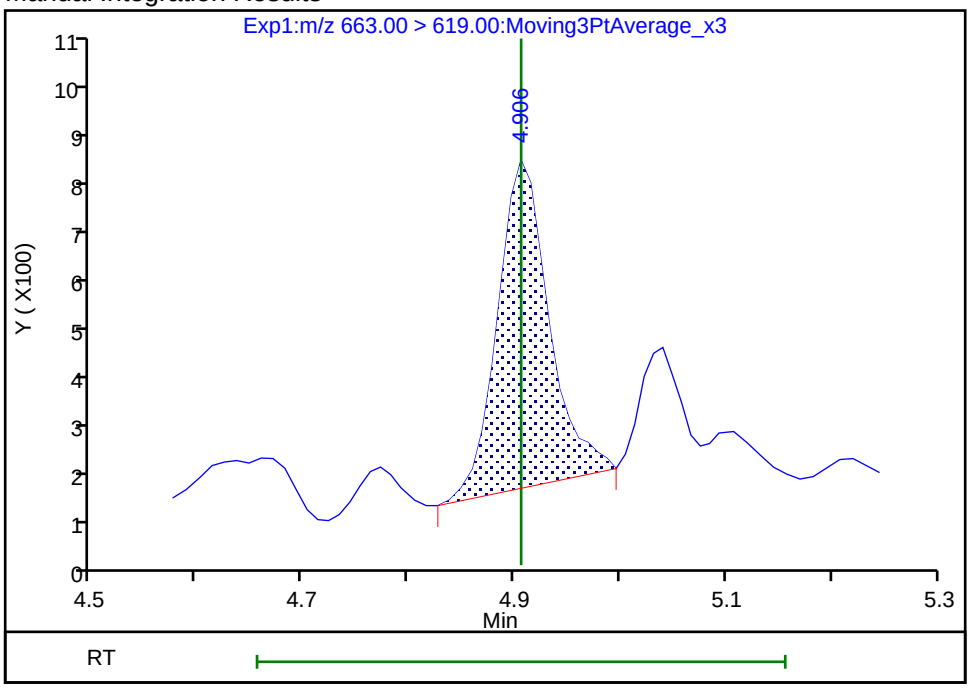
Not Detected
Expected RT: 4.91

Processing Integration Results



Manual Integration Results

RT: 4.91
Area: 2210
Amount: 0.005382
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:32:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

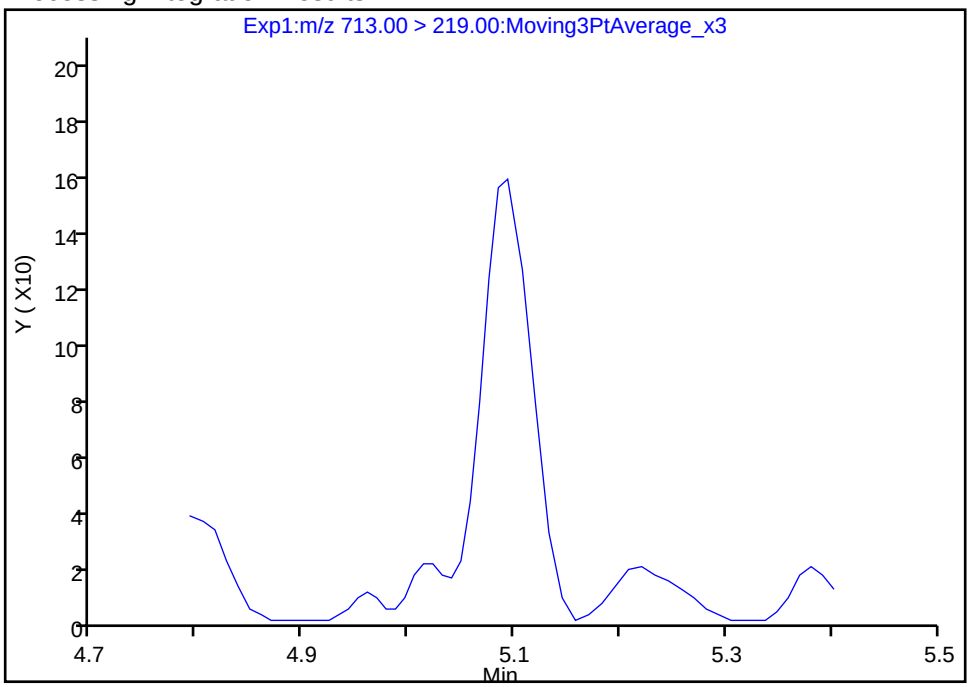
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

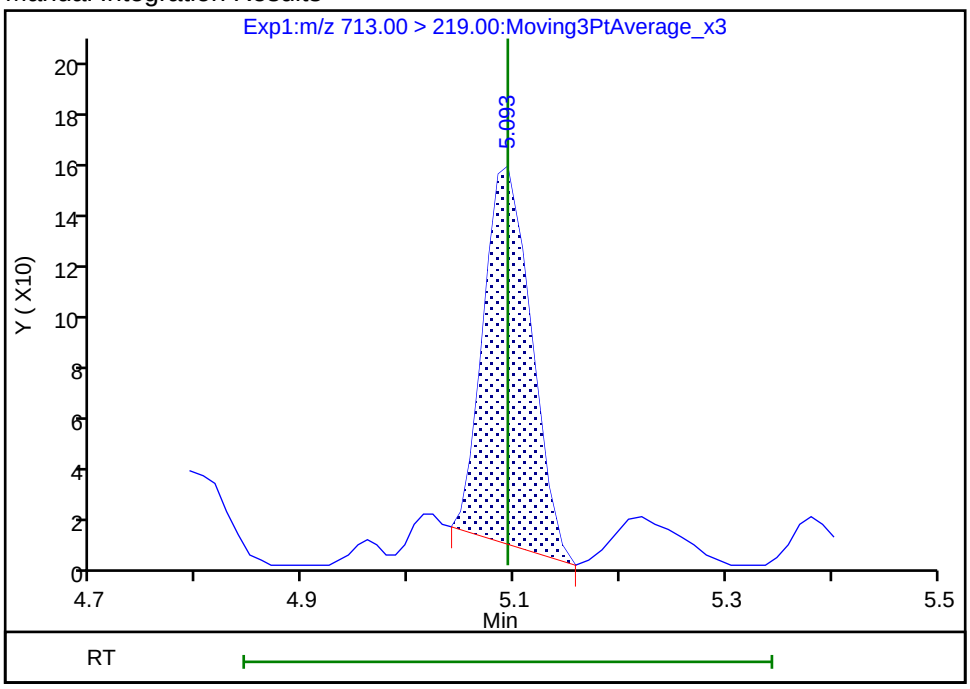
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.09
Area: 462
Amount: 0.006253
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:32:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

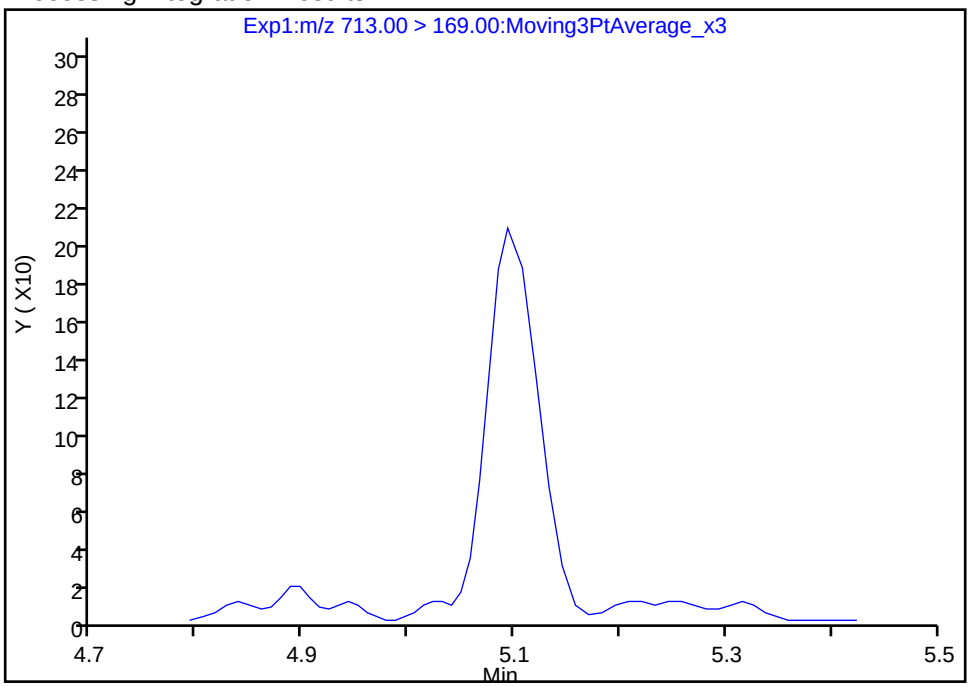
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

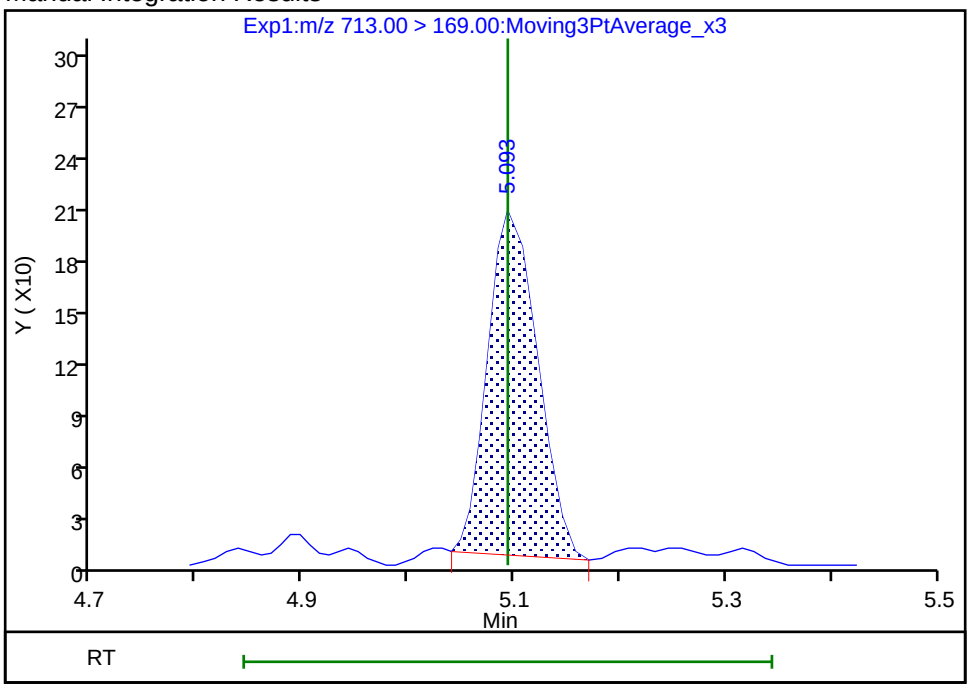
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.09
Area: 663
Amount: 0.006253
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:32:44
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

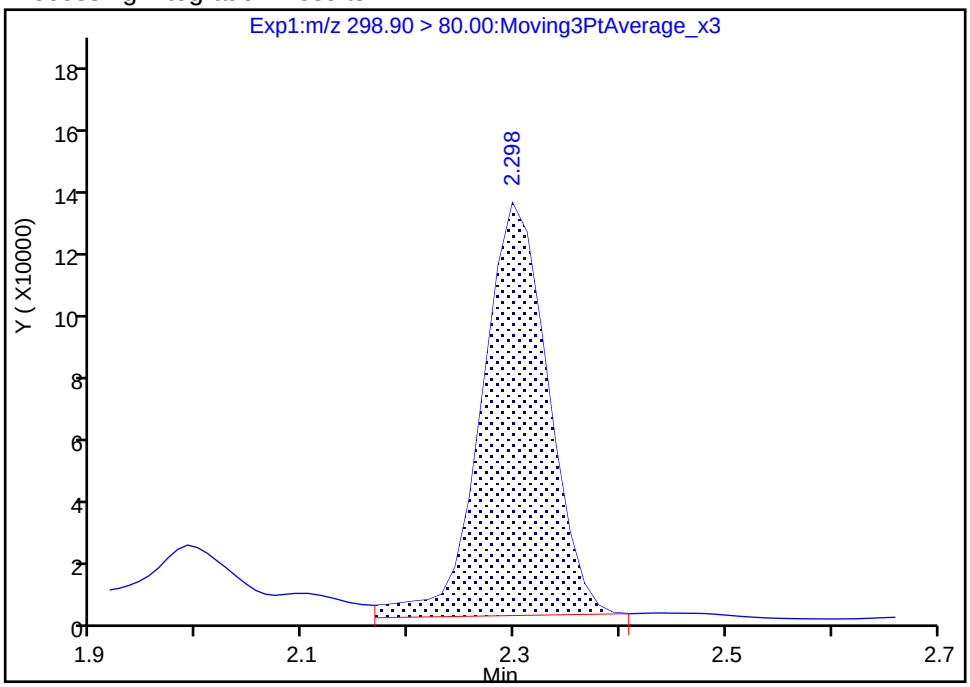
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

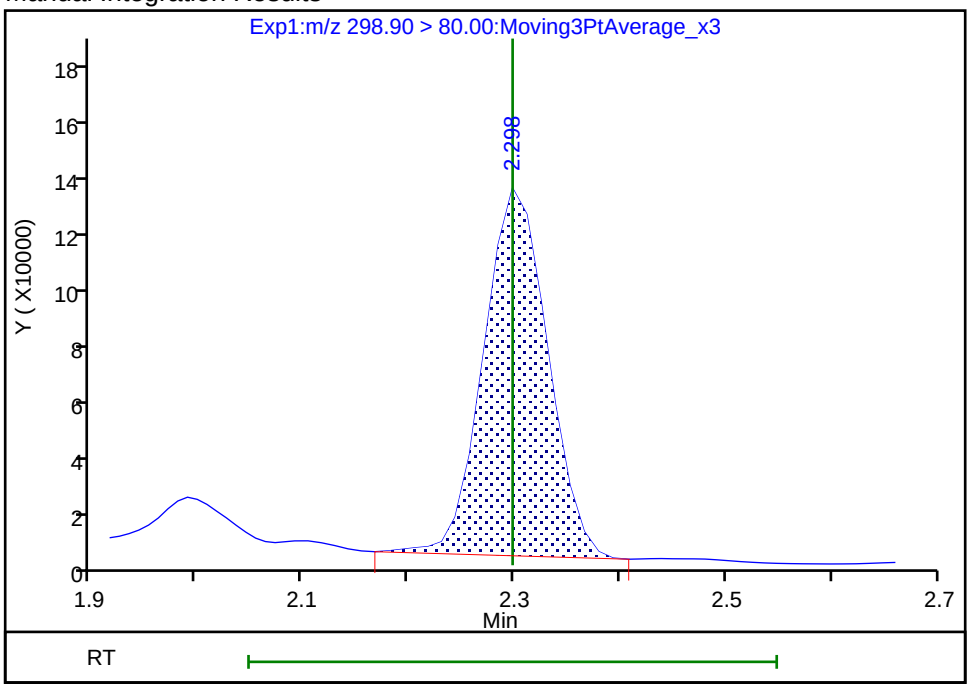
Processing Integration Results

RT: 2.30
Area: 578935
Amount: 0.596927
Amount Units: ng/ml



Manual Integration Results

RT: 2.30
Area: 550297
Amount: 0.612909
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:27:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

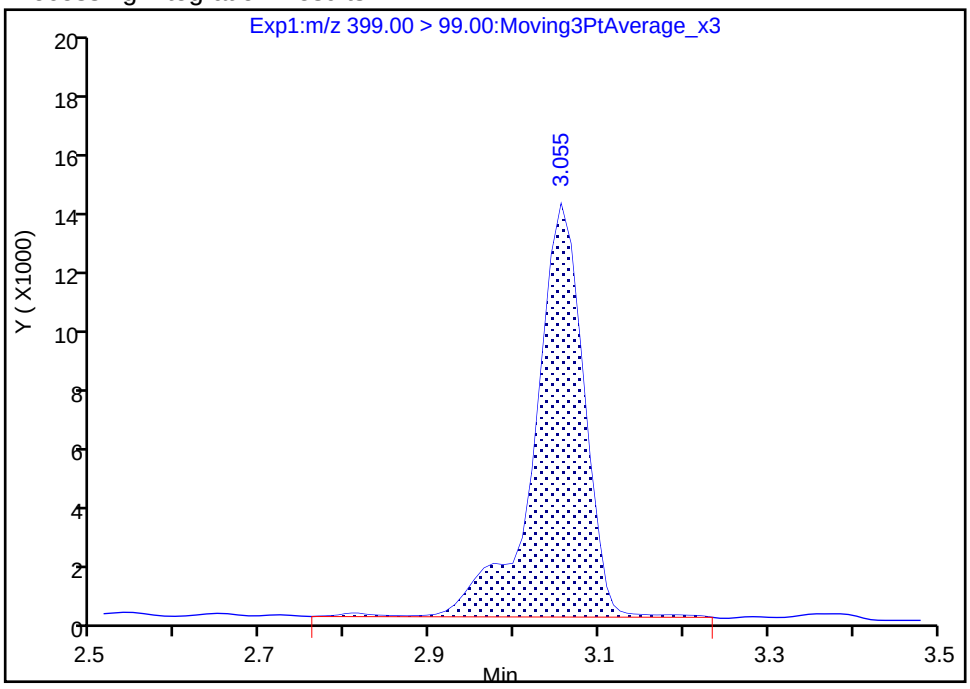
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

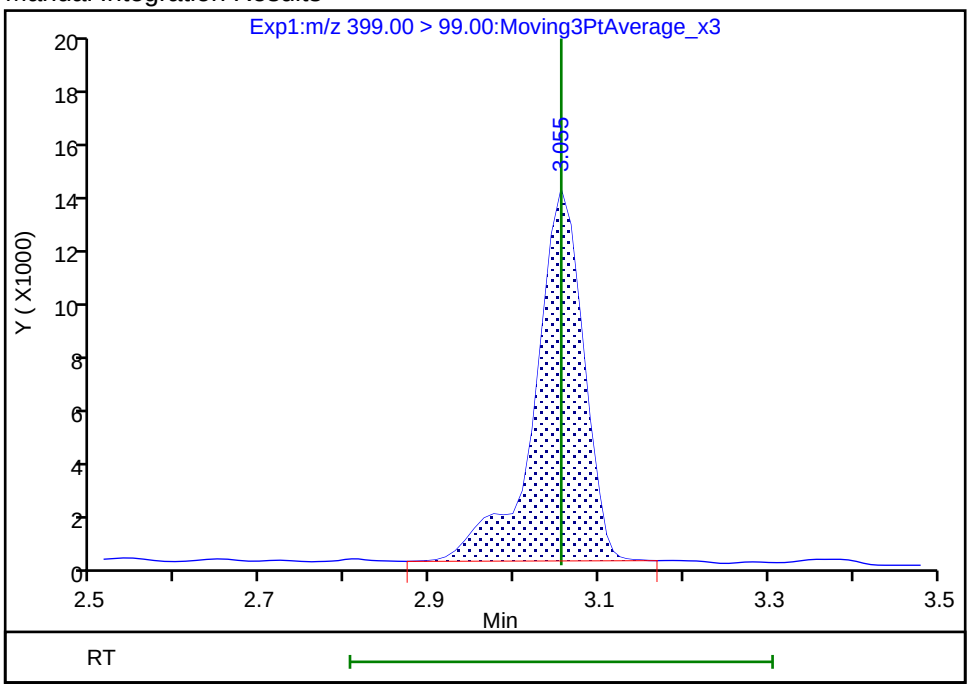
Processing Integration Results

RT: 3.06
Area: 58190
Amount: 0.232077
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 56864
Amount: 0.228674
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:28:16

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

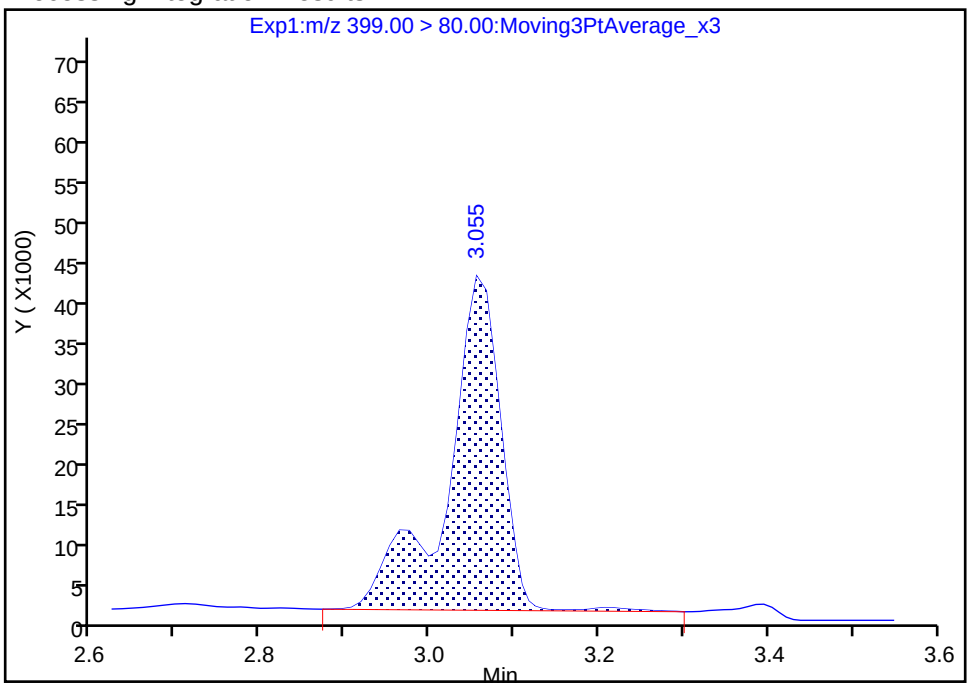
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

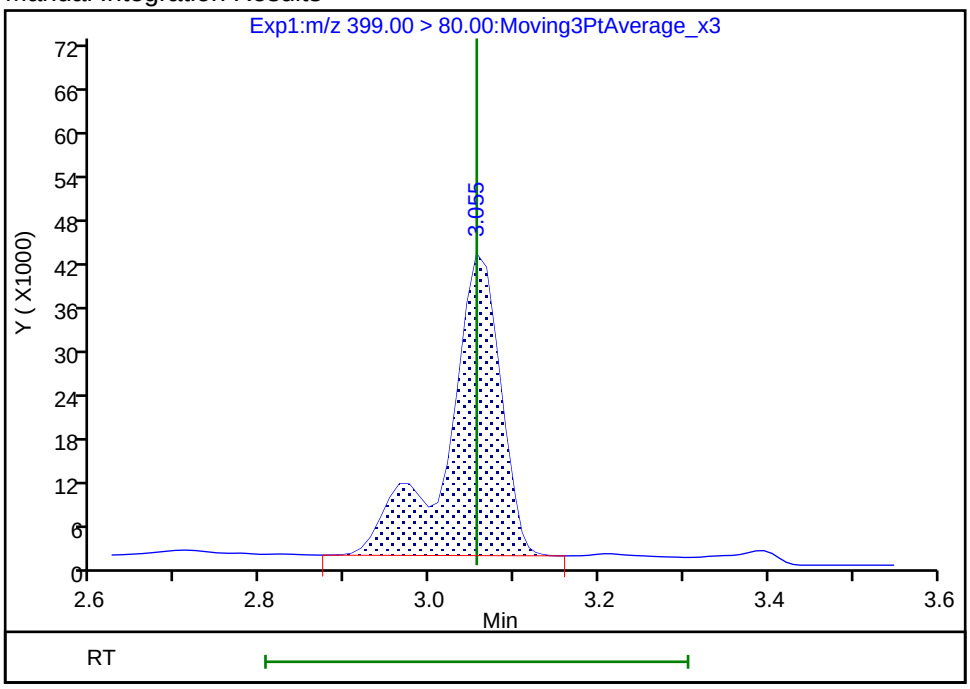
Processing Integration Results

RT: 3.06
Area: 186296
Amount: 0.232077
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 183564
Amount: 0.228674
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:28:30

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

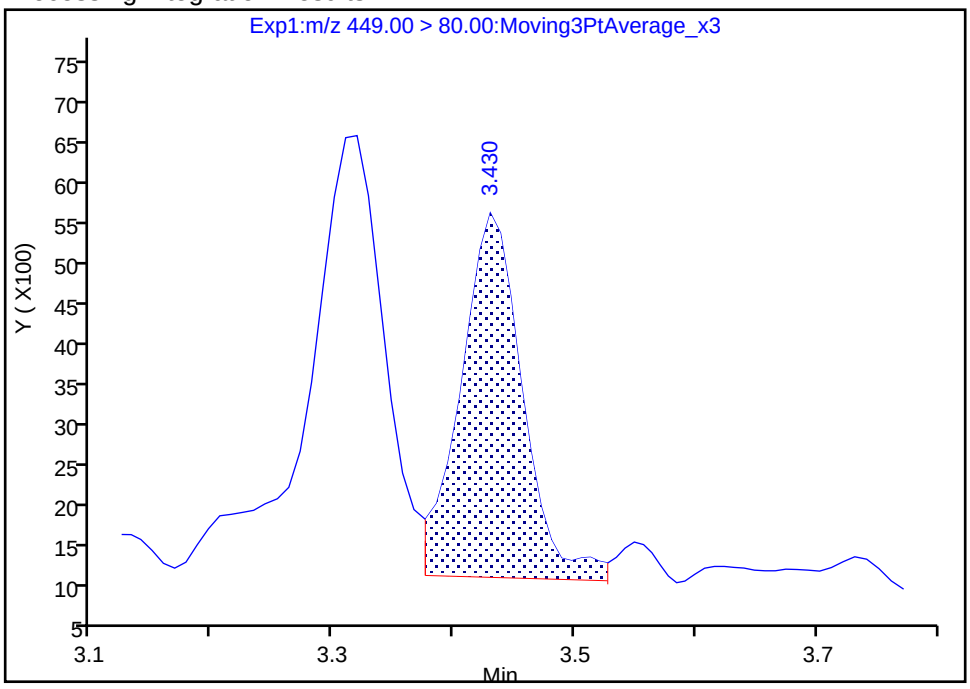
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 1

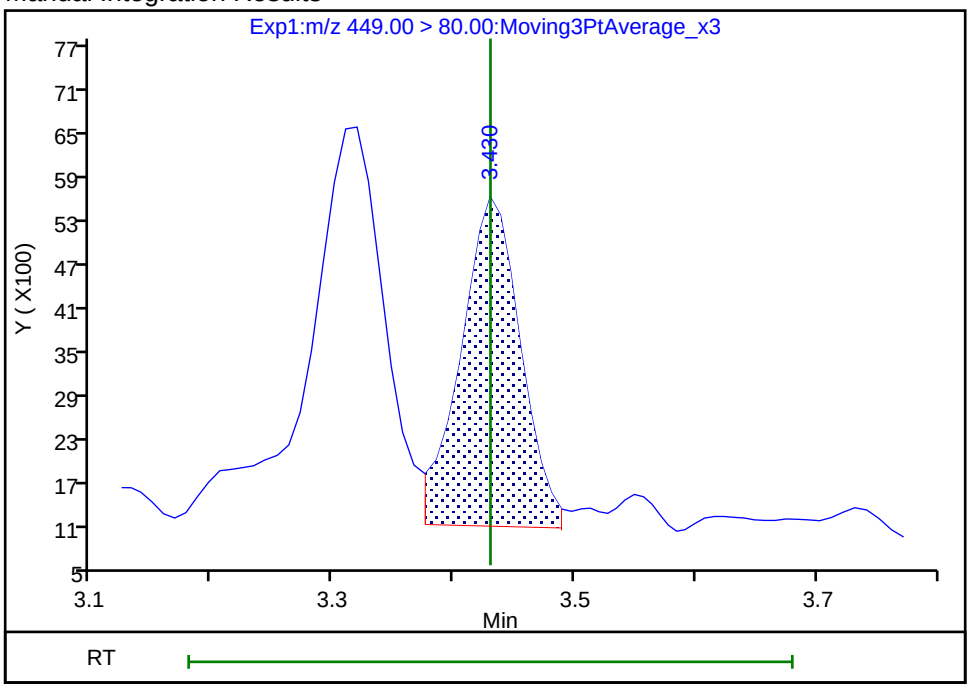
Processing Integration Results

RT: 3.43
Area: 16041
Amount: 0.029303
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 15436
Amount: 0.028198
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:29:33

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

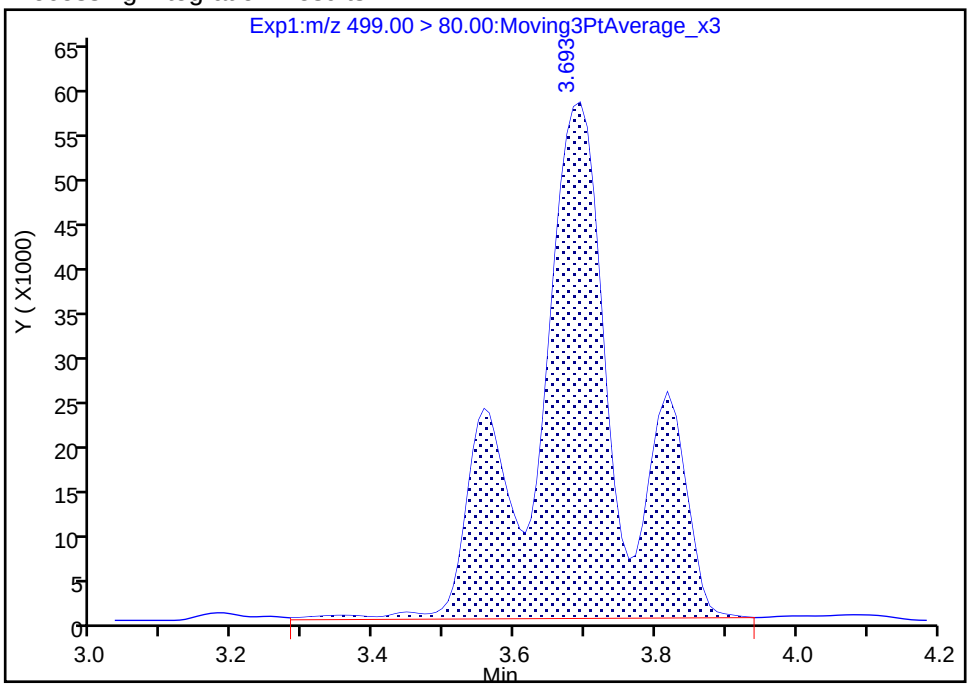
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

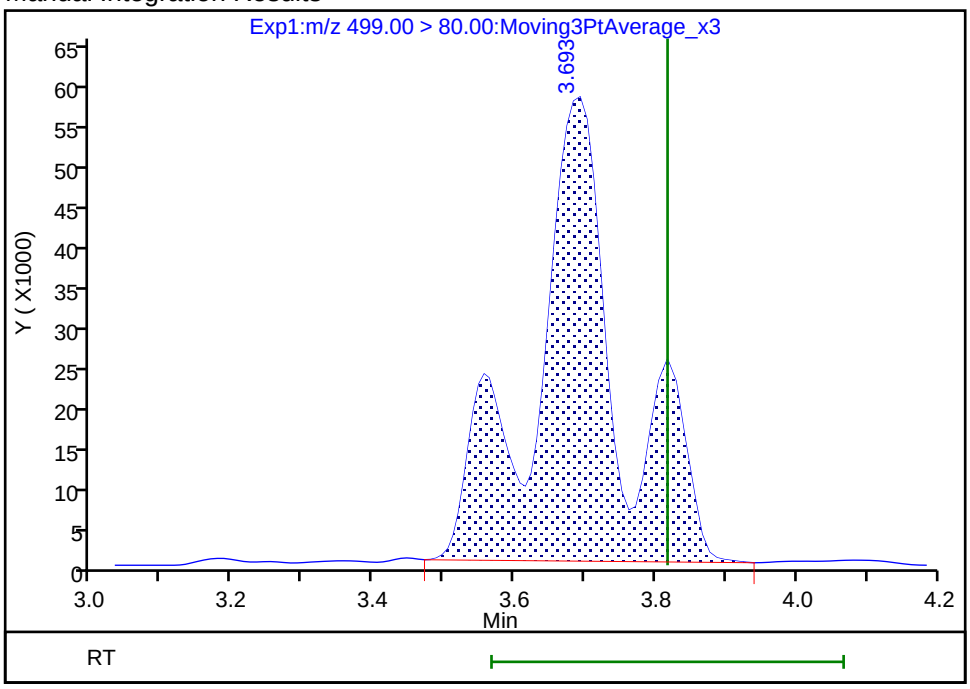
Processing Integration Results

RT: 3.69
Area: 499022
Amount: 1.034318
Amount Units: ng/ml



Manual Integration Results

RT: 3.69
Area: 486233
Amount: 1.007811
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:30:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

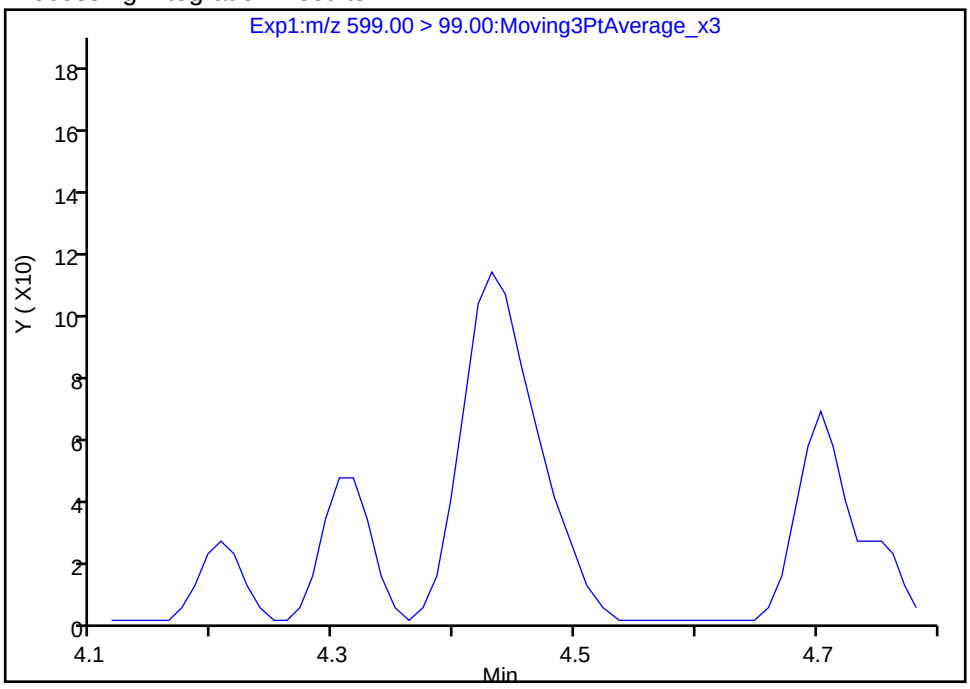
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

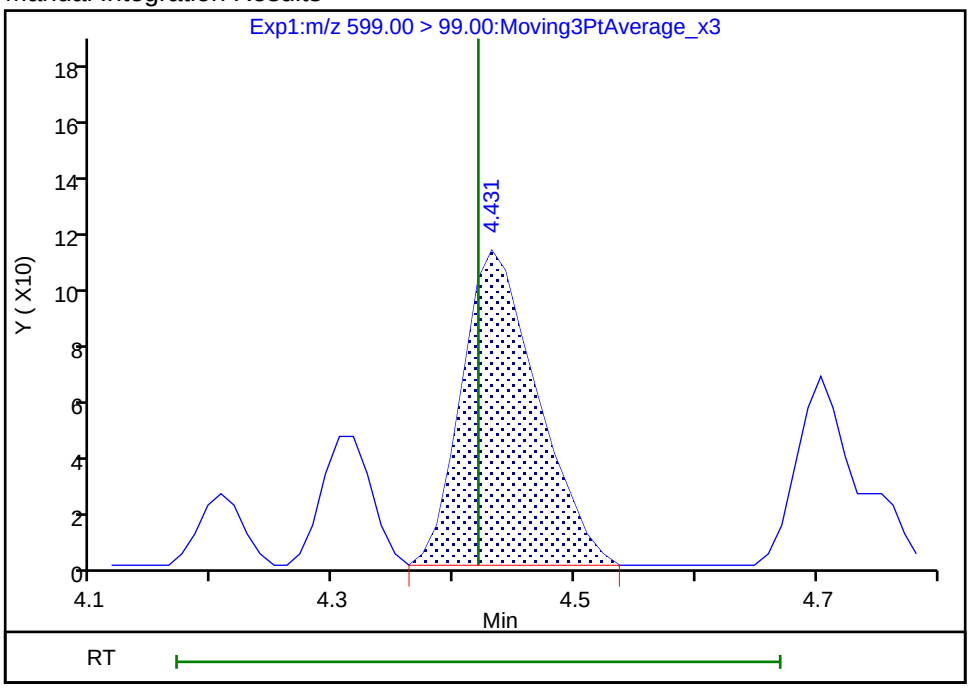
Not Detected
Expected RT: 4.42

Processing Integration Results



Manual Integration Results

RT: 4.43
Area: 480
Amount: 0.003685
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:31:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

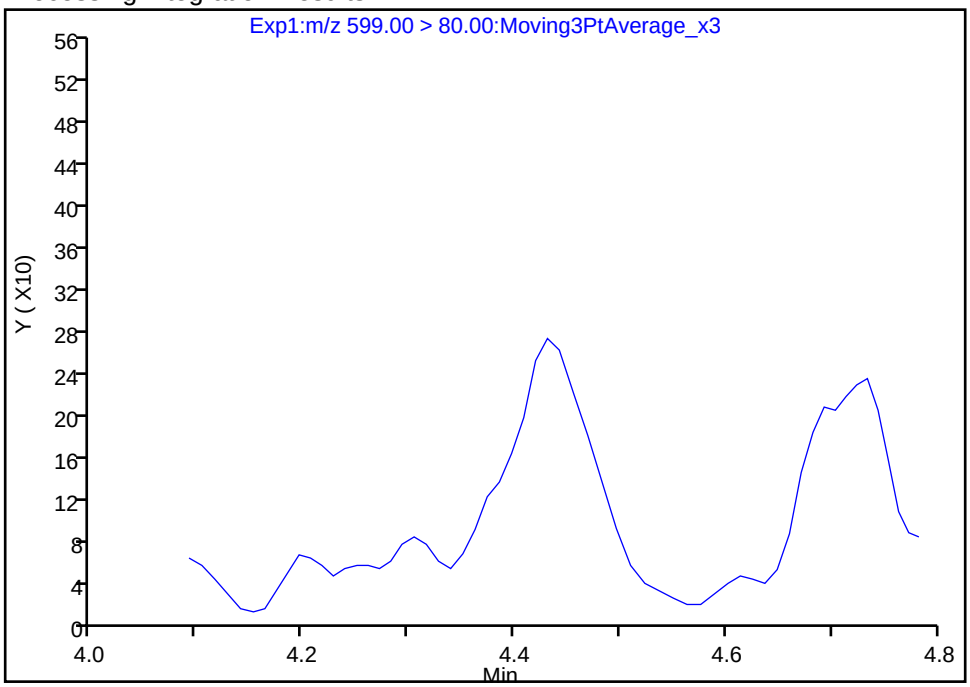
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

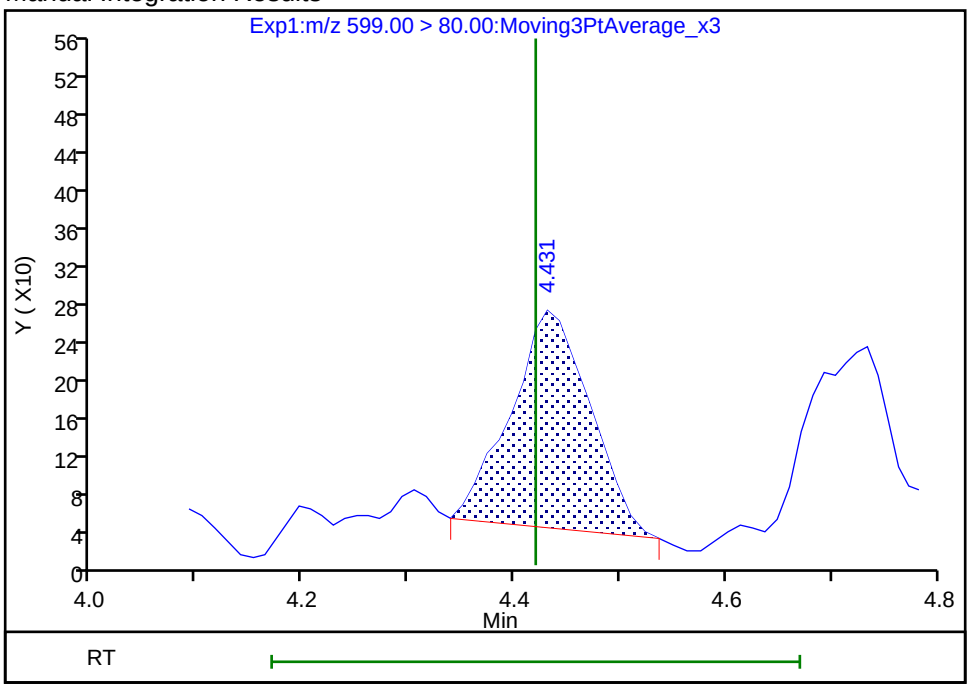
Not Detected
Expected RT: 4.42

Processing Integration Results



Manual Integration Results

RT: 4.43
Area: 1185
Amount: 0.003685
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:31:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

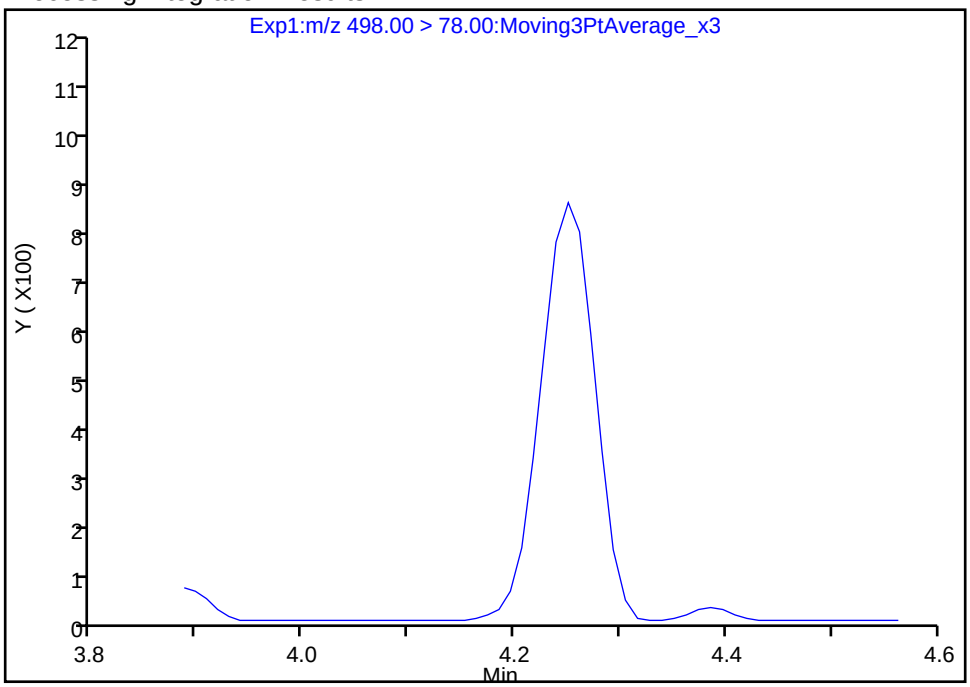
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

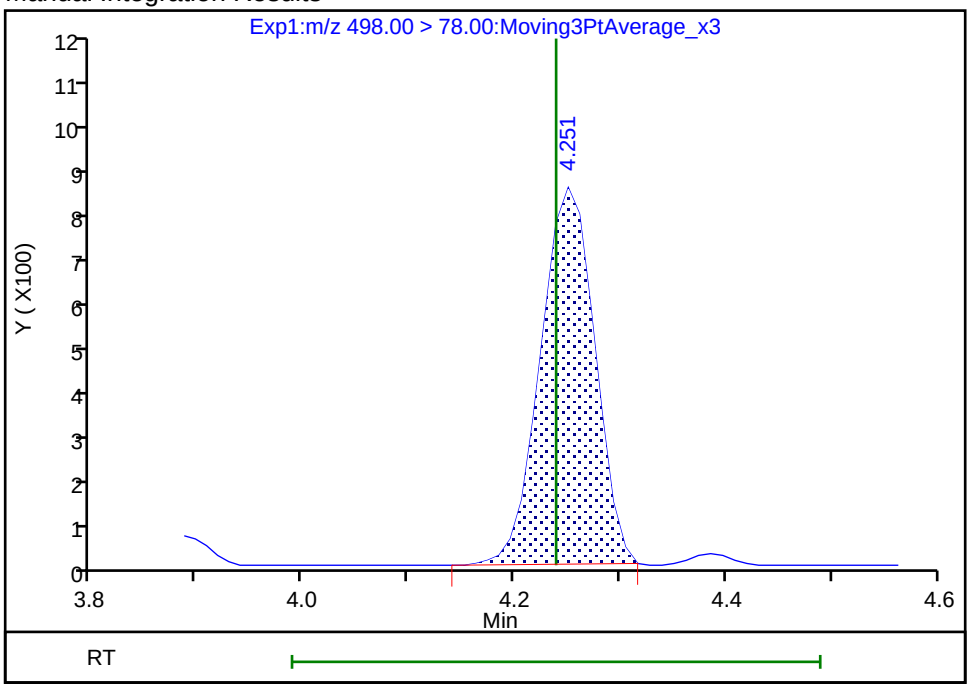
Not Detected
Expected RT: 4.24

Processing Integration Results



Manual Integration Results

RT: 4.25
Area: 3003
Amount: 0.005132
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:31:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

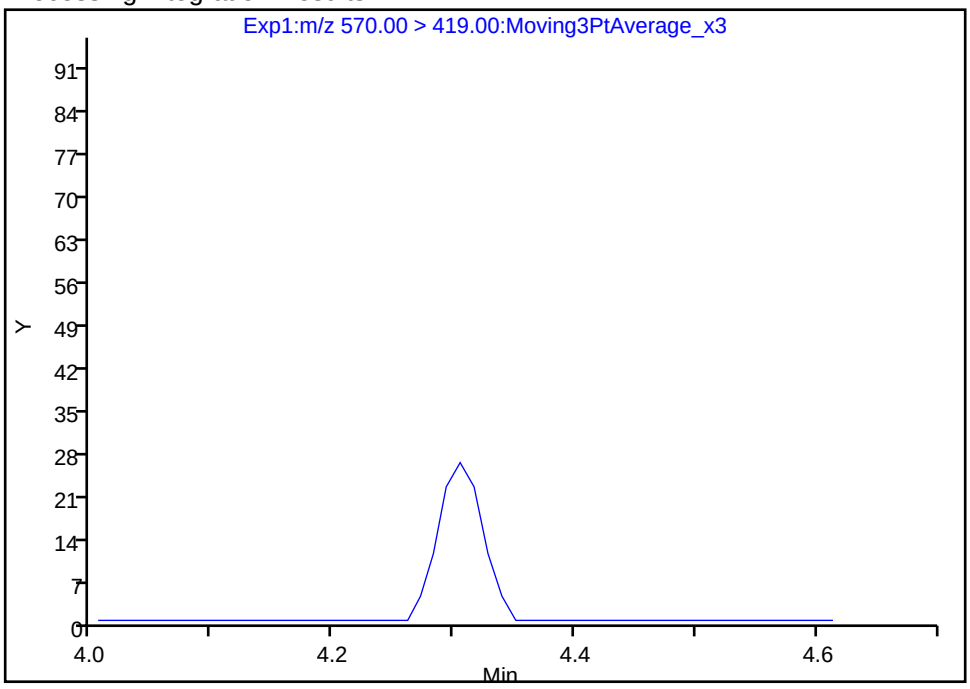
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

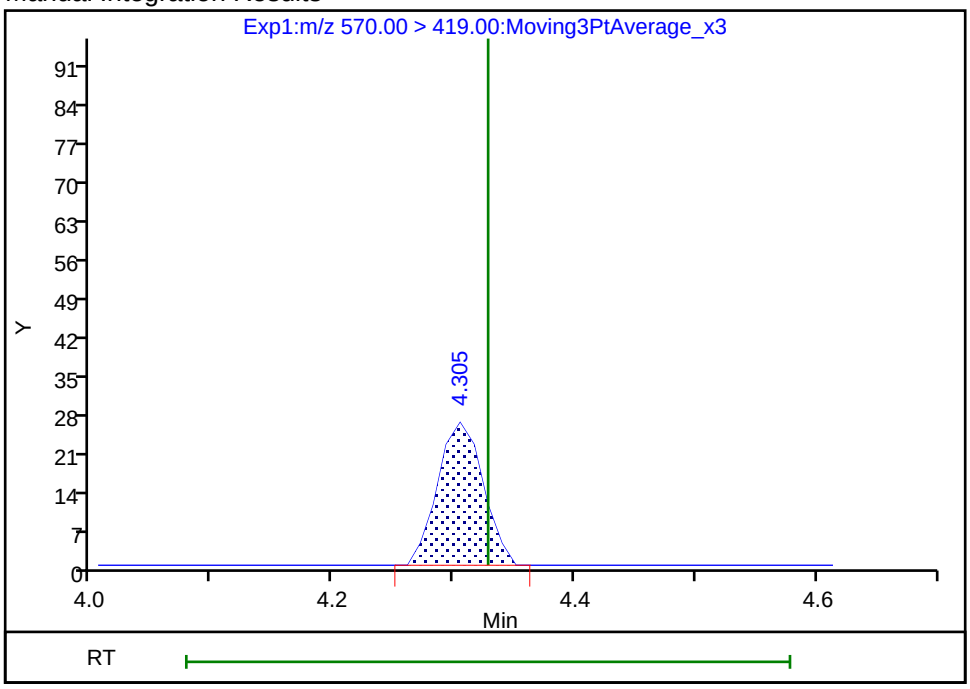
Not Detected
Expected RT: 4.33

Processing Integration Results



Manual Integration Results

RT: 4.30
Area: 67
Amount: 0.001344
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:31:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

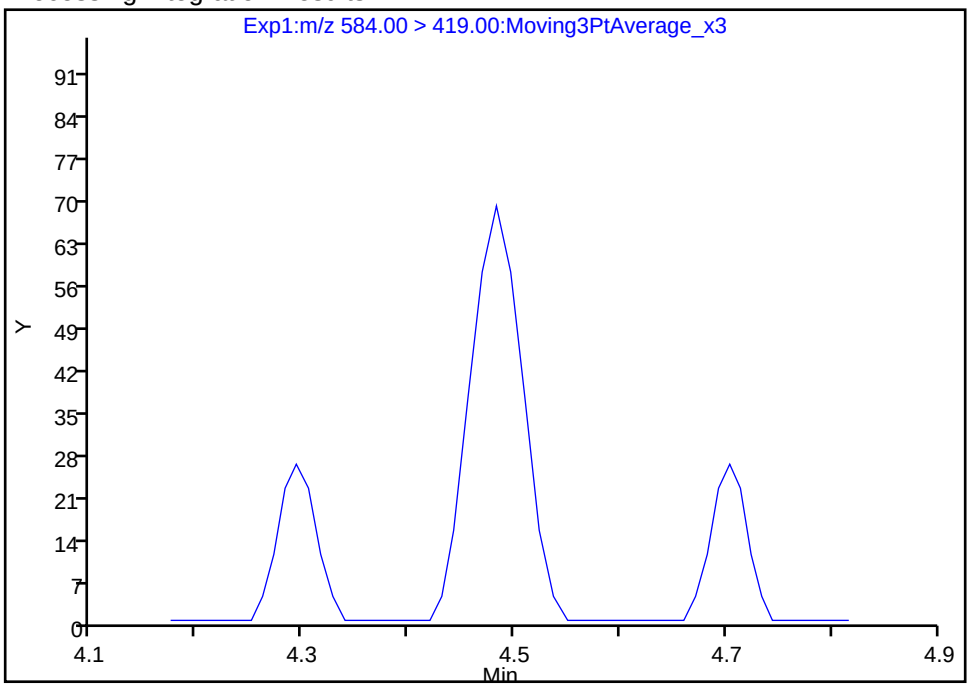
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

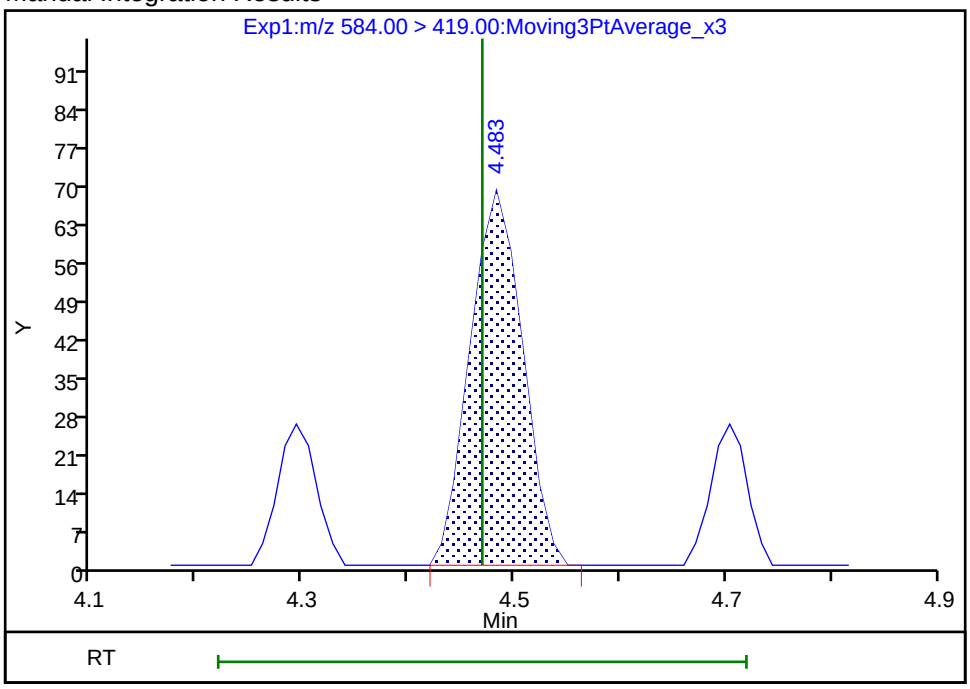
Not Detected
Expected RT: 4.47

Processing Integration Results



Manual Integration Results

RT: 4.48
Area: 238
Amount: 0.004811
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:31:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

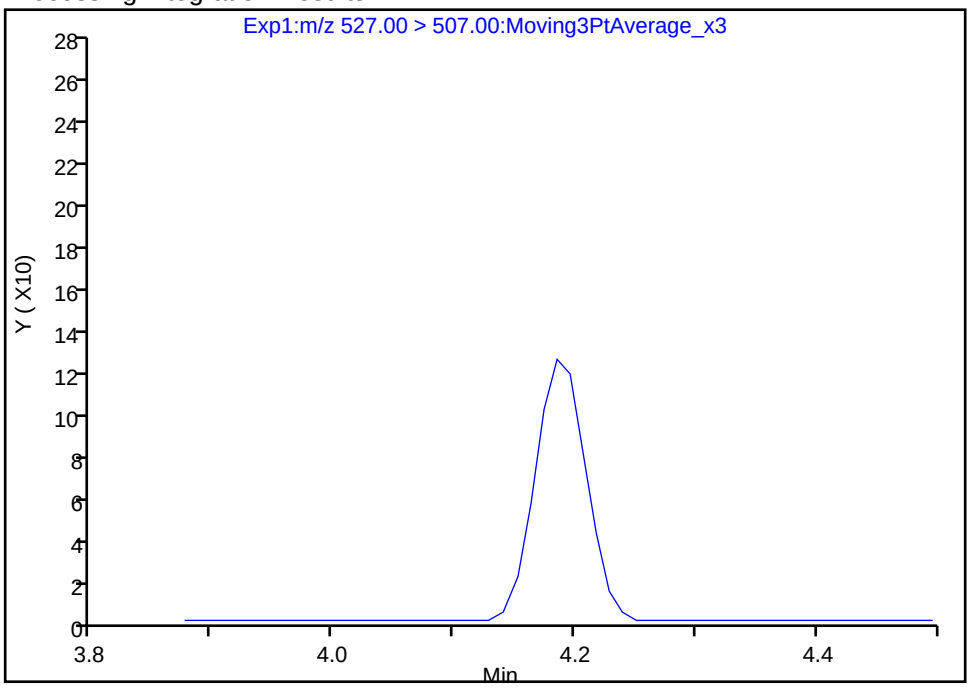
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F024.d				
Injection Date:	07-Dec-2019 09:30:45	Instrument ID:	LC812		
Lims ID:	480-163109-A-3-A	Lab Sample ID:	200-163109-3		
Client ID:	MW-05				
Operator ID:	lc812tech	ALS Bottle#:	24	Worklist Smp#:	24
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:, CAS: 39108-34-4

Signal: 1

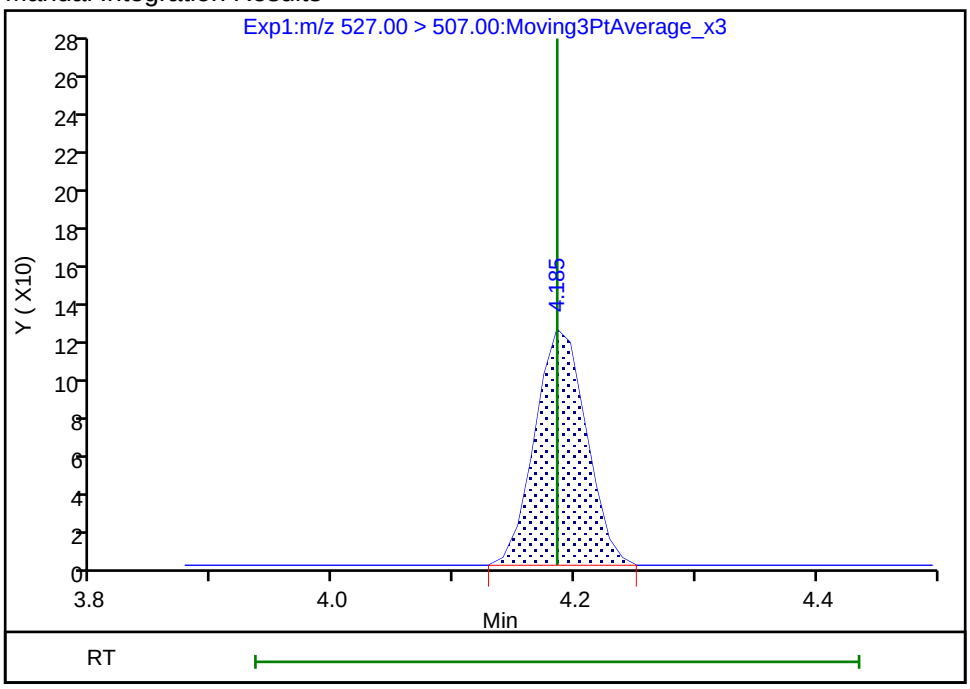
Not Detected
Expected RT: 4.19

Processing Integration Results



Manual Integration Results

RT: 4.19
Area: 367
Amount: 0.004373
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:31:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: DUP Lab Sample ID: 480-163109-4

Matrix: Water Lab File ID: SC120619F025.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 15:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 313.2(mL) Date Analyzed: 12/07/2019 09:38

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	6.9		1.6	0.80
2706-90-3	Perfluoropentanoic acid (PFPeA)	3.6		1.6	0.50
307-24-4	Perfluorohexanoic acid (PFHxA)	5.3		1.6	0.61
375-85-9	Perfluoroheptanoic acid (PFHpA)	3.4		1.6	0.73
335-67-1	Perfluorooctanoic acid (PFOA)	12		1.6	0.65
375-95-1	Perfluorononanoic acid (PFNA)	2.3		1.6	0.22
335-76-2	Perfluorodecanoic acid (PFDA)	2.1		1.6	0.61
2058-94-8	Perfluoroundecanoic acid (PFUnA)	1.9		1.6	0.62
307-55-1	Perfluorododecanoic acid (PFDoA)	2.2		1.6	0.47
72629-94-8	Perfluorotridecanoic acid (PFTriA)	1.9		1.6	0.48
376-06-7	Perfluorotetradecanoic acid (PFTeA)	1.9		1.6	0.73
375-73-5	Perfluorobutanesulfonic acid (PFBS)	20		1.6	0.39
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	8.4		1.6	0.64
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	2.6		1.6	0.76
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	46		1.6	0.49
335-77-3	Perfluorodecanesulfonic acid (PFDS)	1.8		1.6	0.72
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		8.0	8.0
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	1.7	J	16	1.4
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	2.3	J	16	1.2
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		16	4.4
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		16	2.3

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: DUP Lab Sample ID: 480-163109-4

Matrix: Water Lab File ID: SC120619F025.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 15:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 313.2(mL) Date Analyzed: 12/07/2019 09:38

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	110		50-150
STL01892	13C4 PFHpA	119		50-150
STL00990	13C4 PFOA	106		50-150
STL00991	13C4 PFOS	81		50-150
STL00995	13C5 PFNA	94		50-150
STL00992	13C4 PFBA	91		25-150
STL00993	13C2 PFHxA	110		50-150
STL00996	13C2 PFDA	88		50-150
STL00997	13C2 PFUnA	88		50-150
STL00998	13C2 PFDoA	79		50-150
STL01056	13C8 FOSA	71		25-150
STL01893	13C5 PFPeA	116		25-150
STL02116	13C2 PFTeDA	99		50-150
STL02118	d3-NMeFOSAA	90		50-150
STL02117	d5-NEtFOSAA	84		50-150
STL02279	M2-6:2 FTS	121		25-150
STL02280	M2-8:2 FTS	120		25-150
STL02337	13C3 PFBS	108		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d
Lims ID: 480-163109-A-4-A
Client ID: DUP
Sample Type: Client
Inject. Date: 07-Dec-2019 09:38:57 ALS Bottle#: 25 Worklist Smp#: 25
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 480-163109-A-4-A
Misc. Info.: 200-0039120-025 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 15:37:57
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.907	1.917	-0.010	0.555	1959408	2.27		90.9	13788	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.917	1.926	-0.009	1.005	167336	0.2146			27.6	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.660	1911187	2.90		116	2812	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.271	2.285	-0.014	1.000	96380	0.1113			2.6	M
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.298	2.298	0.0	1.006	569169	0.6139	Target=2.03		13.2	M
298.90 > 99.00	2.298	2.298	0.0	1.006	343281		1.66(1.01-3.04)		74.6	M
D 47 13C3 PFBS										
301.90 > 80.00	2.284	2.312	-0.028	0.664	1983122	2.52		108	45556	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.660	2.673	-0.013	1.000	136523	0.1660	Target=13.76		8.7	M
313.00 > 119.00	2.660	2.673	-0.013	1.000	10013		13.63(6.88-20.64)		14.8	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.660	2.673	-0.013	0.774	2014234	2.74		110	3772	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.055	3.055	0.0	1.000	94094	0.1073	Target=3.95		11.1	M
363.00 > 169.00	3.055	3.055	0.0	1.000	26298		3.58(1.97-5.92)		54.9	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.889	1618772	2.61		110	8524	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.889	2072834	2.97		119	5794	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	204145	0.2635	Target=3.90		32.1	M
399.00 > 99.00	3.044	3.055	-0.011	0.996	59708		3.42(1.95-5.85)		70.6	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.422	3.430	-0.008	1.000	12909	0.1061			152	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.422	3.430	-0.008	0.899	39512	0.0810	Target=6.46		7.2	
449.00 > 99.00	3.422	3.430	-0.008	0.899	8915		4.43(3.23-9.69)		14.7	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.422	3.430	-0.008	0.995	306104	2.87		121	136	
D 14 13C4 PFOA										
417.00 > 372.00	3.438	3.438	0.0	1.000	1962854	2.65		106	4098	
* 62 13C2 PFOA										
415.00 > 370.00	3.438	3.438	0.0		2035934	2.50			4266	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.438	3.447	-0.009	1.000	324629	0.3727	Target=2.40		39.7	M
413.00 > 169.00	3.438	3.447	-0.009	1.000	154676		2.10(1.20-3.60)		588	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.675	3.817	-0.142	0.966	623767	1.45	Target=5.74		162	M
499.00 > 99.00	3.657	3.817	-0.160	0.961	148122		4.21(2.87-8.61)		253	M
D 18 13C4 PFOS										
503.00 > 80.00	3.805	3.817	-0.012	1.107	951985	1.93		80.8	374	
20 Perfluorononanoic acid										
463.00 > 419.00	3.829	3.829	0.0	1.000	46028	0.0733	Target=7.01		12.8	
463.00 > 169.00	3.829	3.829	0.0	1.000	4937		9.32(3.50-10.51)		30.7	
D 19 13C5 PFNA										
468.00 > 423.00	3.829	3.842	-0.013	1.114	1601497	2.35		94.2	6789	
D 23 13C2 PFDA										
515.00 > 470.00	4.164	4.175	-0.011	1.211	1474161	2.20		88.0	4503	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.175	4.175	-0.001	1.003	36813	0.0645	Target=7.28		23.6	
513.00 > 169.00	4.164	4.175	-0.011	1.000	3880		9.49(3.64-10.91)		40.4	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.175	4.185	-0.011	1.214	366468	2.88		120	211	
25 1H,1H,2H,2H-perfluorodecanesulfoni										M
527.00 > 507.00	4.175	4.185	-0.011	1.000	4302	0.0609			89.3	M
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	33686	0.0546			461	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.233	1550444	1.77		70.7	6036	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.317	4.317	0.0	1.255	144534	2.24		89.5	1518	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.317	4.328	-0.011	1.000	2747	0.0547			47.4	M
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.420	4.420	0.0	1.162	16085	0.0561	Target=2.76		53.9	
599.00 > 99.00	4.420	4.420	0.0	1.162	5338		3.01(1.38-4.14)		53.3	
D 30 13C2 PFUnA										
565.00 > 520.00	4.442	4.456	-0.014	1.292	1257610	2.21		88.3	4746	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.442	4.456	-0.014	1.000	24982	0.0586	Target=5.78		26.3	M
563.00 > 169.00	4.442	4.456	-0.014	1.000	5260		4.75(2.89-8.67)		88.3	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.296	151007	2.11		84.4	1288	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.456	4.469	-0.013	1.000	3542	0.0708			48.5	M
37 Perfluorododecanoic acid										
613.00 > 569.00	4.683	4.693	-0.010	1.000	30915	0.0679	Target=5.13		9.2	
613.00 > 169.00	4.683	4.693	-0.010	1.000	6061		5.10(2.56-7.69)		61.8	
D 36 13C2 PFDoA										
615.00 > 570.00	4.683	4.693	-0.010	1.362	1231152	1.97		78.8	4270	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.897	4.906	-0.009	1.046	26190	0.0606	Target=3.82		12.3	
663.00 > 169.00	4.897	4.906	-0.009	1.046	7220		3.63(1.91-5.74)		107	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.085	5.094	-0.009	1.479	1294549	2.47		98.8	8820	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.094	5.094	0.0	1.002	6310	0.0607	Target=1.05		89.8	
713.00 > 219.00	5.085	5.094	-0.009	1.000	5331		1.18(0.52-1.57)		119	M

QC Flag Legend

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:20:07 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d

Injection Date: 07-Dec-2019 09:38:57 Instrument ID: LC812

Lims ID: 480-163109-A-4-A Lab Sample ID: 200-163109-4

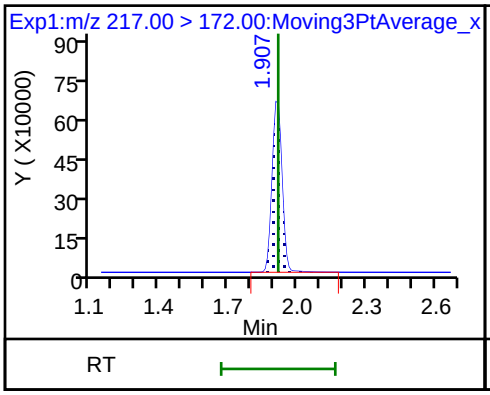
Client ID: DUP

Operator ID: lc812tech ALS Bottle#: 25 Worklist Smp#: 25

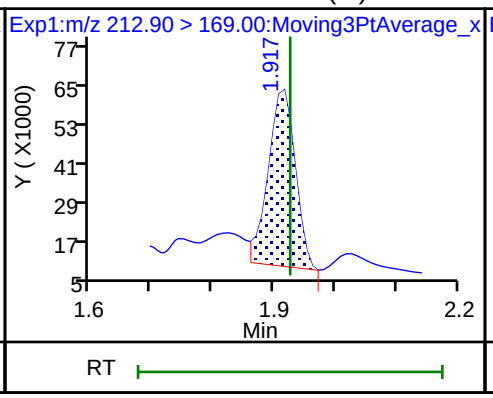
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

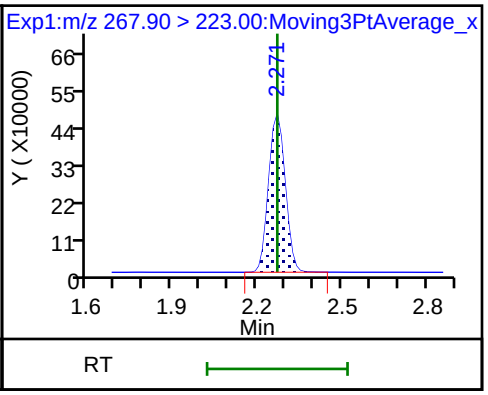
D 1 13C4 PFBA



2 Perfluorobutanoic acid (M)



D 3 13C5 PFPeA



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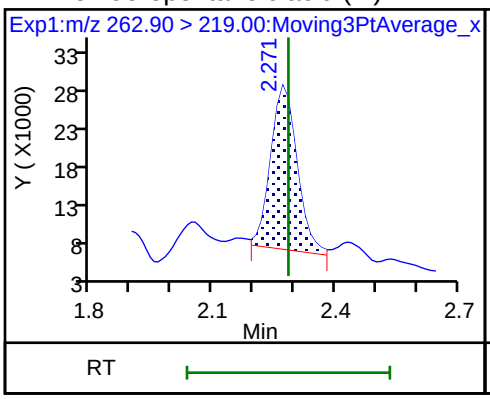
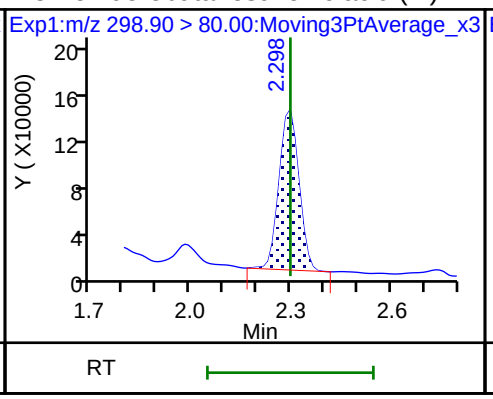


5 Perfluorobutanesulfonic acid (M)



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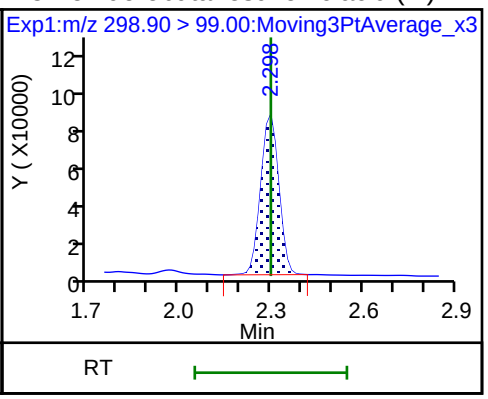
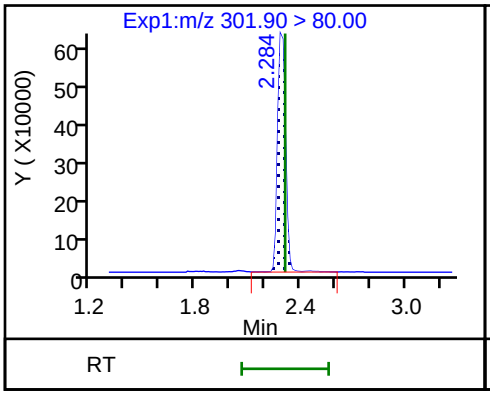


D 47 13C3 PFBS



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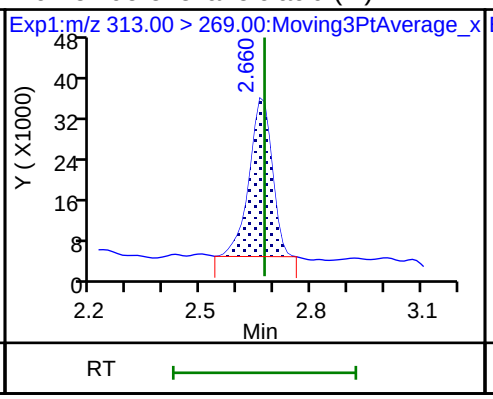
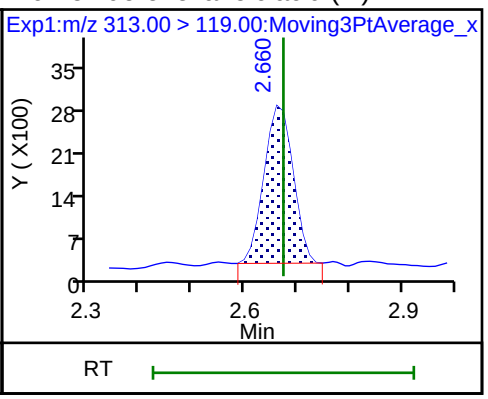
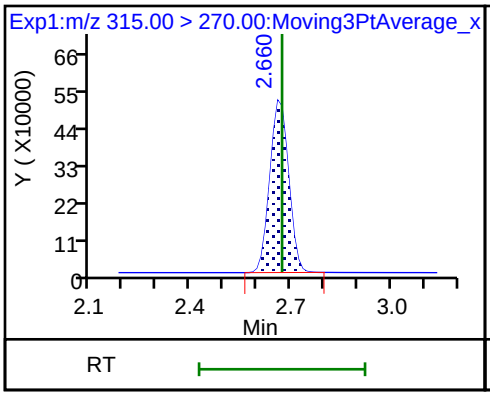


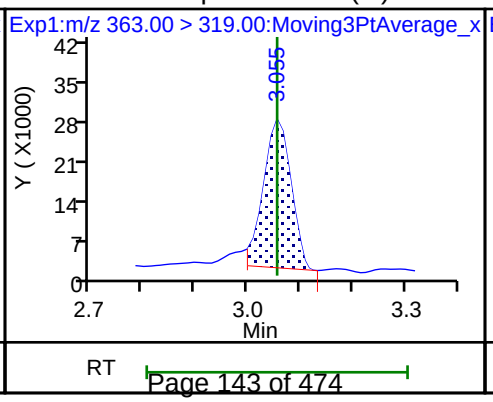
6 Perfluorohexanoic acid (M)



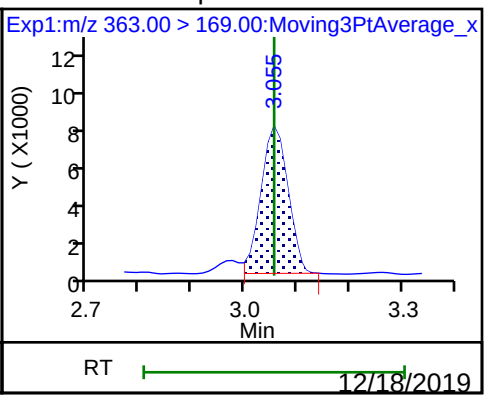
D 7 13C2 PFHxA



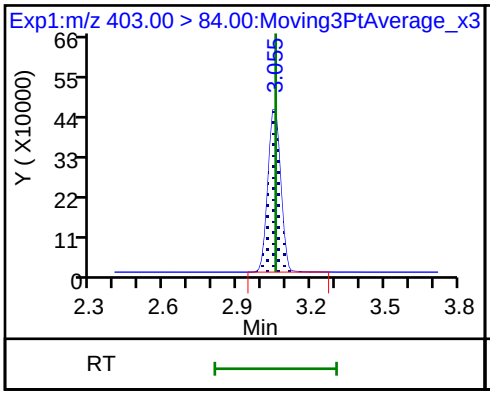
10 Perfluoroheptanoic acid (M)



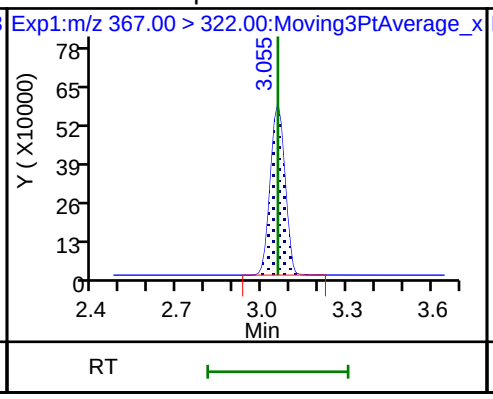
10 Perfluoroheptanoic acid



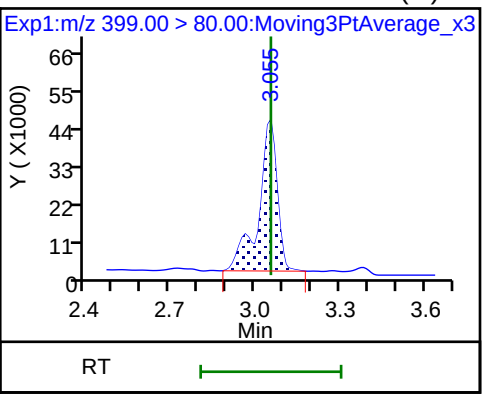
D 11 18O2 PFHxS



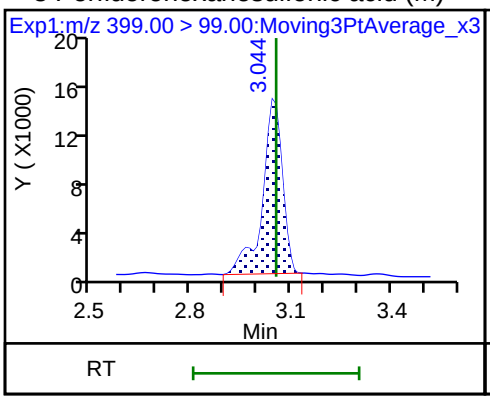
D 9 13C4 PFHpA



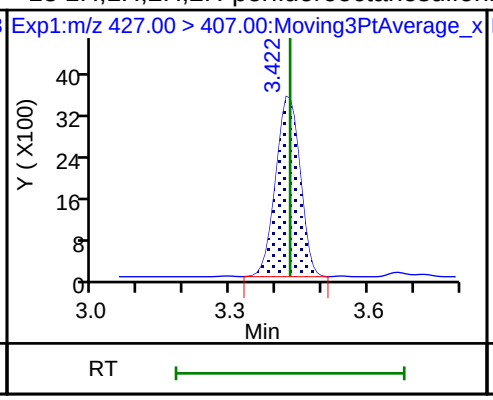
8 Perfluorohexanesulfonic acid (M)



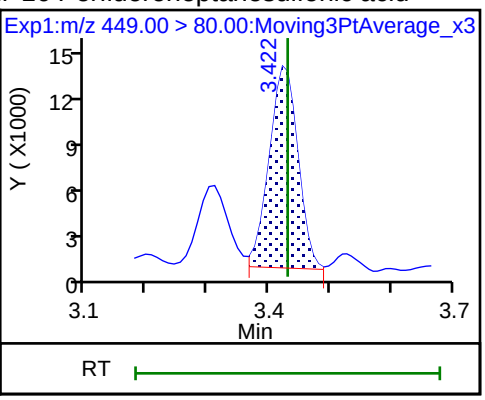
8 Perfluorohexanesulfonic acid (M)



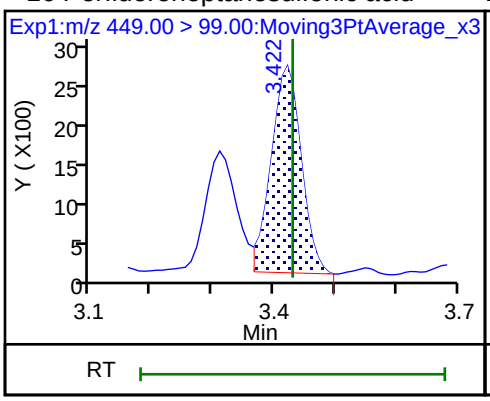
13 1H,1H,2H,2H-perfluorooctanesulfoni



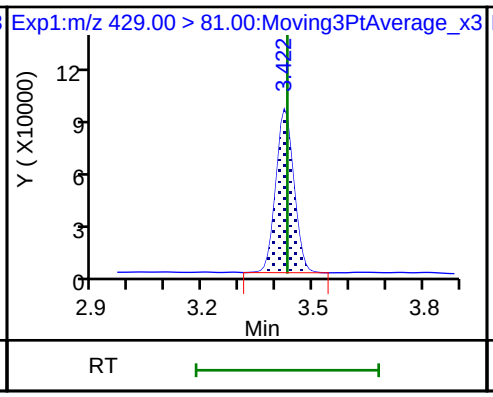
16 Perfluoroheptanesulfonic acid



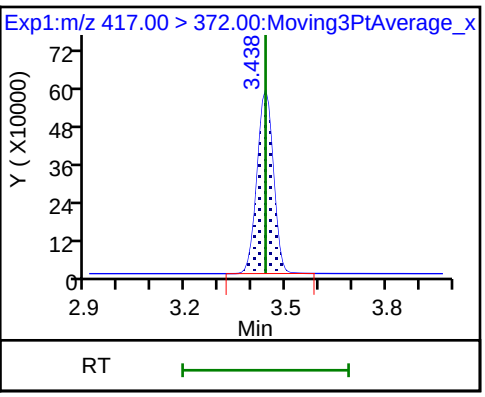
16 Perfluoroheptanesulfonic acid



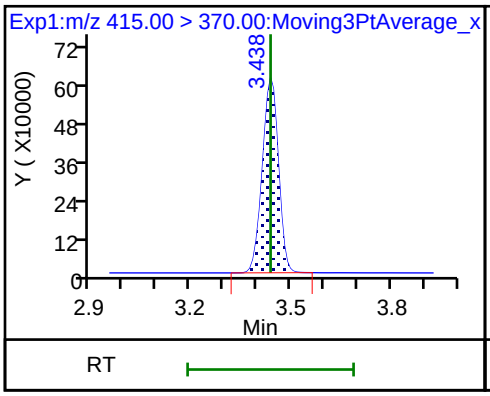
D 12 M2-6:2 FTS



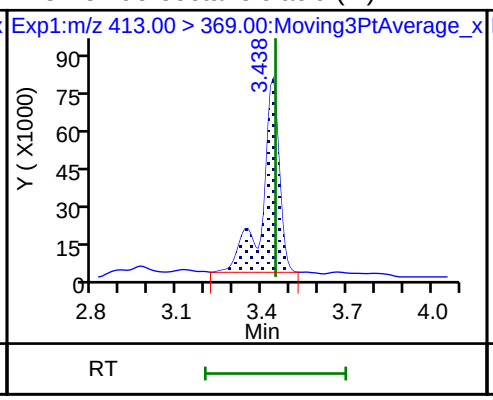
D 14 13C4 PFOA



* 62 13C2 PFOA



15 Perfluorooctanoic acid (M)



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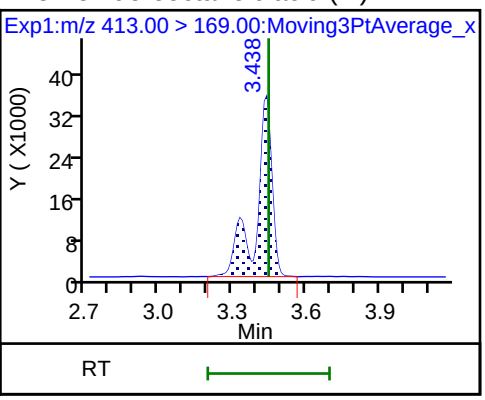

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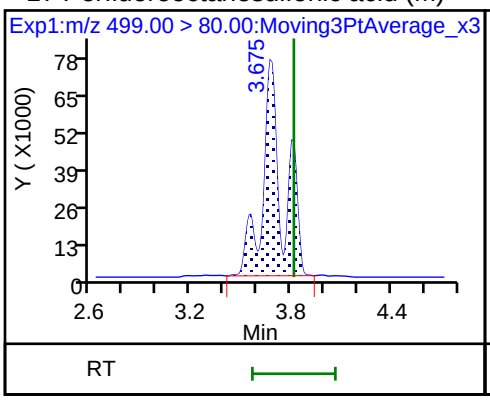
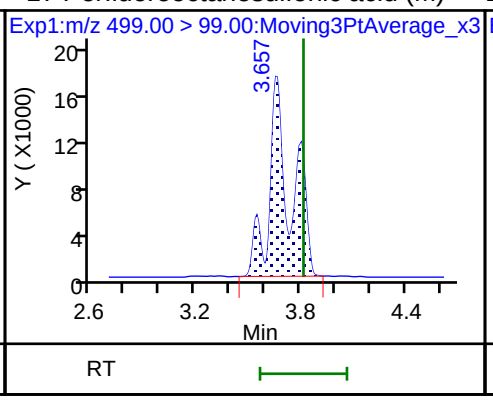
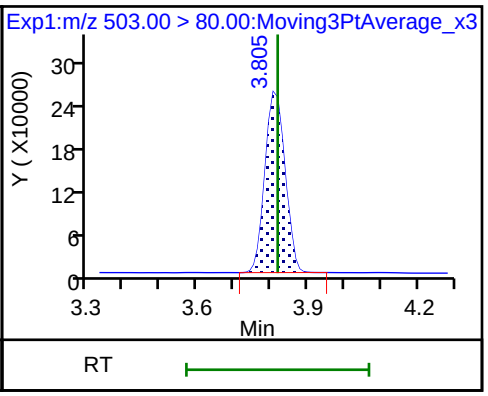


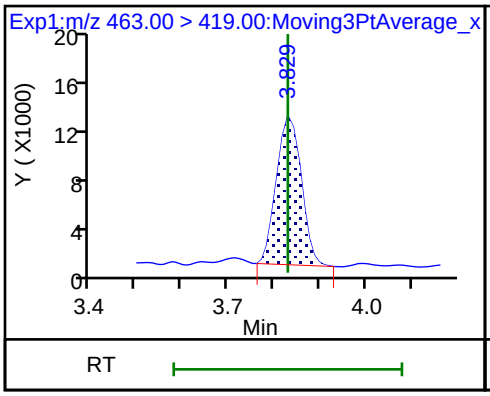
17 Perfluorooctanesulfonic acid (M)



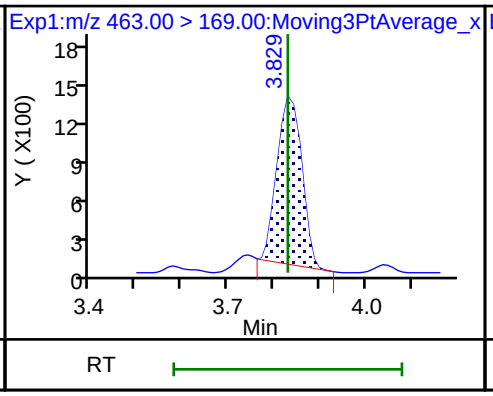
D 18 13C4 PFOS



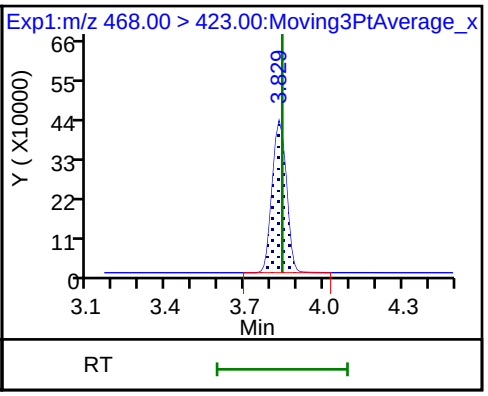
20 Perfluorononanoic acid



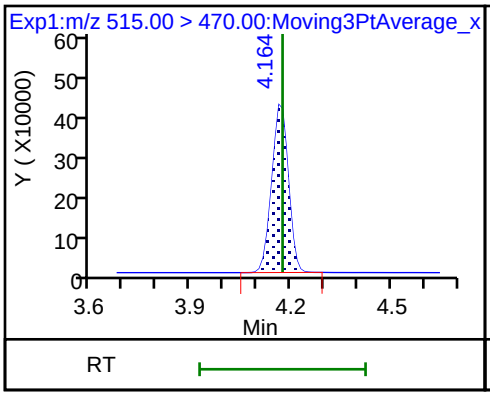
20 Perfluorononanoic acid



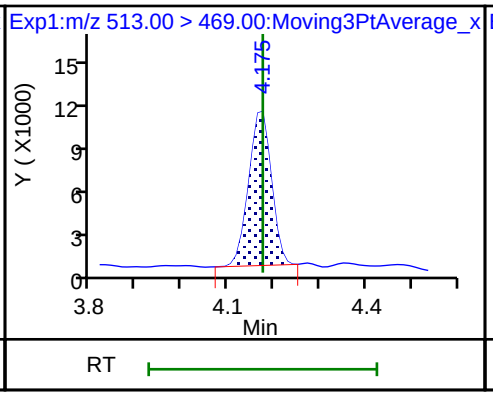
D 19 13C5 PFNA



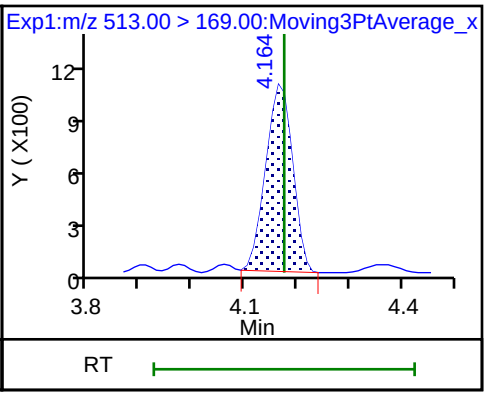
D 23 13C2 PFDA



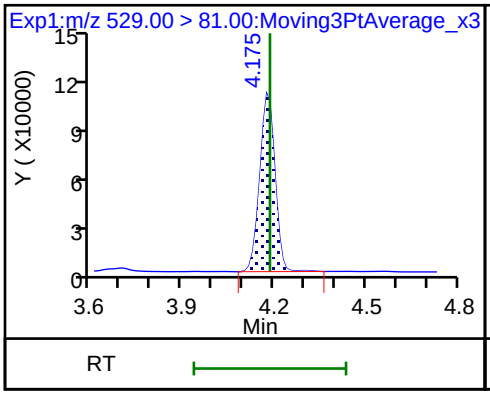
24 Perfluorodecanoic acid



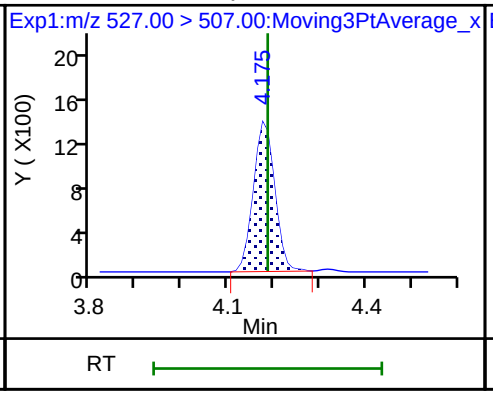
24 Perfluorodecanoic acid



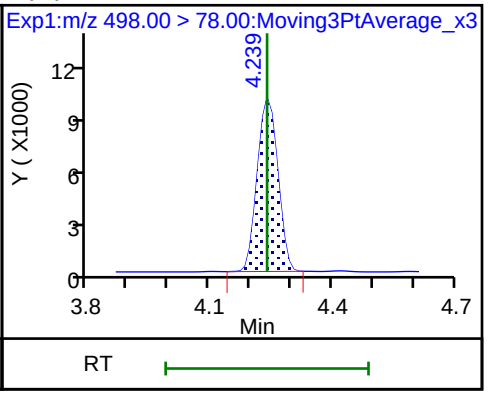
D 26 M2-8:2 FTS



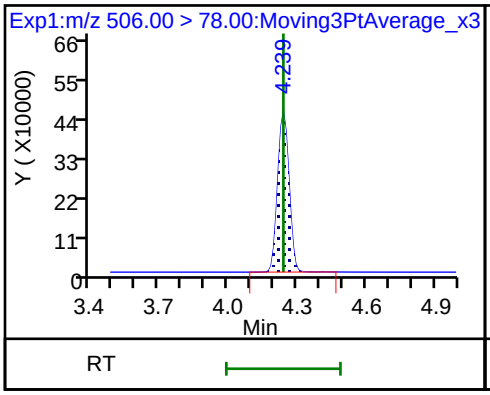
25 1H,1H,2H,2H-perfluorodecanesulfoni



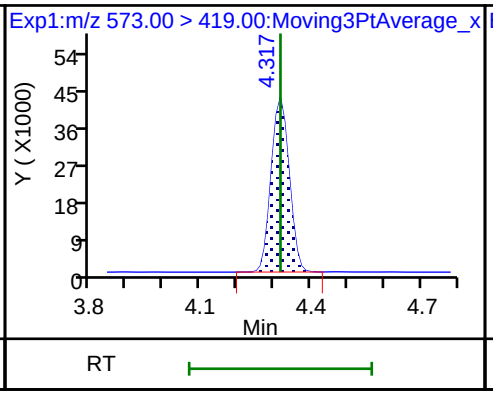
22 Perfluorooctanesulfonamide



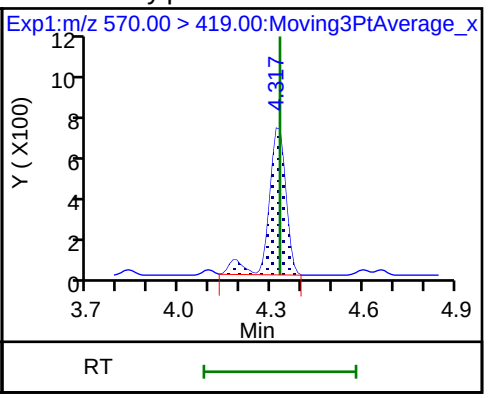
D 21 13C8 FOSA



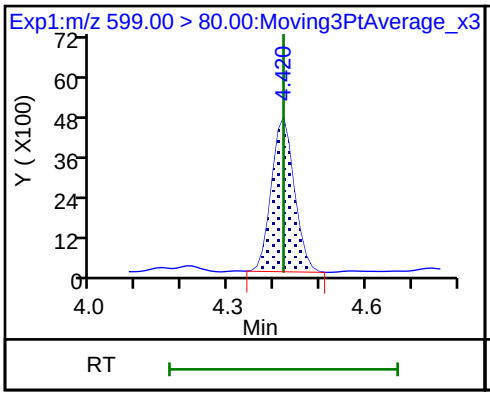
D 27 d3-NMeFOSAA



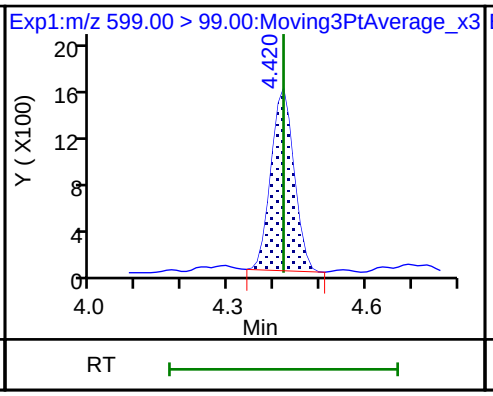
28 N-methylperfluorooctanesulfonamido (M)



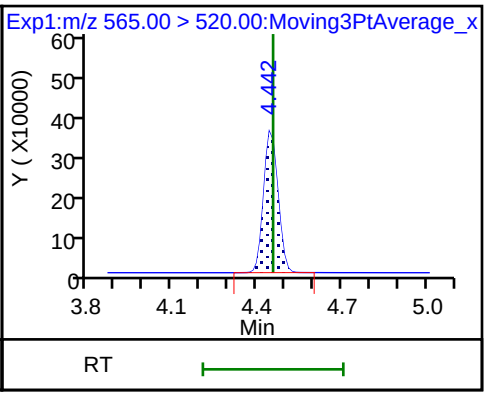
29 Perfluorodecanesulfonic acid



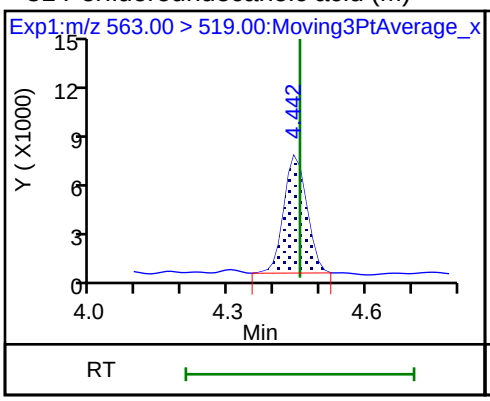
29 Perfluorodecanesulfonic acid



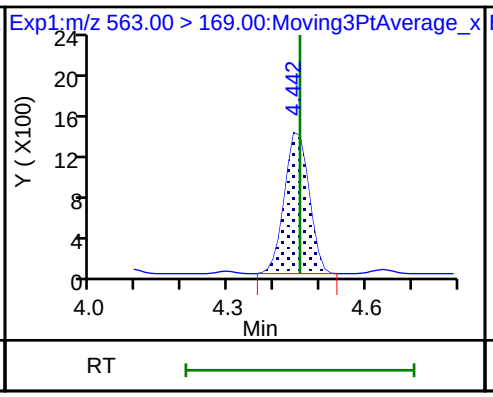
D 30 13C2 PFUnA



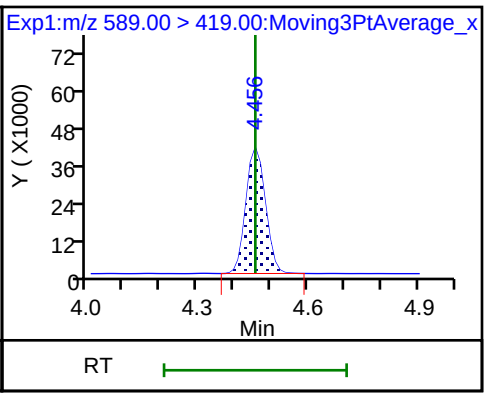
31 Perfluoroundecanoic acid (M)



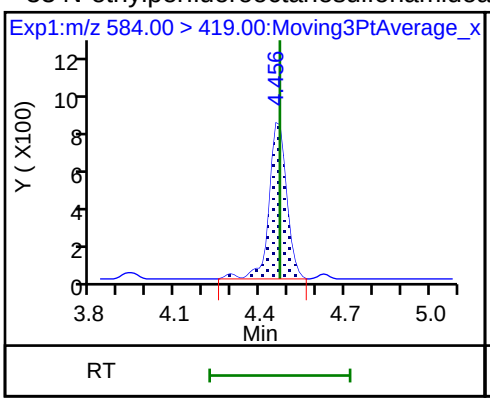
31 Perfluoroundecanoic acid



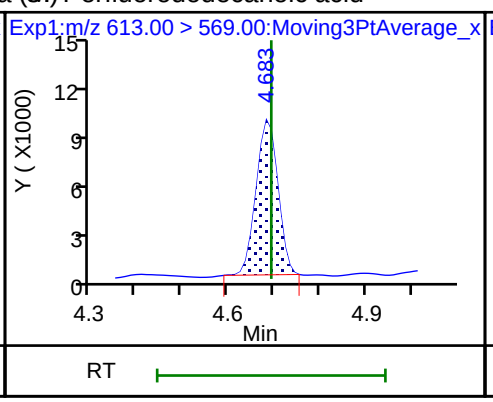
D 32 d5-NEtFOSAA



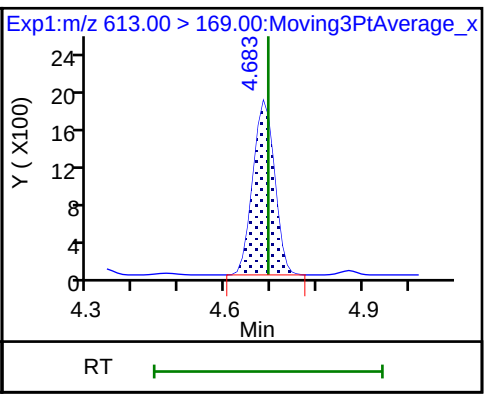
33 N-ethylperfluorooctanesulfonamidoa (M)



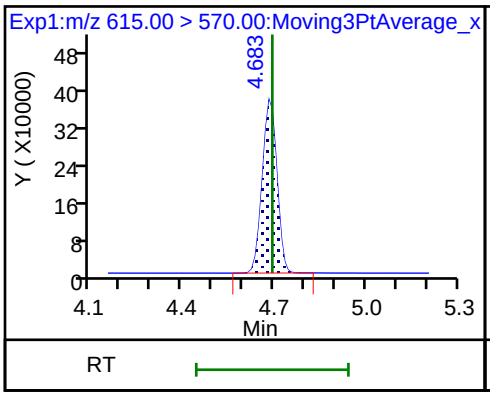
37 Perfluorododecanoic acid



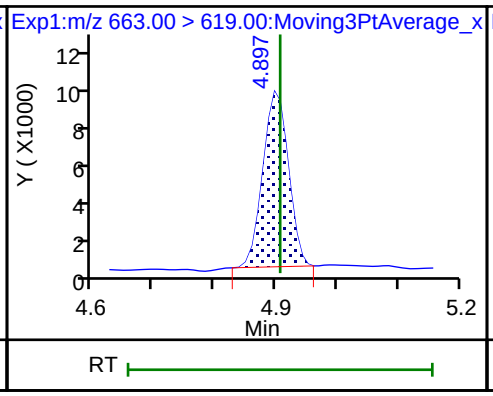
37 Perfluorododecanoic acid



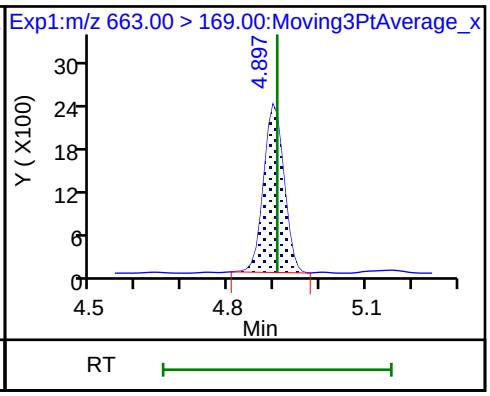
D 36 13C2 PFDoA



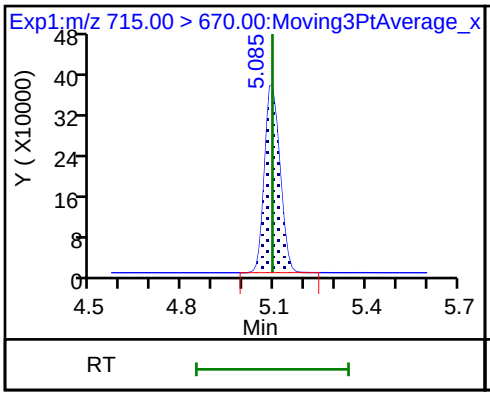
41 Perfluorotridecanoic acid



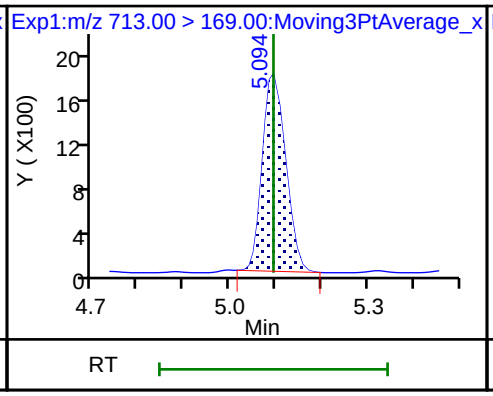
41 Perfluorotridecanoic acid



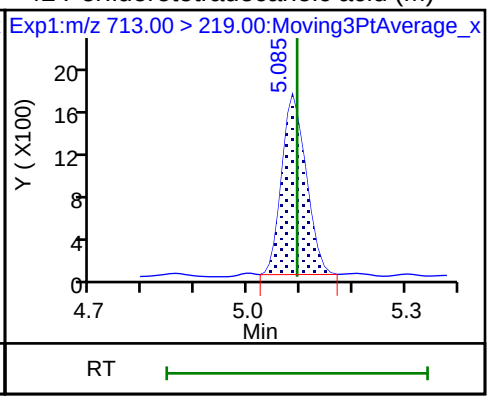
D 43 13C2 PFTeDA



42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

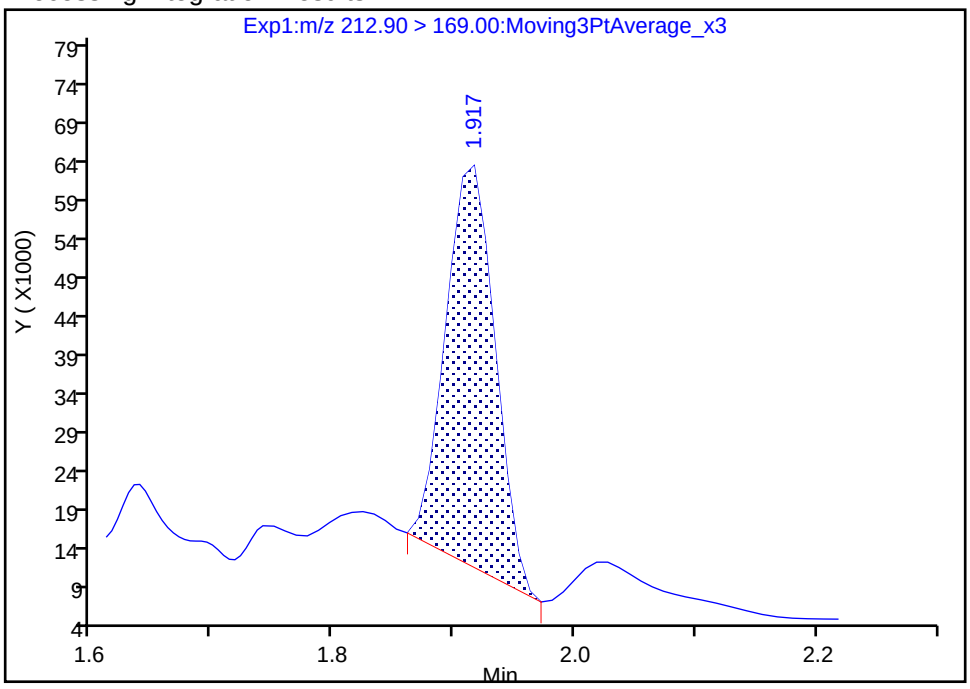
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

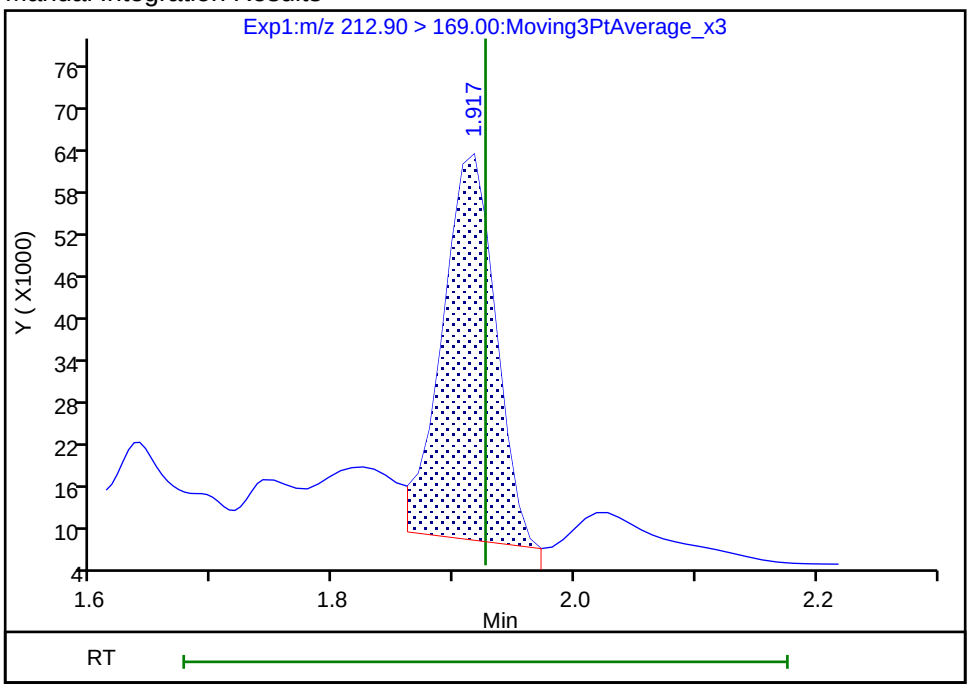
Processing Integration Results

RT: 1.92
Area: 145797
Amount: 0.186973
Amount Units: ng/ml



Manual Integration Results

RT: 1.92
Area: 167336
Amount: 0.214595
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:33:55

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

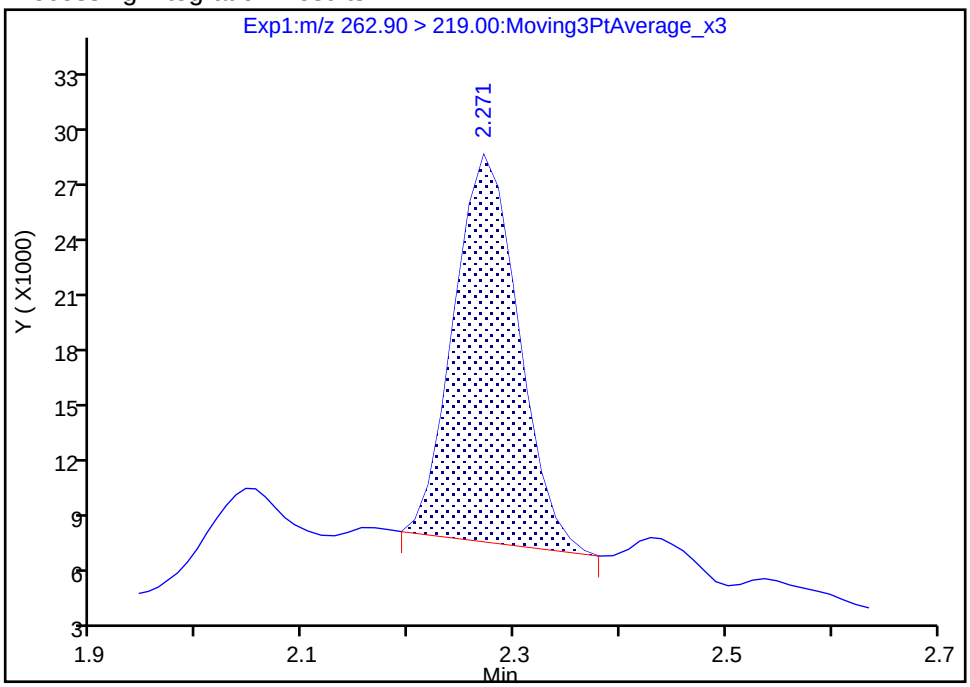
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

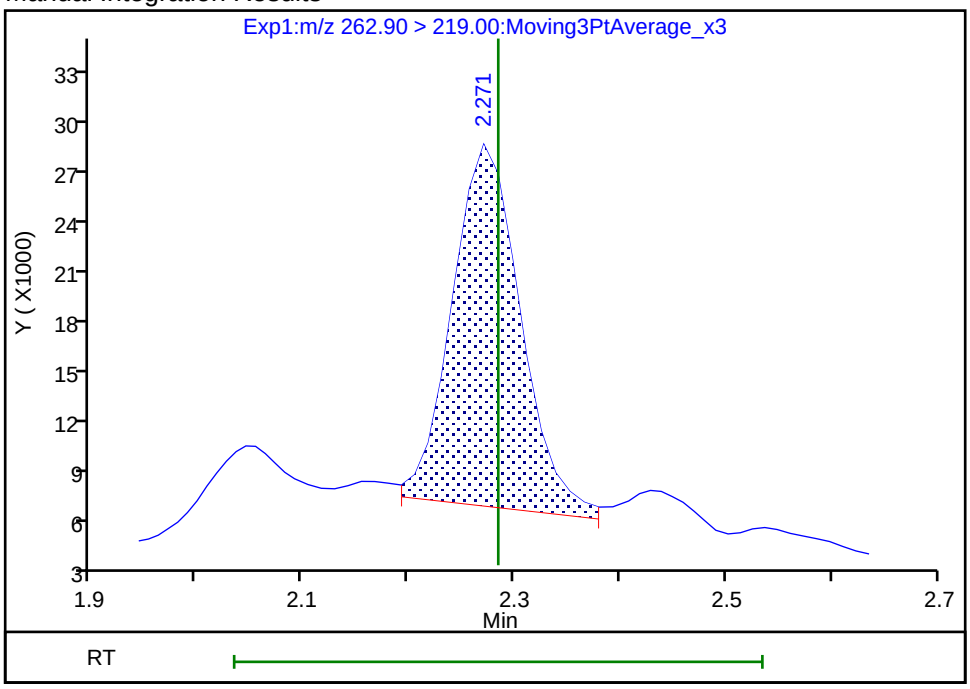
Processing Integration Results

RT: 2.27
Area: 88547
Amount: 0.102286
Amount Units: ng/ml



Manual Integration Results

RT: 2.27
Area: 96380
Amount: 0.111335
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:12:11
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

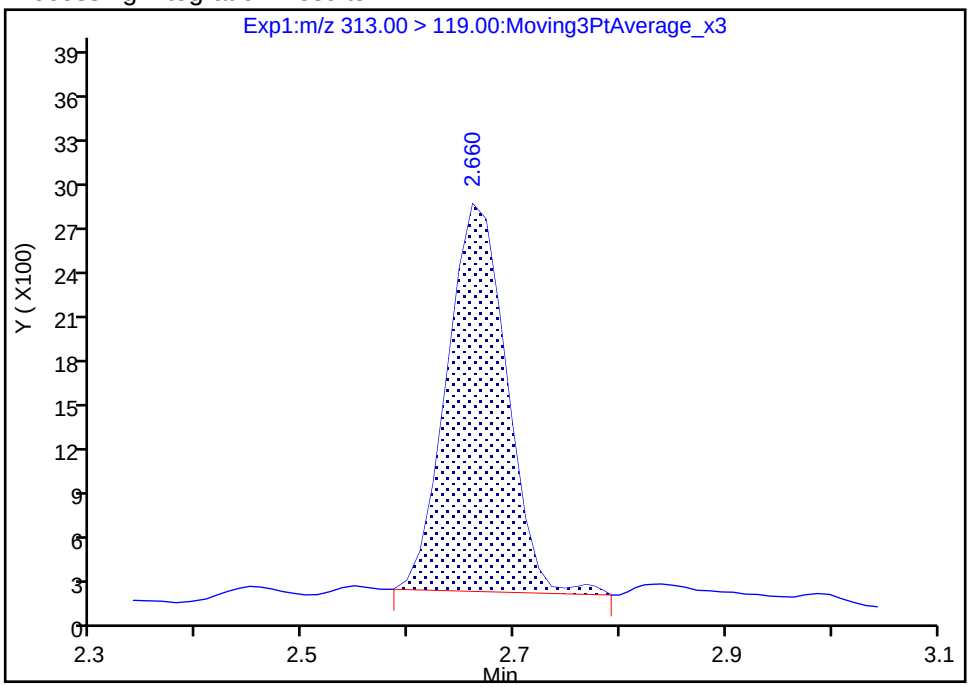
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

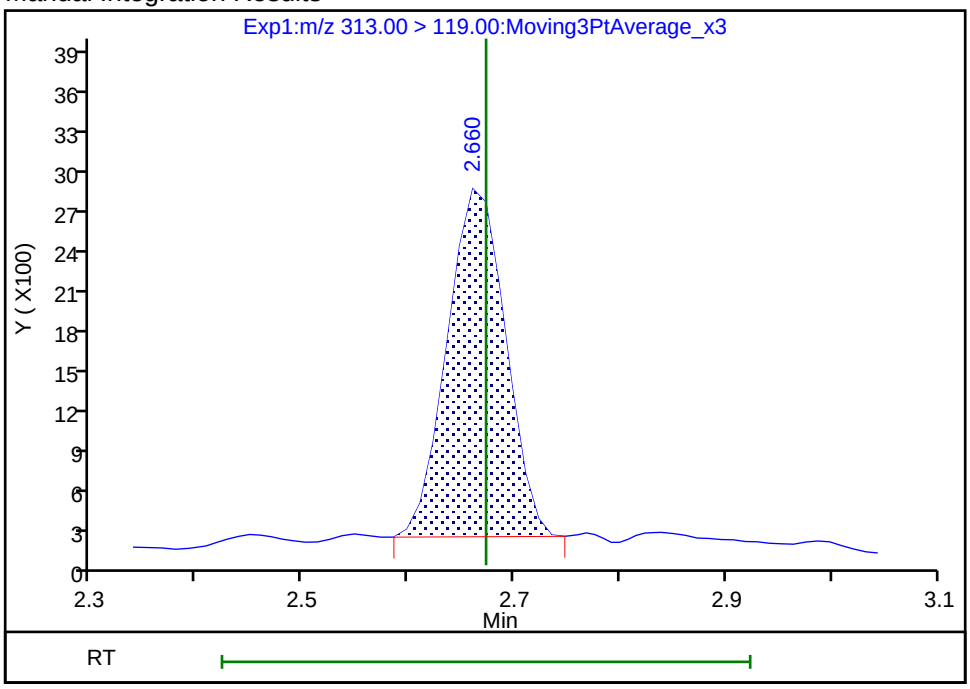
Processing Integration Results

RT: 2.66
Area: 10308
Amount: 0.171119
Amount Units: ng/ml



Manual Integration Results

RT: 2.66
Area: 10013
Amount: 0.165964
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:34:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

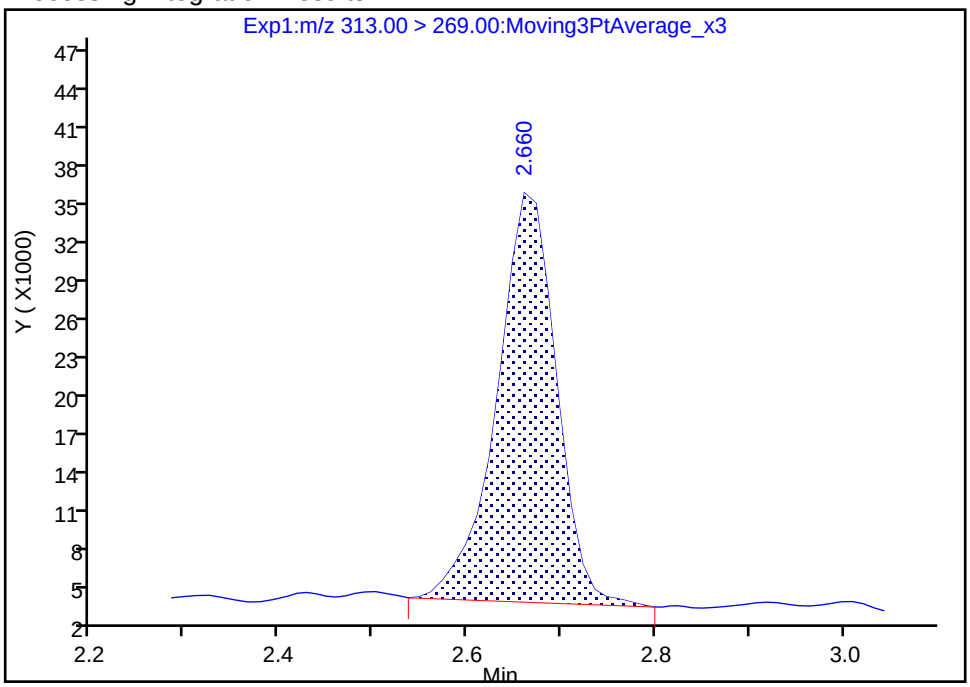
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

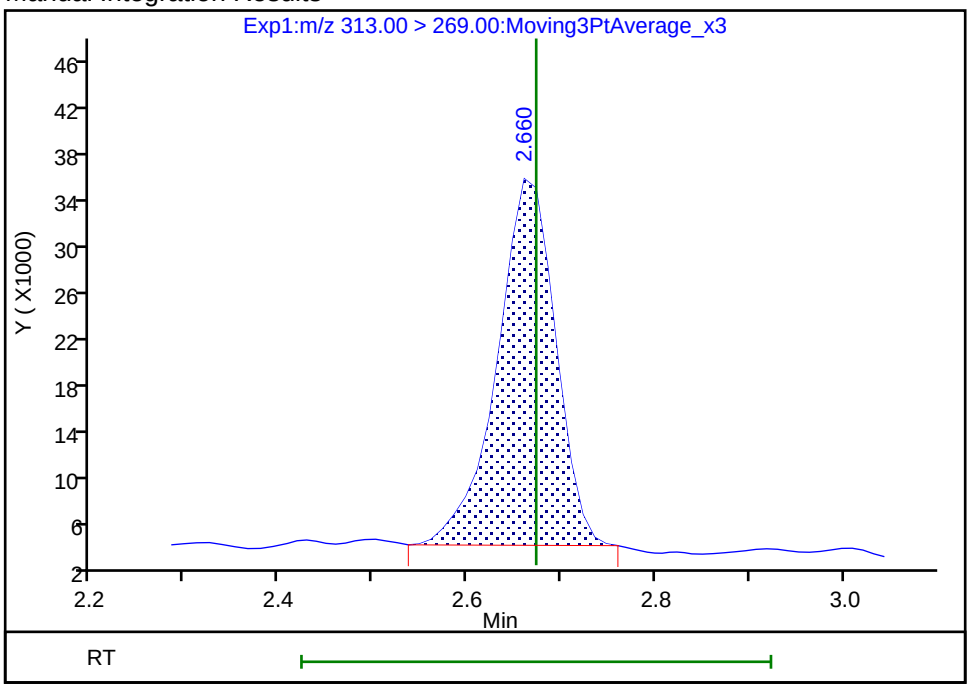
Processing Integration Results

RT: 2.66
Area: 140763
Amount: 0.171119
Amount Units: ng/ml



Manual Integration Results

RT: 2.66
Area: 136523
Amount: 0.165964
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:34:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

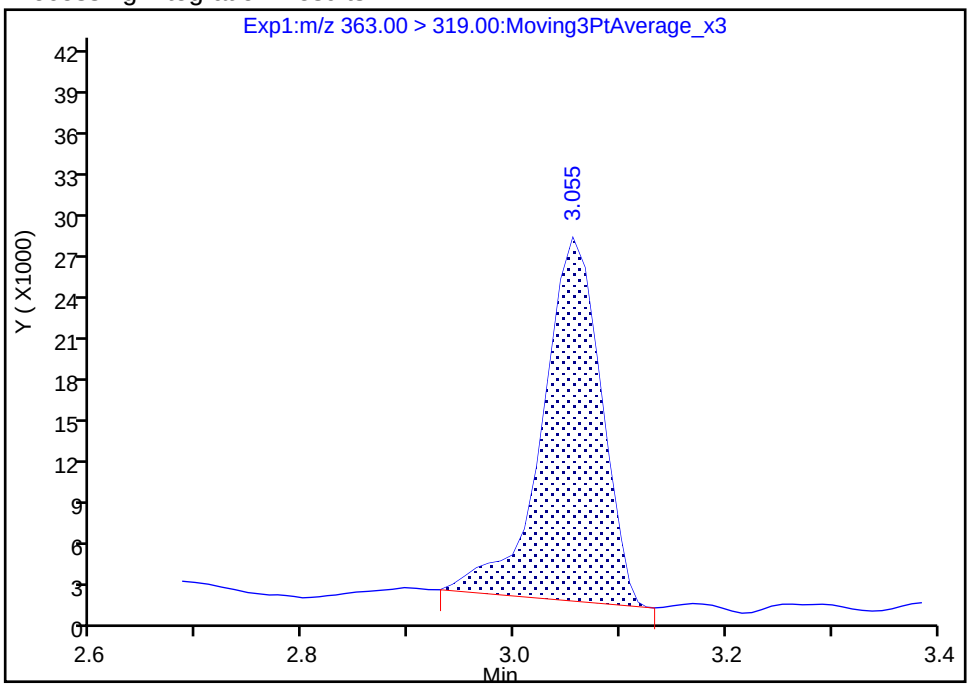
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

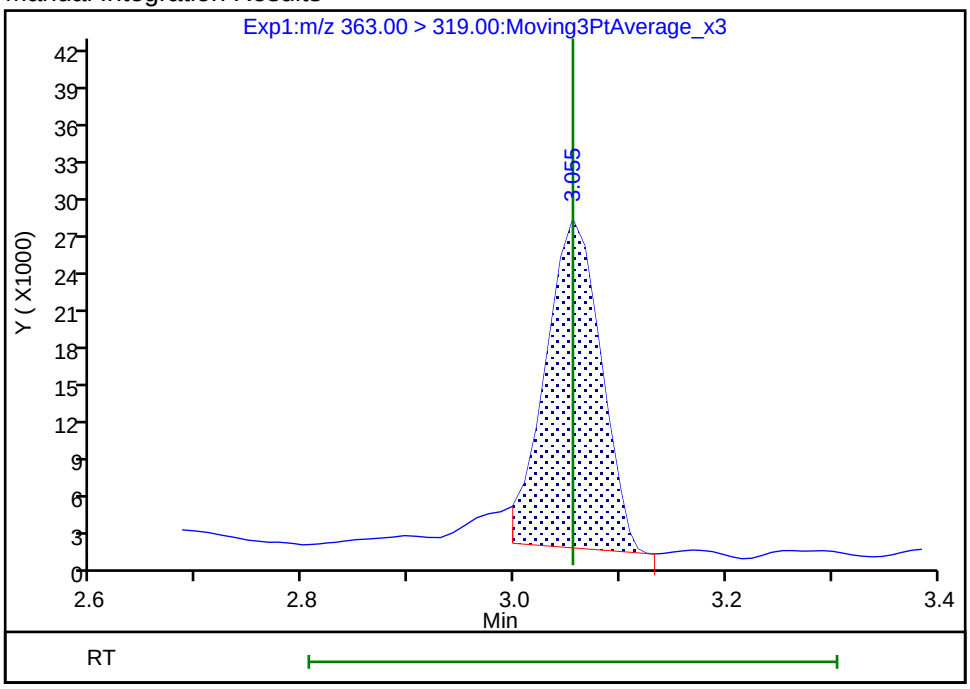
Processing Integration Results

RT: 3.06
Area: 100427
Amount: 0.114563
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 94094
Amount: 0.107339
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:34:43
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

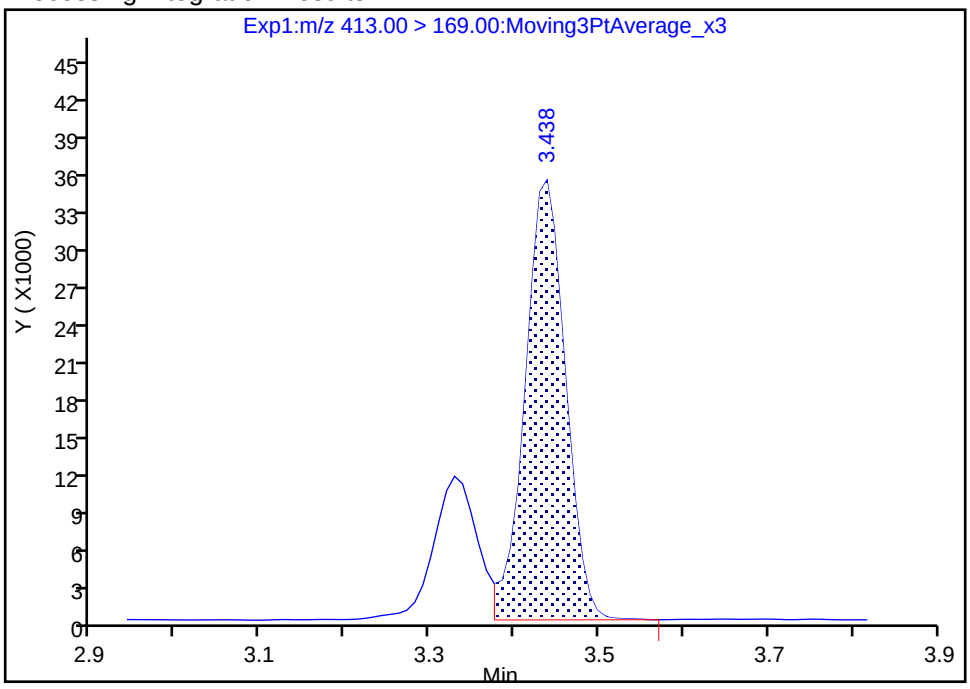
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

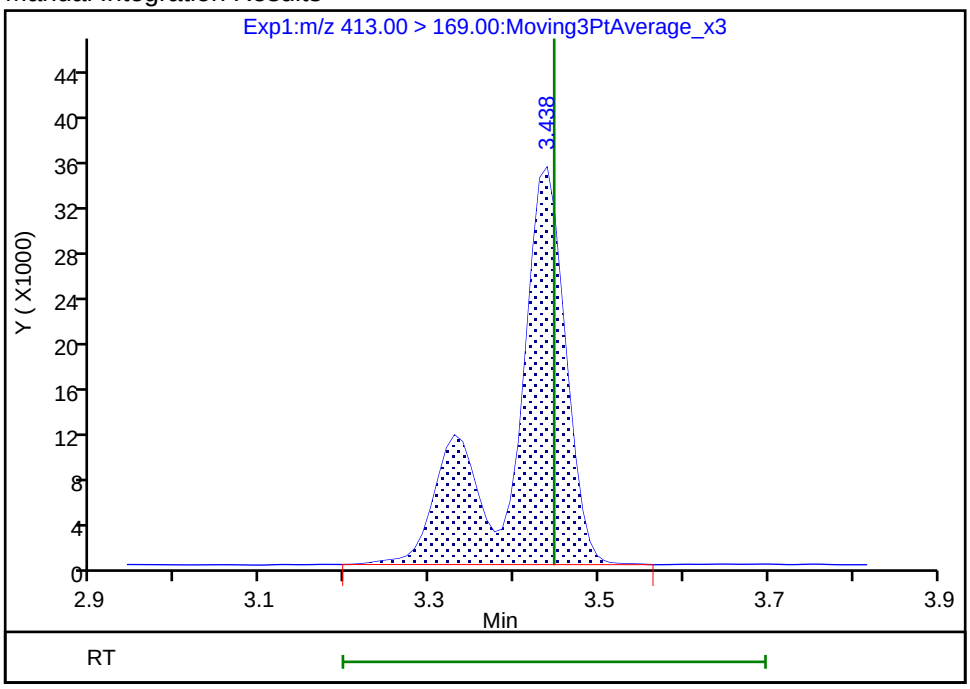
Processing Integration Results

RT: 3.44
Area: 114534
Amount: 0.374655
Amount Units: ng/ml



Manual Integration Results

RT: 3.44
Area: 154676
Amount: 0.372651
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:35:30
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

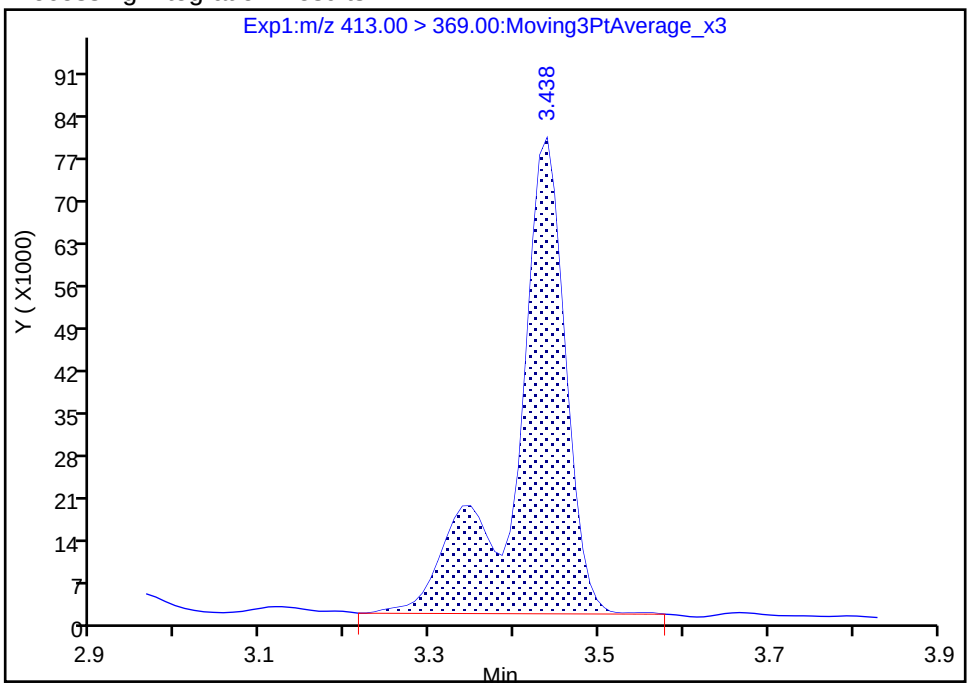
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

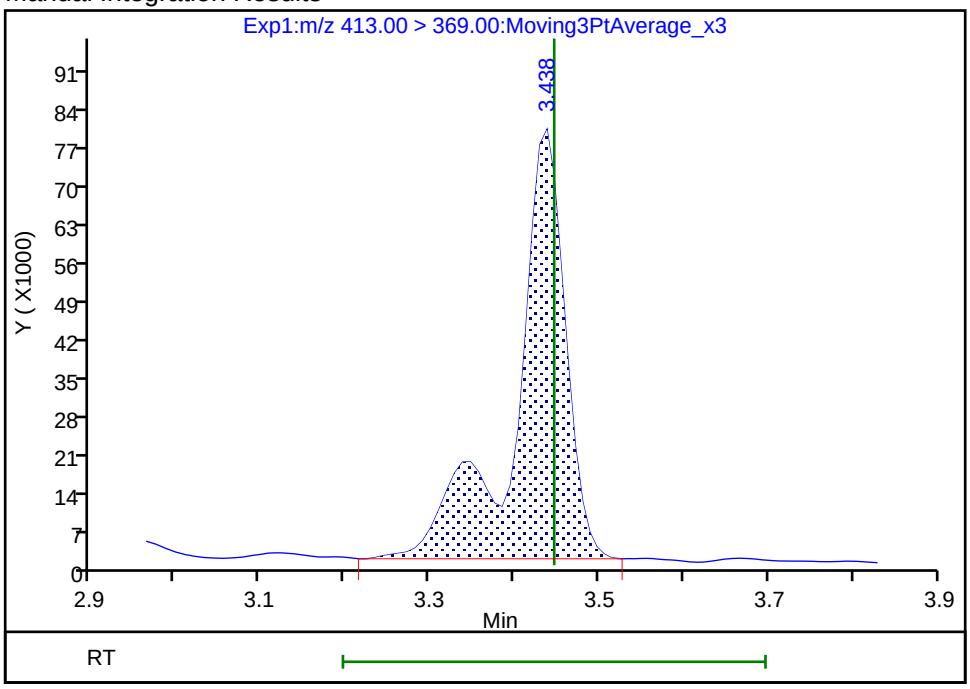
Processing Integration Results

RT: 3.44
Area: 326375
Amount: 0.374655
Amount Units: ng/ml



Manual Integration Results

RT: 3.44
Area: 324629
Amount: 0.372651
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:35:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

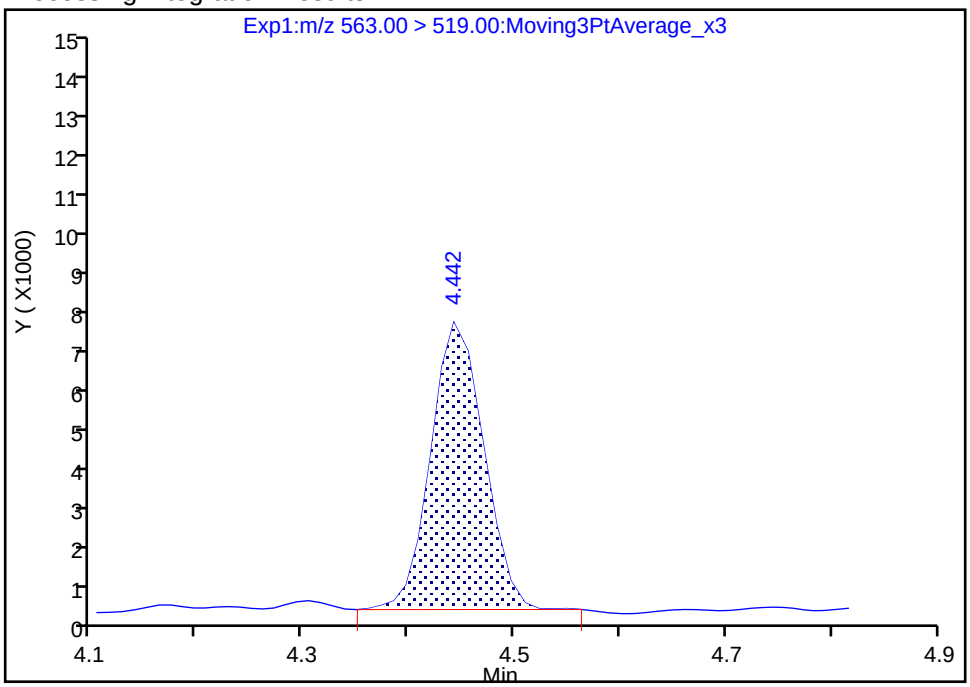
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

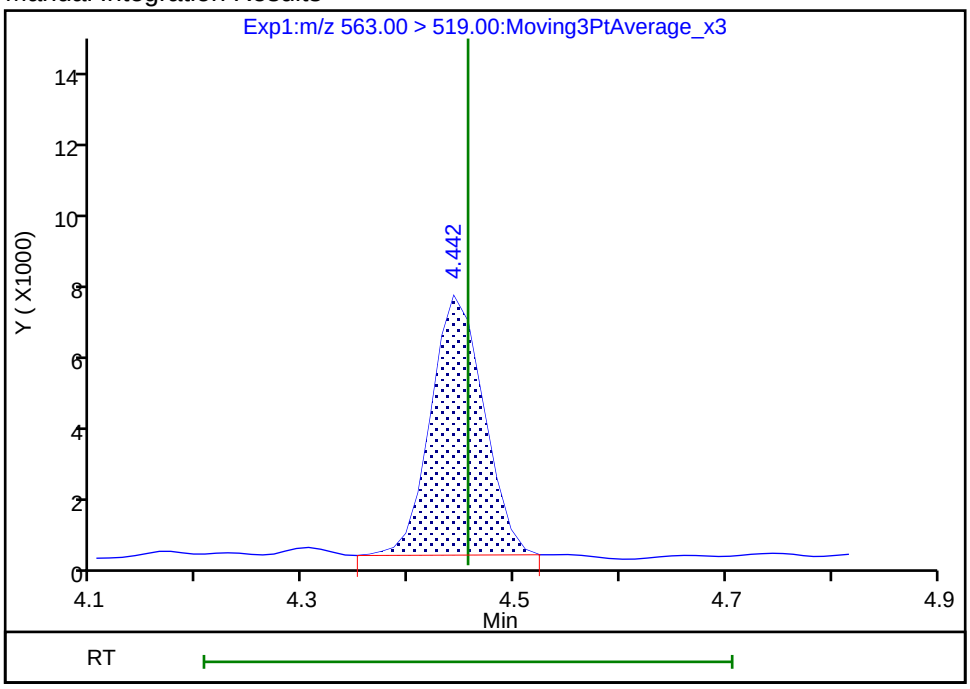
Processing Integration Results

RT: 4.44
Area: 25114
Amount: 0.058880
Amount Units: ng/ml



Manual Integration Results

RT: 4.44
Area: 24982
Amount: 0.058571
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:36:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

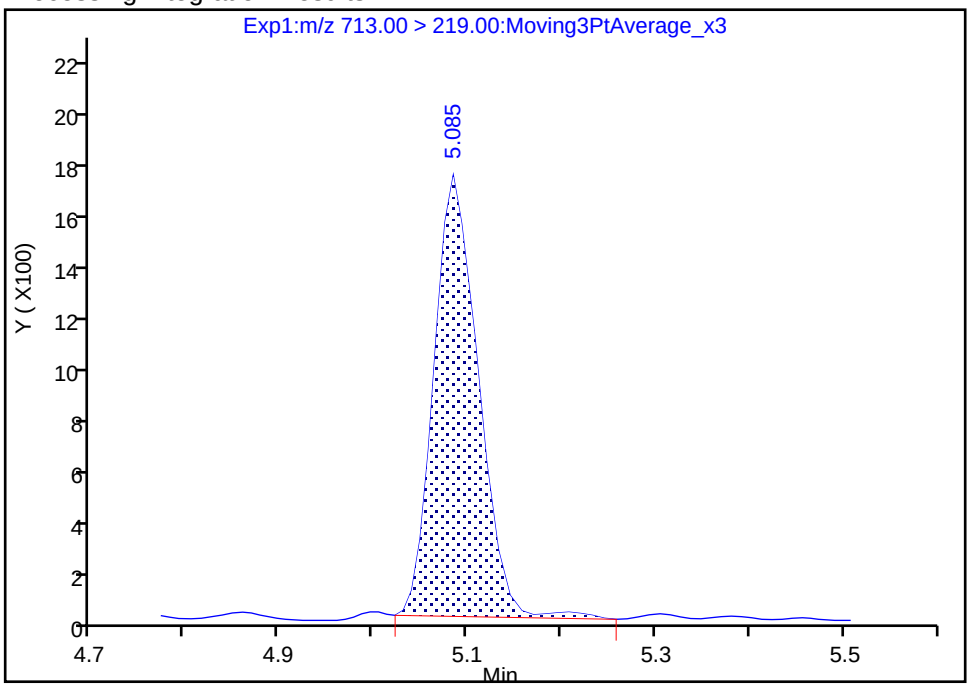
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

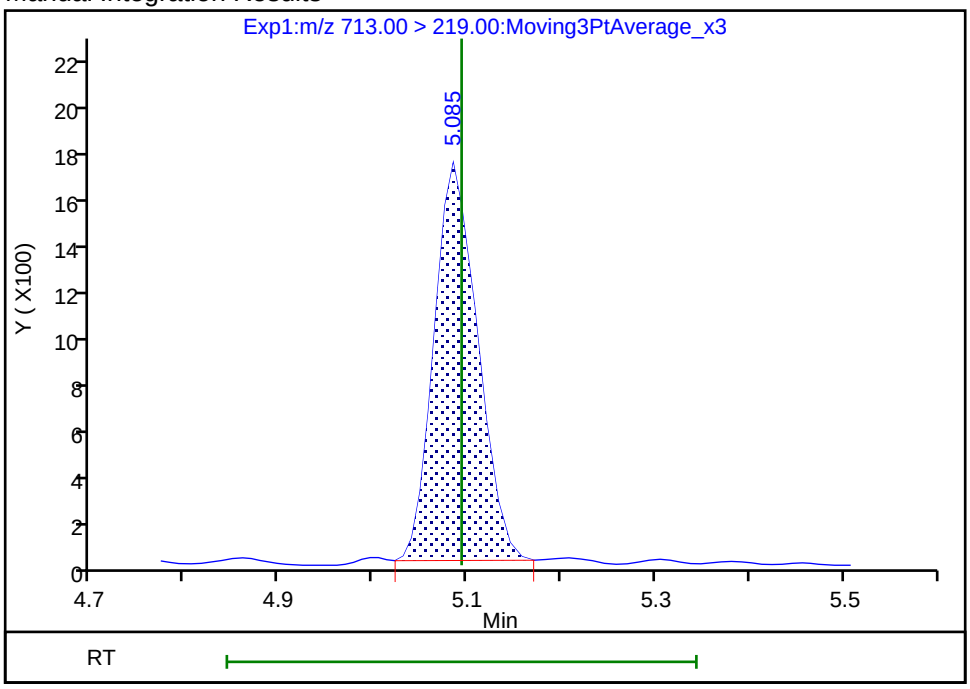
Processing Integration Results

RT: 5.08
Area: 5458
Amount: 0.060659
Amount Units: ng/ml



Manual Integration Results

RT: 5.08
Area: 5331
Amount: 0.060659
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:37:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

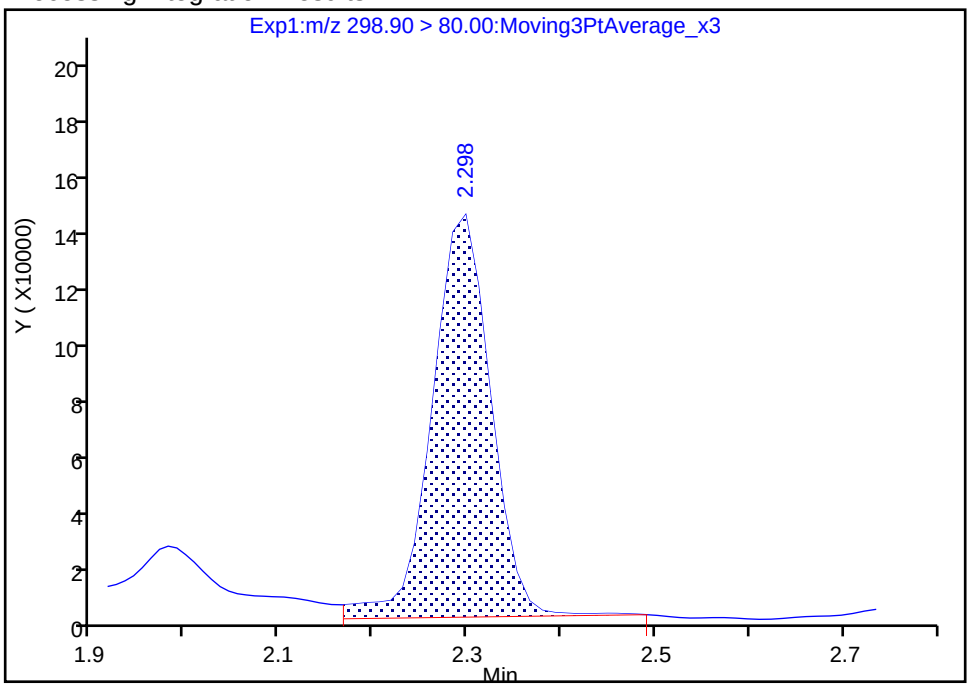
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

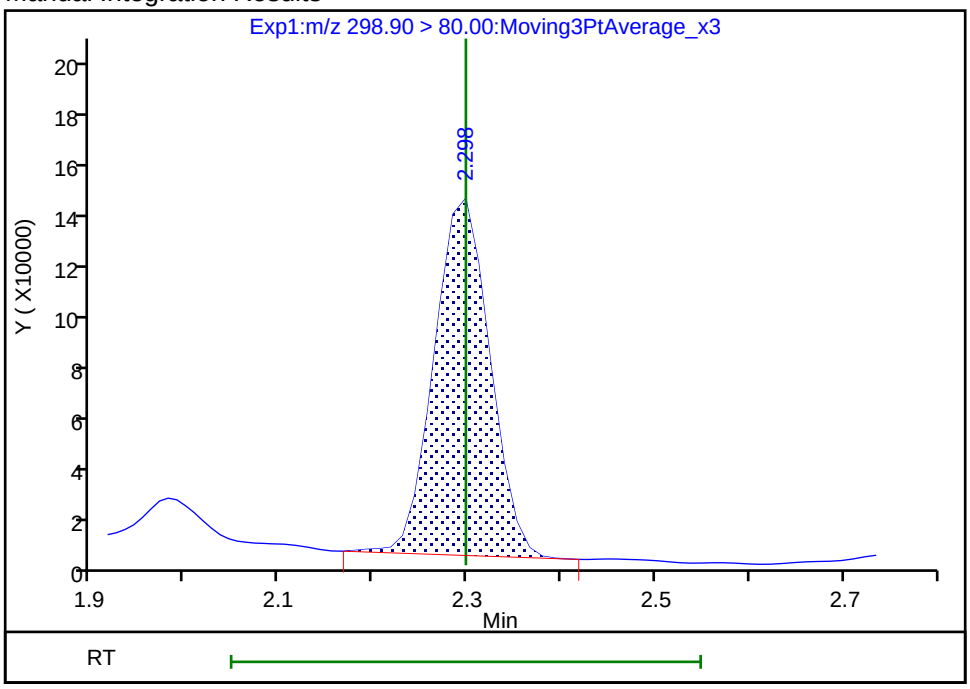
Processing Integration Results

RT: 2.30
Area: 612271
Amount: 0.654182
Amount Units: ng/ml



Manual Integration Results

RT: 2.30
Area: 569169
Amount: 0.613945
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:34:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

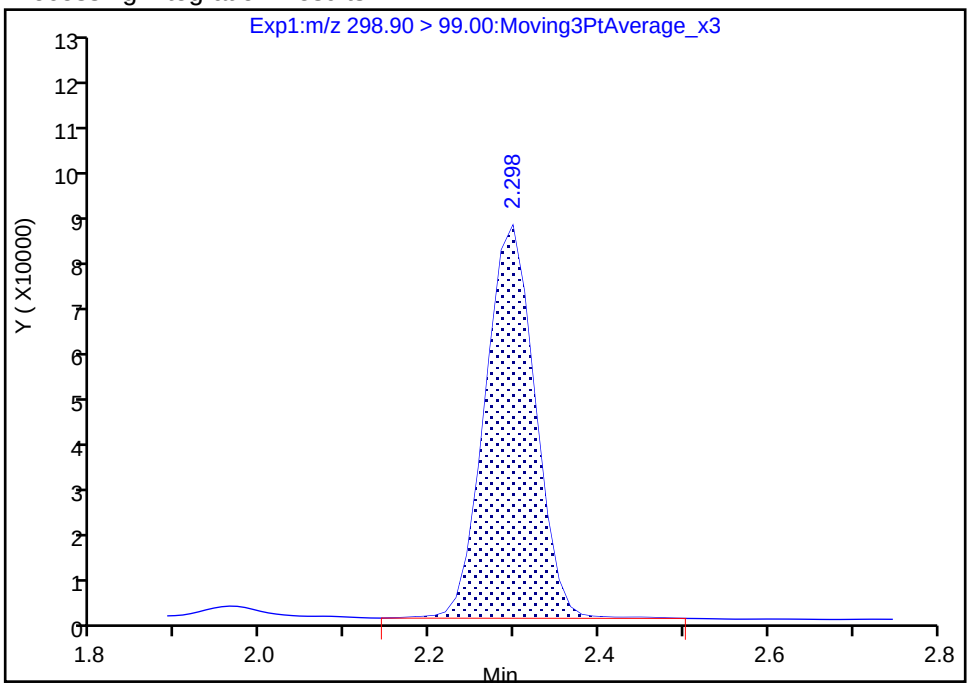
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

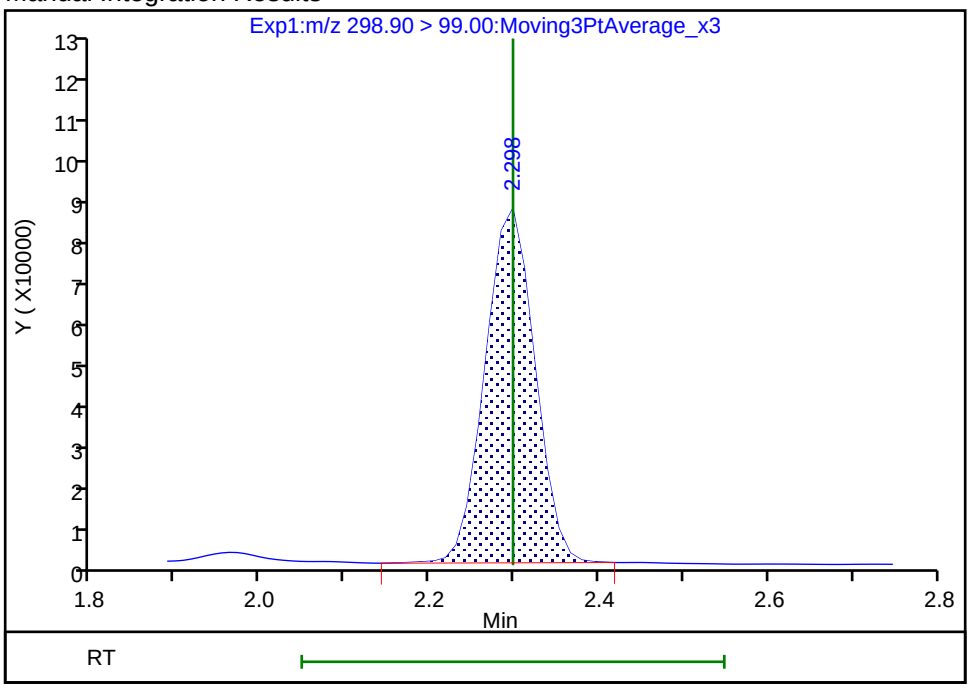
Processing Integration Results

RT: 2.30
Area: 345749
Amount: 0.654182
Amount Units: ng/ml



Manual Integration Results

RT: 2.30
Area: 343281
Amount: 0.613945
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:34:17

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

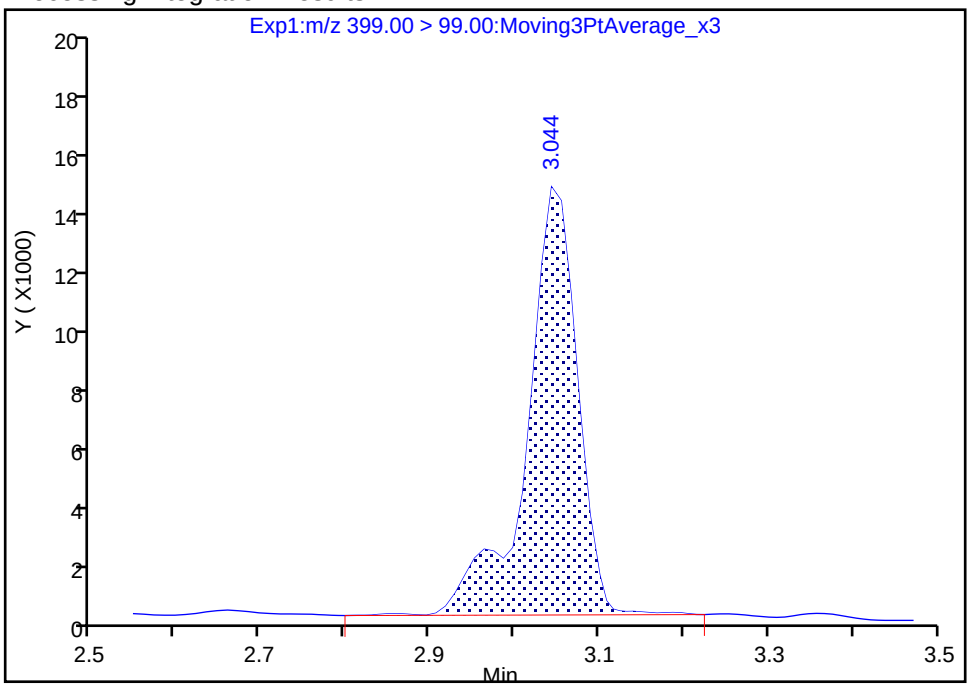
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

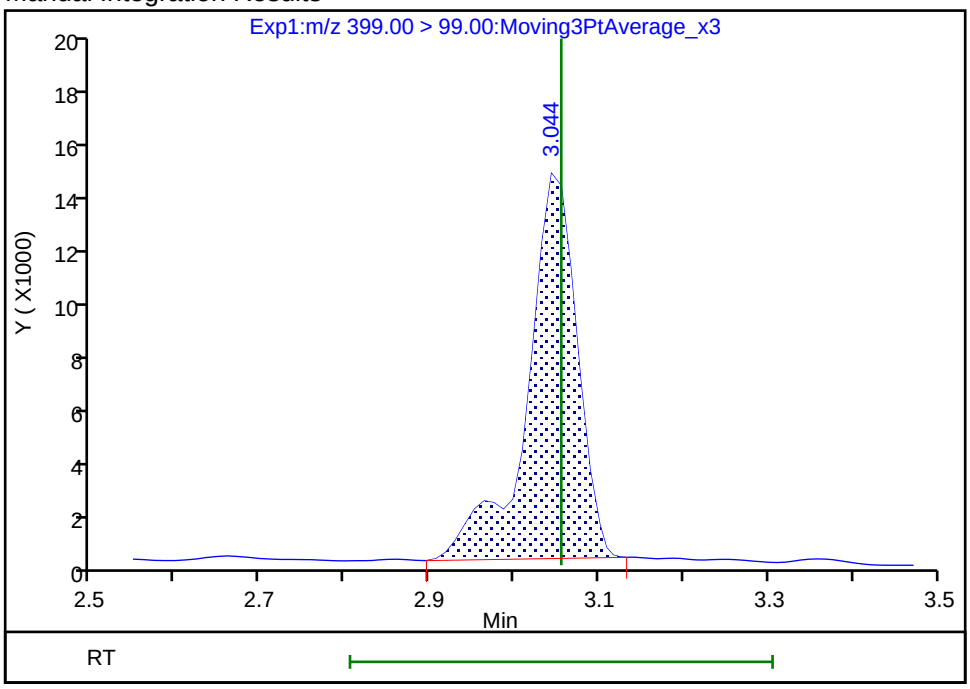
Processing Integration Results

RT: 3.04
Area: 60971
Amount: 0.266089
Amount Units: ng/ml



Manual Integration Results

RT: 3.04
Area: 59708
Amount: 0.263531
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:34:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

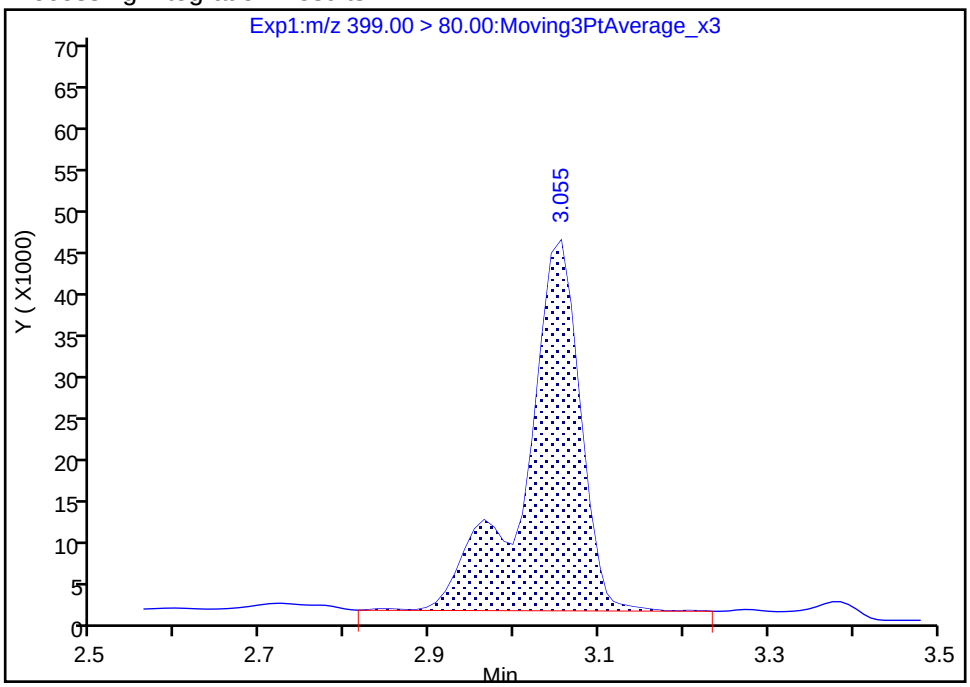
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

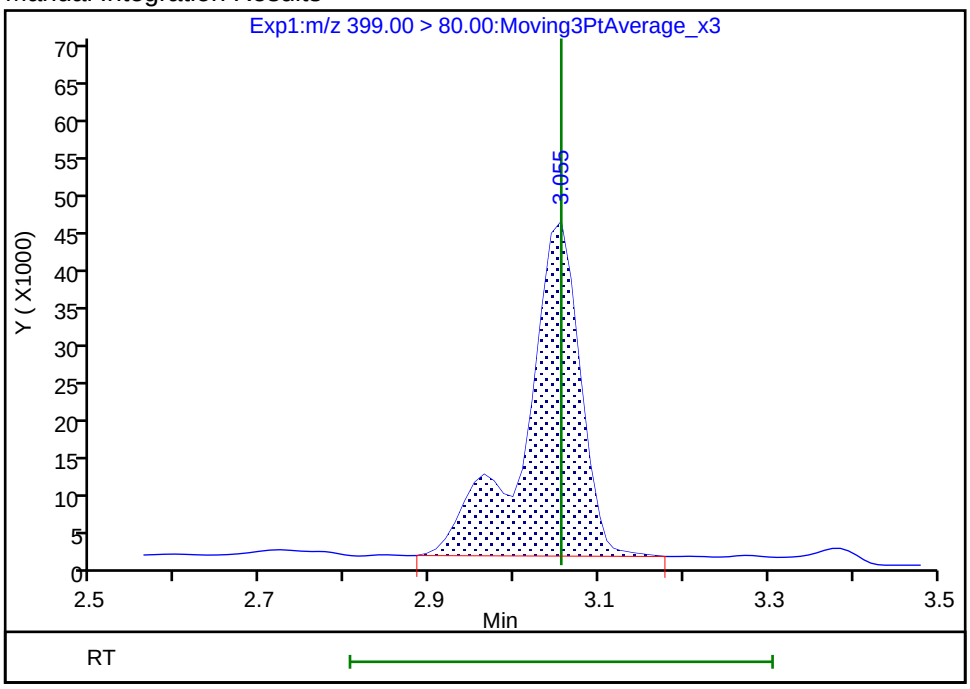
Processing Integration Results

RT: 3.06
Area: 206127
Amount: 0.266089
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 204145
Amount: 0.263531
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:35:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

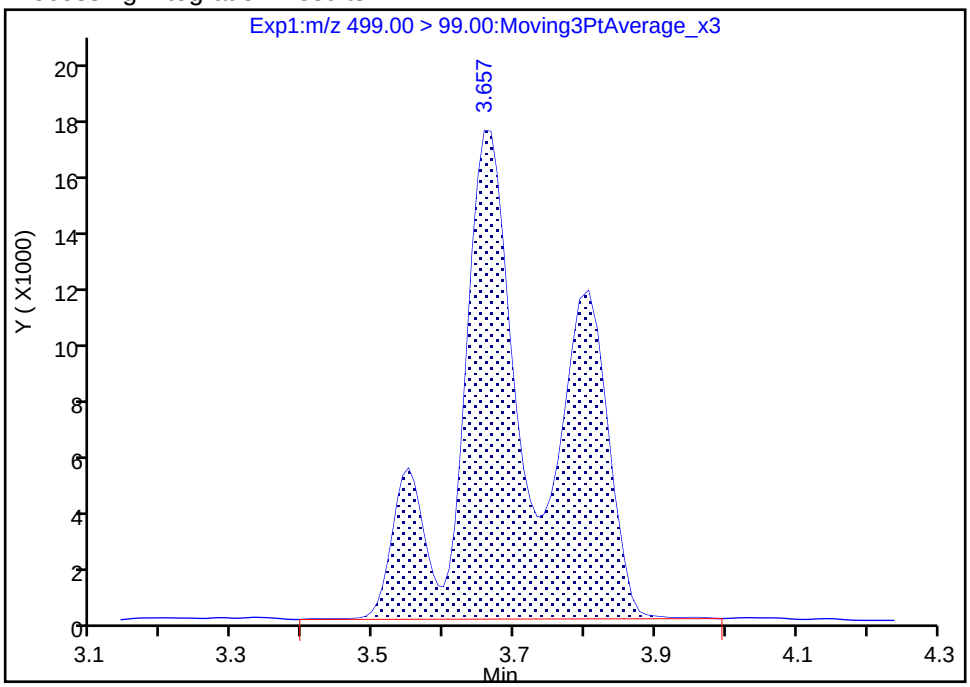
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

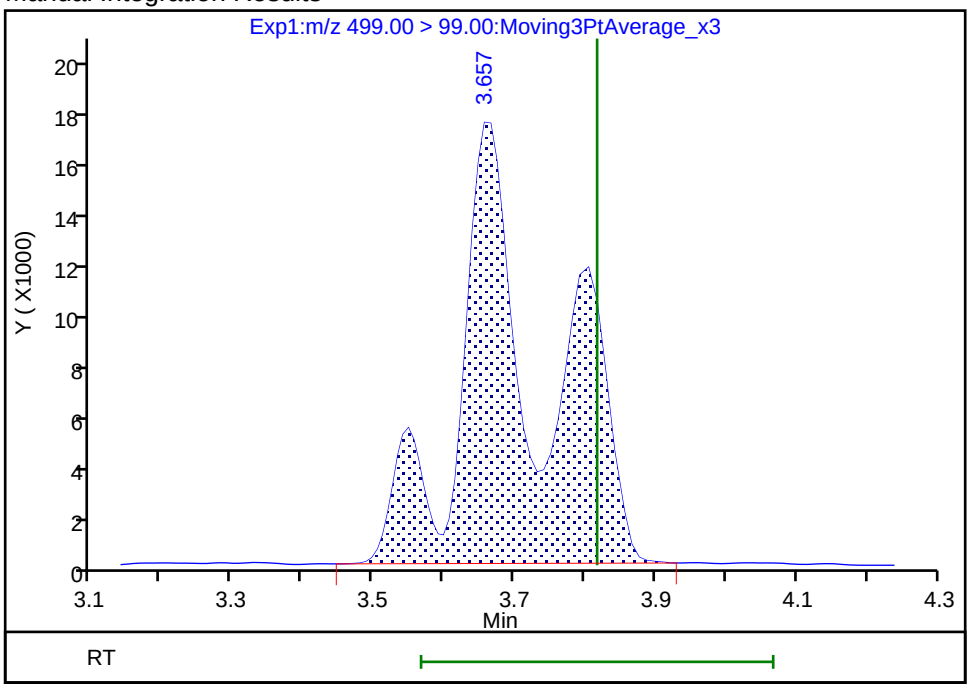
Processing Integration Results

RT: 3.66
Area: 149003
Amount: 1.471206
Amount Units: ng/ml



Manual Integration Results

RT: 3.66
Area: 148122
Amount: 1.450622
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:35:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

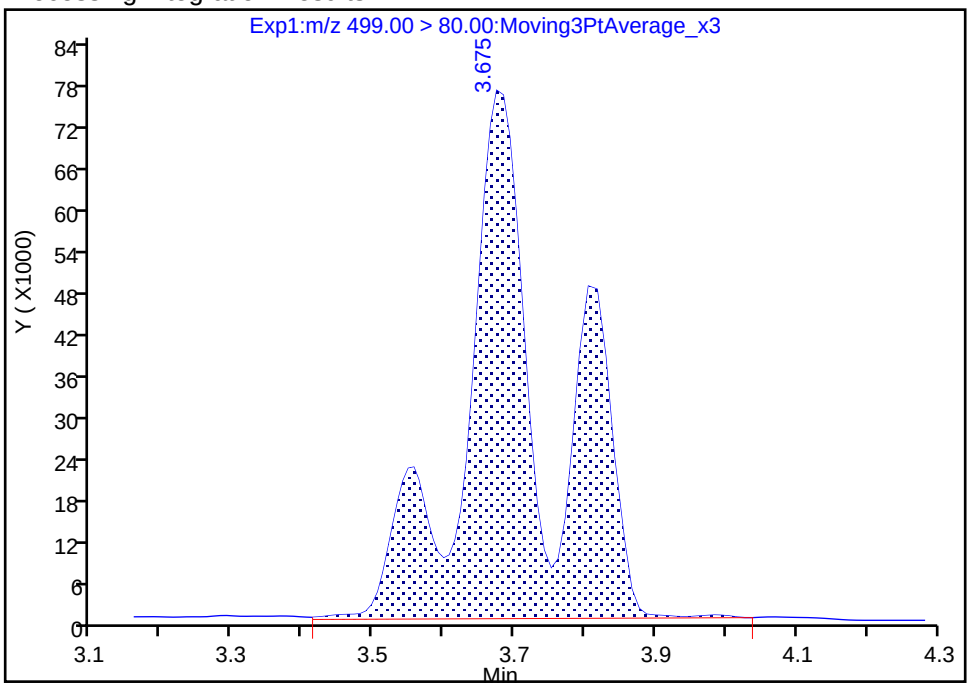
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

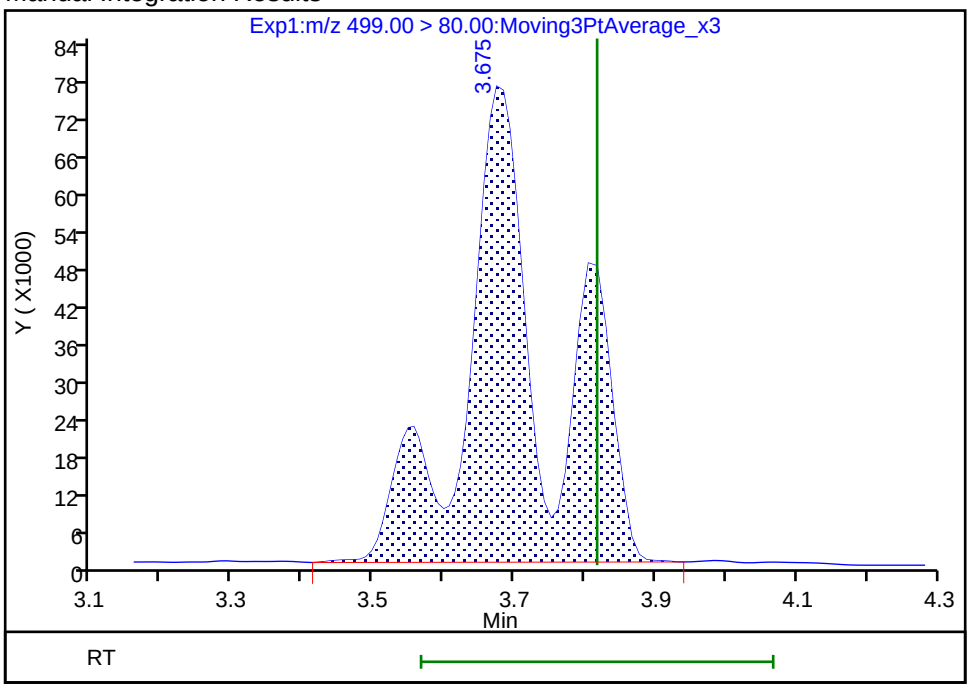
Processing Integration Results

RT: 3.67
Area: 632618
Amount: 1.471206
Amount Units: ng/ml



Manual Integration Results

RT: 3.67
Area: 623767
Amount: 1.450622
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:35:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

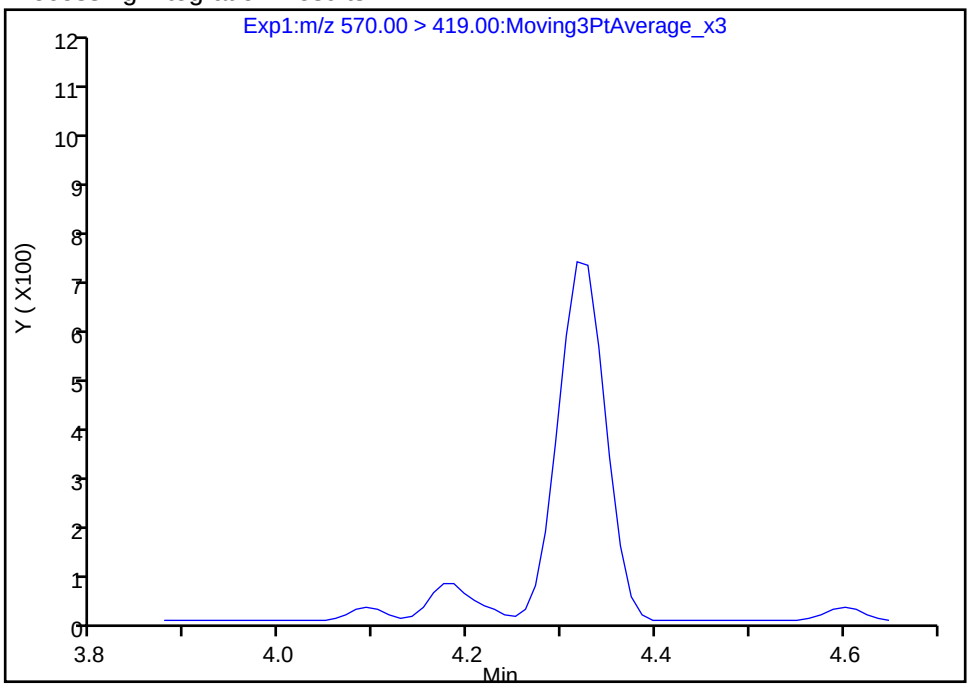
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

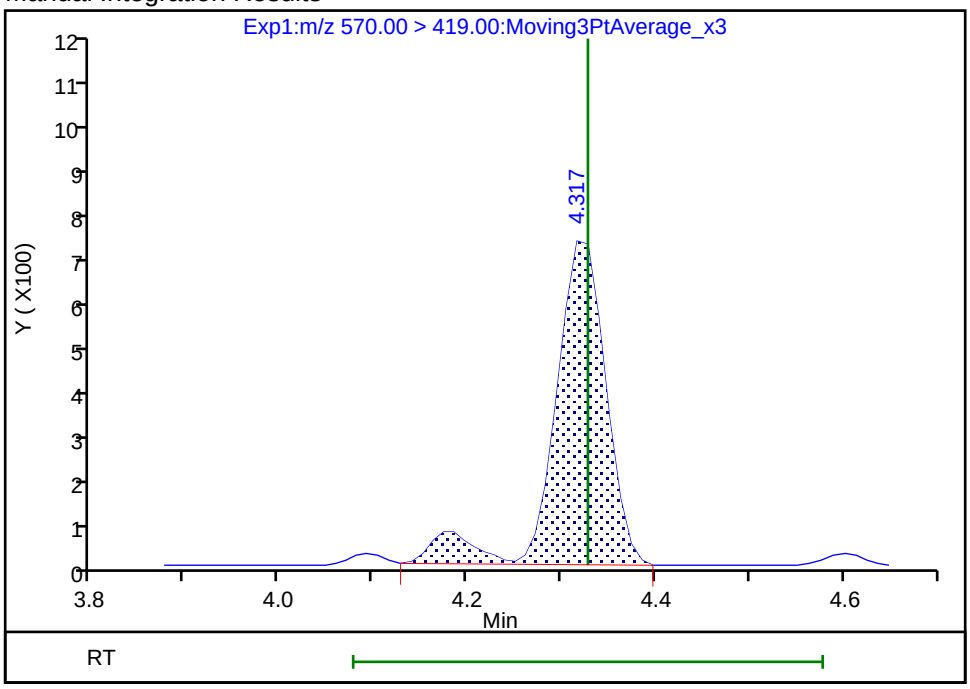
Not Detected
Expected RT: 4.33

Processing Integration Results



Manual Integration Results

RT: 4.32
Area: 2747
Amount: 0.054681
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:36:26
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

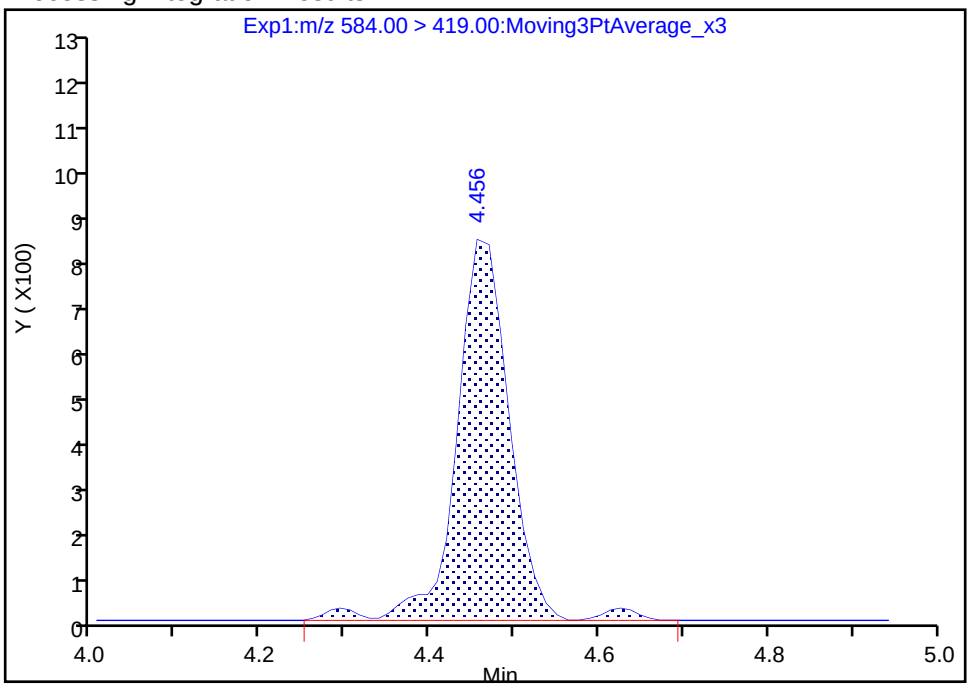
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

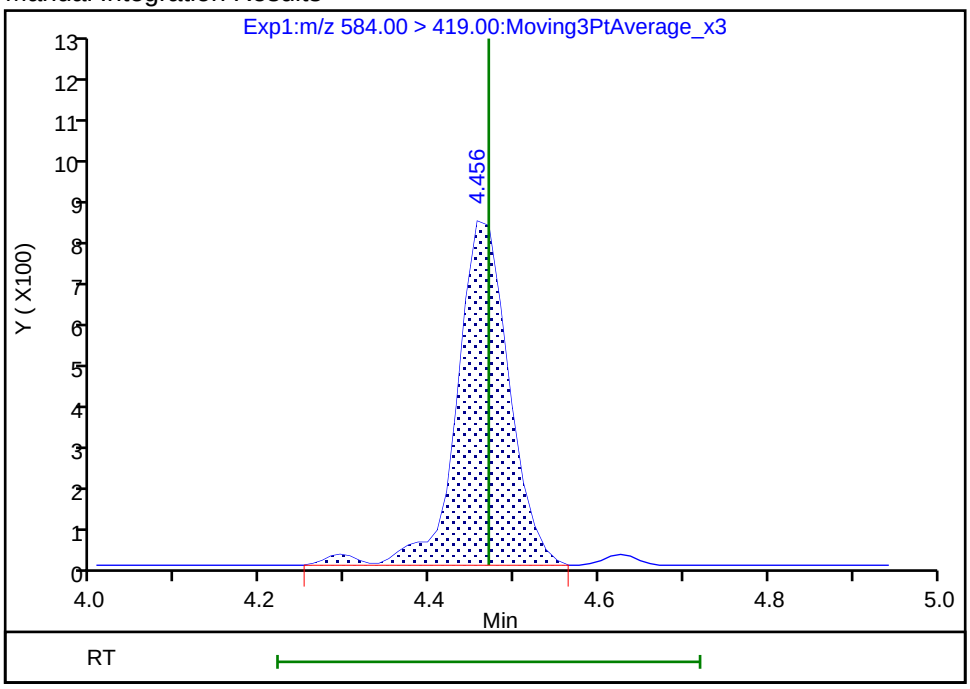
Processing Integration Results

RT: 4.46
Area: 3613
Amount: 0.072266
Amount Units: ng/ml



Manual Integration Results

RT: 4.46
Area: 3542
Amount: 0.070846
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:36:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

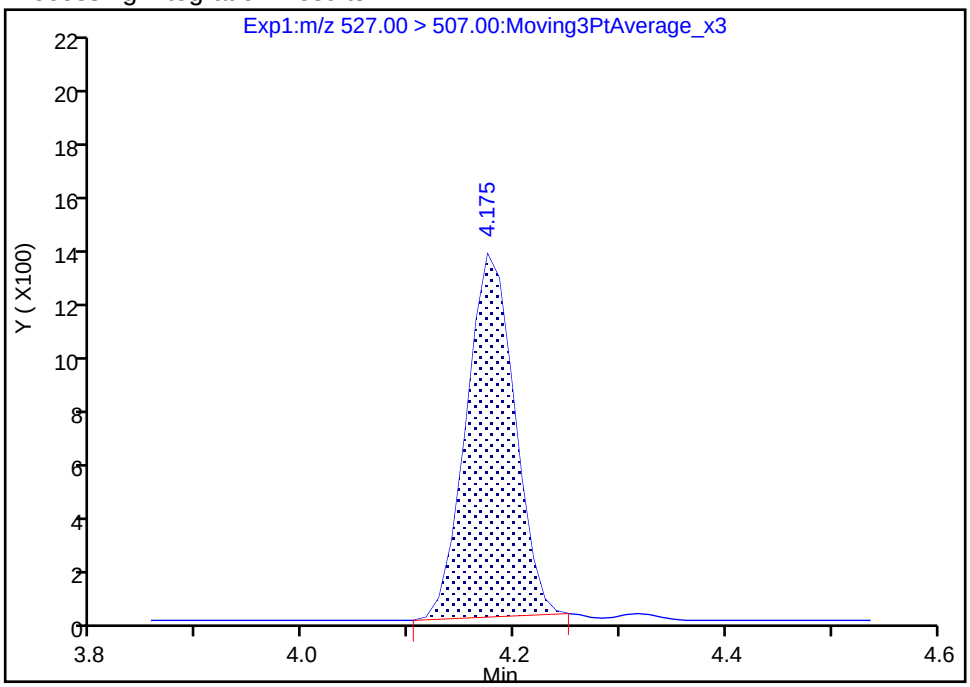
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F025.d				
Injection Date:	07-Dec-2019 09:38:57	Instrument ID:	LC812		
Lims ID:	480-163109-A-4-A	Lab Sample ID:	200-163109-4		
Client ID:	DUP				
Operator ID:	lc812tech	ALS Bottle#:	25	Worklist Smp#:	25
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:, CAS: 39108-34-4

Signal: 1

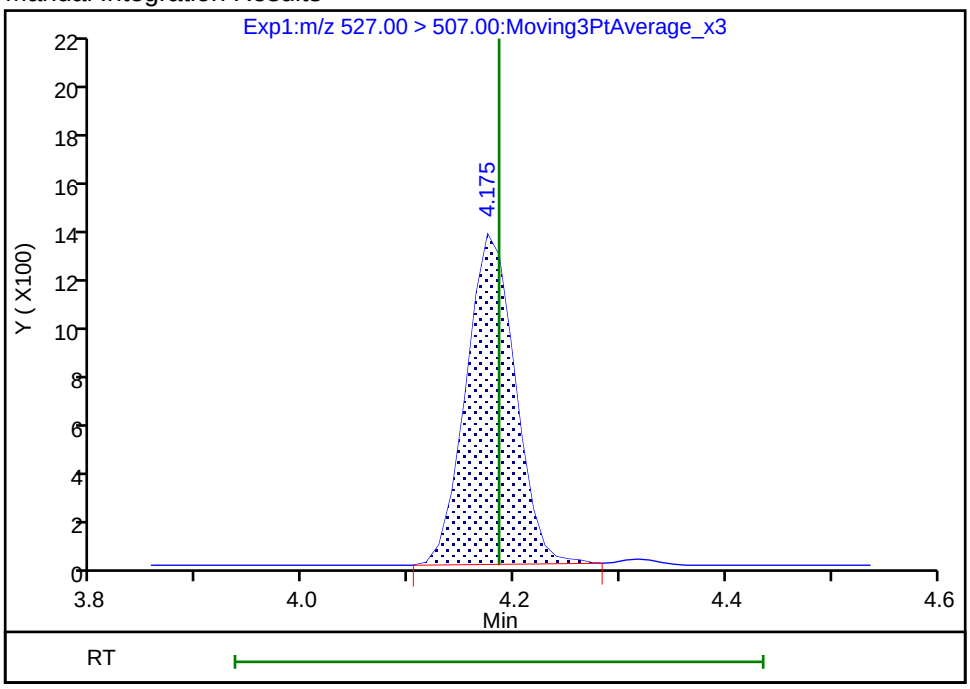
Processing Integration Results

RT: 4.17
Area: 4204
Amount: 0.059521
Amount Units: ng/ml



Manual Integration Results

RT: 4.17
Area: 4302
Amount: 0.060908
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:36:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: EQUIPMENT BLANK Lab Sample ID: 480-163109-5

Matrix: Water Lab File ID: SC120619F026.d

Analysis Method: 537 (modified) Date Collected: 11/20/2019 16:00

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 299.7(mL) Date Analyzed: 12/07/2019 09:47

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		1.7	0.83
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		1.7	0.53
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		1.7	0.63
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		1.7	0.76
335-67-1	Perfluorooctanoic acid (PFOA)	ND		1.7	0.68
375-95-1	Perfluorononanoic acid (PFNA)	ND		1.7	0.23
335-76-2	Perfluorodecanoic acid (PFDA)	ND		1.7	0.64
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		1.7	0.65
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		1.7	0.49
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		1.7	0.50
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		1.7	0.77
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		1.7	0.41
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		1.7	0.67
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		1.7	0.79
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		1.7	0.51
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		1.7	0.75
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		8.3	8.3
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		17	1.4
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		17	1.3
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		17	4.6
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		17	2.4

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: EQUIPMENT BLANK Lab Sample ID: 480-163109-5

Matrix: Water Lab File ID: SC120619F026.d

Analysis Method: 537 (modified) Date Collected: 11/20/2019 16:00

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 299.7(mL) Date Analyzed: 12/07/2019 09:47

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	116		50-150
STL01892	13C4 PFHpA	106		50-150
STL00990	13C4 PFOA	123		50-150
STL00991	13C4 PFOS	112		50-150
STL00995	13C5 PFNA	105		50-150
STL00992	13C4 PFBA	112		25-150
STL00993	13C2 PFHxA	102		50-150
STL00996	13C2 PFDA	102		50-150
STL00997	13C2 PFUnA	104		50-150
STL00998	13C2 PFDoA	99		50-150
STL01056	13C8 FOSA	101		25-150
STL01893	13C5 PFPeA	119		25-150
STL02116	13C2 PFTeDA	89		50-150
STL02118	d3-NMeFOSAA	88		50-150
STL02117	d5-NEtFOSAA	106		50-150
STL02279	M2-6:2 FTS	100		25-150
STL02280	M2-8:2 FTS	115		25-150
STL02337	13C3 PFBS	117		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d
Lims ID: 480-163109-A-5-A
Client ID: EQUIPMENT BLANK
Sample Type: Client
Inject. Date: 07-Dec-2019 09:47:08 ALS Bottle#: 26 Worklist Smp#: 26
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 480-163109-A-5-A
Misc. Info.: 200-0039120-026 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 15:44:08
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.556	2152702	2.81		112	23265	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.926	1.926	0.0	1.005	10599	0.0124			3.3	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.659	1737368	2.97		119	5347	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.271	2.285	-0.014	1.000	7594	0.009650			0.7	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	5836	0.006583	Target=2.03		8.2	
298.90 > 99.00	2.312	2.298	0.014	1.006	3307		1.76(1.01-3.04)		5.0	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.312	-0.014	0.667	1896298	2.71		117	319567	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.673	2.673	0.0	1.000	4256	0.006262	Target=13.76		1.7	M
313.00 > 119.00	2.673	2.673	0.0	1.000	564		7.55(6.88-20.64)		2.0	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.775	1664309	2.55		102	3856	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.066	3.055	0.011	1.000	1701	0.002457	Target=3.95		1.0	M
363.00 > 169.00	3.078	3.055	0.023	1.004	770		2.21(1.97-5.92)		3.2	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.886	1518544	2.75		116	3610	
D 9 13C4 PFHpA										
367.00 > 322.00	3.066	3.055	0.011	0.890	1636844	2.64		106	4125	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	6481	0.008919	Target=3.90		17.3	M
399.00 > 99.00	3.055	3.055	0.0	1.000	1291		5.02(1.95-5.85)		3.2	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 1H,1H,2H,2H-perfluorooctanesulfoni										M
427.00 > 407.00	3.447	3.430	0.017	1.005	226	0.002515			3.8	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.995	226146	2.39		100	776	
D 14 13C4 PFOA										
417.00 > 372.00	3.447	3.438	0.009	1.000	2017323	3.07		123	5338	
* 62 13C2 PFOA										
415.00 > 370.00	3.447	3.438	0.009		1807550	2.50			4874	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.447	3.447	0.0	1.000	7719	0.008622	Target=2.40		2.1	M
413.00 > 169.00	3.447	3.447	0.0	1.000	2786		2.77(1.20-3.60)		19.3	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.000	4898	0.009261	Target=5.74		10.2	M
499.00 > 99.00	3.817	3.817	0.0	1.000	1036		4.73(2.87-8.61)		3.7	M
D 18 13C4 PFOS										
503.00 > 80.00	3.817	3.817	0.0	1.107	1170945	2.68		112	4596	
20 Perfluorononanoic acid										M
463.00 > 419.00	3.841	3.829	0.012	1.000	1780	0.002858	Target=7.01		0.9	M
463.00 > 169.00	3.841	3.829	0.012	1.000	197		9.04(3.50-10.51)		3.1	M
D 19 13C5 PFNA										
468.00 > 423.00	3.841	3.842	-0.001	1.115	1587703	2.63		105	6554	
D 23 13C2 PFDA										
515.00 > 470.00	4.174	4.175	-0.001	1.211	1524936	2.56		102	6967	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.185	4.185	0.0	1.214	312009	2.76		115	1352	
25 1H,1H,2H,2H-perfluorodecanesulfoni										M
527.00 > 507.00	4.174	4.185	-0.011	0.997	63	0.001048			1.9	M
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.251	4.239	0.012	1.000	969	0.001233			12.6	M
D 21 13C8 FOSA										
506.00 > 78.00	4.251	4.239	0.012	1.233	1974735	2.54		101	6116	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.328	4.317	0.011	1.256	126327	2.20		88.2	786	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.316	4.328	-0.012	0.997	136	0.003097			3.6	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.456	4.456	0.0	1.293	1309929	2.59		104	11611	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.456	4.456	0.0	1.000	2755	0.006201	Target=5.78		3.7	M
563.00 > 169.00	4.442	4.456	-0.014	0.997	353		7.80(2.89-8.67)		6.9	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.469	4.456	0.013	1.297	168403	2.65		106	1411	
D 36 13C2 PFDoA										
615.00 > 570.00	4.693	4.693	0.0	1.362	1374088	2.48		99.0	4988	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.093	5.094	-0.001	1.478	1037552	2.23		89.2	7003	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.093	5.094	-0.001	1.000	288	0.003454	Target=1.05		4.8	M
713.00 > 219.00	5.093	5.094	-0.001	1.000	290		0.99(0.52-1.57)		7.8	M

QC Flag Legend

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:20:10 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d

Injection Date: 07-Dec-2019 09:47:08 Instrument ID: LC812

Lims ID: 480-163109-A-5-A Lab Sample ID: 200-163109-5

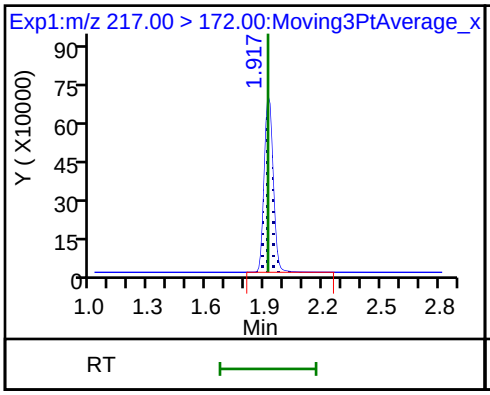
Client ID: EQUIPMENT BLANK

Operator ID: lc812tech ALS Bottle#: 26 Worklist Smp#: 26

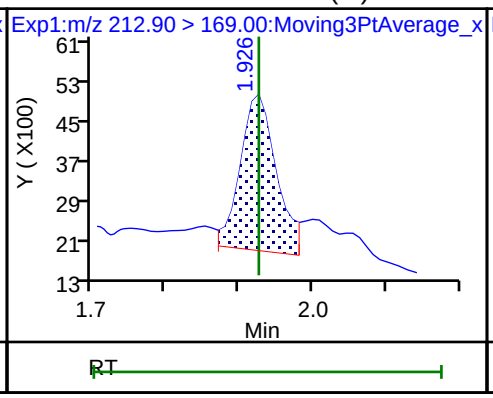
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

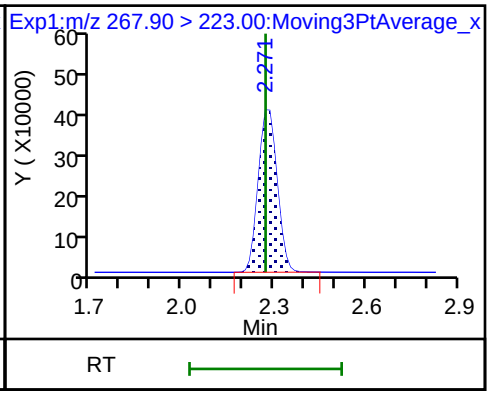
D 1 13C4 PFBA



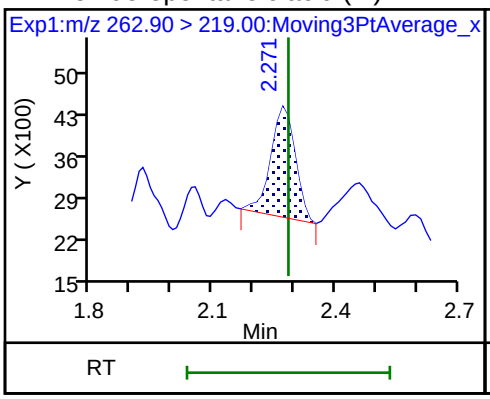
2 Perfluorobutanoic acid (M)



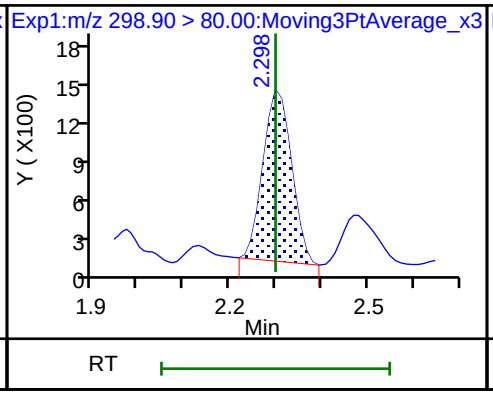
D 3 13C5 PFPeA



4 Perfluoropentanoic acid (M)



5 Perfluorobutanesulfonic acid



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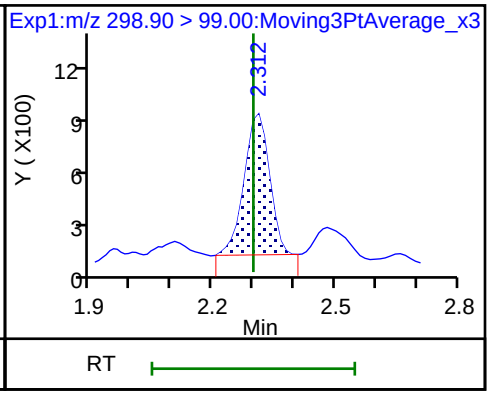
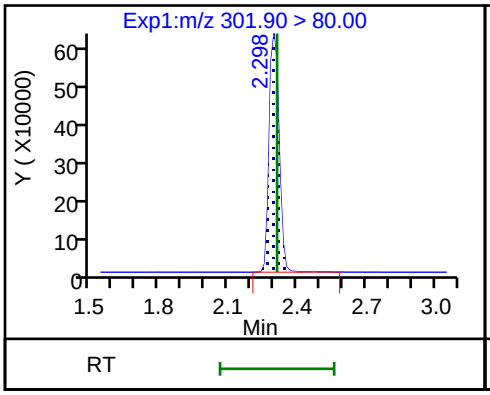
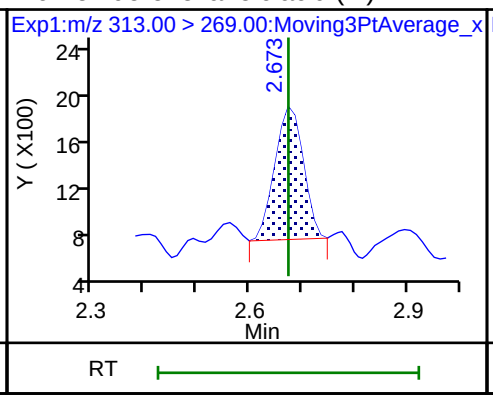


D 47 13C3 PFBS



6 Perfluorohexanoic acid (M)



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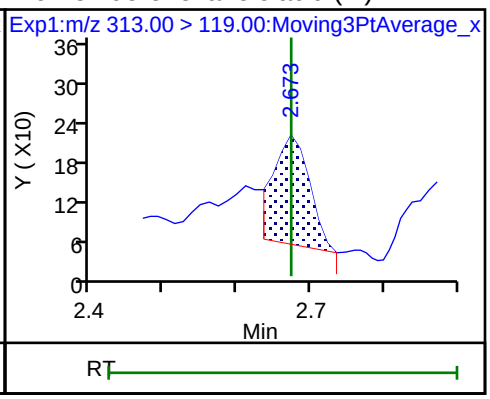
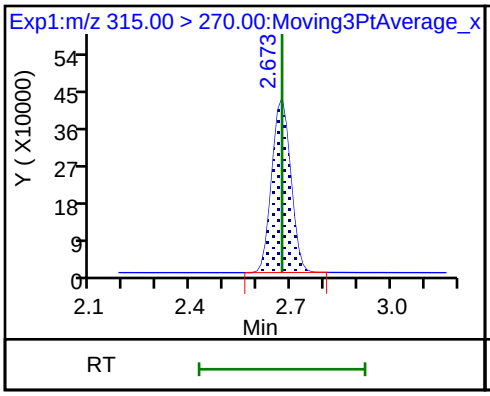
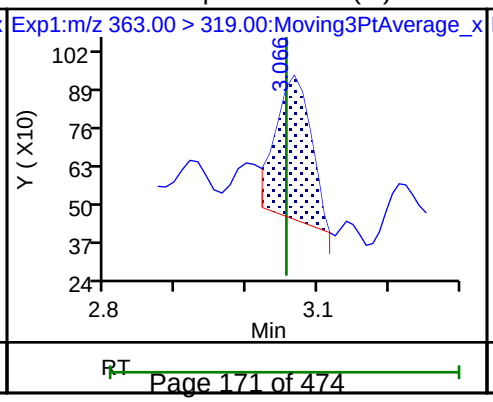


D 7 13C2 PFHxA



10 Perfluoroheptanoic acid (M)



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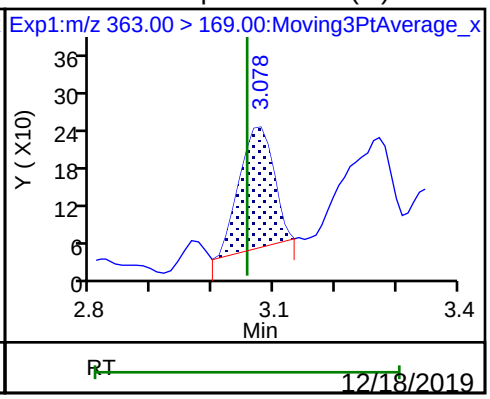
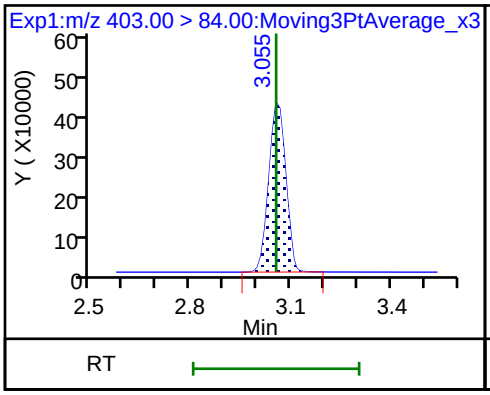
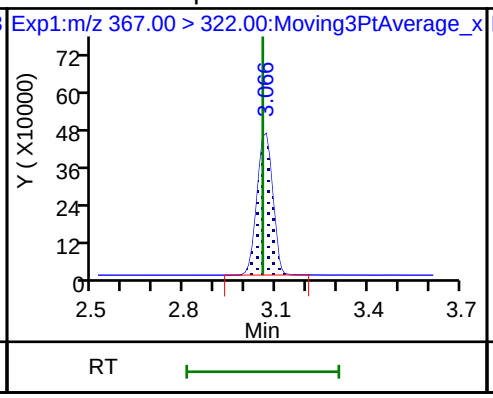


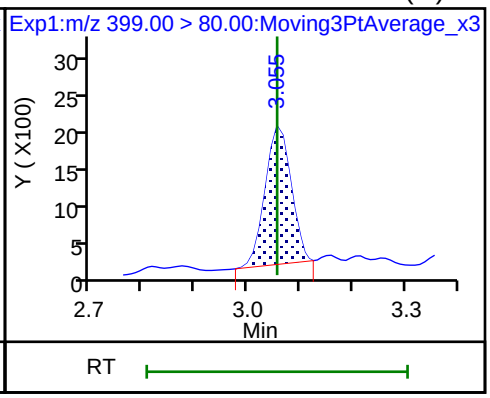
D 11 18O2 PFHxS



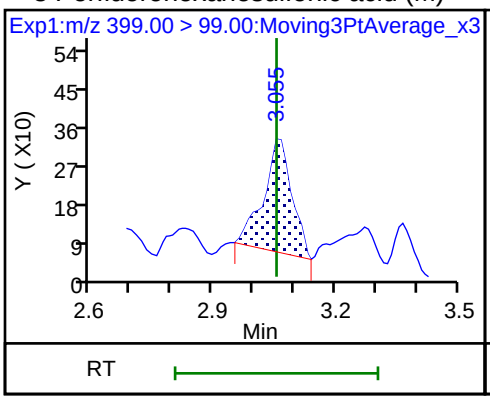
D 9 13C4 PFHpA



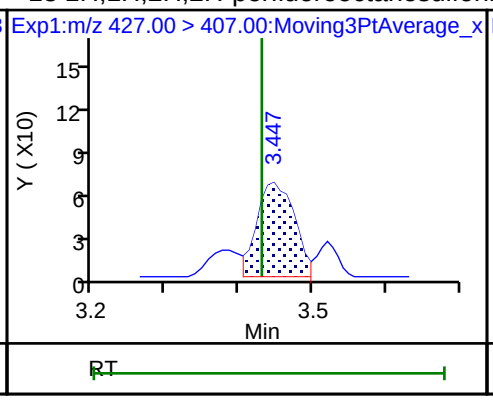
8 Perfluorohexanesulfonic acid (M)



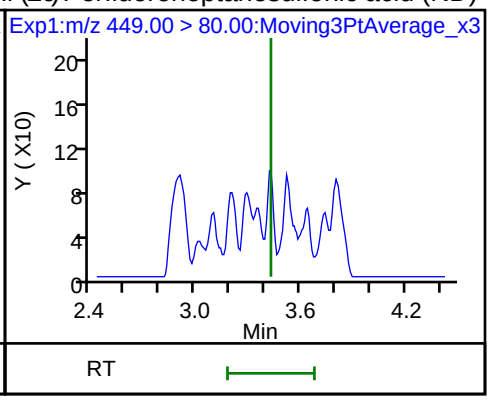
8 Perfluorohexanesulfonic acid (M)



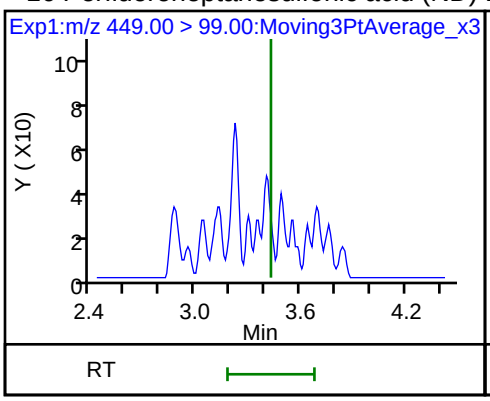
13 1H,1H,2H,2H-perfluorooctanesulfoni (M)



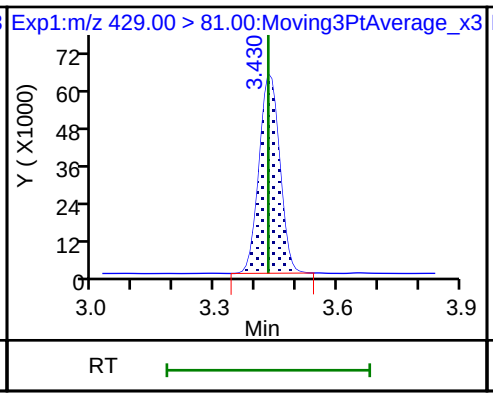
16 Perfluoroheptanesulfonic acid (ND)



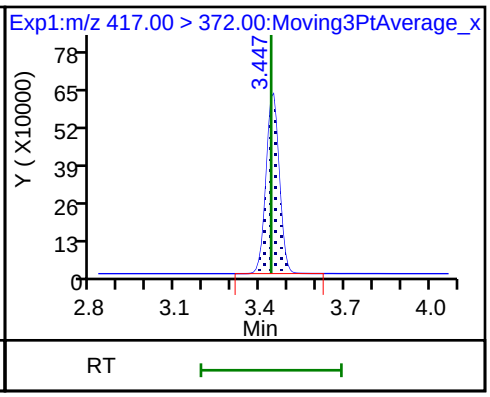
16 Perfluoroheptanesulfonic acid (ND)



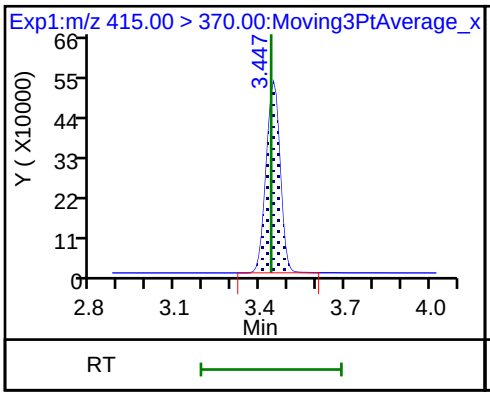
D 12 M2-6:2 FTS



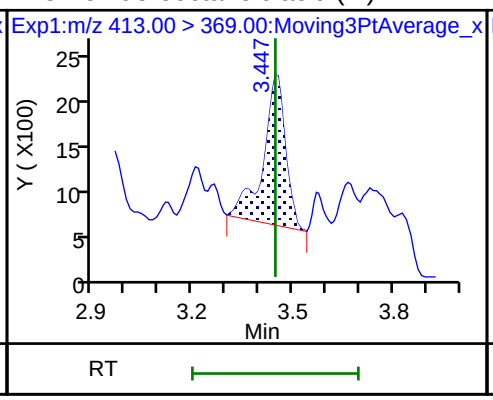
D 14 13C4 PFOA



* 62 13C2 PFOA



15 Perfluorooctanoic acid (M)



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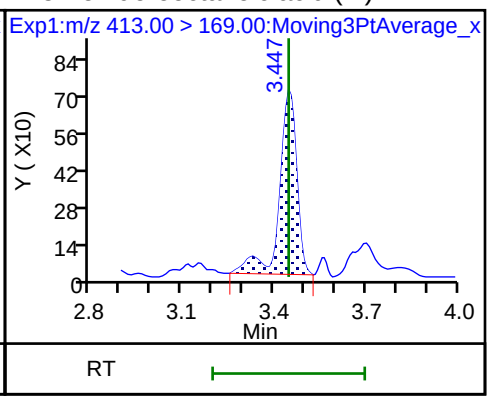

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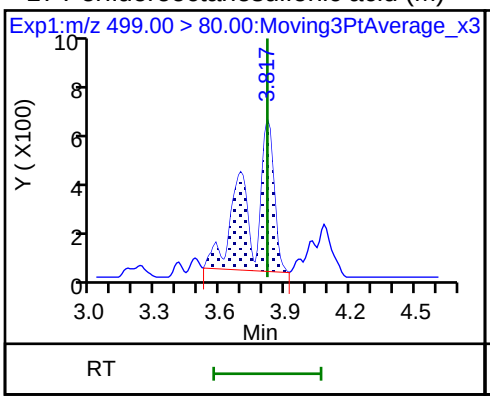
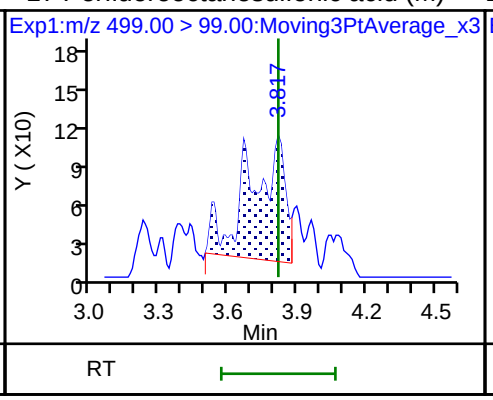
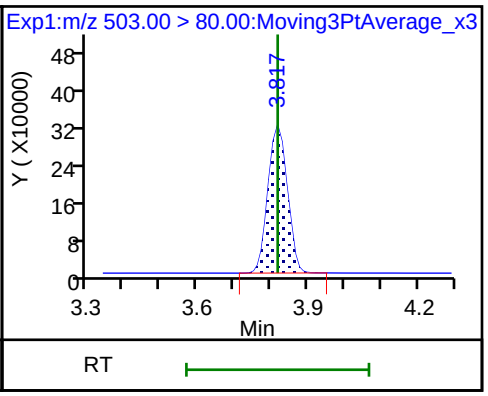


17 Perfluorooctanesulfonic acid (M)



D 18 13C4 PFOS



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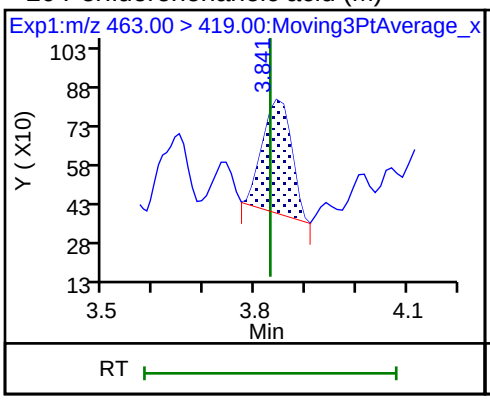

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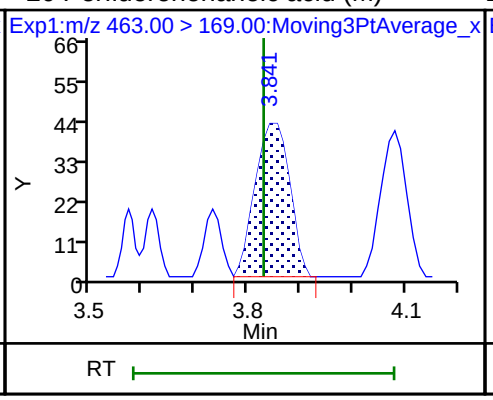

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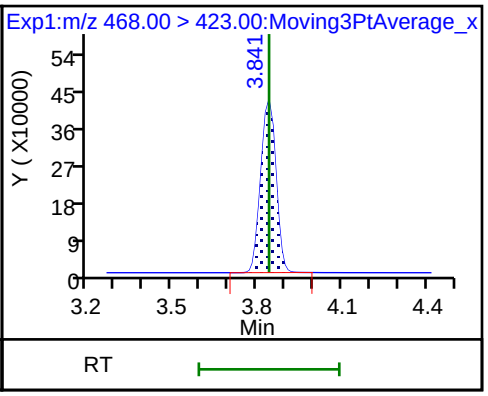
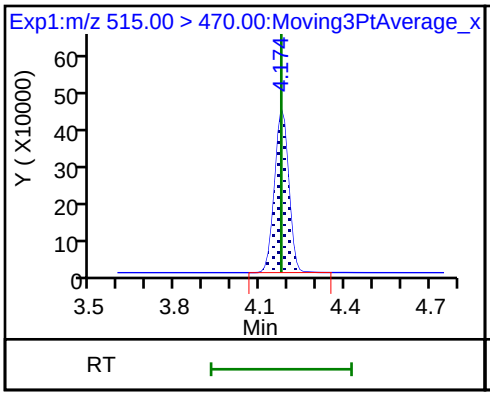
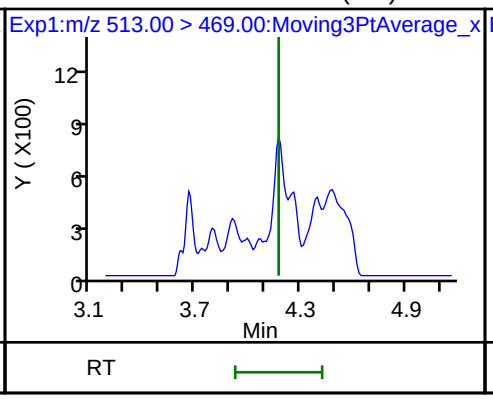


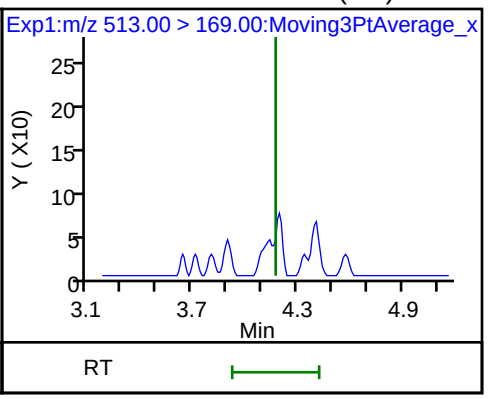
D 23 13C2 PFDA



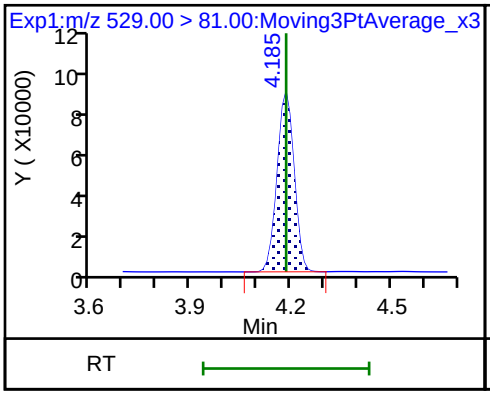
24 Perfluorodecanoic acid (ND)



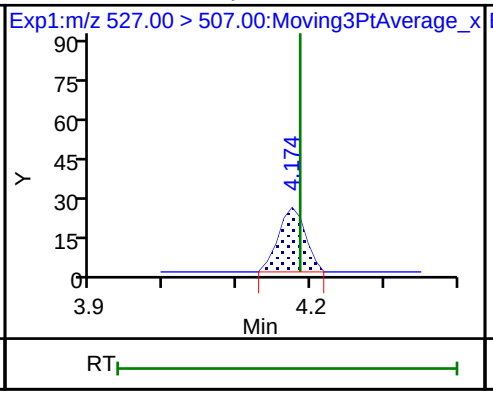
24 Perfluorodecanoic acid (ND)



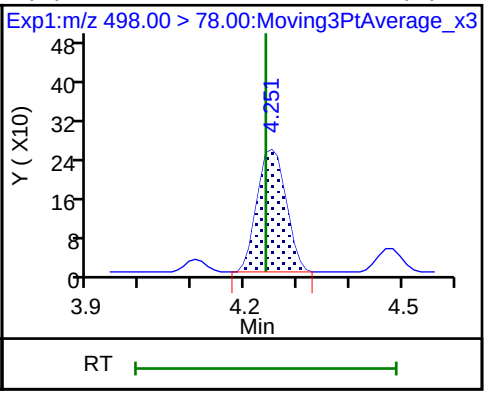
D 26 M2-8:2 FTS



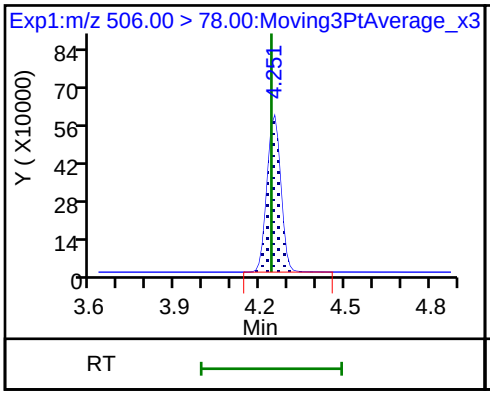
25 1H,1H,2H,2H-perfluorodecanesulfoni



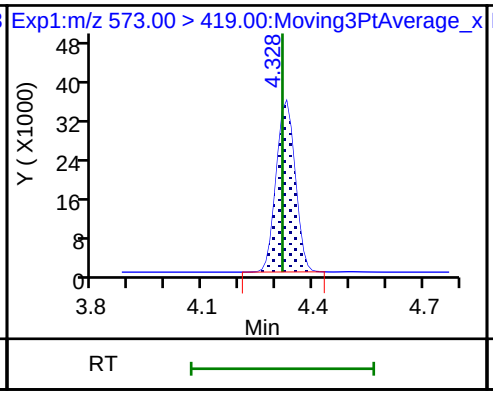
22 Perfluorooctanesulfonamide (M)



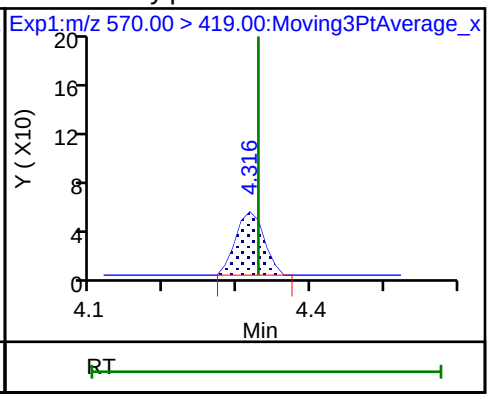
D 21 13C8 FOSA



D 27 d3-NMeFOSAA



28 N-methylperfluorooctanesulfonamido (M)



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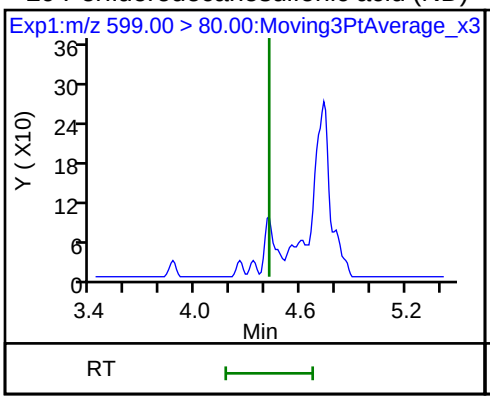
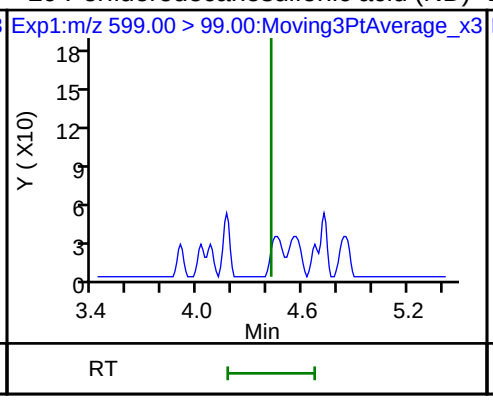
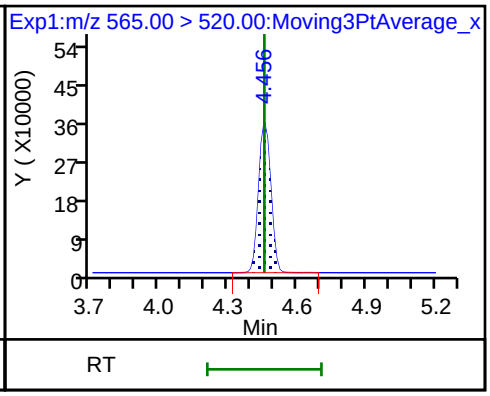


29 Perfluorodecanesulfonic acid (ND)



D 30 13C2 PFUnA



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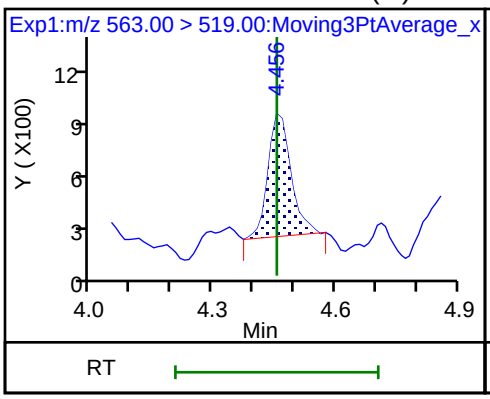

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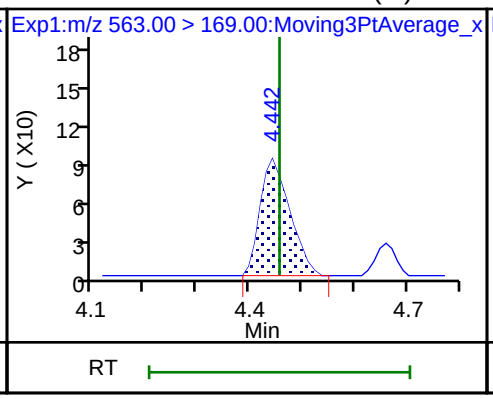
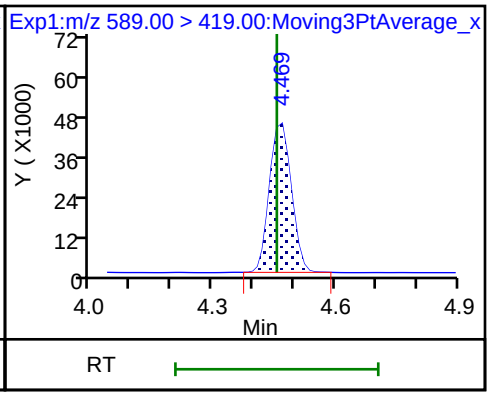
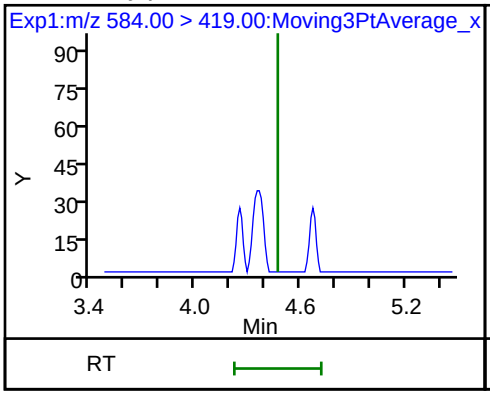


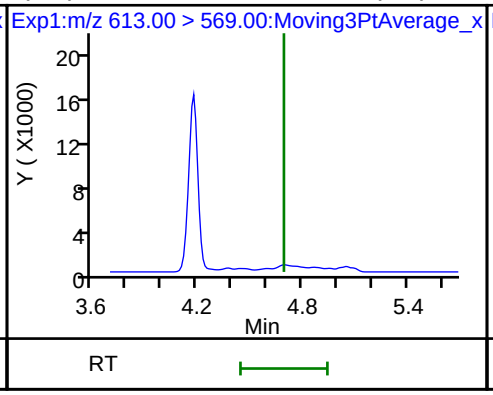
D 32 d5-NEtFOSAA



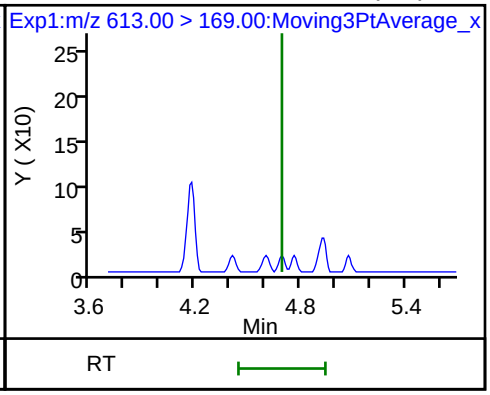
33 N-ethylperfluorooctanesulfonamidoa (ND)



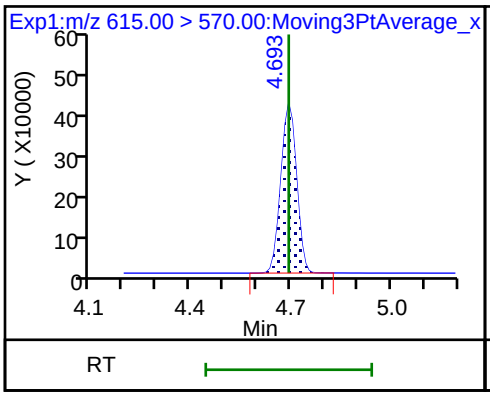
37 Perfluorododecanoic acid (ND)



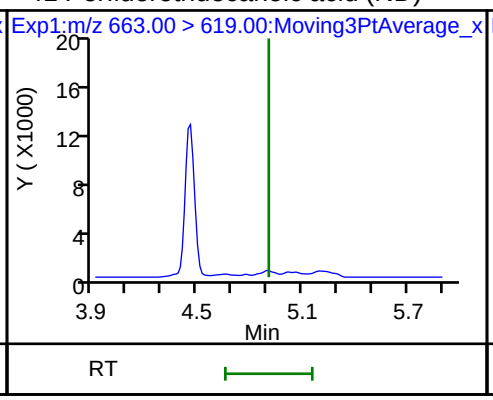
37 Perfluorododecanoic acid (ND)



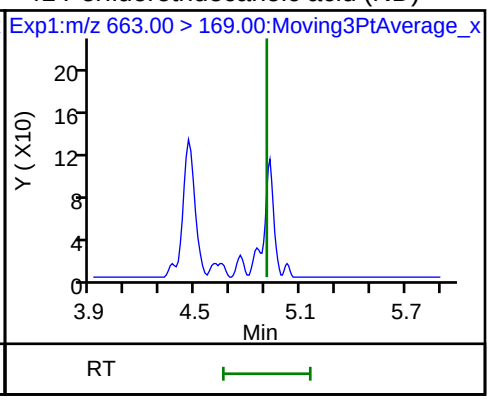
D 36 13C2 PFDoA



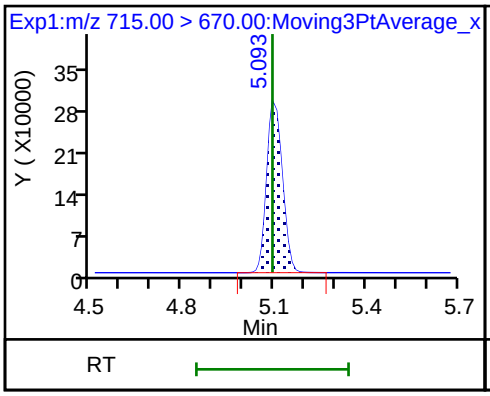
41 Perfluorotridecanoic acid (ND)



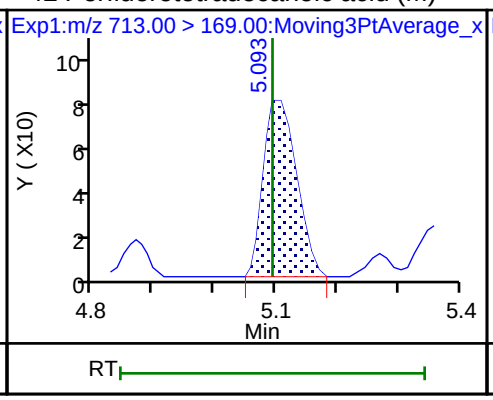
41 Perfluorotridecanoic acid (ND)



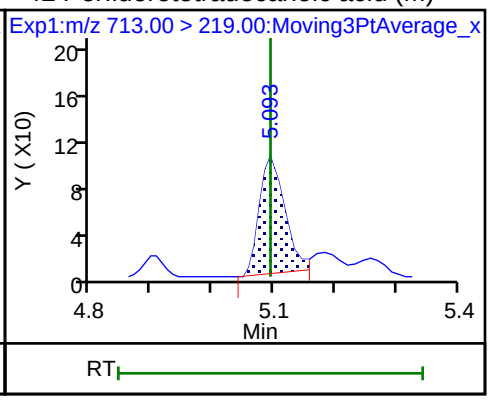
D 43 13C2 PFTeDA



42 Perfluorotetradecanoic acid (M)



42 Perfluorotetradecanoic acid (M)



Eurofins TestAmerica, Burlington

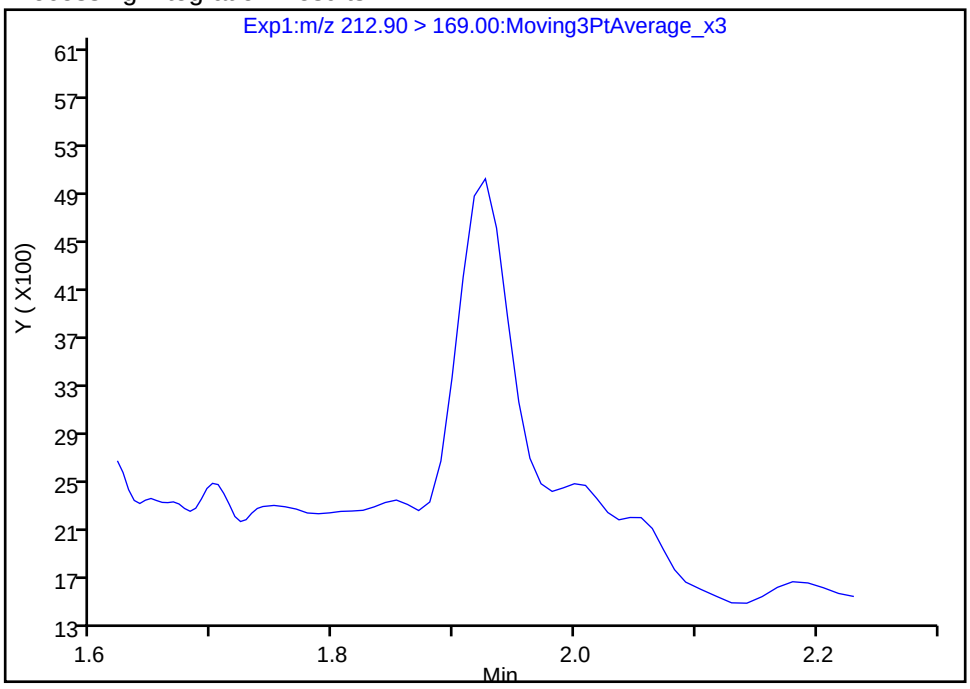
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

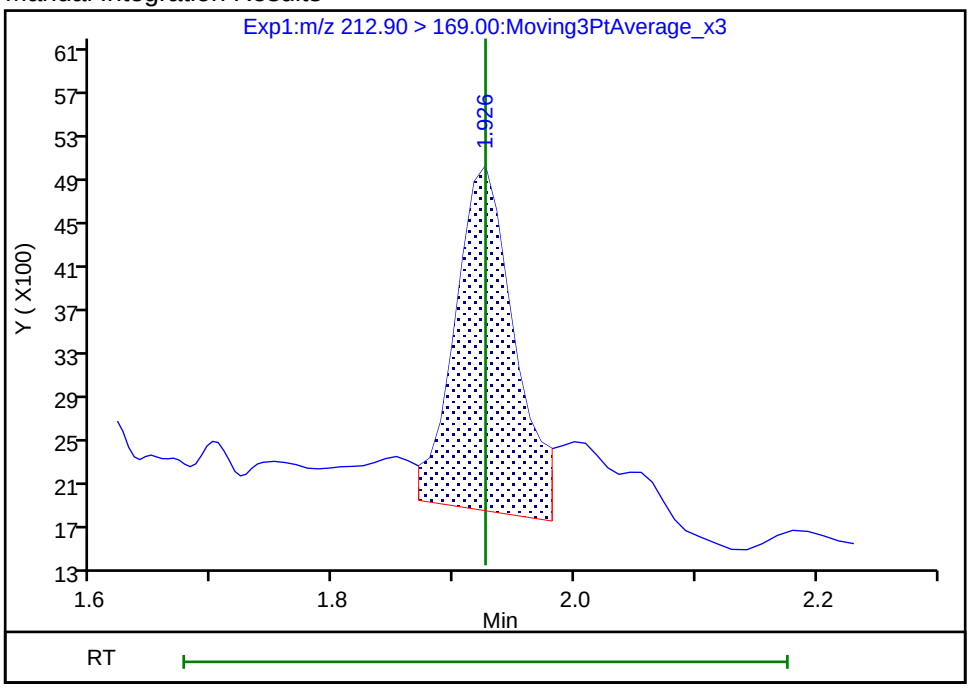
Not Detected
Expected RT: 1.93

Processing Integration Results



Manual Integration Results

RT: 1.93
Area: 10599
Amount: 0.012372
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:12:54
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

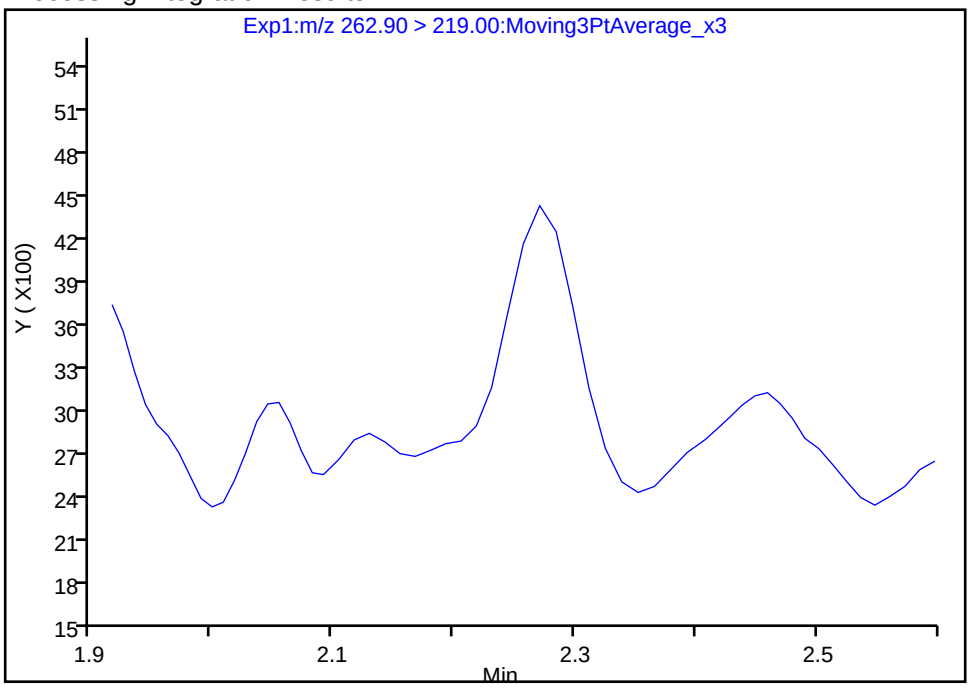
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

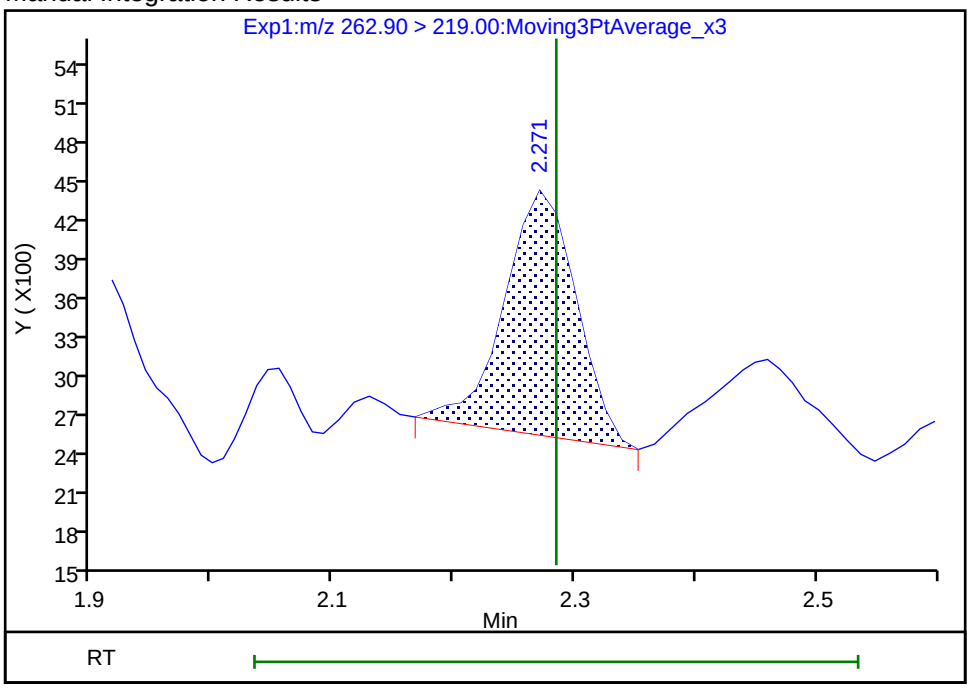
Not Detected
Expected RT: 2.28

Processing Integration Results



Manual Integration Results

RT: 2.27
Area: 7594
Amount: 0.009650
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:38:45
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

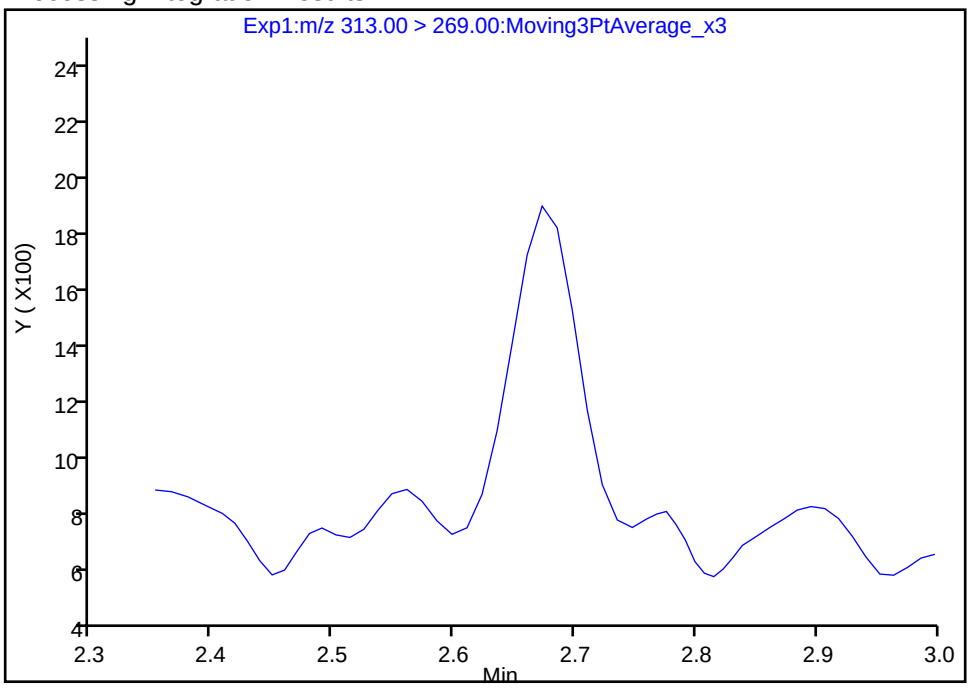
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

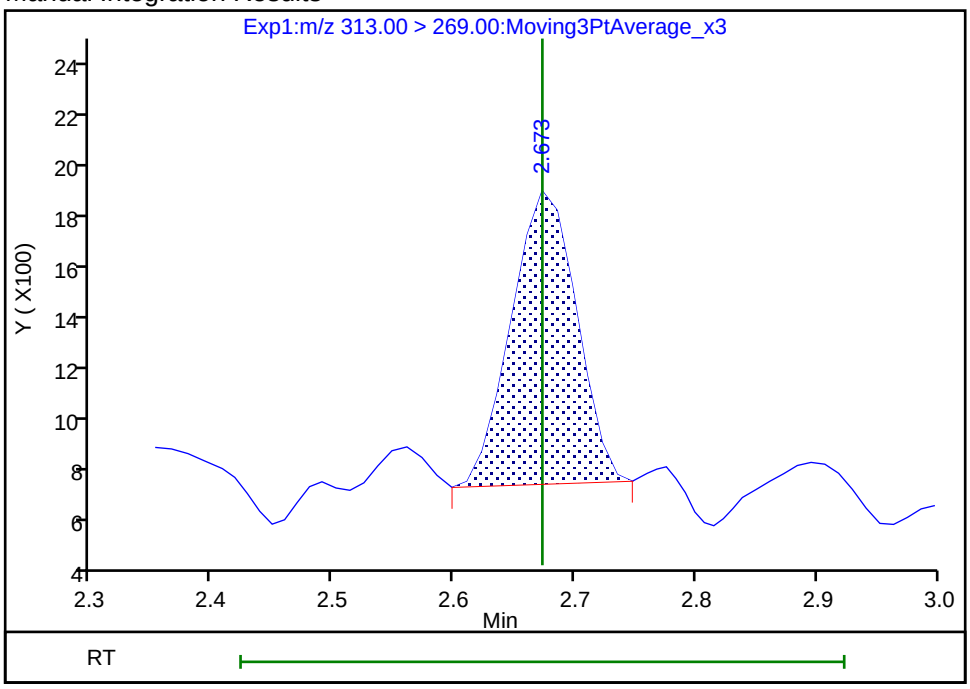
Not Detected
Expected RT: 2.67

Processing Integration Results



Manual Integration Results

RT: 2.67
Area: 4256
Amount: 0.006262
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:38:56
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

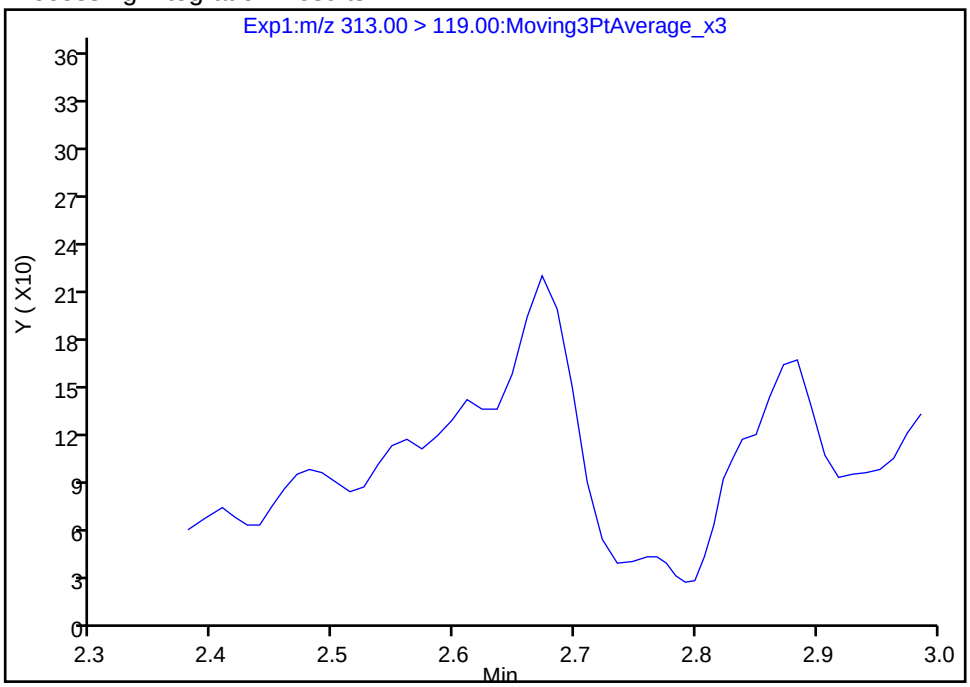
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

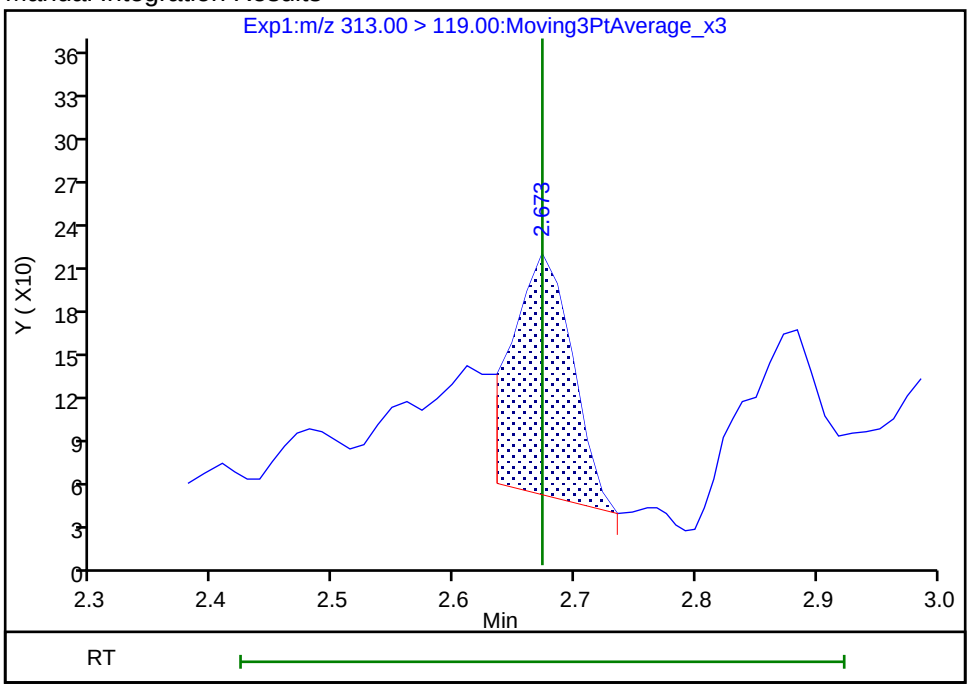
Not Detected
Expected RT: 2.67

Processing Integration Results



Manual Integration Results

RT: 2.67
Area: 564
Amount: 0.006262
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:39:05
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

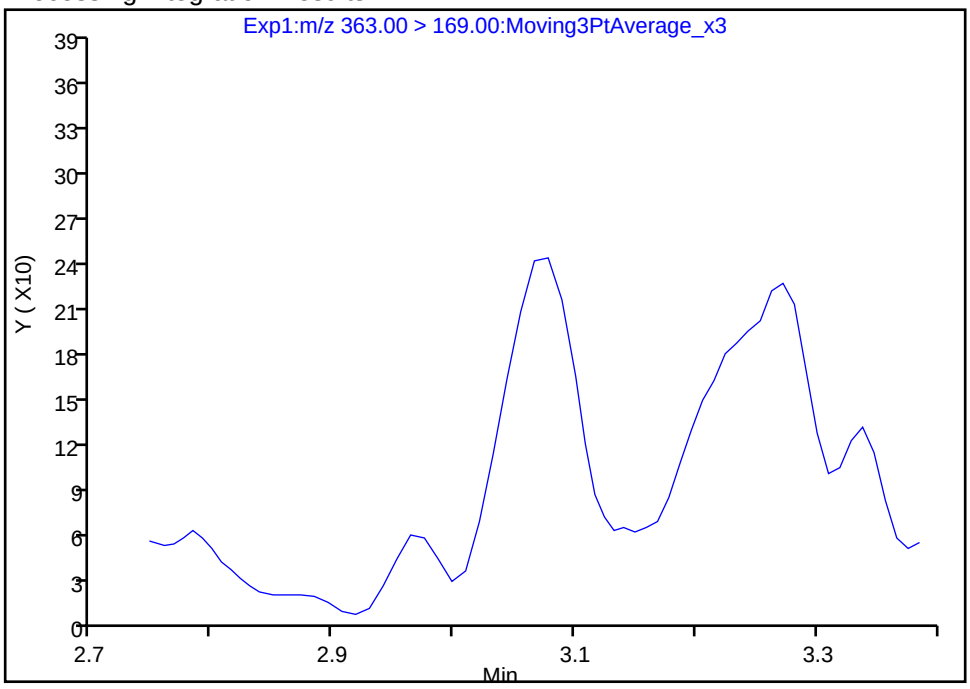
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

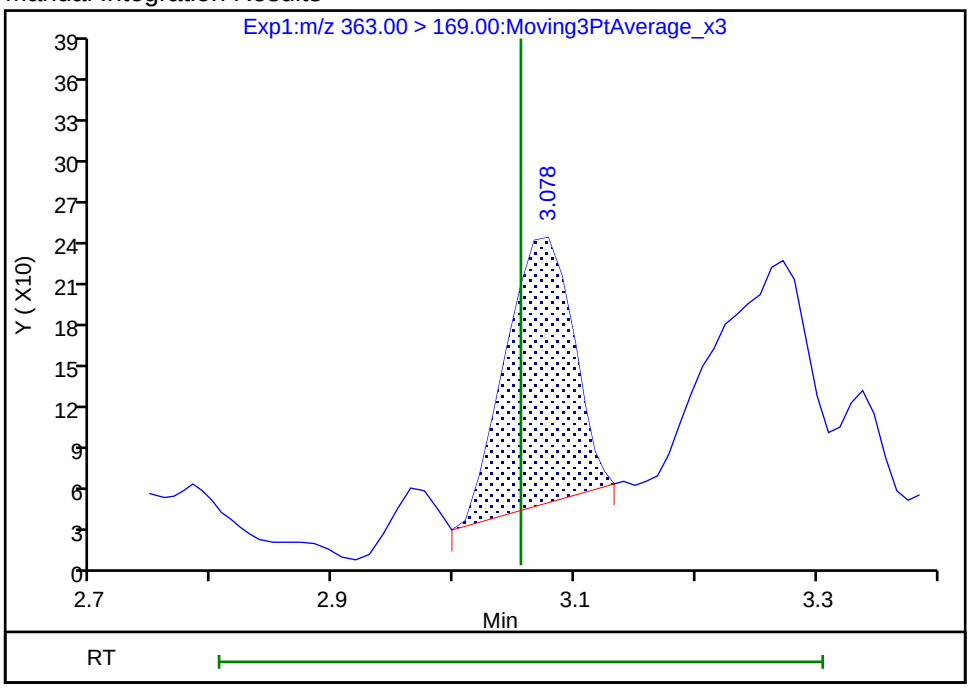
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.08
Area: 770
Amount: 0.002457
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:39:28
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

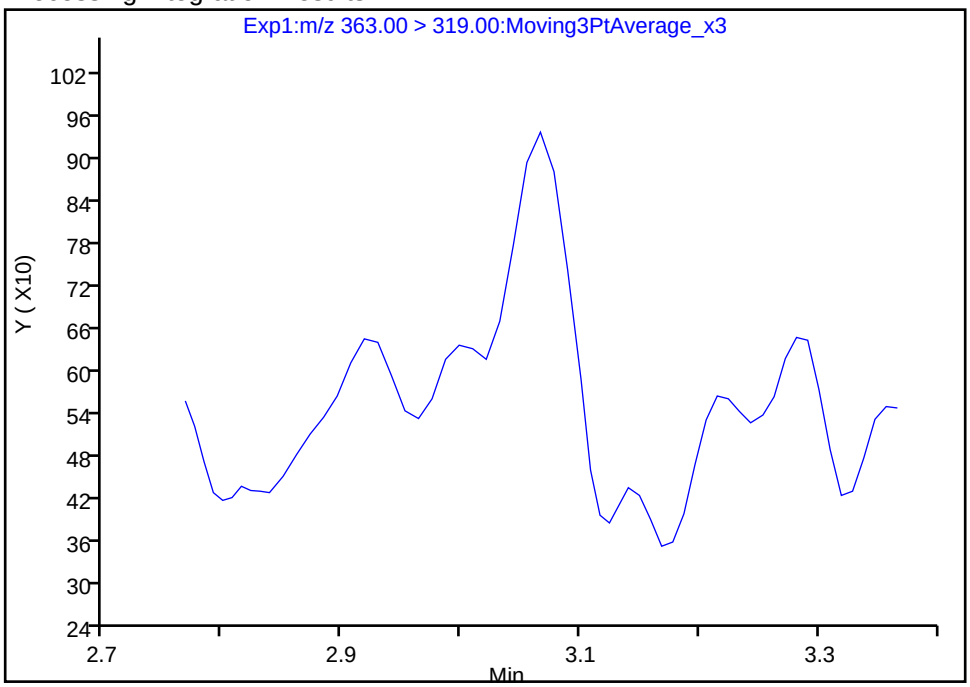
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

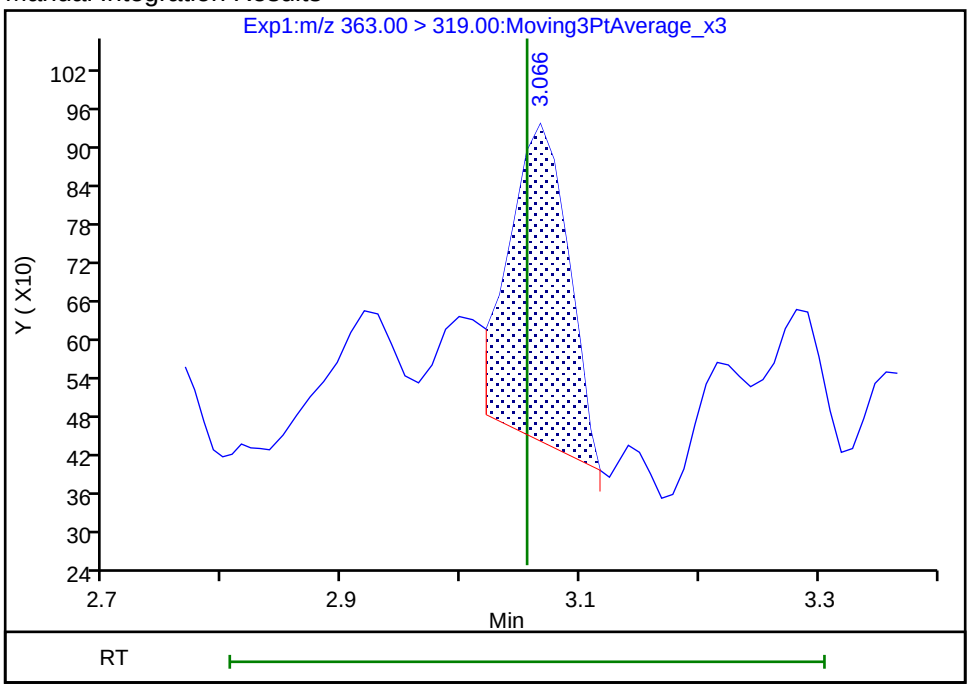
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.07
Area: 1701
Amount: 0.002457
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:39:35
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

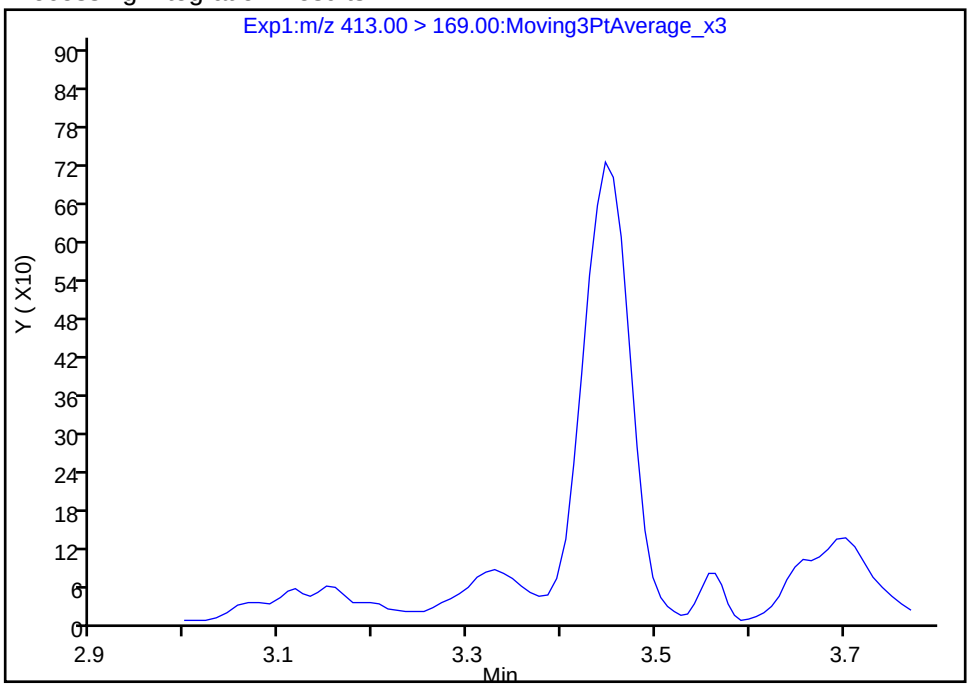
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

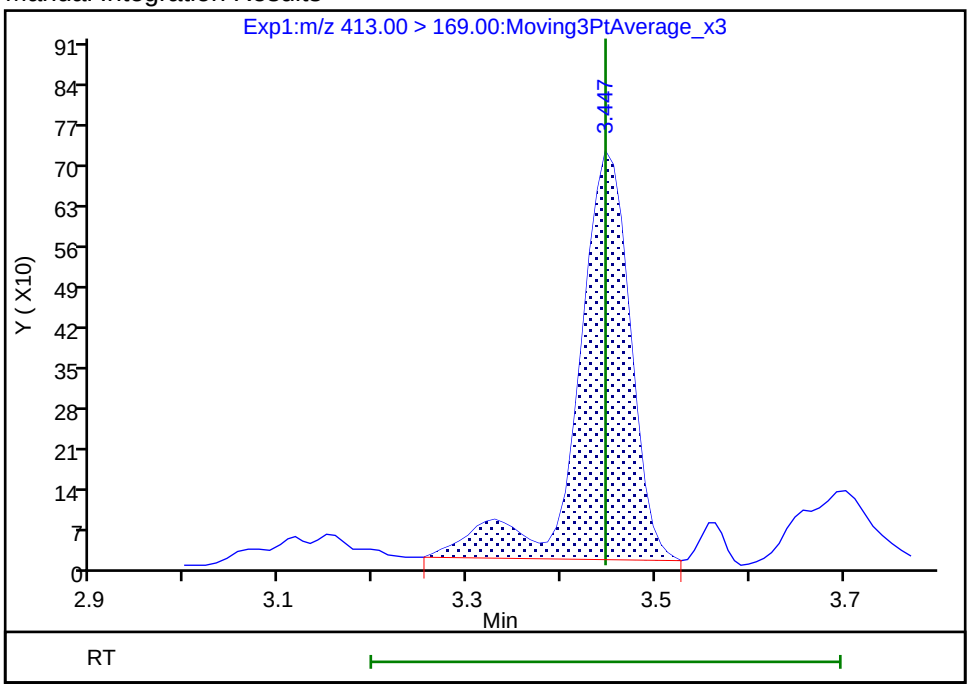
Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results

RT: 3.45
Area: 2786
Amount: 0.008622
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:40:34
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

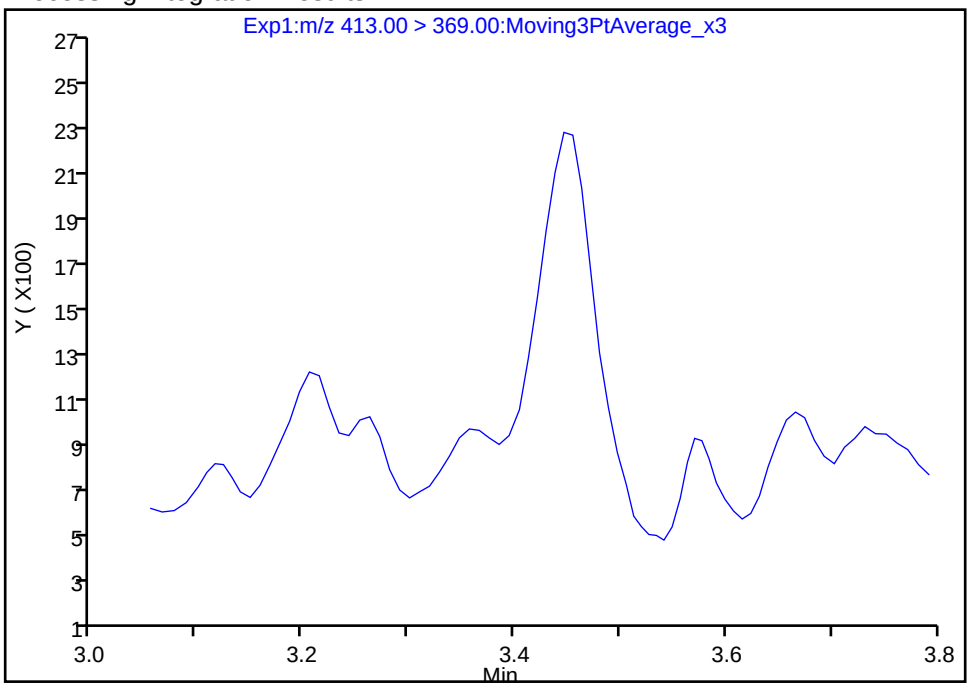
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

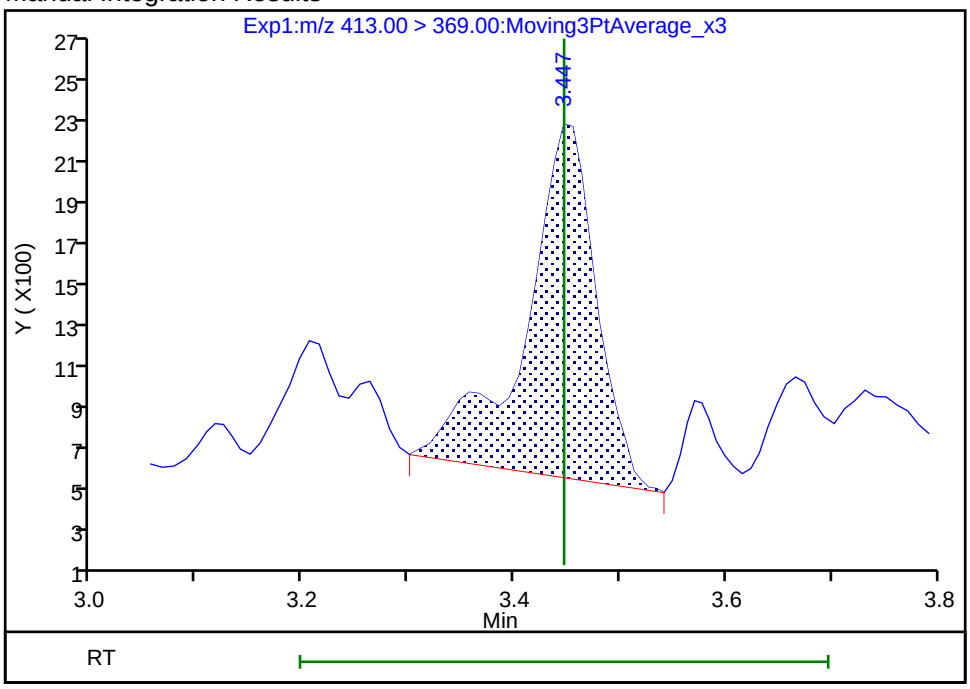
Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results

RT: 3.45
Area: 7719
Amount: 0.008622
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:40:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

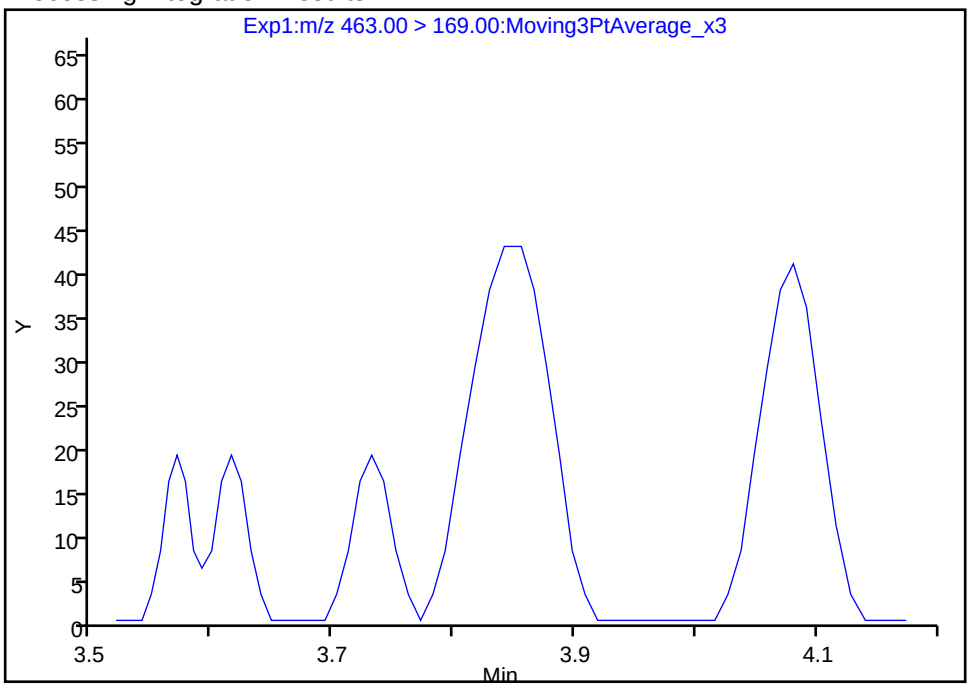
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

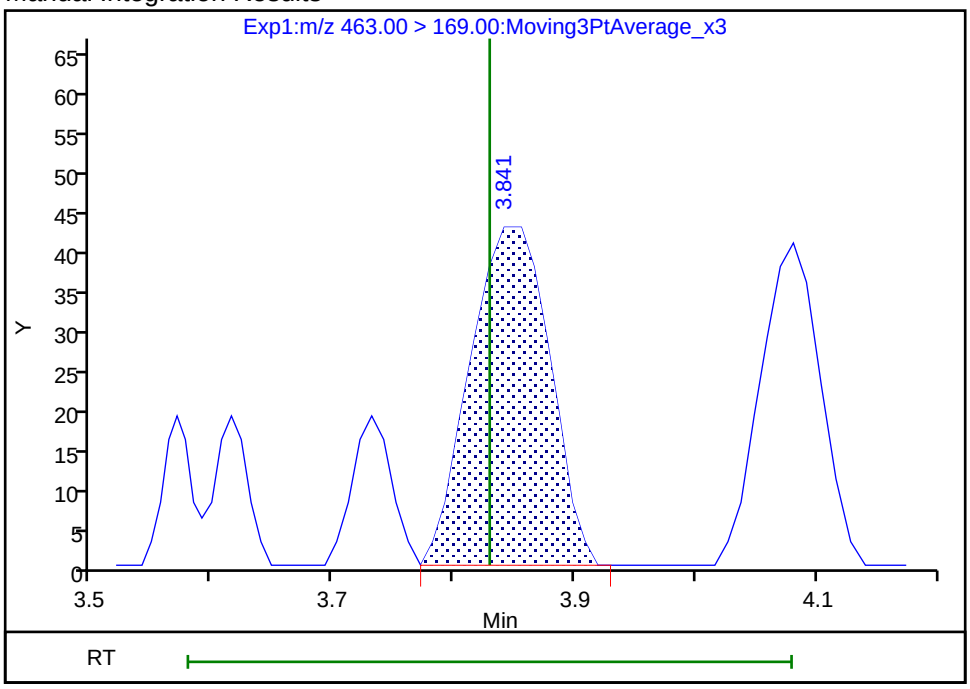
Not Detected
Expected RT: 3.83

Processing Integration Results



Manual Integration Results

RT: 3.84
Area: 197
Amount: 0.002858
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:41:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

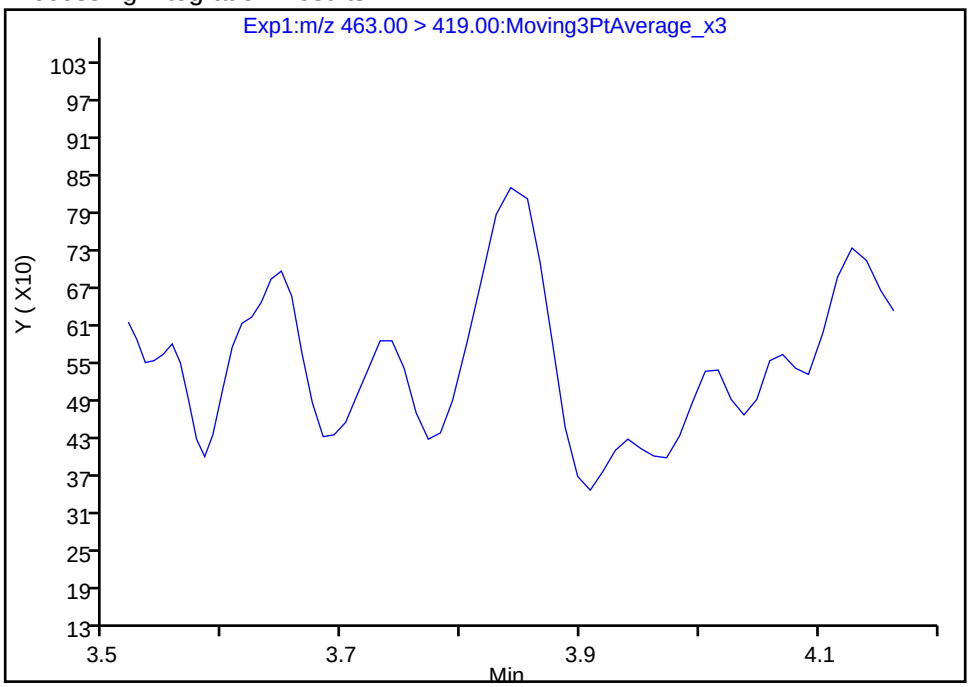
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

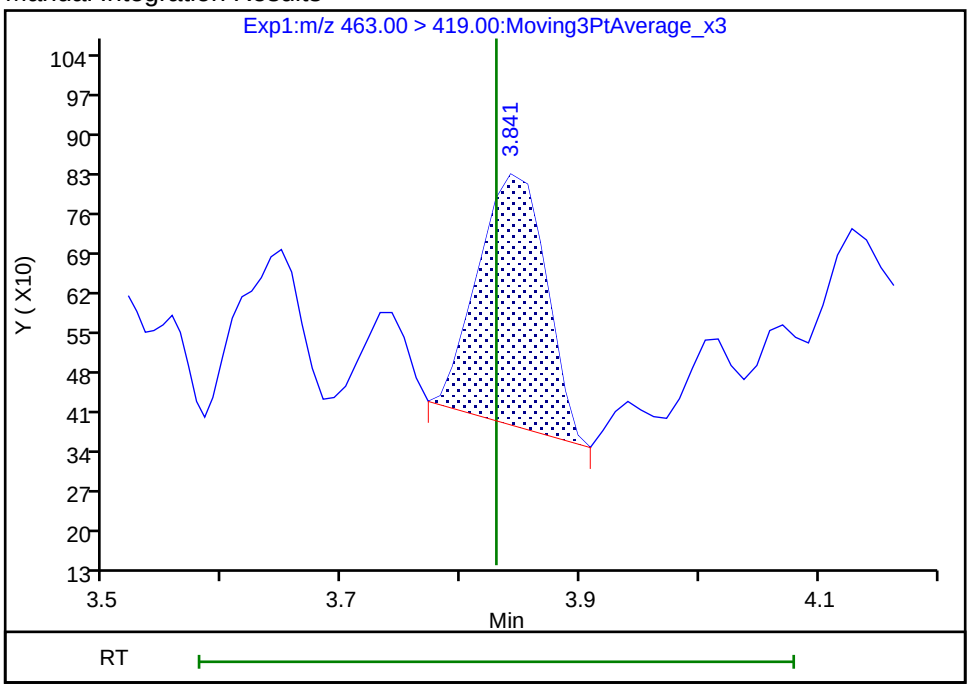
Processing Integration Results

Not Detected
Expected RT: 3.83



Manual Integration Results

RT: 3.84
Area: 1780
Amount: 0.002858
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:41:46
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

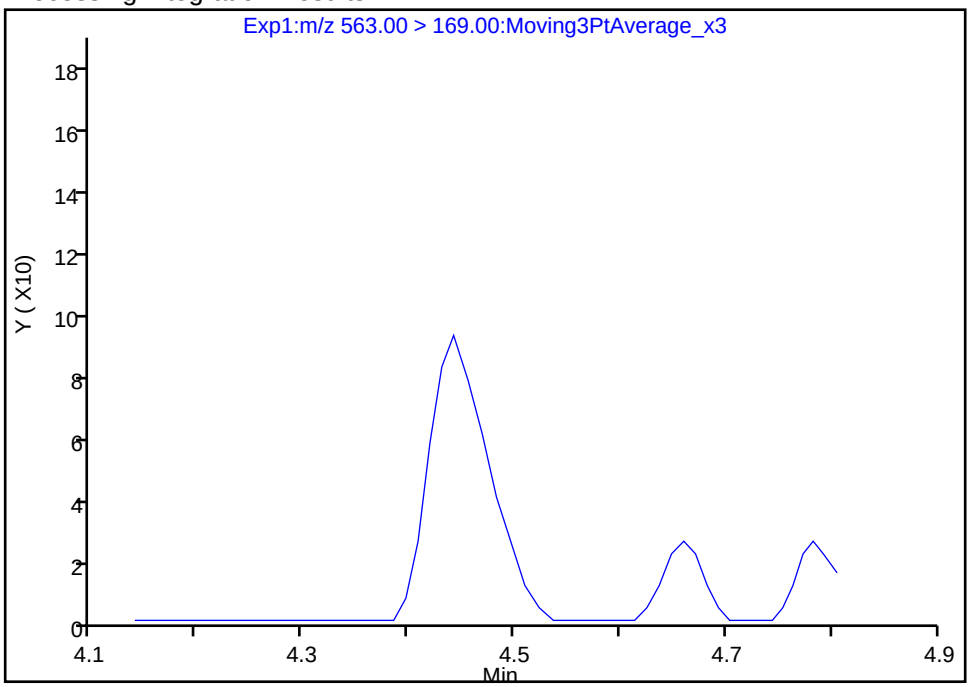
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

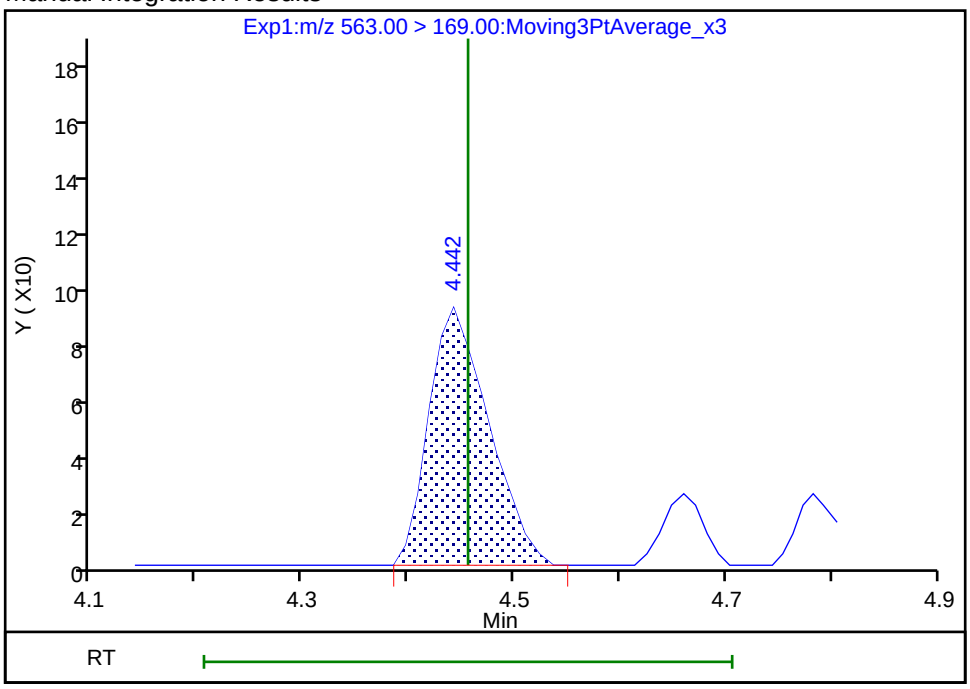
Not Detected
Expected RT: 4.46

Processing Integration Results



Manual Integration Results

RT: 4.44
Area: 353
Amount: 0.006201
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:42:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

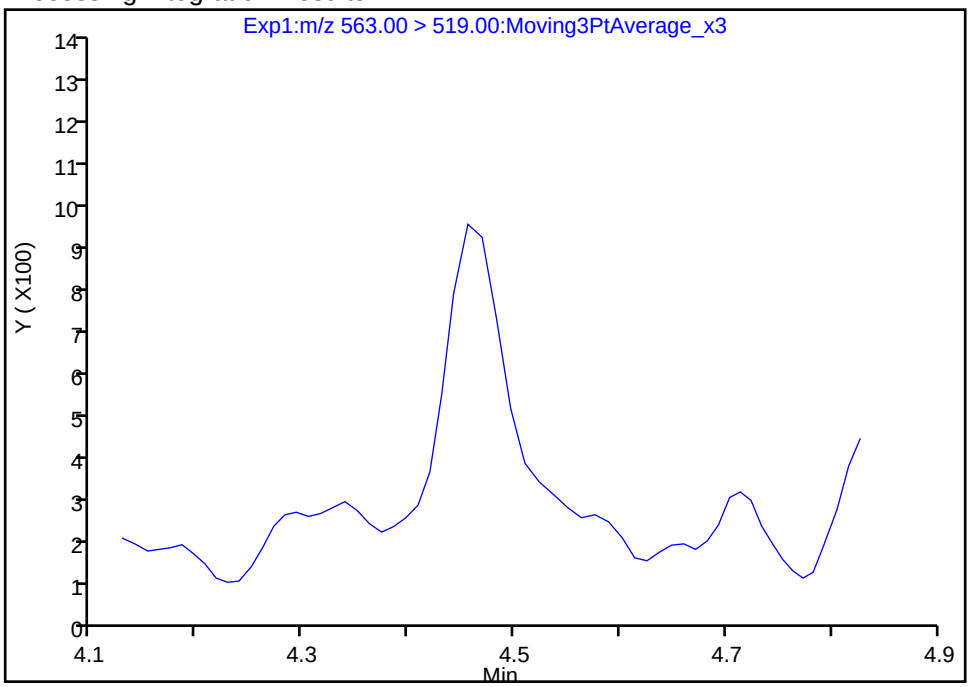
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 1

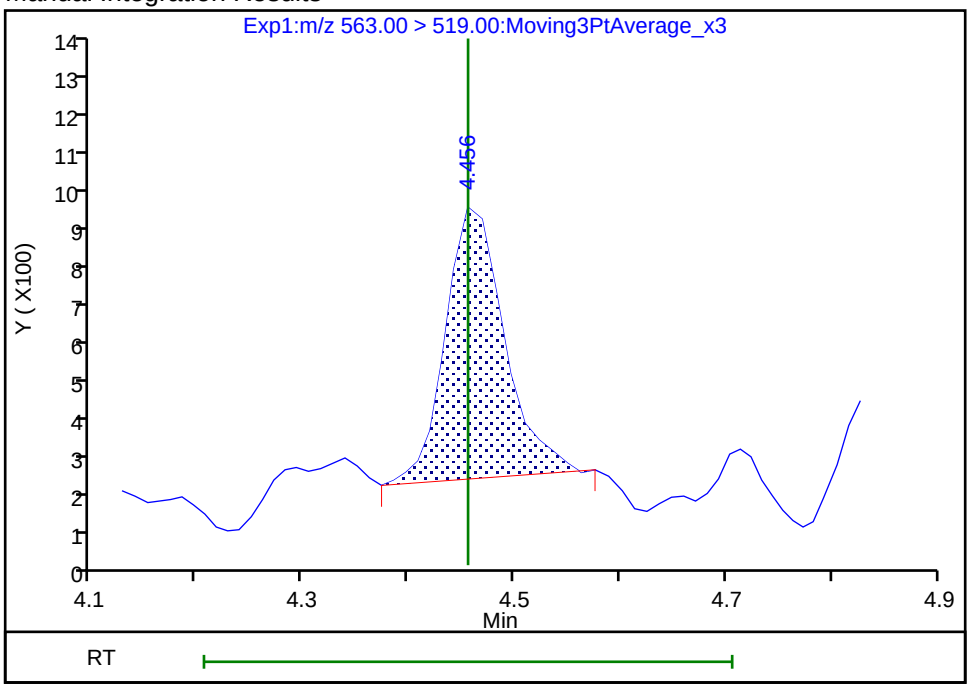
Not Detected
Expected RT: 4.46

Processing Integration Results



Manual Integration Results

RT: 4.46
Area: 2755
Amount: 0.006201
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:42:35
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

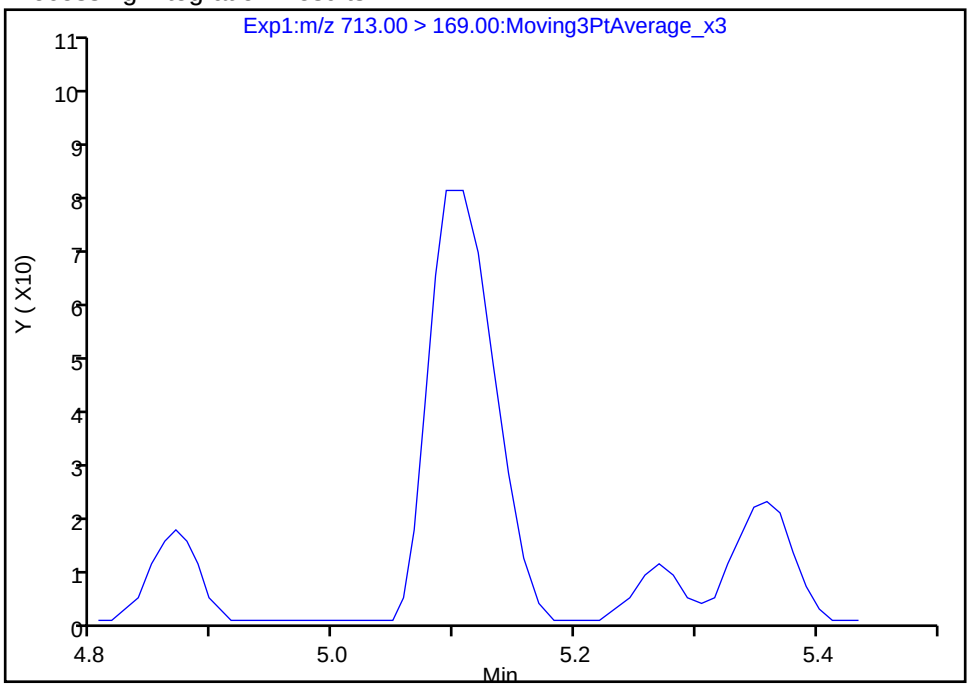
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

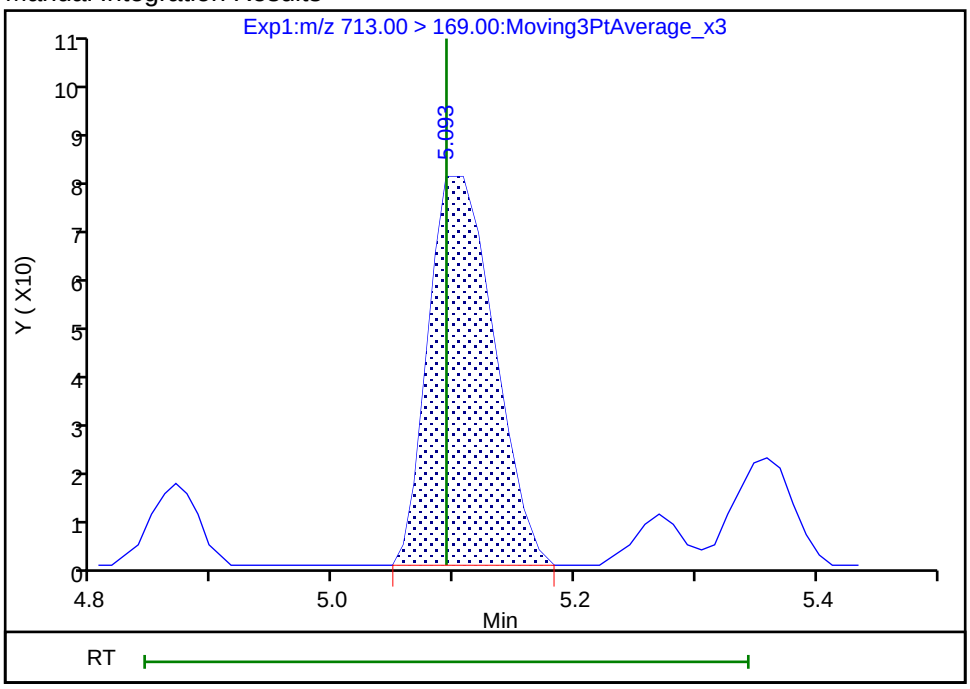
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.09
Area: 288
Amount: 0.003454
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:42:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

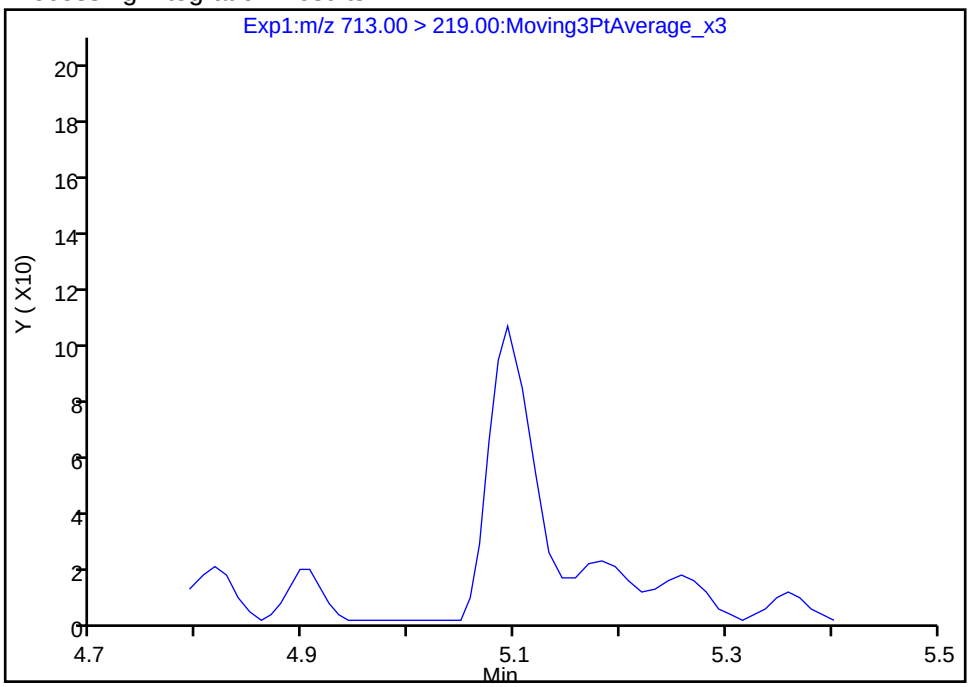
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

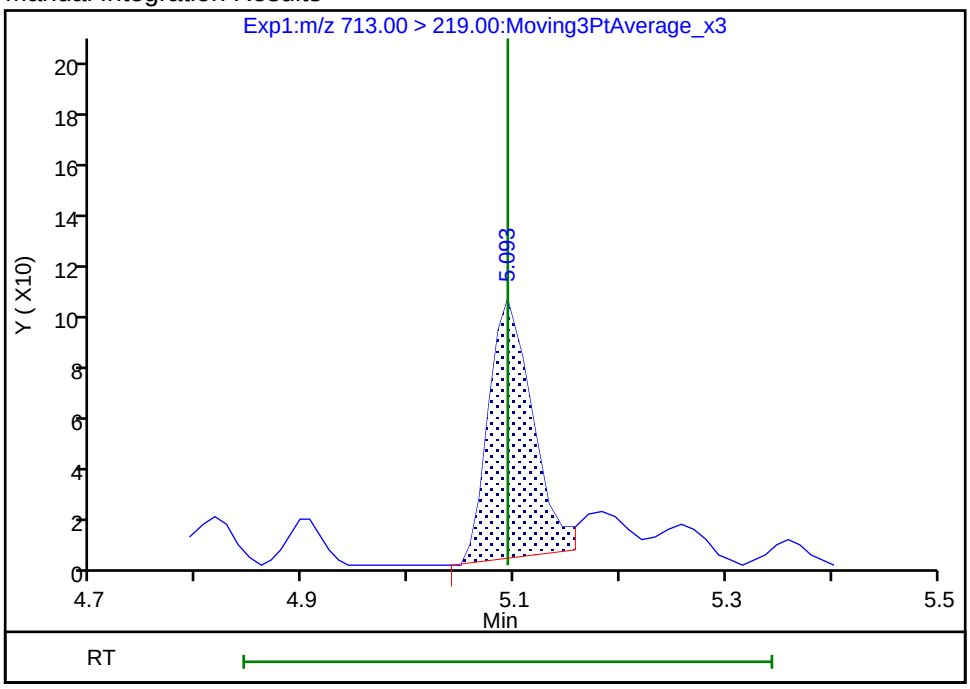
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.09
Area: 290
Amount: 0.003454
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:15:01
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

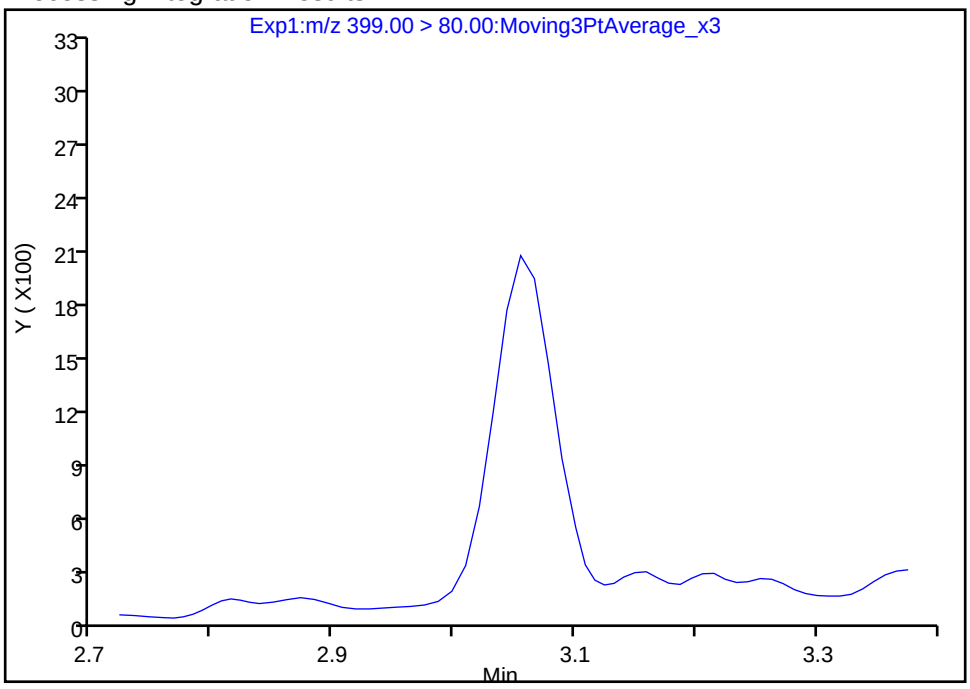
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

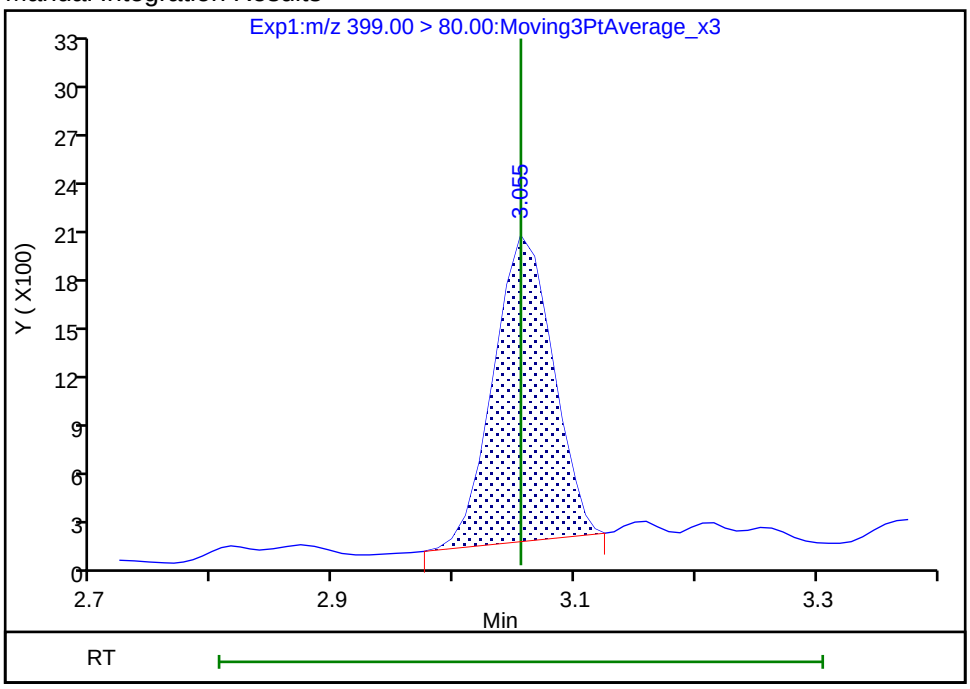
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 6481
Amount: 0.008919
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:39:57
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

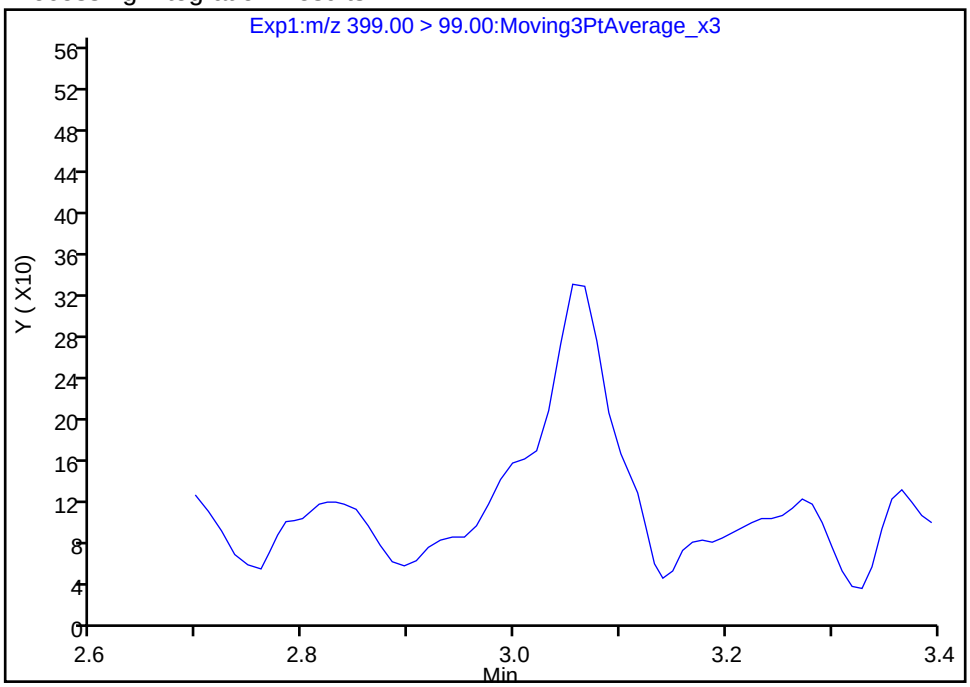
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

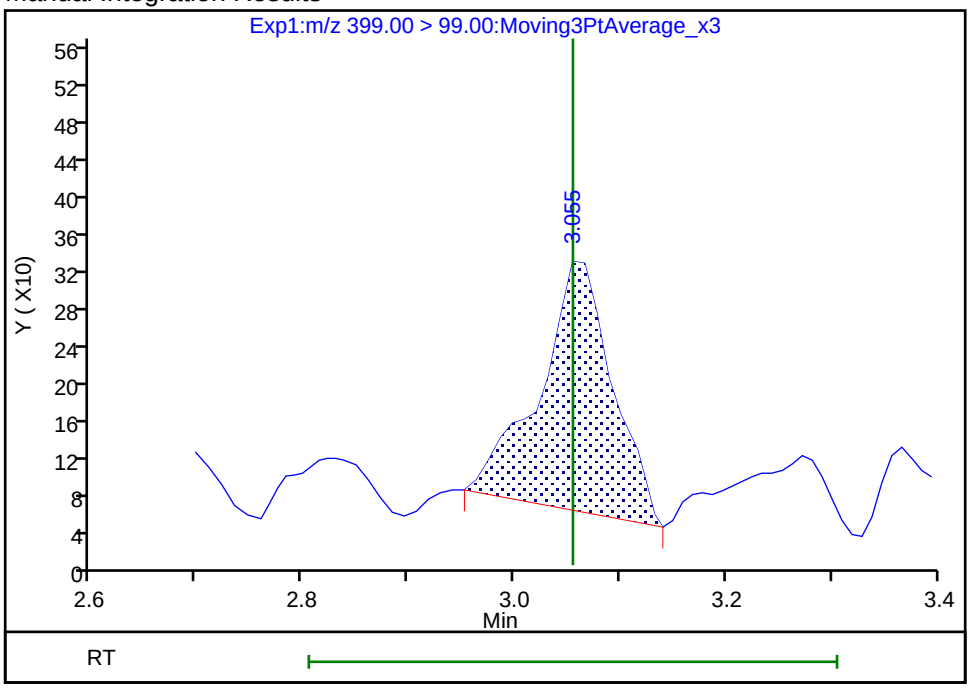
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 1291
Amount: 0.008919
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:40:02
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

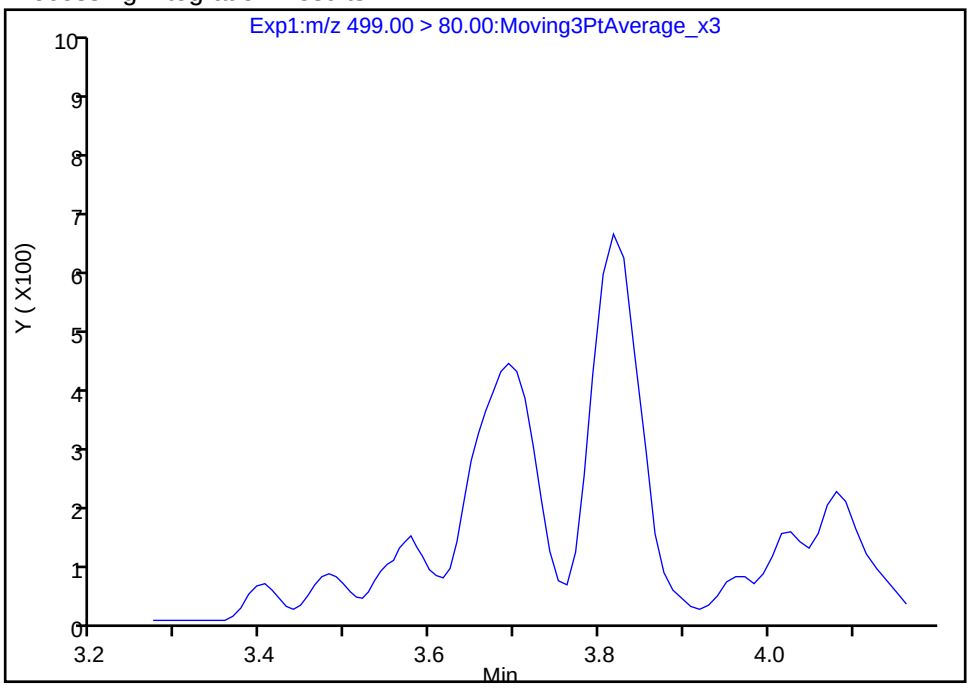
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

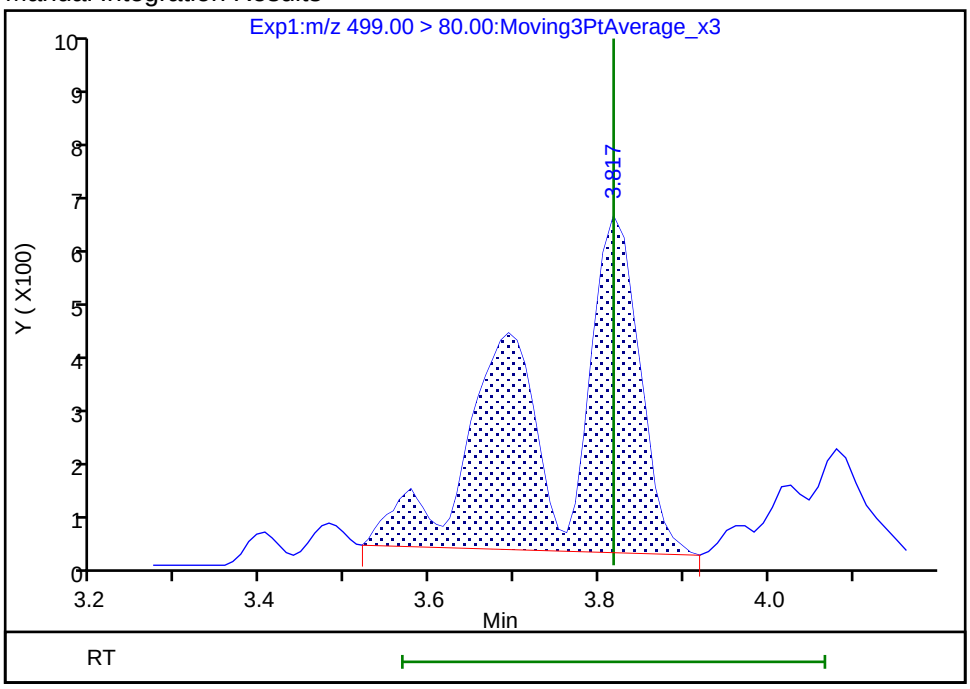
Not Detected
Expected RT: 3.82

Processing Integration Results



Manual Integration Results

RT: 3.82
Area: 4898
Amount: 0.009261
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:41:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

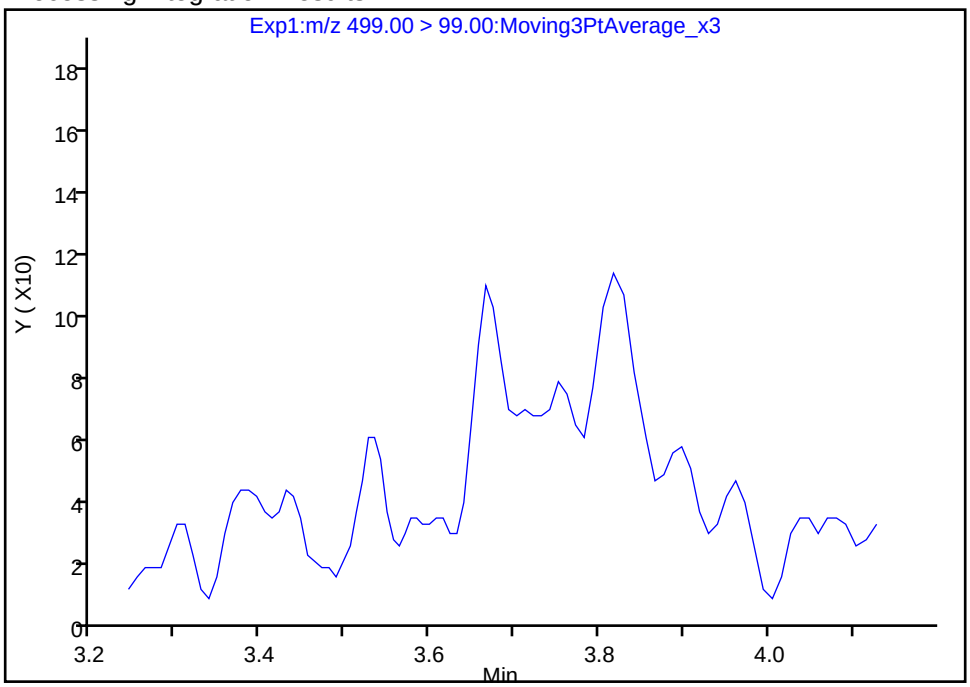
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

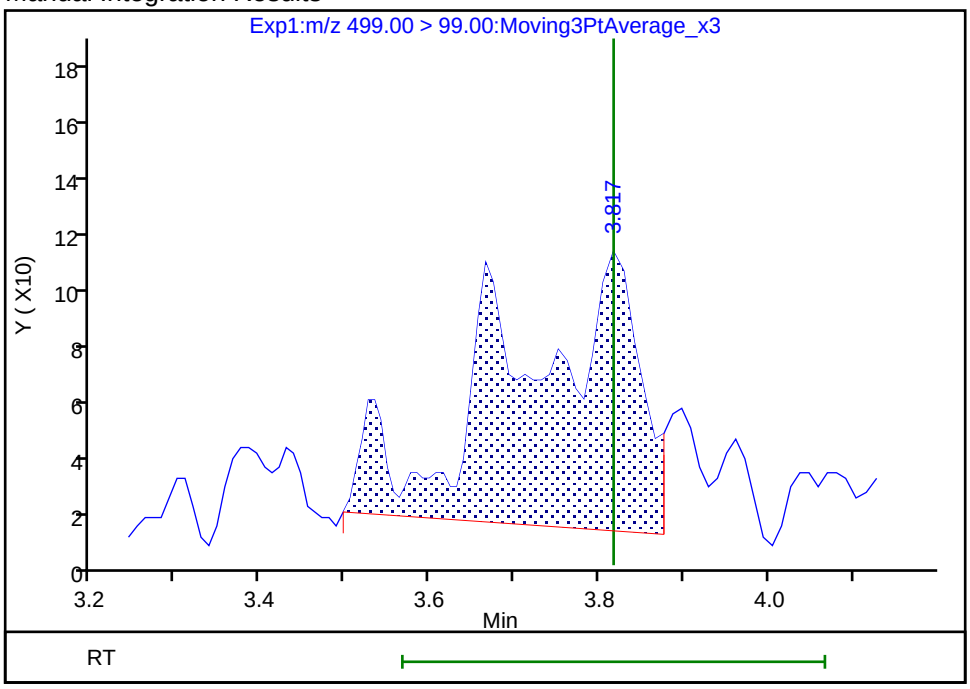
Not Detected
Expected RT: 3.82

Processing Integration Results



Manual Integration Results

RT: 3.82
Area: 1036
Amount: 0.009261
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 18:13:50
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

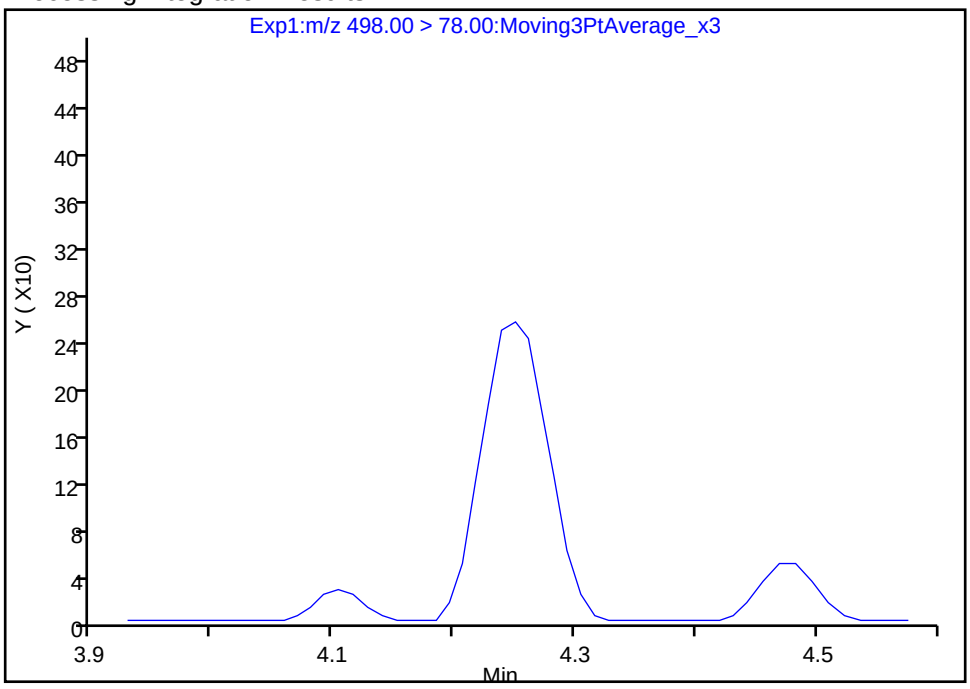
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

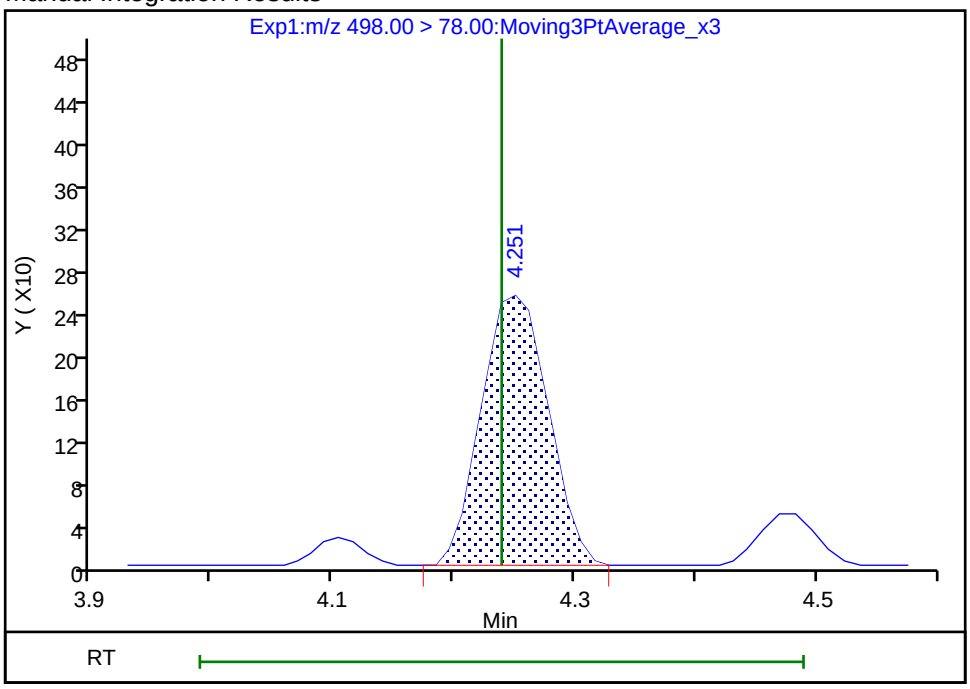
Not Detected
Expected RT: 4.24

Processing Integration Results



Manual Integration Results

RT: 4.25
Area: 969
Amount: 0.001233
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:42:05
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

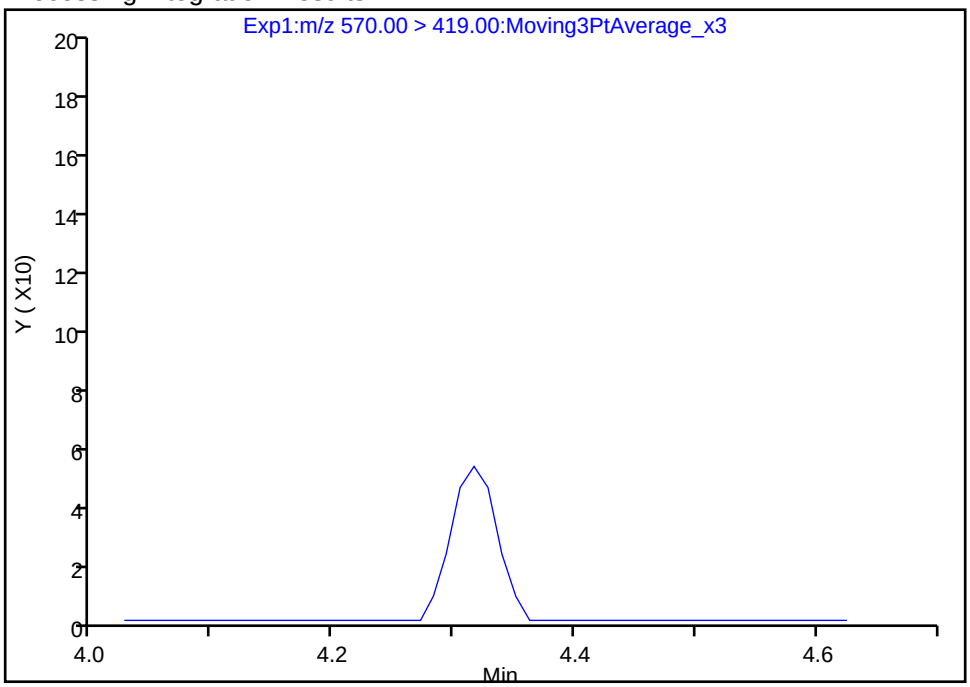
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

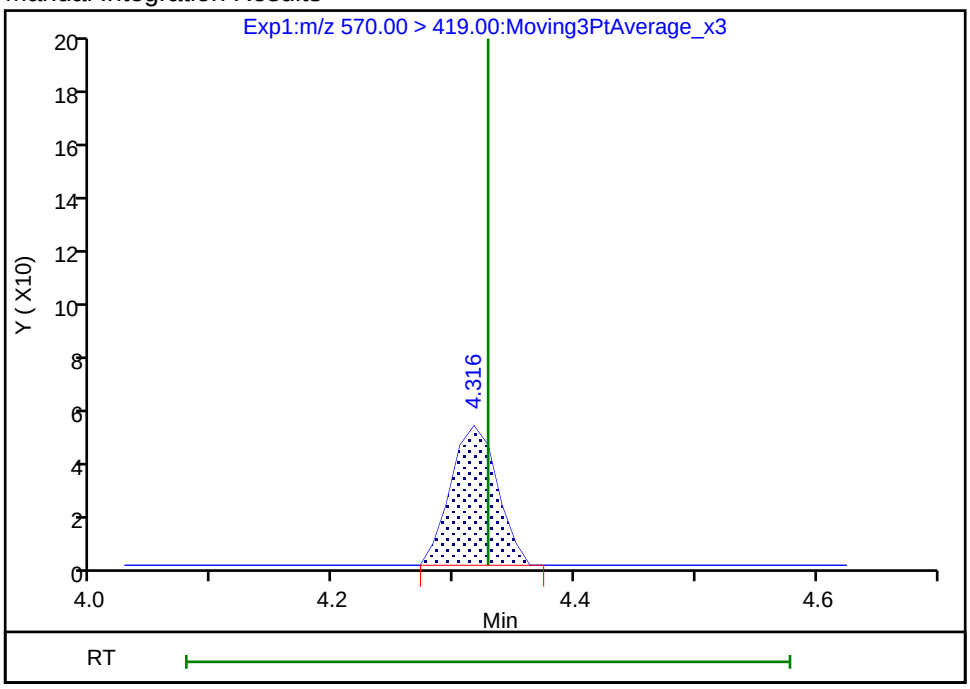
Not Detected
Expected RT: 4.33

Processing Integration Results



Manual Integration Results

RT: 4.32
Area: 136
Amount: 0.003097
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:42:12
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

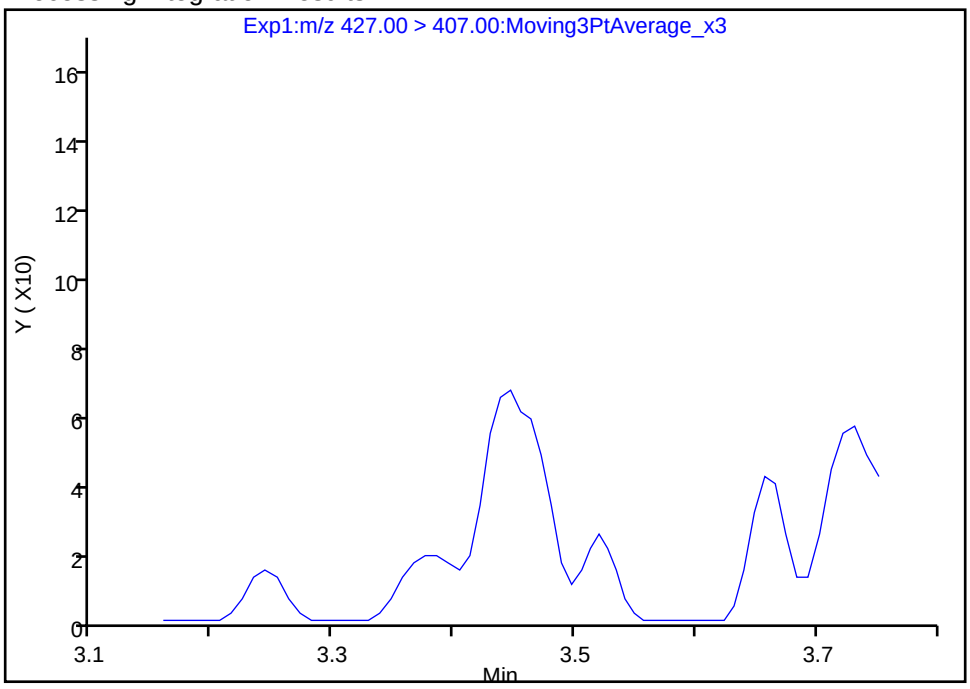
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

13 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:, CAS: 27619-97-2

Signal: 1

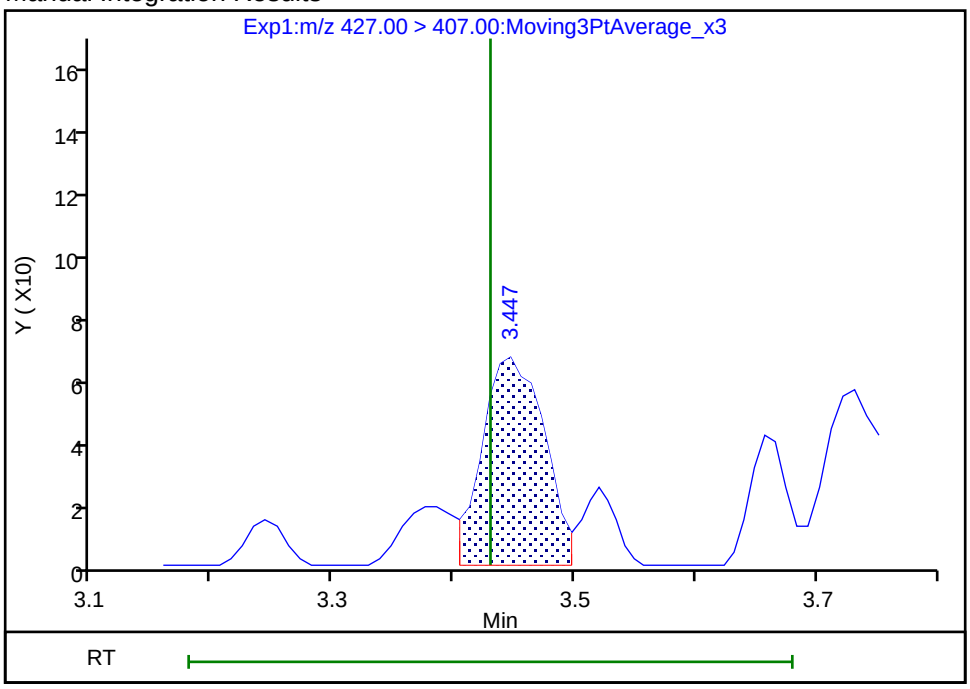
Not Detected
Expected RT: 3.43

Processing Integration Results



Manual Integration Results

RT: 3.45
Area: 226
Amount: 0.002515
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:40:20
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

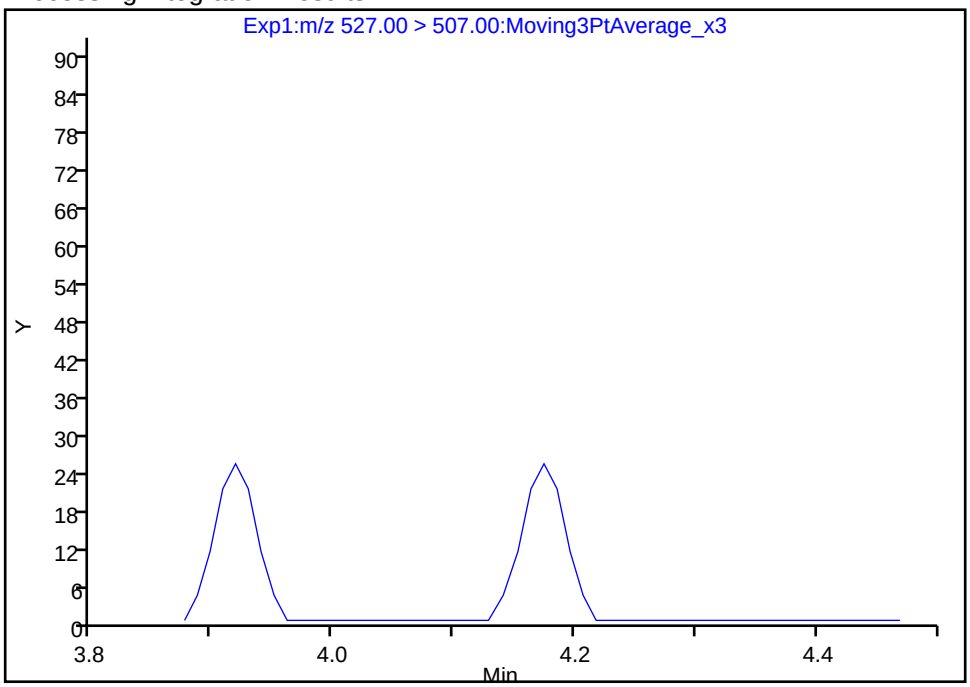
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F026.d				
Injection Date:	07-Dec-2019 09:47:08	Instrument ID:	LC812		
Lims ID:	480-163109-A-5-A	Lab Sample ID:	200-163109-5		
Client ID:	EQUIPMENT BLANK				
Operator ID:	lc812tech	ALS Bottle#:	26	Worklist Smp#:	26
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:, CAS: 39108-34-4

Signal: 1

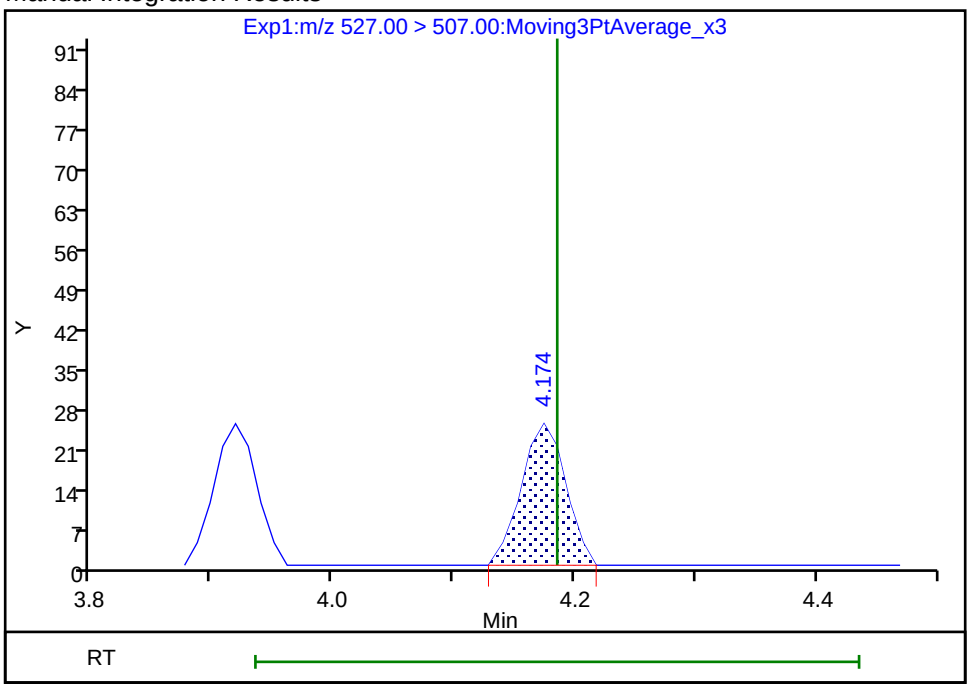
Not Detected
Expected RT: 4.19

Processing Integration Results



Manual Integration Results

RT: 4.17
Area: 63
Amount: 0.001048
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 15:41:59
Audit Action: Manually Integrated Audit Reason: Missed Peak

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1 Analy Batch No.: 150448

SDG No.: 480-163109

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/06/2019 14:32 Calibration End Date: 12/06/2019 15:13 Calibration ID: 42812

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-150448/5	SC120619ICAL005.d
Level 2	IC 200-150448/6	SC120619ICAL006.d
Level 3	IC 200-150448/7	SC120619ICAL007.d
Level 4	ICIS 200-150448/8	SC120619ICAL008.d
Level 5	IC 200-150448/9	SC120619ICAL009.d
Level 6	IC 200-150448/10	SC120619ICAL010.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorobutanoic acid (PFBA)	1.0960 0.9257	1.0705	0.9775	0.9346	0.9651	AveID		0.9949				7.2		35.0			
Perfluoropentanoic acid (PFPeA)	1.2561 1.0450	1.3353	1.1056	1.0632	0.9891	AveID		1.1324				11.9		35.0			
Perfluorobutanesulfonic acid (PFBS)	1.2079 1.0822	1.1812	1.0531	1.0002	0.9966	AveID		1.0869				8.3		35.0			
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	1.8576 1.8183	1.6453	1.7210	1.8007	1.5507	AveID		1.7323				6.8		50.0			
Perfluorohexanoic acid (PFHxA)	1.0291 1.0127	1.0516	1.0230	1.0224	0.9872	AveID		1.0210				2.1		35.0			
Perfluoropentanesulfonic acid	1.2446 1.1637	1.0648	1.0803	1.2316	1.1824	AveID		1.1612				6.5		50.0			
HFPO-DA	4.6989 3.8054	2.9546	3.2254	3.1610	3.6992	AveID		3.5907				17.7		35.0			
Perfluorohexanesulfonic acid (PFHxS)	1.2889 1.0191	1.1692	1.1896	1.0446	1.0792	AveID		1.1318				9.1		35.0			
Perfluoroheptanoic acid (PFHpA)	1.0745 0.9996	1.1637	0.9583	1.0918	1.0556	AveID		1.0573				6.8		35.0			
DONA	3.9507 3.6082	3.5062	3.4924	3.1638	3.4749	AveID		3.5327				7.2		50.0			
Perfluoroheptanesulfonic Acid (PFHpS)	1.3552 1.2577	1.1604	1.1683	1.1763	1.2312	AveID		1.2249				6.1		50.0			
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	+++++ 0.8997	1.2131	0.8752	0.8530	0.8776	AveID		0.9437				16.1		35.0			
Perfluorooctanoic acid (PFOA)	1.1696 0.9280	1.3401	1.1216	0.9970	1.1008	AveID		1.1095				12.9		35.0			
Perfluorooctanesulfonic acid (PFOS)	1.2303 1.0141	1.1220	0.9898	0.9757	1.1452	AveID		1.0795				9.4		35.0			
Perfluorononanoic acid (PFNA)	1.1180 0.8659	1.0892	0.8453	0.9648	1.0000	AveID		0.9805				11.4		35.0			

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1 Analy Batch No.: 150448

SDG No.: 480-163109

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/06/2019 14:32 Calibration End Date: 12/06/2019 15:13 Calibration ID: 42812

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	1.3508 1.1595	1.3111	1.1496	1.1146	1.3132	AveID		1.2332				8.3		50.0			
Perfluorononanesulfonic acid	0.8686 0.7796	0.8208	0.8810	0.7746	0.8323	AveID		0.8262				5.3		50.0			
Perfluorodecanoic acid (PFDA)	0.9946 0.9511	0.9435	1.1436	0.9439	0.8282	AveID		0.9675				10.6		35.0			
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	0.4644 0.4613	0.4655	0.4634	0.4645	0.4504	AveID		0.4616				1.2		35.0			
Perfluorooctanesulfonamide (PFOSA)	0.9568 0.9922	0.9909	0.9660	1.0108	1.0541	AveID		0.9951				3.5		35.0			
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	0.8909 0.8396	0.8934	0.9401	0.8028	0.8469	AveID		0.8689				5.6		35.0			
Perfluorodecanesulfonic acid (PFDS)	0.7568 0.7033	0.7230	0.6768	0.6433	0.8141	AveID		0.7196				8.4		50.0			
Perfluoroundecanoic acid (PFUnA)	0.8962 0.8562	0.9190	0.8523	0.8134	0.7503	AveID		0.8479				7.1		35.0			
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	1.0015 0.7766	0.9226	0.7790	0.7111	0.7754	AveID		0.8277				13.3		35.0			
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	1.2524 1.2019	1.1900	1.0559	1.0658	1.2107	AveID		1.1628				7.0		50.0			
Perfluorododecanoic acid (PFDoA)	0.9334 0.8901	0.9435	0.8922	0.9117	0.9734	AveID		0.9240				3.5		35.0			
10:2 FTS	0.2774 0.2768	0.2997	0.3040	0.2696	0.3308	AveID		0.2931				7.9		50.0			
Perfluorododecanesulfonic acid (PFDoS)	0.2800 0.2703	0.3062	0.2727	0.2337	0.2784	AveID		0.2736				8.5		50.0			
Perfluorotridecanoic acid (PFTriA)	0.8292 0.8714	0.9480	0.8821	0.8714	0.8649	AveID		0.8778				4.4		50.0			
Perfluorotetradecanoic acid (PFTeA)	0.2083 0.2004	0.2017	0.2001	0.1996	0.1953	AveID		0.2009				2.1		35.0			
Perfluoro-n-hexadecanoic acid (PFHxDA)	1.3616 0.8853	1.1530	0.9316	0.9646	0.8764	L1ID	0.0260	0.8835							1.0000		0.9900
Perfluoro-n-octadecanoic acid (PFODA)	0.7202 0.7195	0.7580	0.6895	0.7244	0.7219	AveID		0.7223				3.0		50.0			
13C4 PFBA	1.0516 1.0607	0.9228	1.0067	1.2332	1.0805	Ave		1.0592				9.6		30.0			
13C5 PFPeA	0.8429 0.7899	0.6916	0.7768	0.9003	0.8578	Ave		0.8099				9.1		30.0			
13C3 PFBS	1.0008 0.9038	0.7869	0.9151	1.1309	1.0592	Ave		0.9661				12.7		30.0			

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1 Analy Batch No.: 150448

SDG No.: 480-163109

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/06/2019 14:32 Calibration End Date: 12/06/2019 15:13 Calibration ID: 42812

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
M2-4:2 FTS	0.0904 0.0844	0.0876	0.0875	0.0952	0.0956	Ave		0.0901				5.0		30.0			
13C2 PFHxA	0.9651 0.8679	0.7962	0.8466	0.9937	0.9492	Ave		0.9031				8.6		30.0			
13C3 HFPO-DA	0.0421 0.0387	0.0374	0.0400	0.0415	0.0368	Ave		0.0394				5.4		30.0			
18O2 PFHxS	0.7874 0.7852	0.7258	0.7264	0.8052	0.7480	Ave		0.7630				4.5		30.0			
13C4 PFHpA	0.8635 0.8585	0.7335	0.8515	0.9786	0.8517	Ave		0.8562				9.1		30.0			
M2-6:2 FTS	0.1327 0.1232	0.1185	0.1313	0.1499	0.1308	Ave		0.1311				8.2		30.0			
13C4 PFOA	0.9310 0.9015	0.7730	0.8452	1.0937	0.9074	Ave		0.9086				11.8		30.0			
13C4 PFOS	0.5765 0.5973	0.5644	0.5939	0.7109	0.5889	Ave		0.6053				8.8		30.0			
13C5 PFNA	0.8279 0.8241	0.7198	0.8716	0.9525	0.8168	Ave		0.8355				9.1		30.0			
13C2 PFDA	0.8651 0.7895	0.7286	0.7450	0.9495	0.8620	Ave		0.8233				10.2		30.0			
M2-8:2 FTS	0.1673 0.1524	0.1369	0.1468	0.1814	0.1523	Ave		0.1562				10.1		30.0			
13C8 FOSA	1.1861 1.0779	0.9687	1.0894	1.1400	0.9982	Ave		1.0767				7.7		30.0			
d3-NMeFOSAA	0.0843 0.0844	0.0688	0.0682	0.0899	0.0801	Ave		0.0793				11.3		30.0			
13C2 PFUnA	0.6838 0.6686	0.6307	0.6452	0.8307	0.7403	Ave		0.6999				10.6		30.0			
d5-NEtFOSAA	0.0855 0.0957	0.0822	0.0820	0.0991	0.0828	Ave		0.0879				8.6		30.0			
13C2 PFDoA	0.7746 0.7644	0.6738	0.7165	0.9079	0.7690	Ave		0.7677				10.3		30.0			
13C2 PFTeDA	0.6613 0.6174	0.6236	0.6185	0.7119	0.6270	Ave		0.6433				5.8		30.0			
13C2 PFHxDA	0.5894 0.5899	0.5418	0.5656	0.6473	0.6171	Ave		0.5918				6.3		30.0			

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

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1 Analy Batch No.: 150448

SDG No.: 480-163109

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/06/2019 14:32 Calibration End Date: 12/06/2019 15:13 Calibration ID: 42812

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 200-150448/5	SC120619ICAL005.d
Level 2	IC 200-150448/6	SC120619ICAL006.d
Level 3	IC 200-150448/7	SC120619ICAL007.d
Level 4	ICIS 200-150448/8	SC120619ICAL008.d
Level 5	IC 200-150448/9	SC120619ICAL009.d
Level 6	IC 200-150448/10	SC120619ICAL010.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perfluorobutanoic acid (PFBA)		AveID	40348 7890334	94789	371453	853862	2112806	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoropentanoic acid (PFPeA)		AveID	37066 6633075	88619	324223	709122	1718895	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorobutanesulfonic acid (PFBS)		AveID	37409 6947766	78841	321599	740774	1890516	0.0442 8.84	0.0884	0.442	0.884	2.21
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)		AveID	5490 1151408	12920	53095	118620	280609	0.0467 9.34	0.0934	0.467	0.934	2.34
Perfluorohexanoic acid (PFHxA)		AveID	34768 7062831	80343	326930	752654	1898558	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoropentanesulfonic acid		AveID	32180 6887561	69556	277882	689064	1680717	0.0469 9.38	0.0938	0.469	0.938	2.35
HFPO-DA		AveID	6928 1184172	10610	48707	97144	276154	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorohexanesulfonic acid (PFHxS)		AveID	32330 5851407	74095	296847	566993	1488287	0.0455 9.10	0.0910	0.455	0.910	2.28
Perfluoroheptanoic acid (PFHpA)		AveID	32481 6895339	81910	308041	791498	1821610	0.0500 10.0	0.100	0.500	1.00	2.50
DONA		AveID	75113 16313820	178870	737546	1569524	3905340	0.0471 9.42	0.0942	0.471	0.942	2.36
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	26039 5747086	59825	249352	589740	1398368	0.0476 9.52	0.0952	0.476	0.952	2.38
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)		AveID	+++++ 844224	13075	41121	89798	220498	+++++ 9.48	0.0948	0.474	0.948	2.37
Perfluorooctanoic acid (PFOA)		AveID	38119 6722811	99406	357855	807792	2023589	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorooctanesulfonic acid (PFOS)		AveID	23044 4517143	56390	205923	476832	1267930	0.0464 9.28	0.0928	0.464	0.928	2.32
Perfluorononanoic acid (PFNA)		AveID	32404 5734465	75235	278151	680723	1654904	0.0500 10.0	0.100	0.500	1.00	2.50
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid		AveID	25410 5186817	66176	240209	547070	1460233	0.0466 9.32	0.0932	0.466	0.932	2.33

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1 Analy Batch No.: 150448

SDG No.: 480-163109

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/06/2019 14:32 Calibration End Date: 12/06/2019 15:13 Calibration ID: 42812

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perfluorononanesulfonic acid		AveID	16830 3592295	42675	189612	391621	953306	0.0480 9.60	0.0960	0.480	0.960	2.40
Perfluorodecanoic acid (PFDA)		AveID	30123 6034539	65957	321619	663877	1446289	0.0500 10.0	0.100	0.500	1.00	2.50
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)		AveID	2605 541123	5860	24605	59800	133169	0.0479 9.58	0.0958	0.479	0.958	2.40
Perfluorooctanesulfonamide (PFOSA)		AveID	39729 8593529	92102	397290	853601	2131820	0.0500 10.0	0.100	0.500	1.00	2.50
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)		AveID	2630 569245	5895	24203	53457	137453	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorodecanesulfonic acid (PFDS)		AveID	14725 3254326	37746	146267	326562	936371	0.0482 9.64	0.0964	0.482	0.964	2.41
Perfluoroundecanoic acid (PFUnA)		AveID	21454 4599988	55613	207593	500548	1125345	0.0500 10.0	0.100	0.500	1.00	2.50
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)		AveID	2999 597510	7276	24100	52214	130088	0.0500 10.0	0.100	0.500	1.00	2.50
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid		AveID	23812 5434304	60708	222991	528727	1360675	0.0471 9.42	0.0942	0.471	0.942	2.36
Perfluorododecanoic acid (PFDoA)		AveID	25311 5467302	60997	241313	613140	1516559	0.0500 10.0	0.100	0.500	1.00	2.50
10:2 FTS		AveID	1566 326752	3796	16244	34922	98405	0.0482 9.64	0.0964	0.482	0.964	2.41
Perfluorododecanesulfonic acid (PFDoS)		AveID	5470 1255696	16050	59189	119154	321545	0.0484 9.68	0.0968	0.484	0.968	2.42
Perfluorotridecanoic acid (PFTriA)		AveID	22484 5352503	61289	238583	586051	1347519	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluorotetradecanoic acid (PFTeA)		AveID	4822 994106	12067	46717	105288	248067	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoro-n-hexadecanoic acid (PFHxDA)		L1ID	28092 4196835	59942	198924	462509	1095661	0.0500 10.0	0.100	0.500	1.00	2.50
Perfluoro-n-octadecanoic acid (PFODA)		AveID	14860 3410532	39404	147233	347376	902508	0.0500 10.0	0.100	0.500	1.00	2.50
13C4 PFBA	13PFOA	Ave	1840623 2130869	2213648	1900105	2283983	2189157	2.50 2.50	2.50	2.50	2.50	2.50
13C5 PFPeA	13PFOA	Ave	1475414 1586923	1659165	1466250	1667452	1737813	2.50 2.50	2.50	2.50	2.50	2.50
13C3 PFBS	13PFOA	Ave	1629085 1688504	1755454	1606325	1947850	1995622	2.33 2.33	2.33	2.33	2.33	2.33
M2-4:2 FTS	13PFOA	Ave	147772 158307	196322	154256	164686	180955	2.34 2.34	2.34	2.34	2.34	2.34
13C2 PFHxA	13PFOA	Ave	1689295 1743644	1910081	1597923	1840340	1923126	2.50 2.50	2.50	2.50	2.50	2.50

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

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1 Analy Batch No.: 150448

SDG No.: 480-163109

Instrument ID: LC812 GC Column: C-18 ID: 4.6(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/06/2019 14:32 Calibration End Date: 12/06/2019 15:13 Calibration ID: 42812

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
13C3 HFPO-DA	13PF OA	Ave	73720 77795	89774	75506	76831	74652	2.50 2.50	2.50	2.50	2.50	2.50
18O2 PFHxS	13PF OA	Ave	1303825 1492254	1647017	1297059	1410640	1433559	2.37 2.37	2.37	2.37	2.37	2.37
13C4 PFHpA	13PF OA	Ave	1511445 1724606	1759637	1607290	1812297	1725602	2.50 2.50	2.50	2.50	2.50	2.50
M2-6:2 FTS	13PF OA	Ave	220629 235092	270015	235426	263741	251791	2.38 2.38	2.38	2.38	2.38	2.38
13C4 PFOA	13PF OA	Ave	1629567 1811057	1854400	1595271	2025515	1838372	2.50 2.50	2.50	2.50	2.50	2.50
13C4 PFOS	13PF OA	Ave	964747 1147139	1294332	1071615	1258638	1140581	2.39 2.39	2.39	2.39	2.39	2.39
13C5 PFNA	13PF OA	Ave	1449198 1655656	1726802	1645205	1763969	1654835	2.50 2.50	2.50	2.50	2.50	2.50
13C2 PFDA	13PF OA	Ave	1514292 1586129	1747754	1406212	1758412	1746295	2.50 2.50	2.50	2.50	2.50	2.50
M2-8:2 FTS	13PF OA	Ave	280460 293276	314709	265467	321836	295643	2.40 2.40	2.40	2.40	2.40	2.40
13C8 FOSA	13PF OA	Ave	2076068 2165350	2323804	2056323	2111278	2022406	2.50 2.50	2.50	2.50	2.50	2.50
d3-NMeFOSAA	13PF OA	Ave	147602 169500	164960	128732	166463	162301	2.50 2.50	2.50	2.50	2.50	2.50
13C2 PFUnA	13PF OA	Ave	1196944 1343214	1512870	1217793	1538525	1499824	2.50 2.50	2.50	2.50	2.50	2.50
d5-NEtFOSAA	13PF OA	Ave	149723 192338	197154	154687	183569	167771	2.50 2.50	2.50	2.50	2.50	2.50
13C2 PFDoA	13PF OA	Ave	1355832 1535578	1616292	1352357	1681386	1557975	2.50 2.50	2.50	2.50	2.50	2.50
13C2 PFTeDA	13PF OA	Ave	1157550 1240396	1495867	1167458	1318503	1270243	2.50 2.50	2.50	2.50	2.50	2.50
13C2 PFHxDA	13PF OA	Ave	1031605 1185102	1299647	1067641	1198766	1250255	2.50 2.50	2.50	2.50	2.50	2.50

Curve Type Legend:

Ave = Average ISTD
AveID = Average isotope dilution
L1ID = Linear 1/conc IsoDil

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 06-Dec-2019 14:32:25 ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC 1
Misc. Info.: 200-0039114-005 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 09-Dec-2019 12:10:00 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX0316

First Level Reviewer: chirgwinb Date: 09-Dec-2019 10:00:20
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.926	1.917	0.009	1.005	40348	0.0551		110	12.0	M
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.559	1840623	2.48		99.3	23720	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.271	2.271	0.0	1.000	37066	0.0555		111	4.7	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.662	1475414	2.60		104	5884	
D 47 13C3 PFBS										
301.90 > 80.00	2.312	2.298	0.014	0.674	1629085	2.41		104	187985	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	0.994	37409	0.0491	Target=2.03	111	146	
298.90 > 99.00	2.298	2.298	0.0	0.994	15965		2.34(1.01-3.04)	111	29.8	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.623	0.0	1.000	5490	0.0501		107	233	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.623	0.0	0.765	147772	2.34		100	352	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.660	0.013	0.878	32180	0.0503	Target=3.08	107	229	
349.00 > 99.00	2.673	2.660	0.013	0.878	9465		3.40(1.54-4.62)	107	65.4	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.661	2.660	0.001	1.000	34768	0.0504	Target=12.44	101	14.3	
313.00 > 119.00	2.673	2.660	0.013	1.005	2947		11.80(6.22-18.67)	101	7.9	
D 7 13C2 PFHxA										
315.00 > 270.00	2.661	2.660	0.001	0.776	1689295	2.67		107	5301	
67 Perfluoro(2-propoxypropanoic) acid										M
329.10 > 285.00	2.776	2.776	0.0	1.003	6928	0.0654		131	3.4	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.768	2.776	-0.008	0.807	73720	2.67		107	885	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.044	0.011	0.891	1511445	2.52		101	4052	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.044	3.044	0.0	1.000	32330	0.0518	Target=4.13	114	112	M
399.00 > 99.00	3.044	3.044	0.0	1.000	7688		4.21(2.07-6.20)	114	25.4	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.044	3.044	0.0	0.887	1303825	2.44		103	6651	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.000	32481	0.0508	Target=3.48	102	18.7	
363.00 > 169.00	3.055	3.055	0.0	1.000	11108		2.92(1.74-5.22)	102	51.1	
77 DONA										
377.00 > 251.00	3.090	3.089	0.001	0.815	75113	0.0527	Target=2.44	112	430	
377.00 > 85.00	3.090	3.089	0.001	0.815	30027		2.50(1.22-3.67)	112	142	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.413	3.413	0.0	0.998	14347	0.1637		345	253	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.413	3.413	0.0	0.900	26039	0.0527	Target=6.34	111	266	
449.00 > 99.00	3.422	3.413	0.009	0.902	4313		6.04(3.17-9.51)	111	65.2	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.422	3.413	0.009	0.998	220629	2.40		101	1088	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.430	3.430	0.0	1.000	38119	0.0527	Target=2.38	105	17.7	M
413.00 > 169.00	3.430	3.430	0.0	1.000	16212		2.35(1.19-3.57)	105	125	M
D 14 13C4 PFOA										
417.00 > 372.00	3.430	3.430	0.0	1.000	1629567	2.56		102	4031	
* 62 13C2 PFOA										
415.00 > 370.00	3.430	3.430	0.0		1750381	2.50			6726	
D 18 13C4 PFOS										
503.00 > 80.00	3.793	3.793	0.0	1.106	964747	2.28		95.2	4661	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.793	3.793	0.0	1.000	23044	0.0529	Target=5.71	114	150	M
499.00 > 99.00	3.793	3.793	0.0	1.000	4212		5.47(2.86-8.57)	114	42.2	M
D 19 13C5 PFNA										
468.00 > 423.00	3.817	3.817	0.0	1.113	1449198	2.48		99.1	7048	
20 Perfluorononanoic acid										
463.00 > 419.00	3.817	3.817	0.0	1.000	32404	0.0570	Target=6.87	114	16.5	
463.00 > 169.00	3.817	3.817	0.0	1.000	4452		7.28(3.43-10.30)	114	62.4	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.984	3.984	0.0	1.050	25410	0.0510		110	169	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.129	4.129	0.0	1.089	16830	0.0505	Target=2.92	105	178	
549.00 > 99.00	4.116	4.129	-0.013	1.085	6693		2.51(1.46-4.38)	105	60.7	
D 23 13C2 PFDA										
515.00 > 470.00	4.153	4.153	0.0	1.211	1514292	2.63		105	3330	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.153	4.153	0.0	1.000	30123	0.0514	Target=7.21	103	37.2	
513.00 > 169.00	4.153	4.153	0.0	1.000	3763		8.01(3.60-10.81)	103	46.5	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.164	4.164	0.0	1.214	280460	2.56		107	1237	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.175	4.164	0.011	1.003	2605	0.0482		101	58.5	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.251	4.239	0.012	1.000	39729	0.0481		96.2	401	
D 21 13C8 FOSA										
506.00 > 78.00	4.251	4.239	0.012	1.239	2076068	2.75		110	4848	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.317	4.305	0.012	1.003	2630	0.0513		103	14.7	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.305	4.305	0.0	1.255	147602	2.66		106	2274	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.409	4.409	0.0	1.162	14725	0.0507	Target=2.78	105	121	
599.00 > 99.00	4.409	4.409	0.0	1.162	5487		2.68(1.39-4.17)	105	68.2	
D 30 13C2 PFUnA										
565.00 > 520.00	4.431	4.431	0.0	1.292	1196944	2.44		97.7	5607	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.431	4.431	0.0	1.000	21454	0.0528	Target=5.47	106	26.0	
563.00 > 169.00	4.431	4.431	0.0	1.000	4403		4.87(2.73-8.20)	106	67.7	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.456	4.442	0.014	1.003	2999	0.0605		121	47.3	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.443	4.442	0.001	1.295	149723	2.43		97.3	1722	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.537	4.523	0.014	1.196	23812	0.0507		108	201	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.672	4.671	0.001	1.000	25311	0.0505	Target=4.84	101	5.9	
613.00 > 169.00	4.672	4.671	0.001	1.000	5725		4.42(2.42-7.26)	101	114	
D 36 13C2 PFDoA										
615.00 > 570.00	4.672	4.671	0.001	1.362	1355832	2.52		101	7580	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.683	4.683	0.0	1.125	1566	0.0456		94.7	36.1	
75 Perfluorododecanesulfonic acid (PF										M
699.00 > 80.00	4.839	4.838	0.001	1.276	5470	0.0495	Target=0.47	102	14.7	M
699.00 > 99.00	4.839	4.838	0.001	1.276	13742		0.40(0.23-0.70)	102	247	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.877	4.879	-0.002	1.044	22484	0.0472	Target=3.74	94.5	6.2	
663.00 > 169.00	4.877	4.879	-0.002	1.044	6304		3.57(1.87-5.62)	94.5	68.7	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.065	5.058	0.007	1.477	1157550	2.57		103	9121	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.065	5.067	-0.002	1.000	4822	0.0518	Target=1.01	104	65.1	
713.00 > 219.00	5.056	5.067	-0.011	0.998	5478		0.88(0.50-1.51)	104	75.7	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.401	5.403	-0.001	1.574	1031605	2.49		99.6	4906	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.401	5.413	-0.012	1.000	28092	0.0476	Target=3.04	95.2	8.4	
813.00 > 169.00	5.401	5.413	-0.012	1.000	9795		2.87(1.52-4.56)	95.2	119	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.737	5.747	-0.010	1.062	14860	0.0499	Target=2.88	99.7	8.1	
913.00 > 169.00	5.737	5.747	-0.010	1.062	5140		2.89(1.44-4.32)	99.7	97.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC1_00003 Amount Added: 100.00 Units: uL

Report Date: 09-Dec-2019 12:10:02 Chrom Revision: 2.3 17-Oct-2019 22:00:42

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d

Injection Date: 06-Dec-2019 14:32:25 Instrument ID: LC812

Lims ID: IC

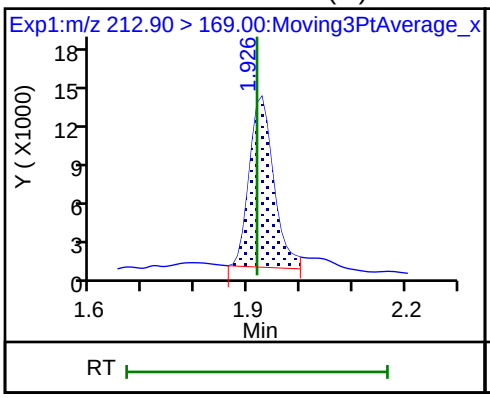
Client ID:

Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5

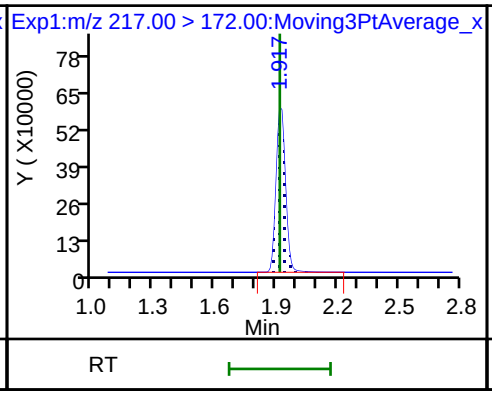
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

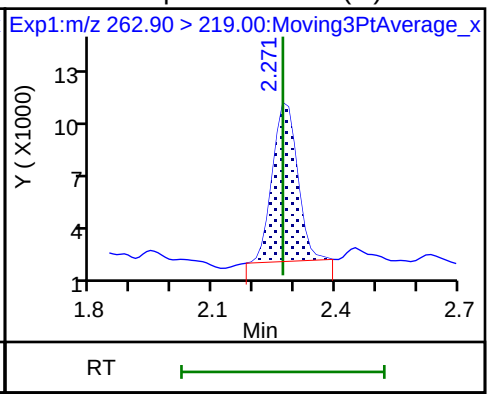
2 Perfluorobutanoic acid (M)



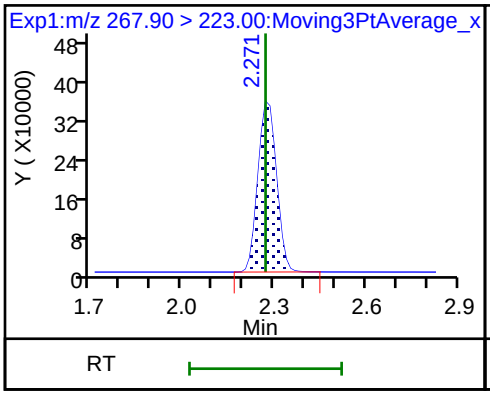
D 1 13C4 PFBA



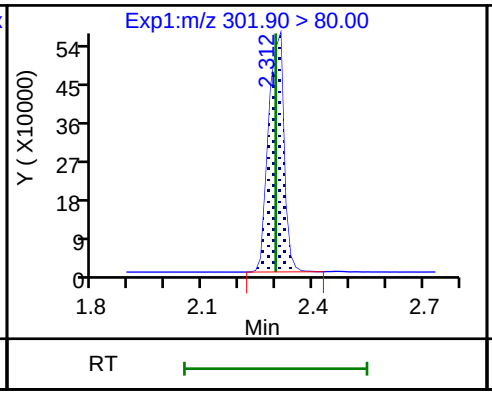
4 Perfluoropentanoic acid (M)



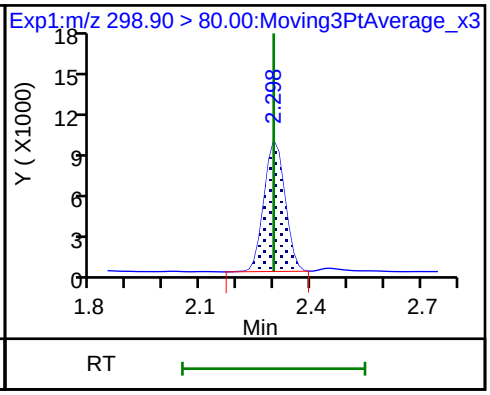
D 3 13C5 PFPeA



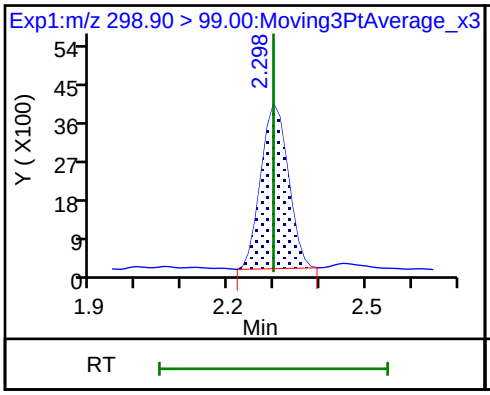
D 47 13C3 PFBS



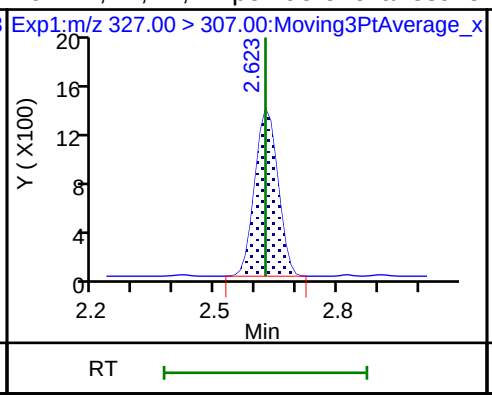
5 Perfluorobutanesulfonic acid



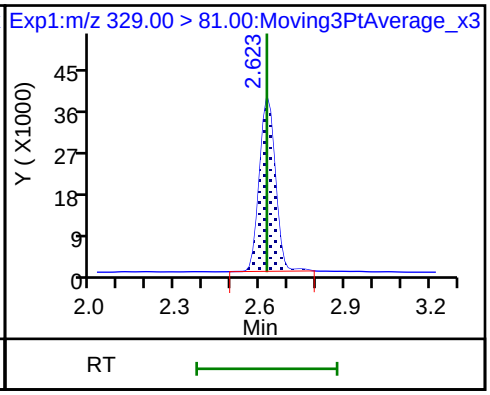
5 Perfluorobutanesulfonic acid



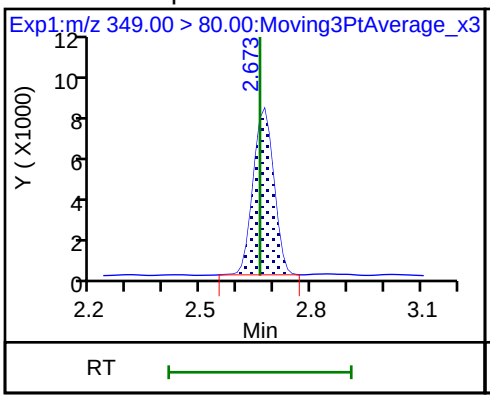
61 1H,1H,2H,2H-perfluorohexanesulfon



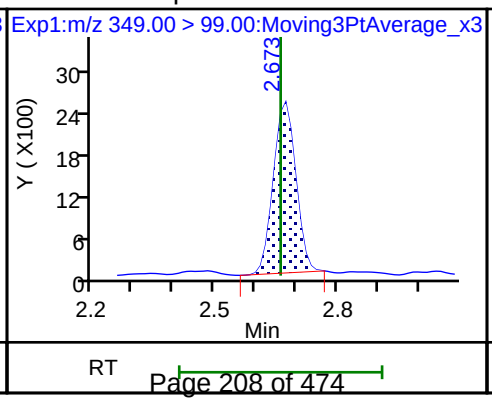
D 60 M2-4:2 FTS



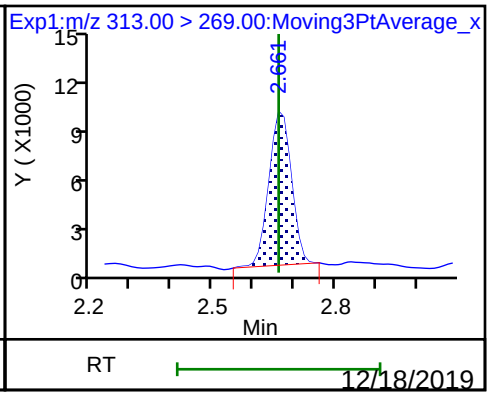
70 Perfluoropentanesulfonic acid



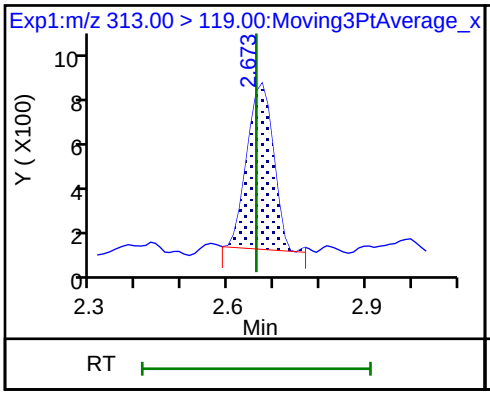
70 Perfluoropentanesulfonic acid



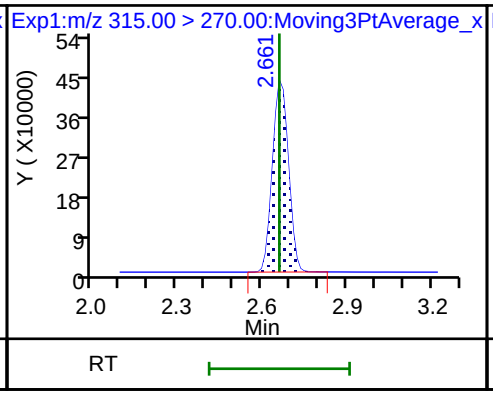
6 Perfluorohexanoic acid



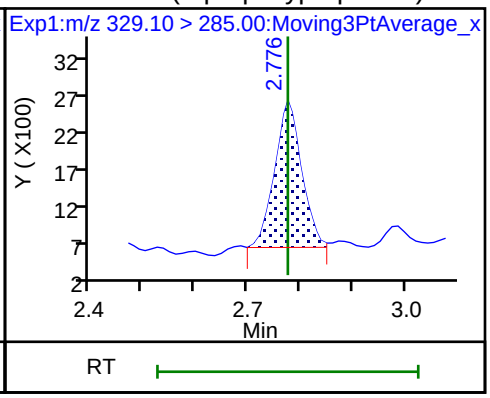
6 Perfluorohexanoic acid



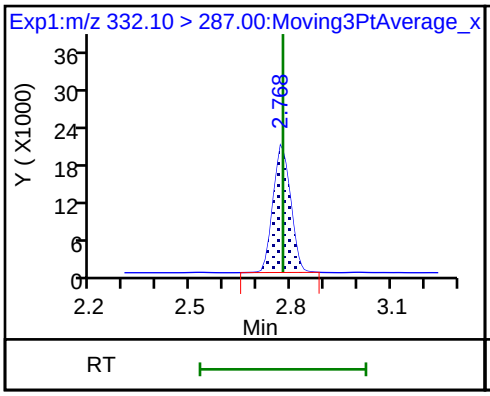
D 7 13C2 PFHxA



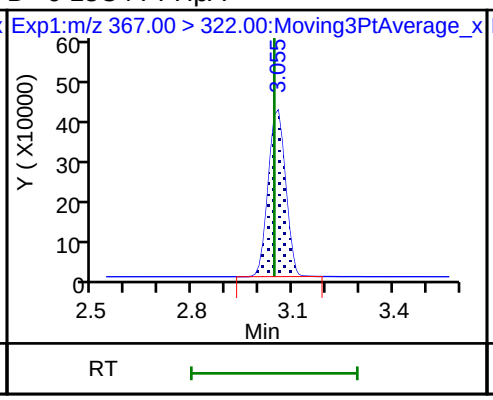
67 Perfluoro(2-propoxypropanoic) acid (M)



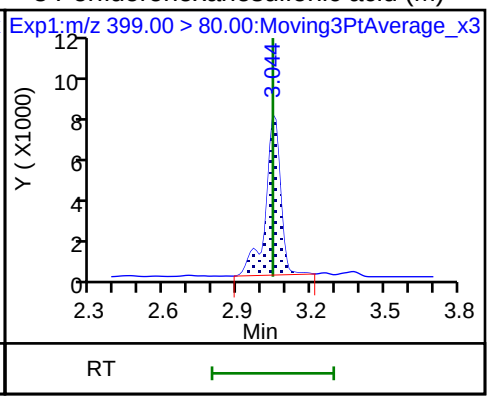
D 64 13C3 HFPO-DA



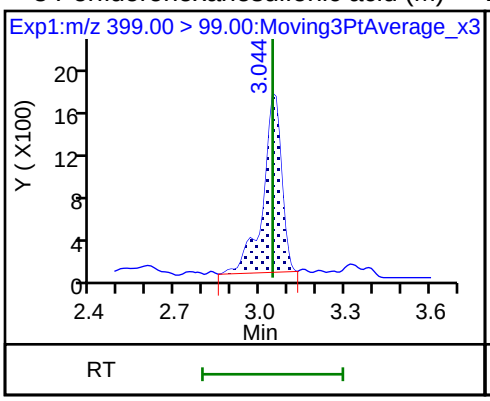
D 9 13C4 PFHpA



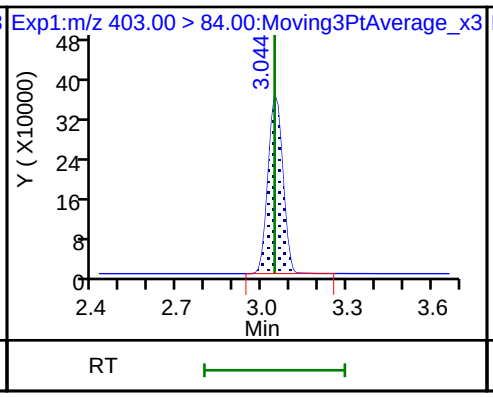
8 Perfluorohexanesulfonic acid (M)



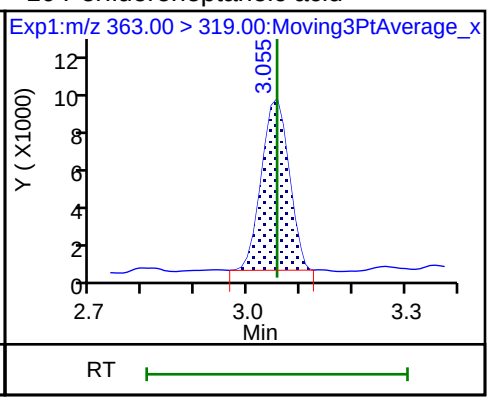
8 Perfluorohexanesulfonic acid (M)



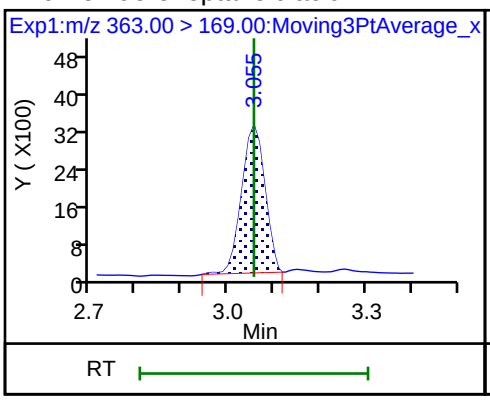
D 11 18O2 PFHxS



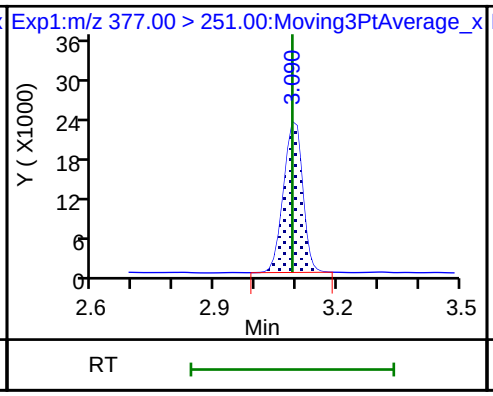
10 Perfluoroheptanoic acid



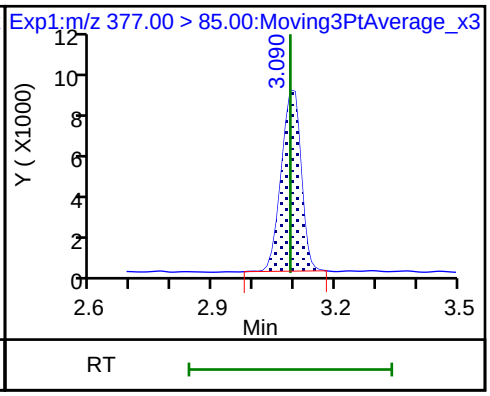
10 Perfluoroheptanoic acid



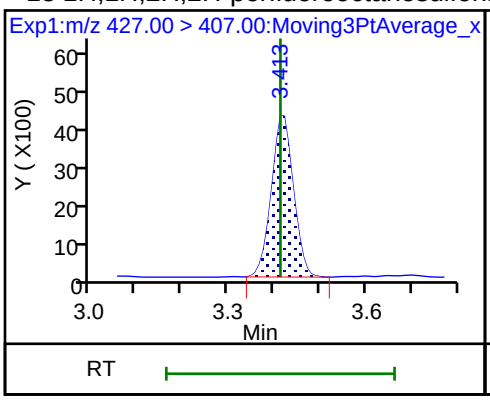
77 DONA



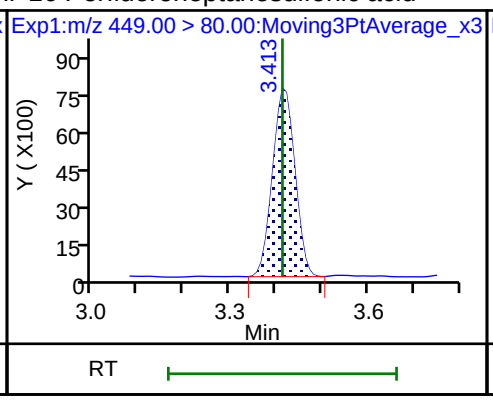
77 DONA



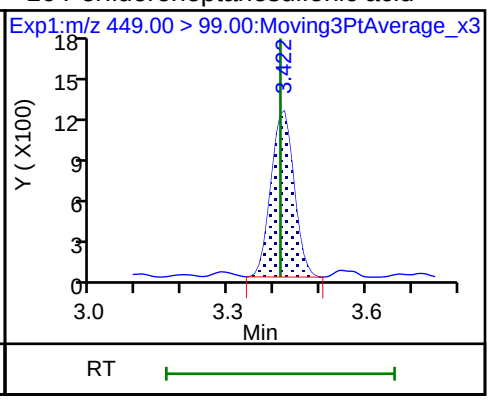
13 1H,1H,2H,2H-perfluorooctanesulfoni



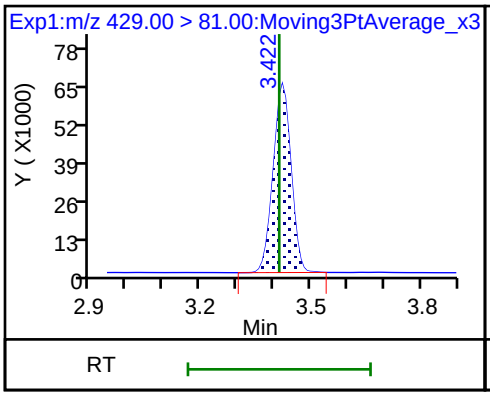
16 Perfluoroheptanesulfonic acid



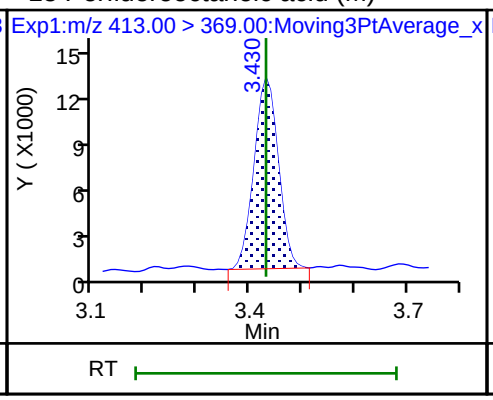
16 Perfluoroheptanesulfonic acid



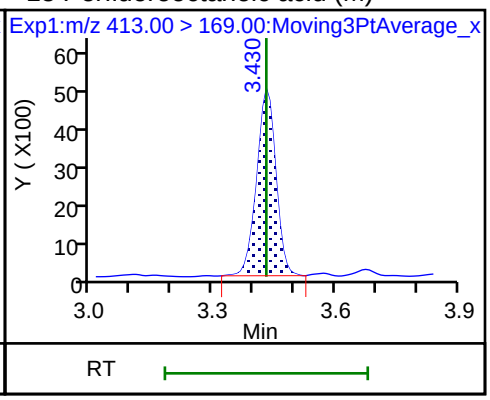
D 12 M2-6:2 FTS



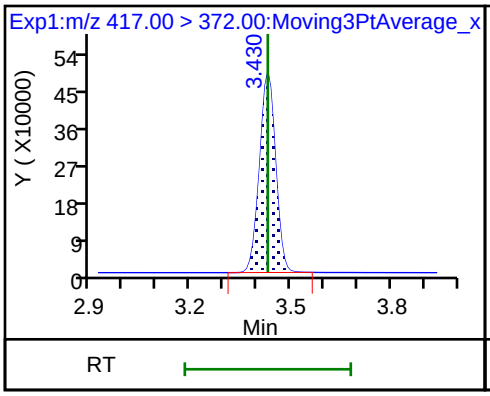
15 Perfluorooctanoic acid (M)



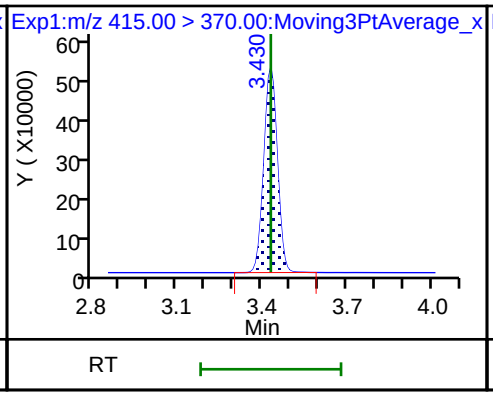
15 Perfluorooctanoic acid (M)



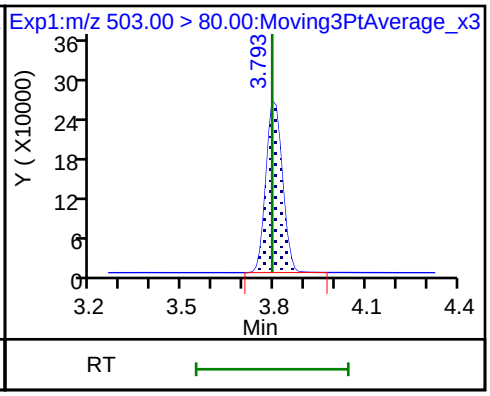
D 14 13C4 PFOA



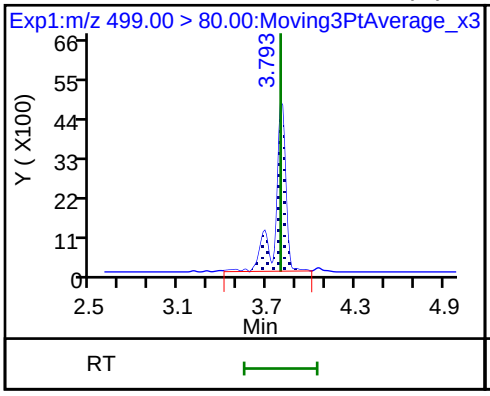
* 62 13C2 PFOA



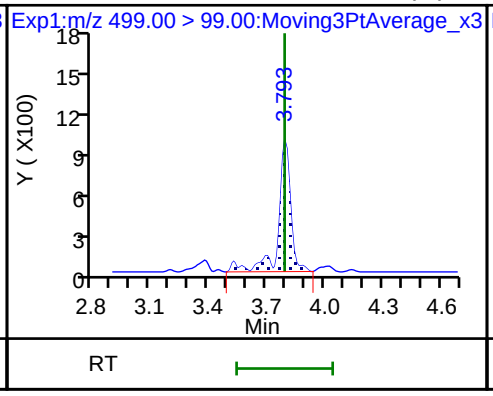
D 18 13C4 PFOS



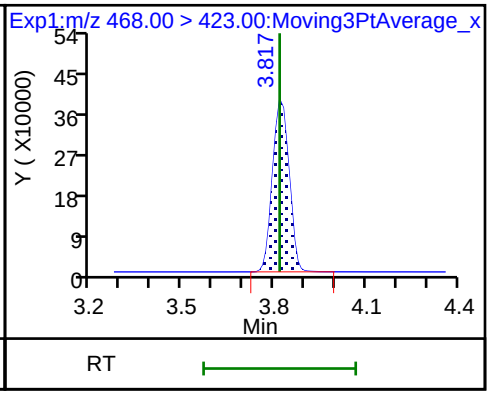
17 Perfluorooctanesulfonic acid (M)



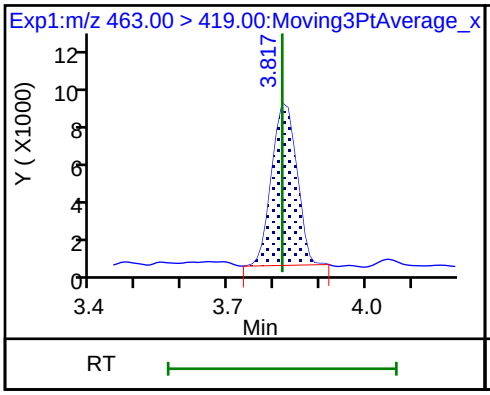
17 Perfluorooctanesulfonic acid (M)



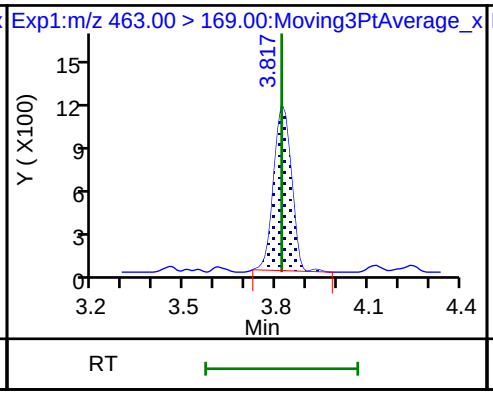
D 19 13C5 PFNA



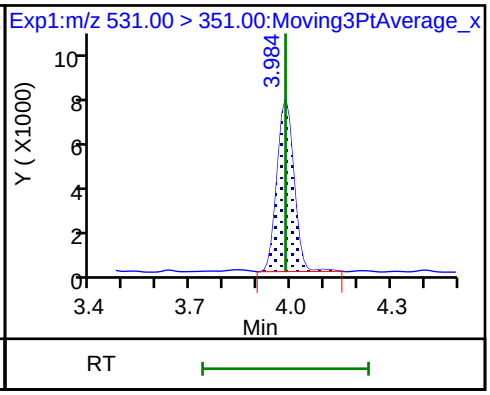
20 Perfluorononanoic acid



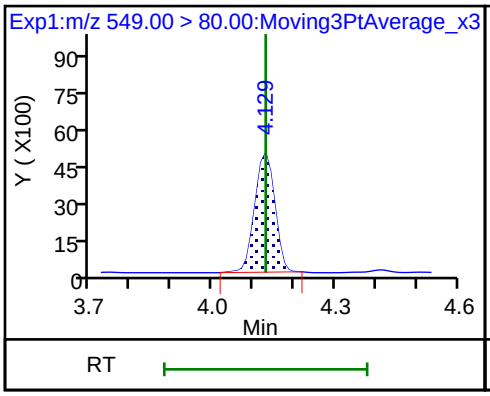
20 Perfluorononanoic acid



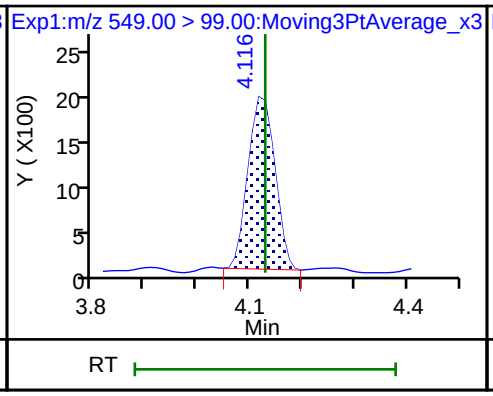
69 9-Chlorohexadecafluoro-3-oxanonane



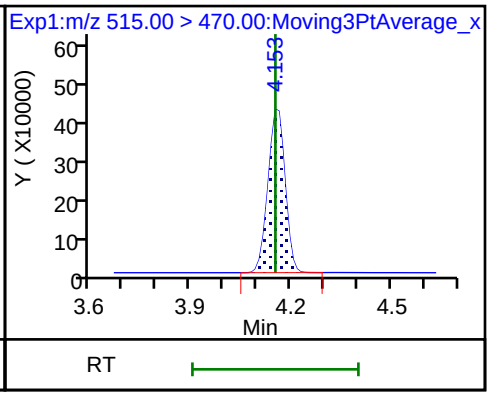
68 Perfluorononanesulfonic acid



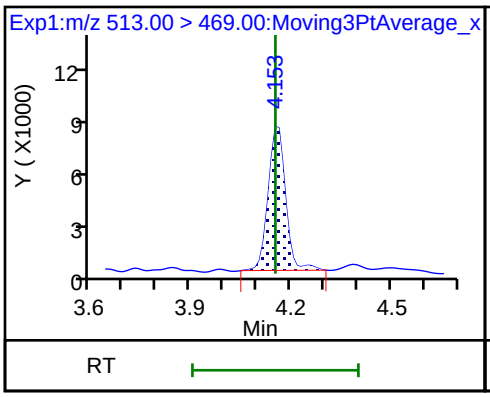
68 Perfluorononanesulfonic acid



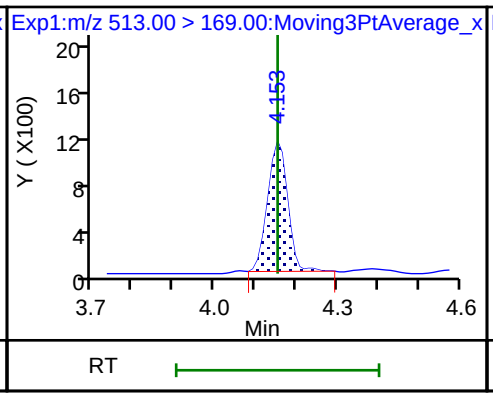
D 23 13C2 PFDA



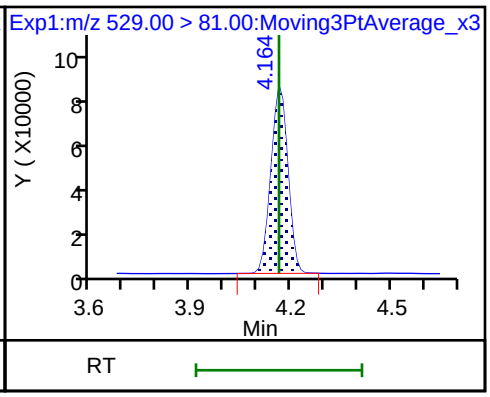
24 Perfluorodecanoic acid



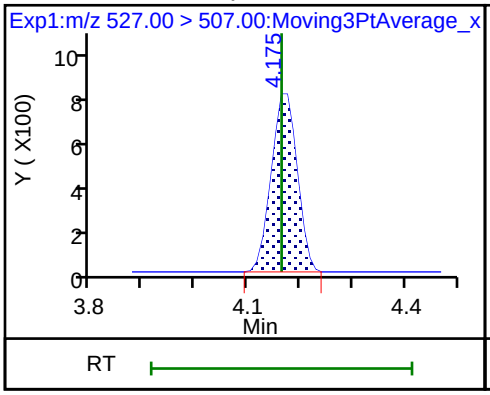
24 Perfluorodecanoic acid



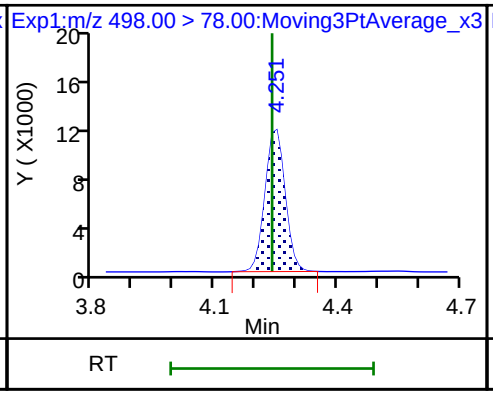
D 26 M2-8:2 FTS



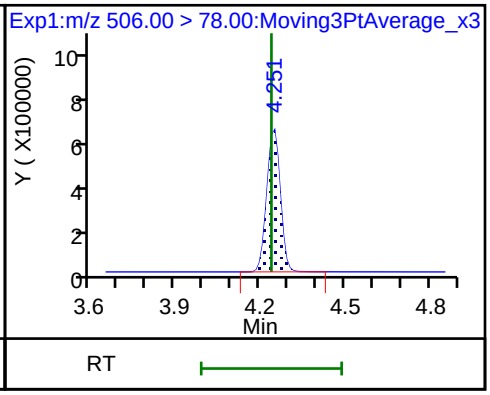
25 1H,1H,2H,2H-perfluorodecanesulfoni



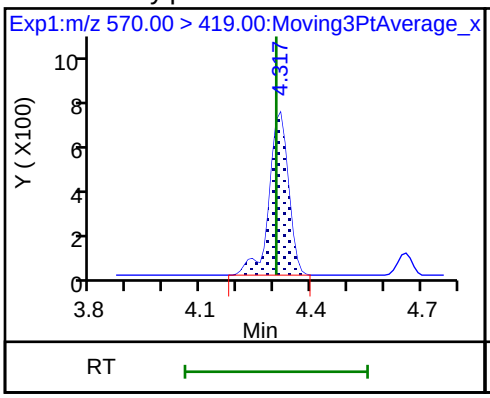
22 Perfluorooctanesulfonamide

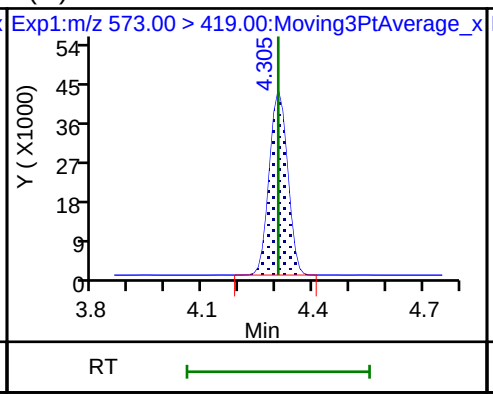


D 21 13C8 FOSA

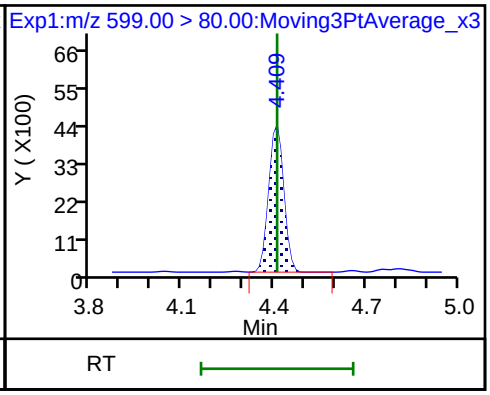


28 N-methylperfluorooctanesulfonamidoD (27) d3-NMeFOSAA

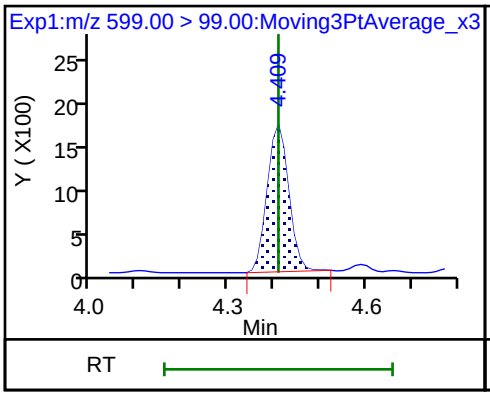




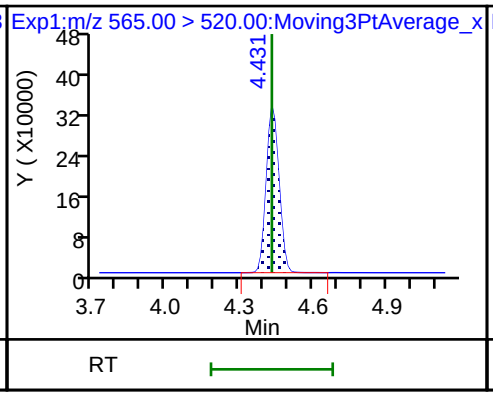
29 Perfluorodecanesulfonic acid



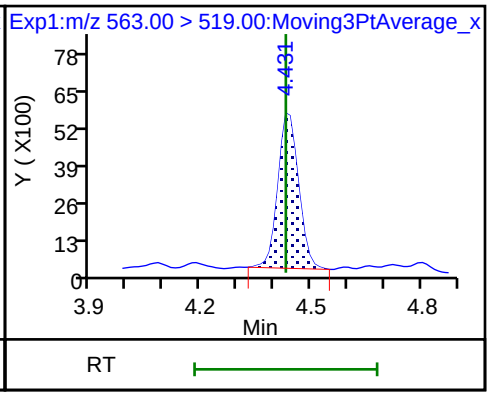
29 Perfluorodecanesulfonic acid



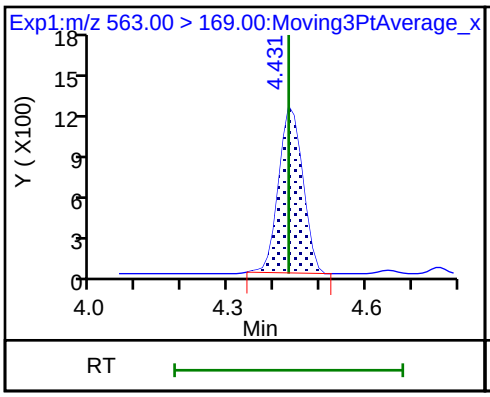
D 30 13C2 PFUnA



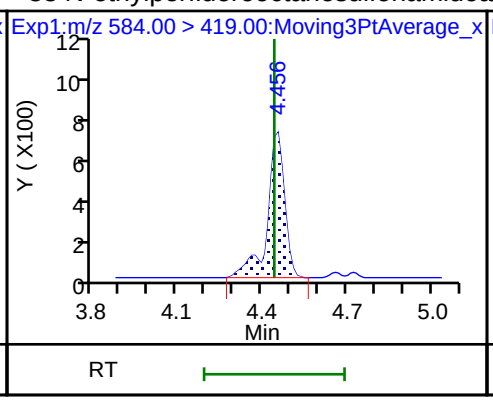
31 Perfluoroundecanoic acid

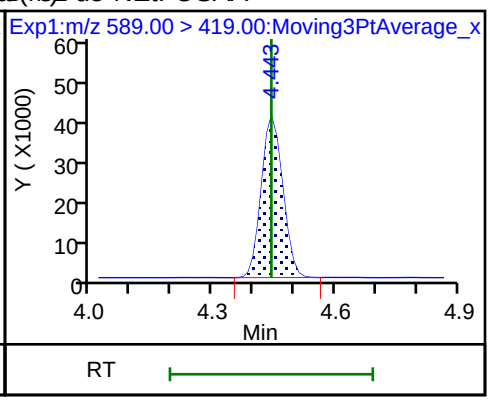


31 Perfluoroundecanoic acid

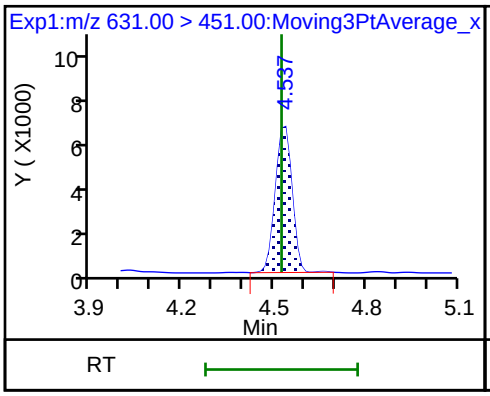


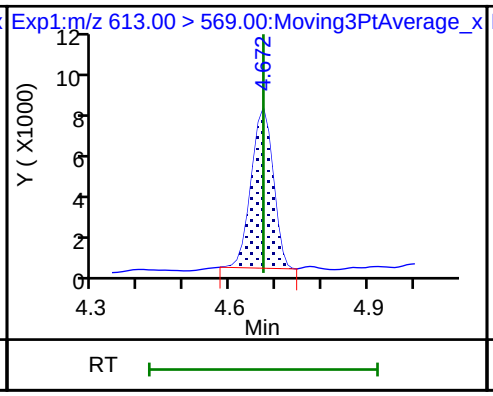
33 N-ethylperfluorooctanesulfonamidoaD (32) d5-NEtFOSAA



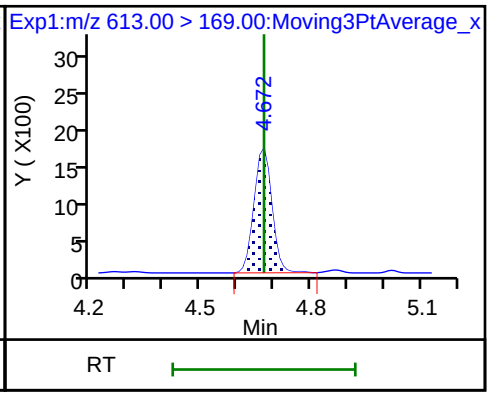


66 11-Chloroeicosafluoro-3-oxaundecan37 Perfluorododecanoic acid

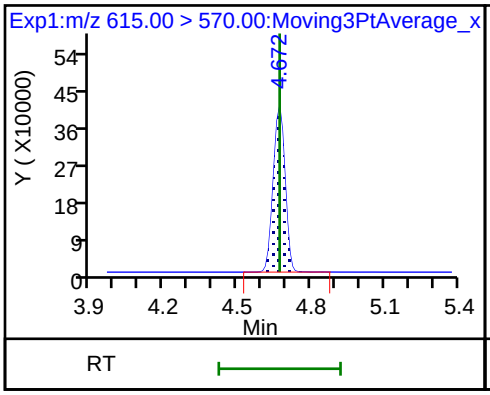




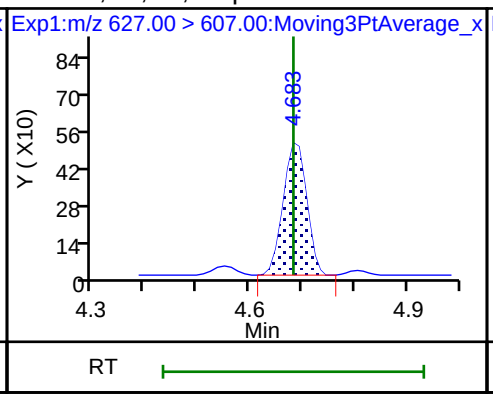
37 Perfluorododecanoic acid



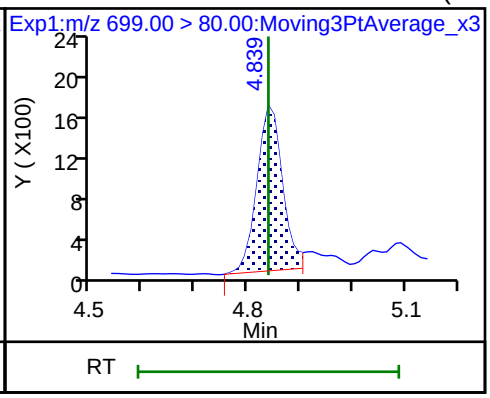
D 36 13C2 PFDoA



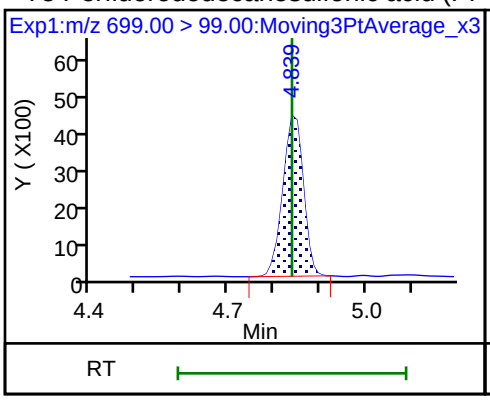
74 1H,1H,2H,2H-perfluorododecanesulfo



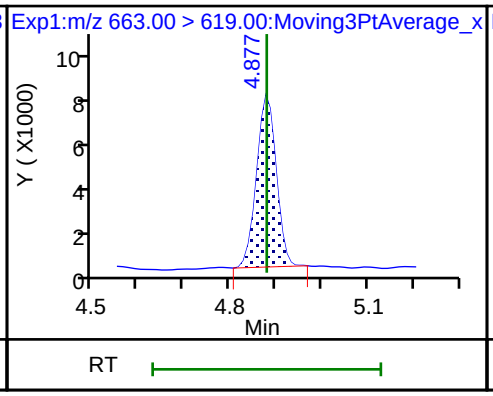
75 Perfluorododecanesulfonic acid (PF (M)



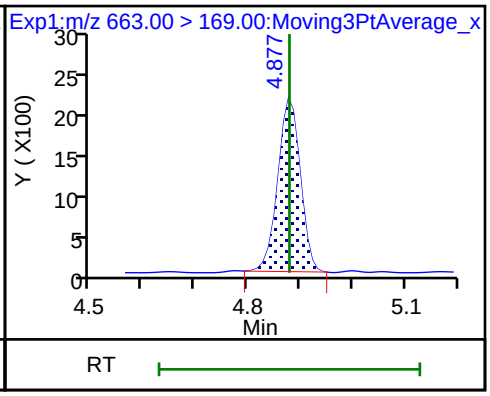
75 Perfluorododecanesulfonic acid (PF



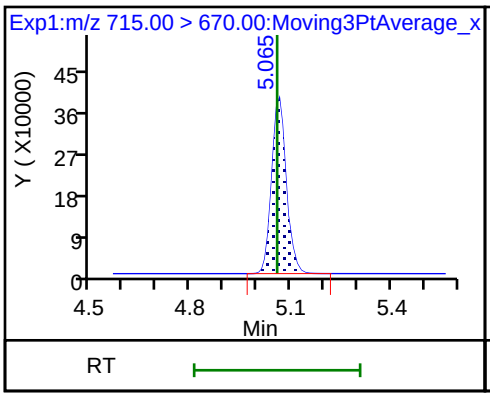
41 Perfluorotridecanoic acid



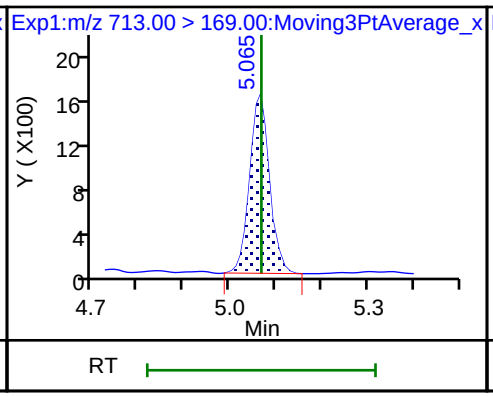
41 Perfluorotridecanoic acid



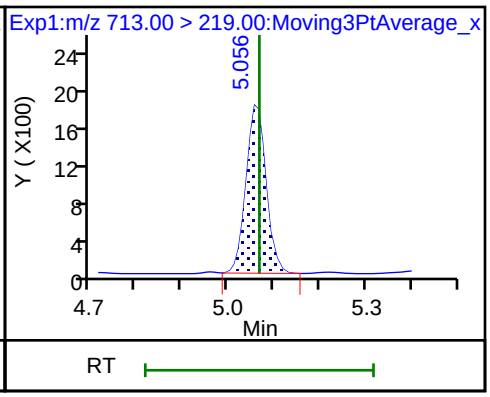
D 43 13C2 PFTeDA



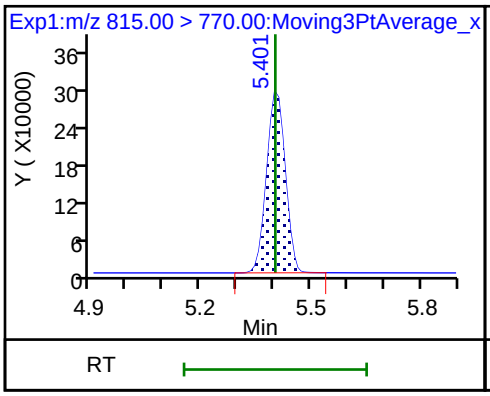
42 Perfluorotetradecanoic acid



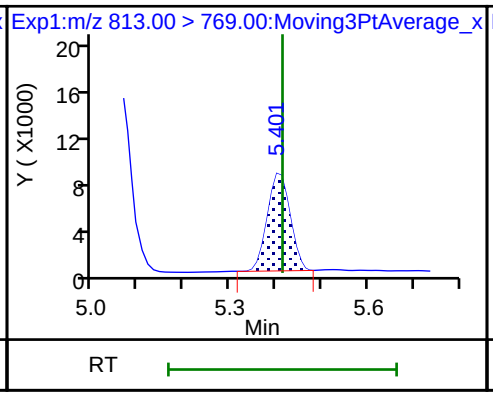
42 Perfluorotetradecanoic acid



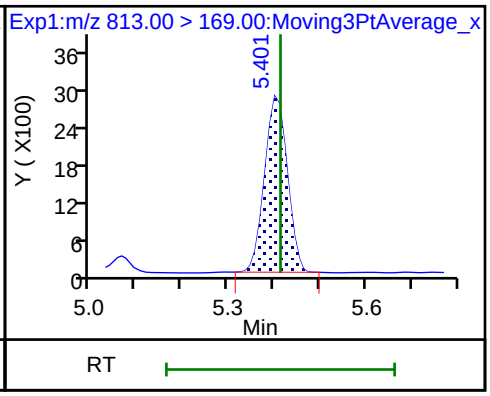
D 44 13C2 PFHxDA



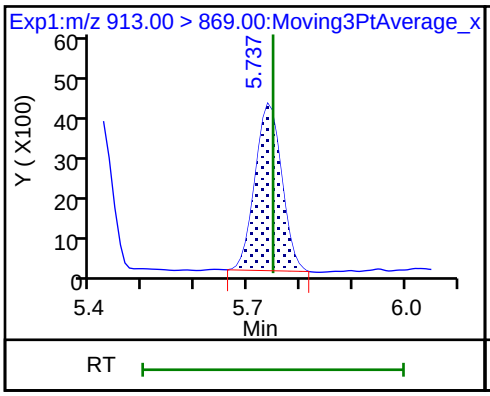
45 Perfluorohexadecanoic acid



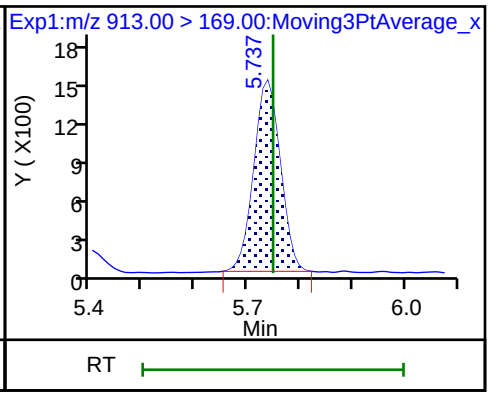
45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

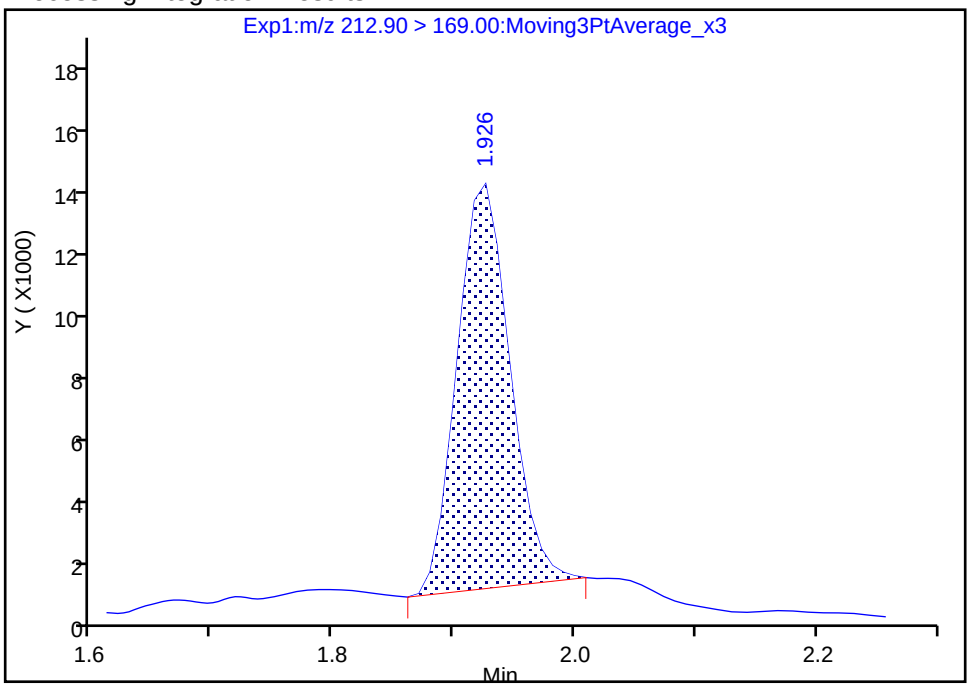
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

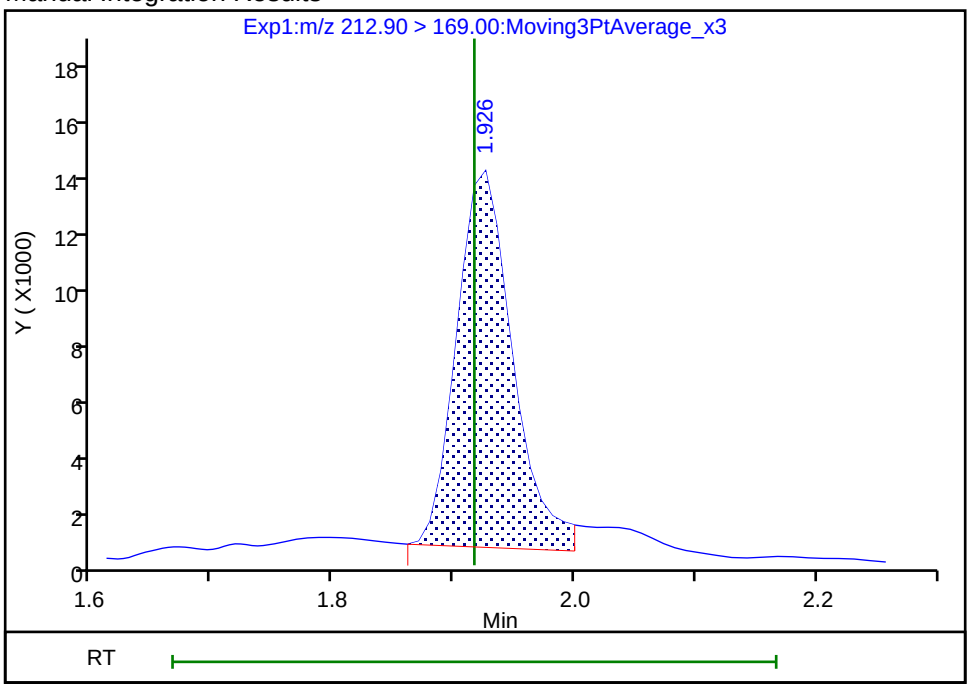
Processing Integration Results

RT: 1.93
Area: 37141
Amount: 0.051080
Amount Units: ng/ml



Manual Integration Results

RT: 1.93
Area: 40348
Amount: 0.055082
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:26:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
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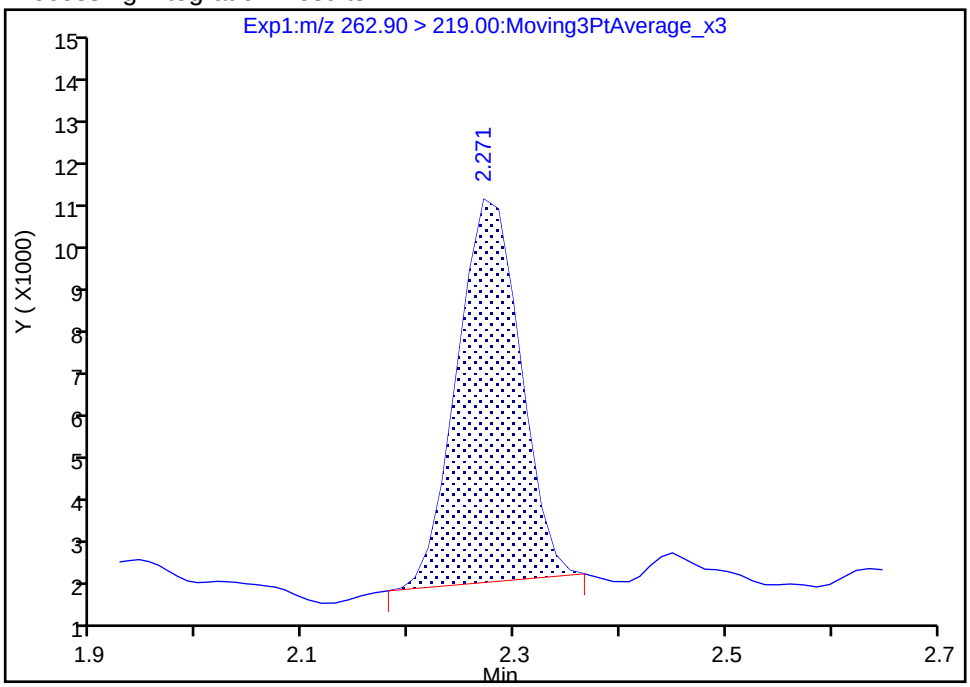
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

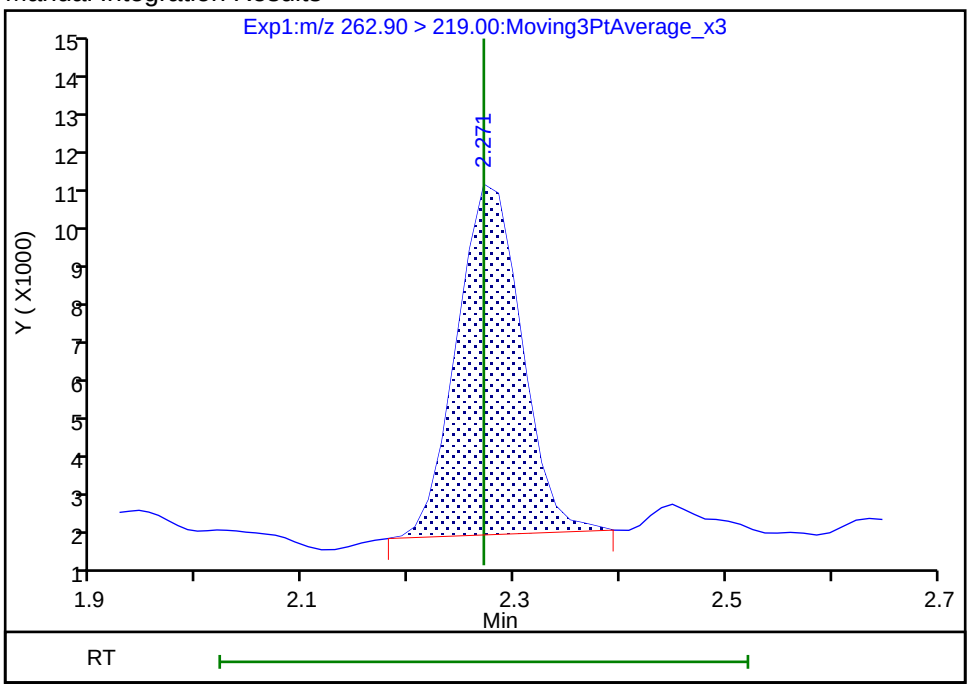
Processing Integration Results

RT: 2.27
Area: 35792
Amount: 0.051428
Amount Units: ng/ml



Manual Integration Results

RT: 2.27
Area: 37066
Amount: 0.055464
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:26:44
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

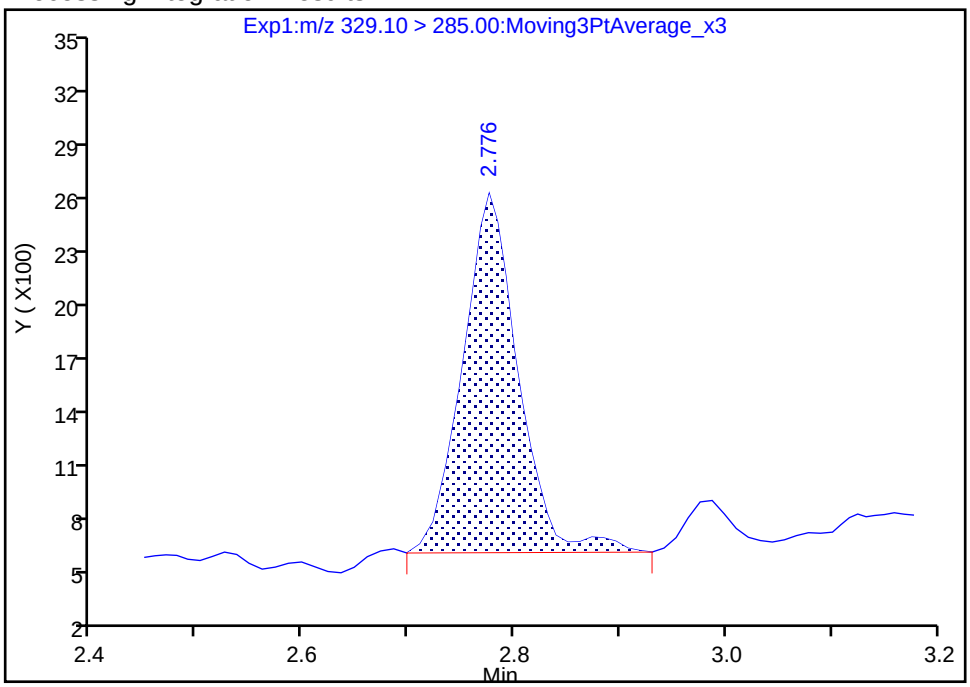
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

67 Perfluoro(2-propoxypropanoic) acid, CAS: 13252-13-6

Signal: 1

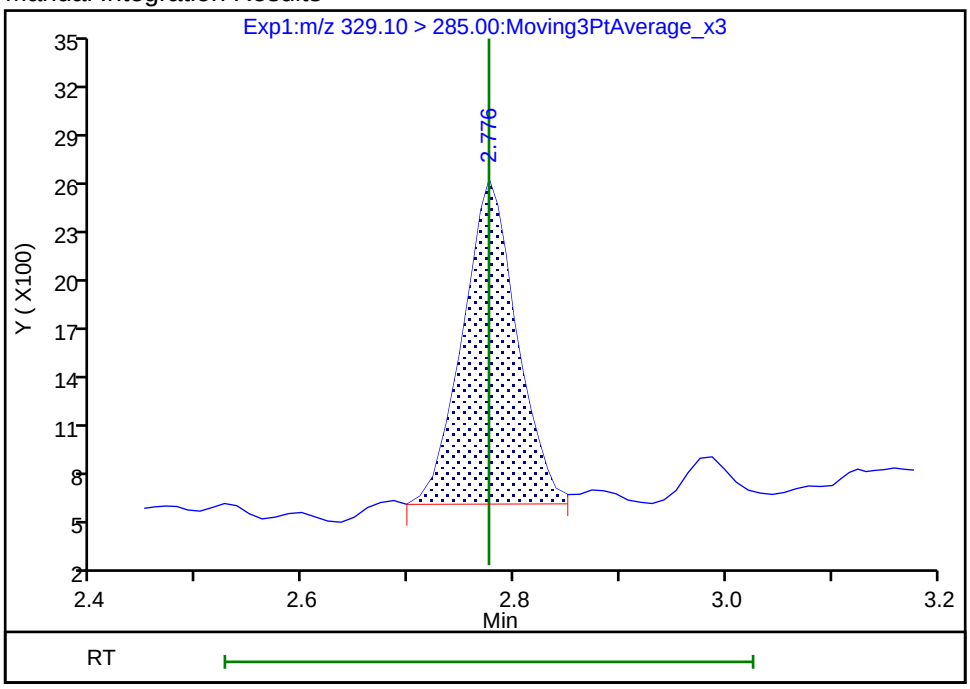
Processing Integration Results

RT: 2.78
Area: 7156
Amount: 0.068386
Amount Units: ng/ml



Manual Integration Results

RT: 2.78
Area: 6928
Amount: 0.065430
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:27:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

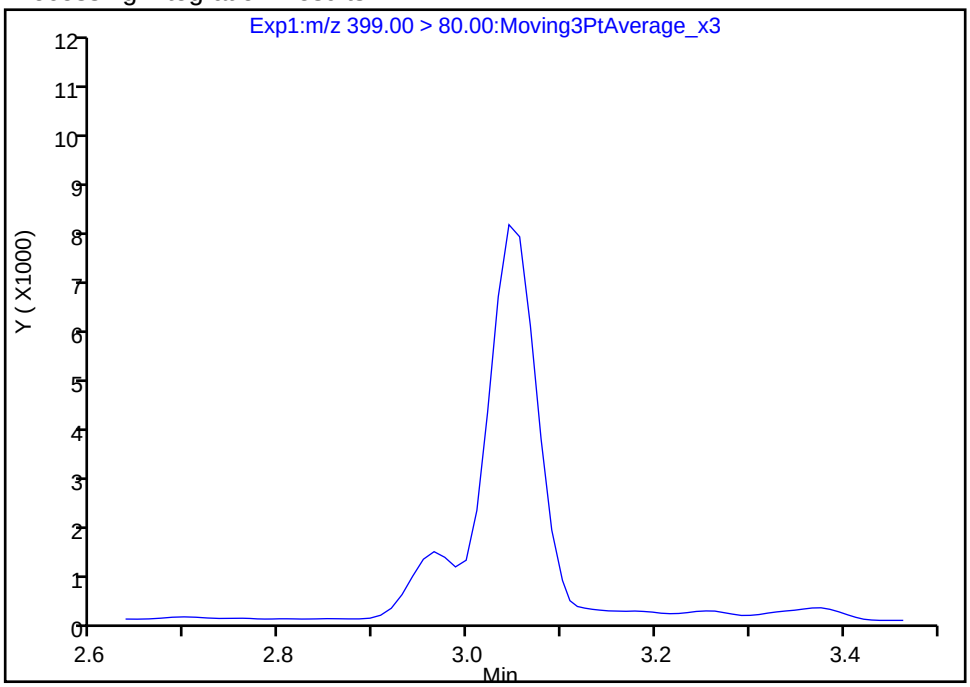
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d
Injection Date: 06-Dec-2019 14:32:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

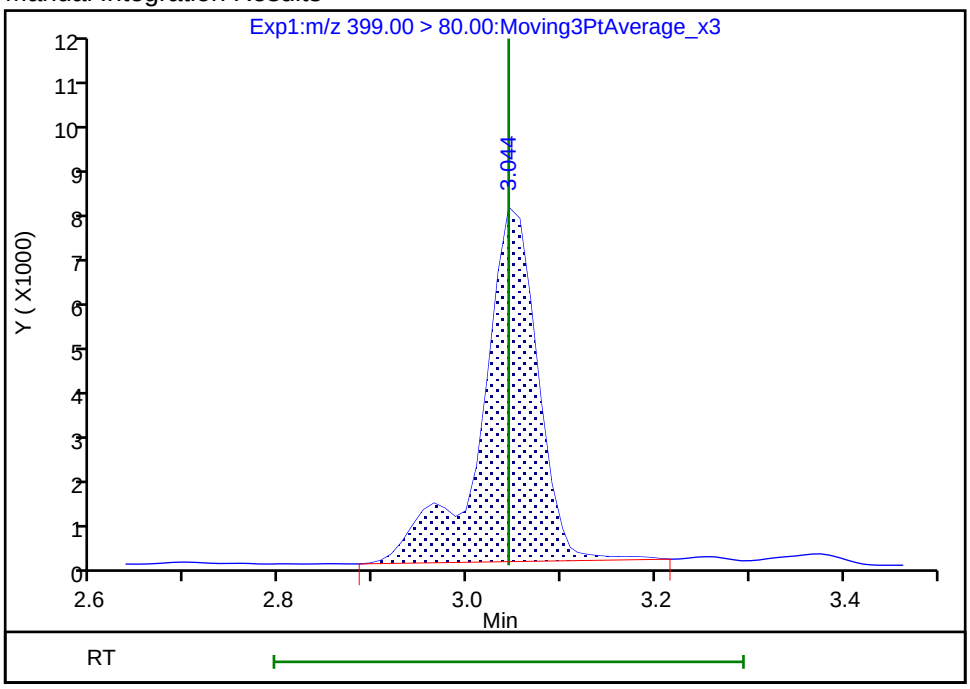
Not Detected
Expected RT: 3.04

Processing Integration Results



Manual Integration Results

RT: 3.04
Area: 32330
Amount: 0.051816
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:25:28
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

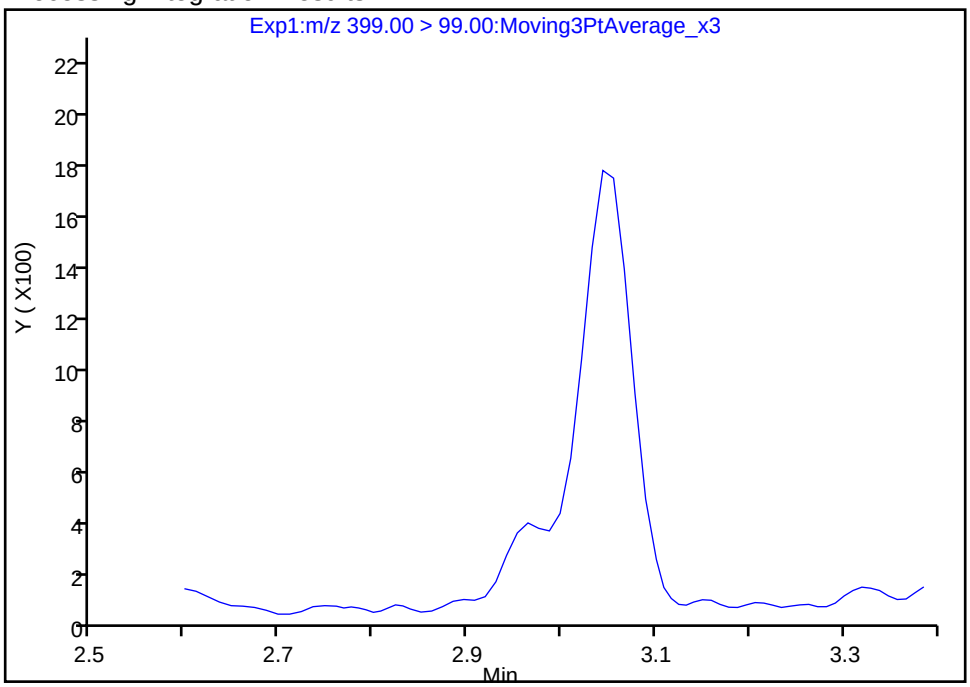
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

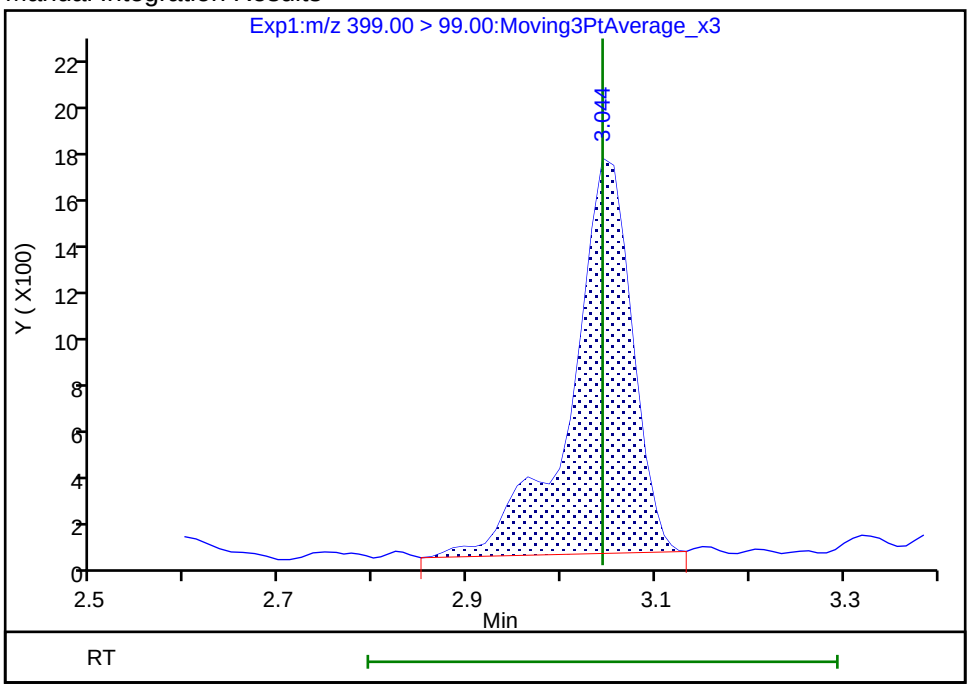
Not Detected
Expected RT: 3.04

Processing Integration Results



Manual Integration Results

RT: 3.04
Area: 7688
Amount: 0.051816
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:25:34
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

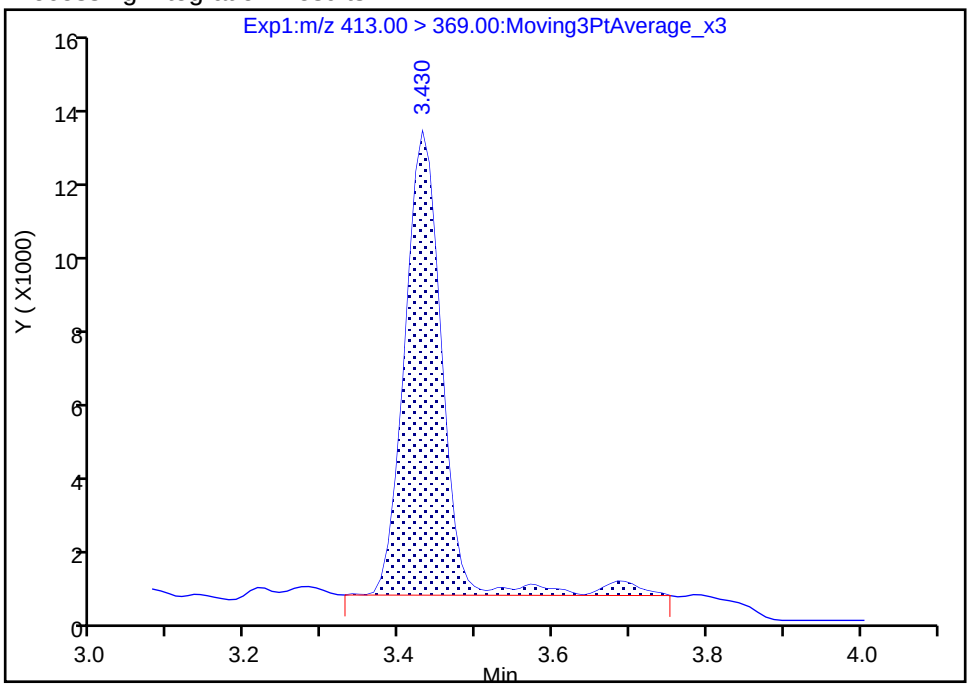
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

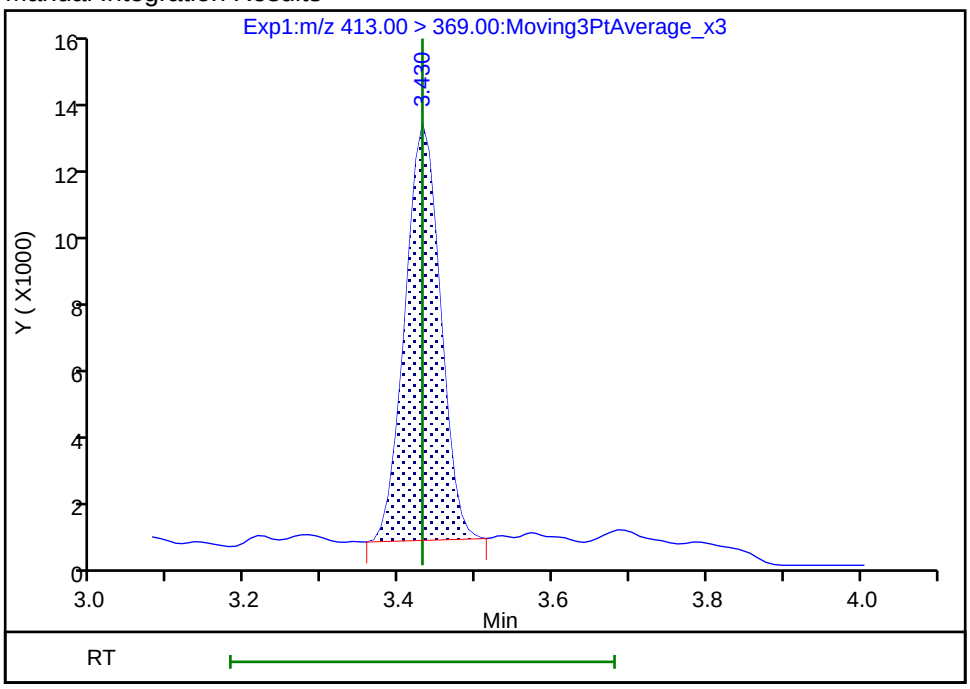
Processing Integration Results

RT: 3.43
Area: 41178
Amount: 0.053229
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 38119
Amount: 0.052707
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:27:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

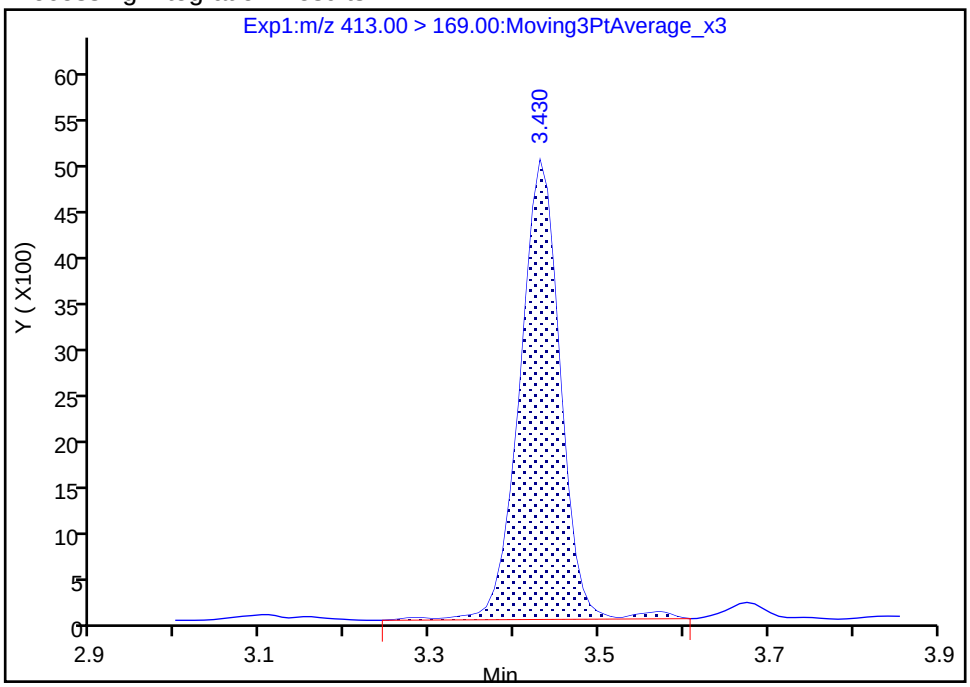
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

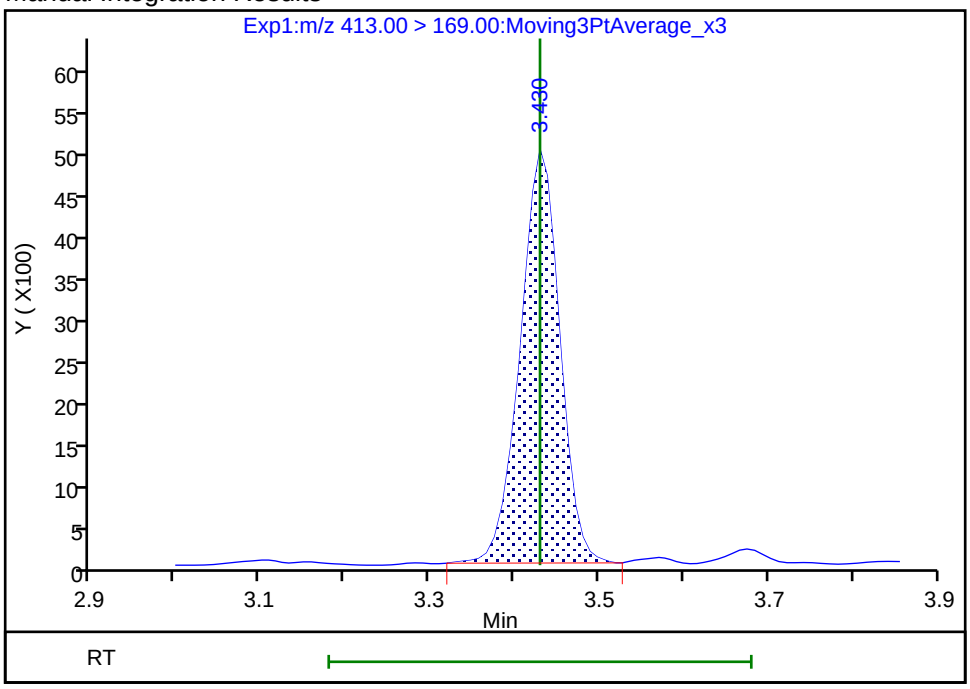
Processing Integration Results

RT: 3.43
Area: 16712
Amount: 0.053229
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 16212
Amount: 0.052707
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:27:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

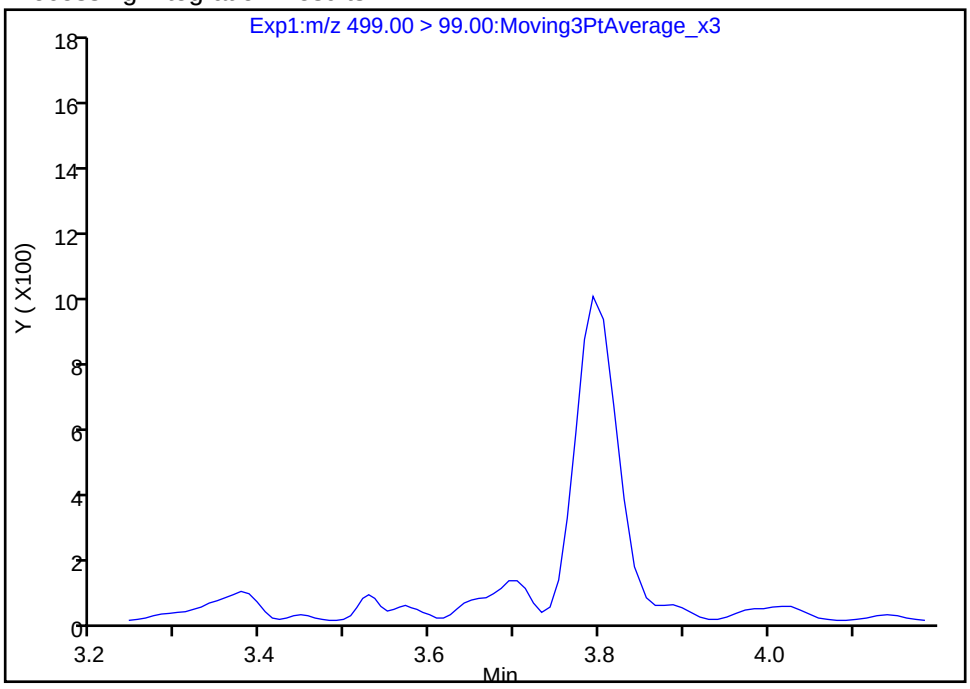
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d
Injection Date: 06-Dec-2019 14:32:25 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 5
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

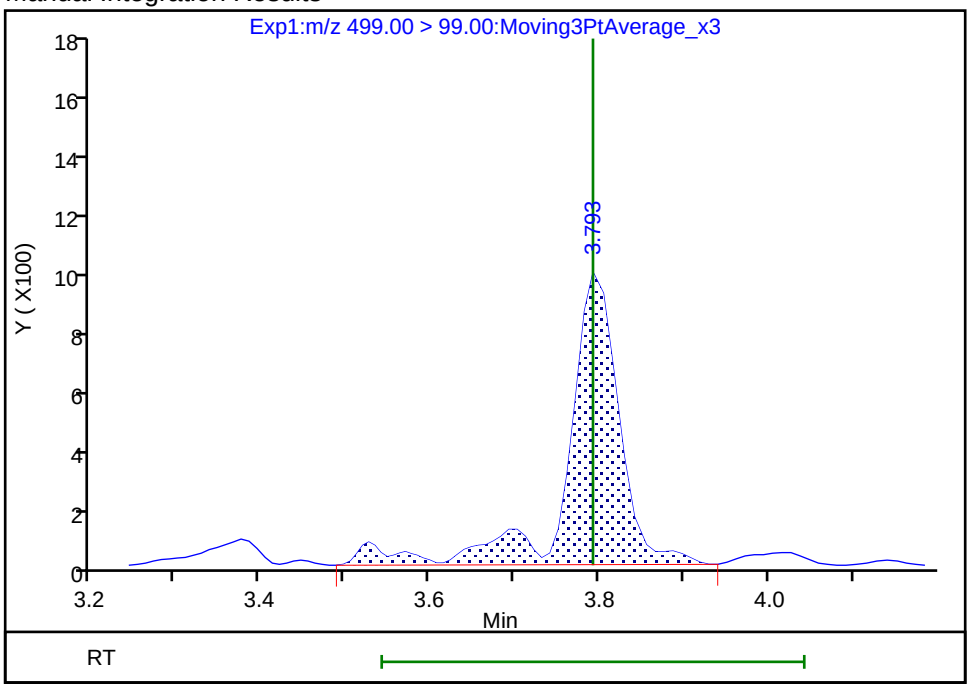
Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results

RT: 3.79
Area: 4212
Amount: 0.052882
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:25:57
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

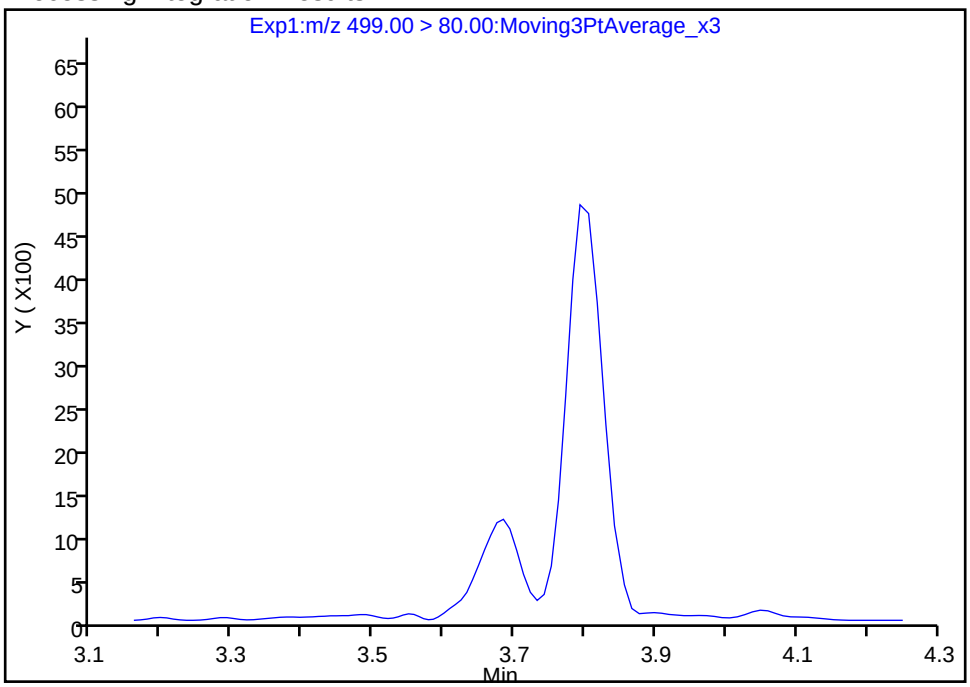
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

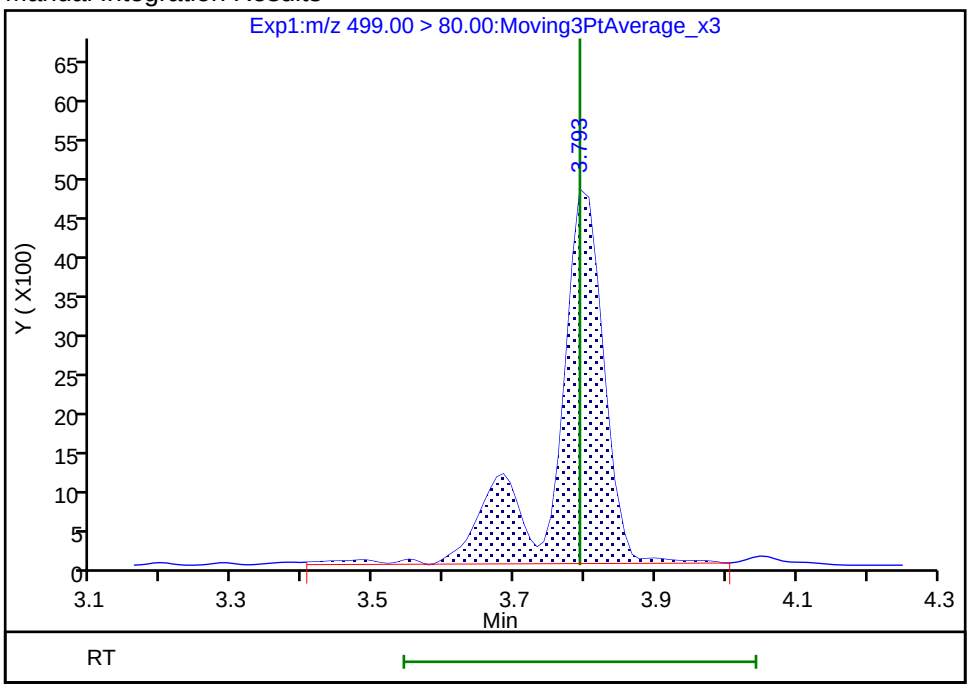
Not Detected
Expected RT: 3.79

Processing Integration Results



Manual Integration Results

RT: 3.79
Area: 23044
Amount: 0.052882
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:26:04
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

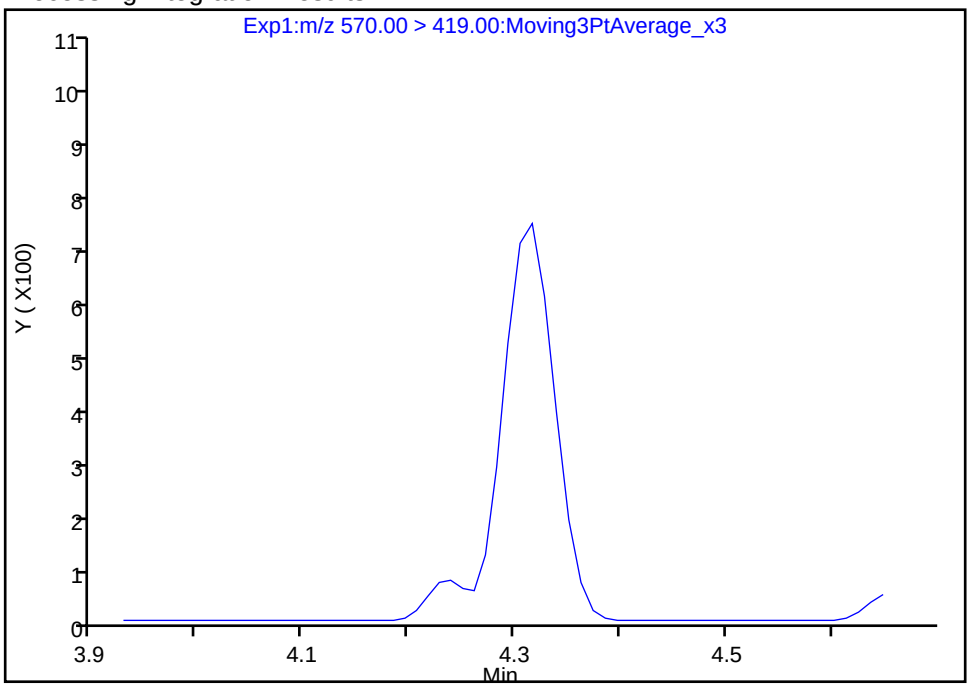
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

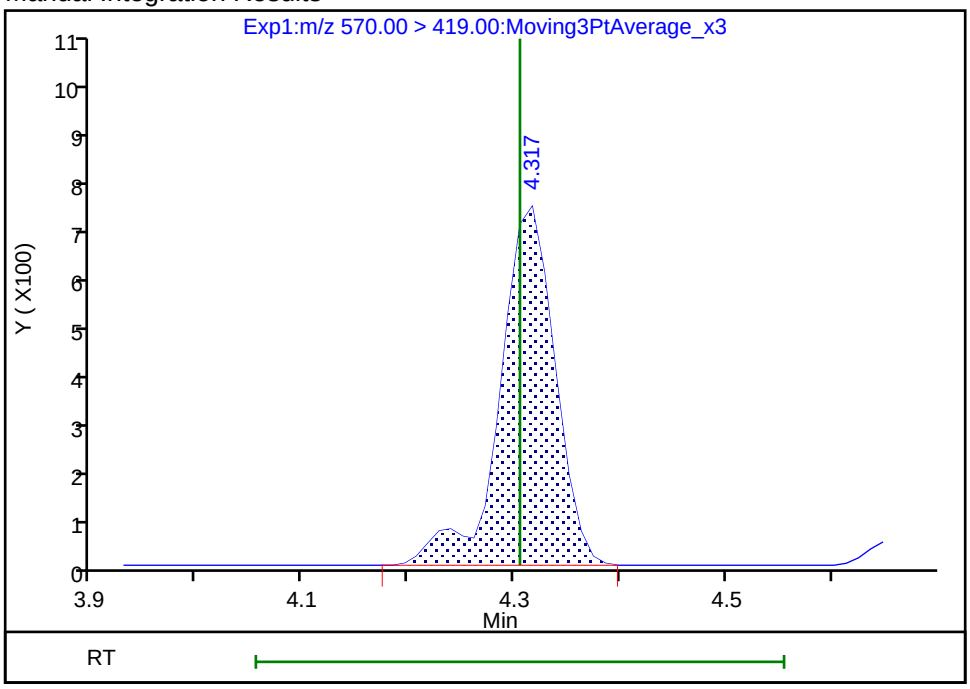
Not Detected
Expected RT: 4.31

Processing Integration Results



Manual Integration Results

RT: 4.32
Area: 2630
Amount: 0.051264
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:26:17
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

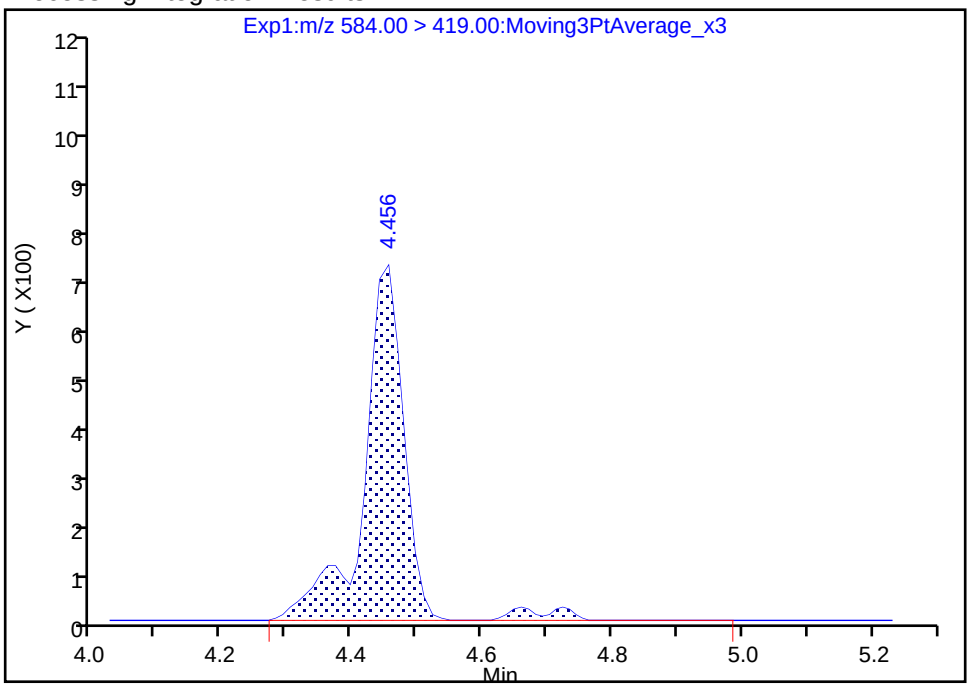
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

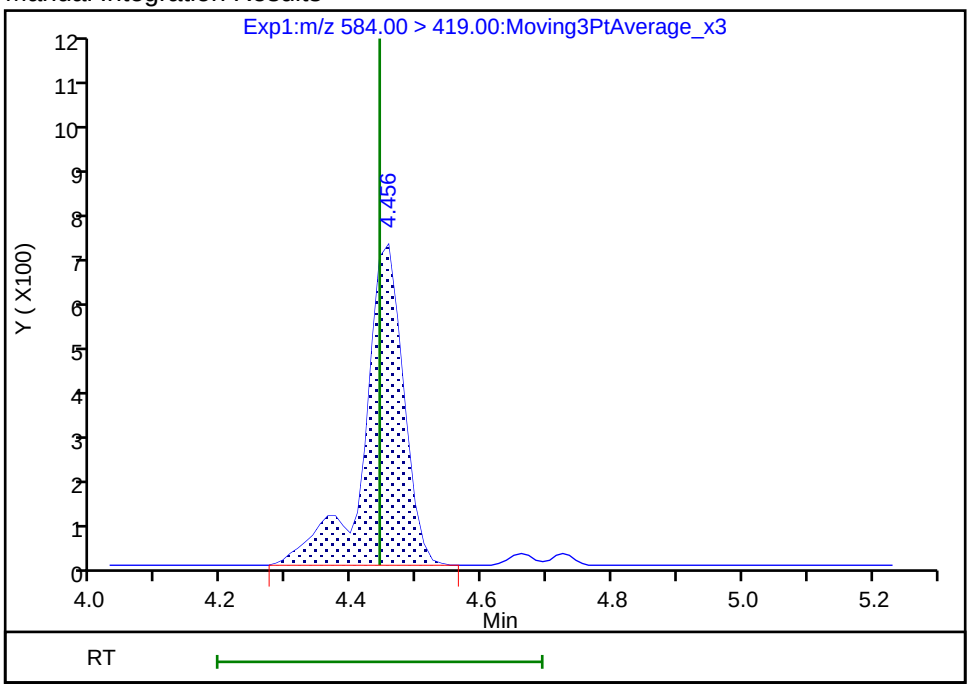
Processing Integration Results

RT: 4.46
Area: 3128
Amount: 0.060203
Amount Units: ng/ml



Manual Integration Results

RT: 4.46
Area: 2999
Amount: 0.060499
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:28:02
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

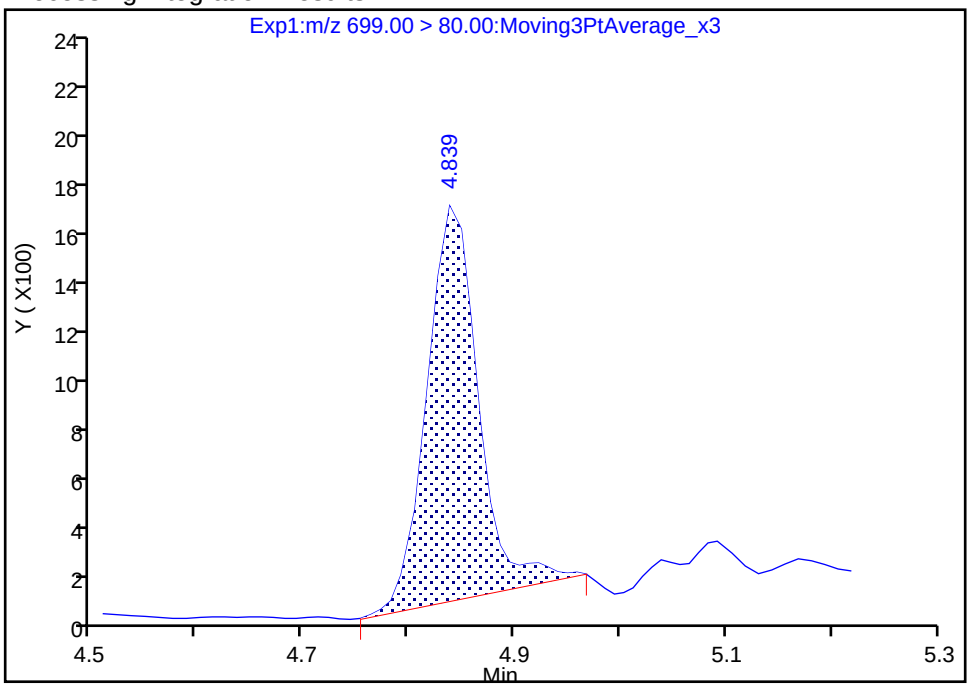
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL005.d				
Injection Date:	06-Dec-2019 14:32:25	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	5
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

75 Perfluorododecanesulfonic acid (PFDoS), CAS: 79780-39-5

Signal: 1

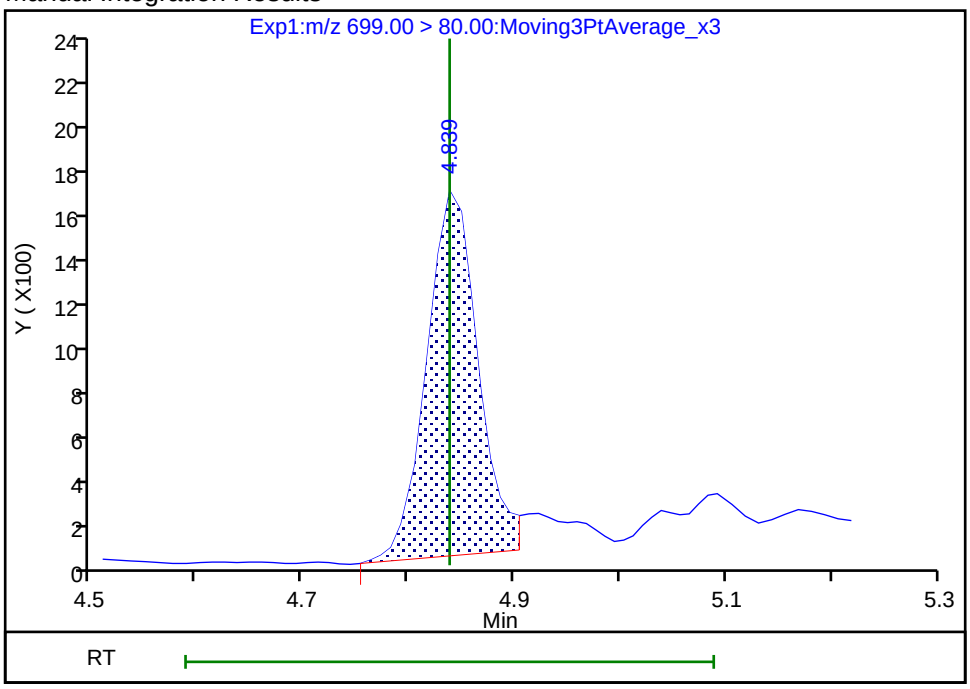
Processing Integration Results

RT: 4.84
Area: 5387
Amount: 0.049445
Amount Units: ng/ml



Manual Integration Results

RT: 4.84
Area: 5470
Amount: 0.049537
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:28:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 06-Dec-2019 14:40:38 ALS Bottle#: 3 Worklist Smp#: 6
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC 2
Misc. Info.: 200-0039114-006 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 09-Dec-2019 12:10:07 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX0316

First Level Reviewer: chirgwinb Date: 06-Dec-2019 15:30:25
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.926	1.917	0.009	1.005	94789	0.1076		108	27.7	M
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.560	2213648	2.18		87.1	31388	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.271	2.271	0.0	1.000	88619	0.1179		118	11.2	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.664	1659165	2.13		85.4	6735	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.298	0.0	0.672	1755454	1.89		81.4	655251	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	78841	0.0961	Target=2.03	109	263	
298.90 > 99.00	2.298	2.298	0.0	1.000	40090		1.97(1.01-3.04)	109	73.6	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.623	0.0	1.000	12920	0.0887		95.0	220	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.623	0.0	0.767	196322	2.27		97.2	408	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.660	0.013	0.878	69556	0.0860	Target=3.08	91.7	418	
349.00 > 99.00	2.673	2.660	0.013	0.878	24363		2.85(1.54-4.62)	91.7	157	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.661	2.660	0.001	1.000	80343	0.1030	Target=12.44	103	32.1	
313.00 > 119.00	2.661	2.660	0.001	1.000	6630		12.12(6.22-18.67)	103	16.9	
D 7 13C2 PFHxA										
315.00 > 270.00	2.661	2.660	0.001	0.778	1910081	2.20		88.2	5217	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.776	2.776	0.0	1.000	10610	0.0823		82.3	6.2	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.776	2.776	0.0	0.811	89774	2.37		94.9	1338	
D 9 13C4 PFHpA										
367.00 > 322.00	3.044	3.044	0.0	0.890	1759637	2.14		85.7	3696	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.044	3.044	0.0	1.000	74095	0.0940	Target=4.13	103	162	
399.00 > 99.00	3.044	3.044	0.0	1.000	17245		4.30(2.07-6.20)	103	64.9	
D 11 18O2 PFHxS										
403.00 > 84.00	3.044	3.044	0.0	0.890	1647017	2.25		95.1	3102	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.004	81910	0.1101	Target=3.48	110	48.7	
363.00 > 169.00	3.044	3.055	-0.011	1.000	21193		3.86(1.74-5.22)	110	95.9	
77 DONA										
377.00 > 251.00	3.089	3.089	0.0	0.815	178870	0.0935	Target=2.44	99.3	861	
377.00 > 85.00	3.089	3.089	0.0	0.815	77167		2.32(1.22-3.67)	99.3	357	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.413	3.413	0.0	1.000	13075	0.1219		129	134	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.413	3.413	0.0	0.900	59825	0.0902	Target=6.34	94.7	605	
449.00 > 99.00	3.413	3.413	0.0	0.900	9362		6.39(3.17-9.51)	94.7	119	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.413	3.413	0.0	0.998	270015	2.15		90.4	1020	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.430	3.430	0.0	1.000	99406	0.1208	Target=2.38	121	44.4	M
413.00 > 169.00	3.430	3.430	0.0	1.000	40820		2.44(1.19-3.57)	121	243	
D 14 13C4 PFOA										M
417.00 > 372.00	3.430	3.430	0.0	1.002	1854400	2.13		85.1	4171	M
* 62 13C2 PFOA										
415.00 > 370.00	3.422	3.430	-0.008		2398887	2.50			6775	
D 18 13C4 PFOS										
503.00 > 80.00	3.793	3.793	0.0	1.108	1294332	2.23		93.2	4658	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.793	3.793	0.0	1.000	56390	0.0965	Target=5.71	104	304	M
499.00 > 99.00	3.793	3.793	0.0	1.000	9211		6.12(2.86-8.57)	104	99.8	
D 19 13C5 PFNA										
468.00 > 423.00	3.817	3.817	0.0	1.116	1726802	2.15		86.2	6758	
20 Perfluorononanoic acid										
463.00 > 419.00	3.817	3.817	0.0	1.000	75235	0.1111	Target=6.87	111	41.2	
463.00 > 169.00	3.817	3.817	0.0	1.000	10730		7.01(3.43-10.30)	111	152	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.984	3.984	0.0	1.050	66176	0.0991		106	400	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.129	4.129	0.0	1.089	42675	0.0954	Target=2.92	99.4	686	
549.00 > 99.00	4.129	4.129	0.0	1.089	13150		3.25(1.46-4.38)	99.4	112	
D 23 13C2 PFDA										
515.00 > 470.00	4.153	4.153	0.0	1.214	1747754	2.21		88.5	4366	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.153	4.153	0.0	1.000	65957	0.0975	Target=7.21	97.5	75.5	
513.00 > 169.00	4.153	4.153	0.0	1.000	9824		6.71(3.60-10.81)	97.5	131	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.164	4.164	0.0	1.217	314709	2.10		87.7	1433	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.164	4.164	0.0	1.000	5860	0.0966		101	131	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	92102	0.0996		99.6	1105	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.239	2323804	2.25		90.0	5837	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.305	4.305	0.0	1.000	5895	0.1028		103	26.5	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.305	4.305	0.0	1.258	164960	2.17		86.7	1241	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.409	4.409	0.0	1.162	37746	0.0969	Target=2.78	100	200	
599.00 > 99.00	4.397	4.409	-0.012	1.159	13429		2.81(1.39-4.17)	100	139	
D 30 13C2 PFUnA										
565.00 > 520.00	4.431	4.431	0.0	1.295	1512870	2.25		90.1	4725	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.431	4.431	0.0	1.000	55613	0.1084	Target=5.47	108	73.1	
563.00 > 169.00	4.431	4.431	0.0	1.000	9786		5.68(2.73-8.20)	108	205	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.443	4.442	0.001	1.000	7276	0.1115		111	125	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.443	4.442	0.001	1.298	197154	2.34		93.5	1372	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.524	4.523	0.001	1.193	60708	0.0964		102	665	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.672	4.671	0.001	1.000	60997	0.1021	Target=4.84	102	10.7	
613.00 > 169.00	4.672	4.671	0.001	1.000	13160		4.64(2.42-7.26)	102	156	
D 36 13C2 PFDoA										
615.00 > 570.00	4.672	4.671	0.001	1.365	1616292	2.19		87.8	7420	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.693	4.683	0.010	1.127	3796	0.0986		102	69.1	
75 Perfluorododecanesulfonic acid (PF										M
699.00 > 80.00	4.839	4.838	0.001	1.276	16050	0.1083	Target=0.47	112	35.9	M
699.00 > 99.00	4.839	4.838	0.001	1.276	32692		0.49(0.23-0.70)	112	688	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.879	4.879	0.0	1.044	61289	0.1080	Target=3.74	108	15.8	
663.00 > 169.00	4.879	4.879	0.0	1.044	17346		3.53(1.87-5.62)	108	177	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.058	5.058	0.0	1.478	1495867	2.42		96.9	12547	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.058	5.067	-0.009	1.000	12067	0.1004	Target=1.01	100	120	
713.00 > 219.00	5.058	5.067	-0.009	1.000	12356		0.98(0.50-1.51)	100	131	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.403	5.403	0.001	1.579	1299647	2.29		91.5	5740	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.403	5.413	-0.010	1.000	59942	0.1011	Target=3.04	101	15.5	
813.00 > 169.00	5.403	5.413	-0.010	1.000	18352		3.27(1.52-4.56)	101	212	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.739	5.747	-0.008	1.062	39404	0.1049	Target=2.88	105	17.6	
913.00 > 169.00	5.739	5.747	-0.008	1.062	13322		2.96(1.44-4.32)	105	207	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC2_00003 Amount Added: 100.00 Units: uL

Report Date: 09-Dec-2019 12:10:08 Chrom Revision: 2.3 17-Oct-2019 22:00:42

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d

Injection Date: 06-Dec-2019 14:40:38 Instrument ID: LC812

Lims ID: IC

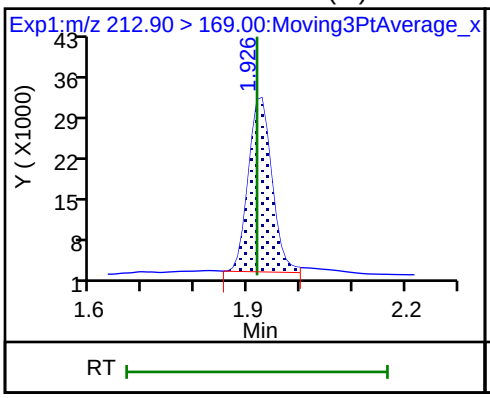
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 6

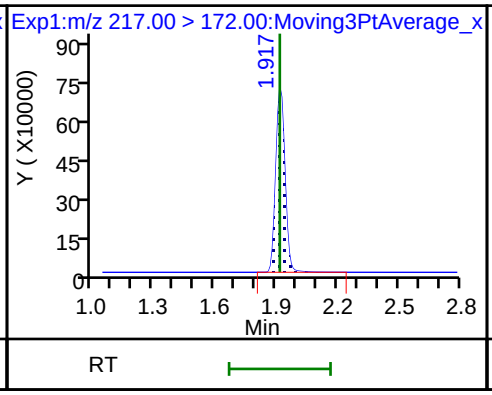
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

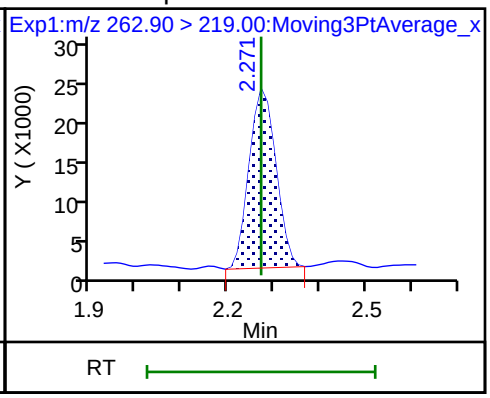
2 Perfluorobutanoic acid (M)



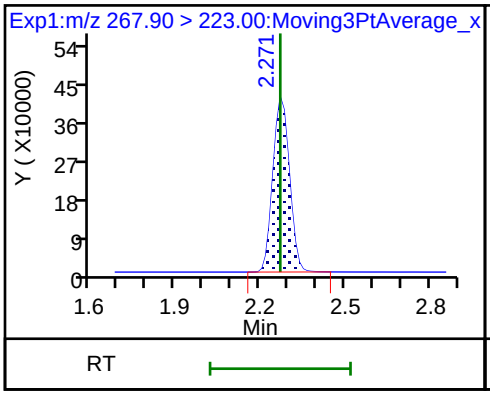
D 1 13C4 PFBA



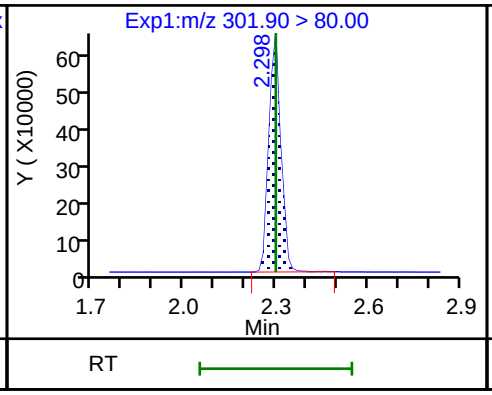
4 Perfluoropentanoic acid



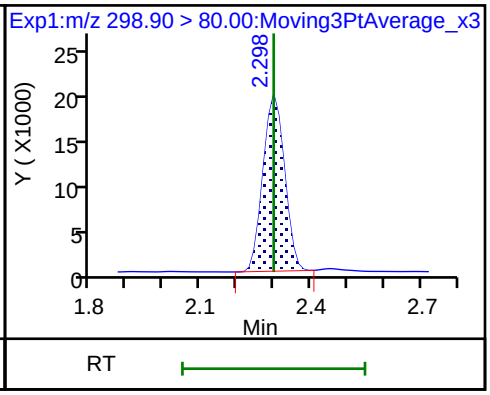
D 3 13C5 PFPeA



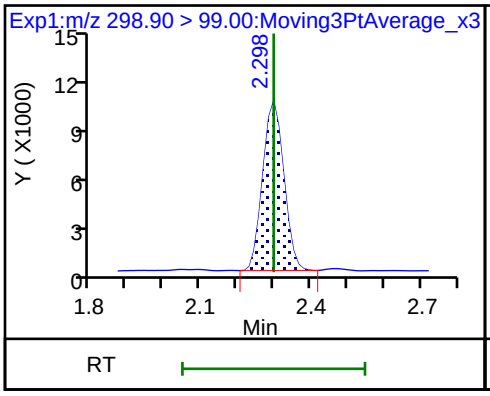
D 47 13C3 PFBS



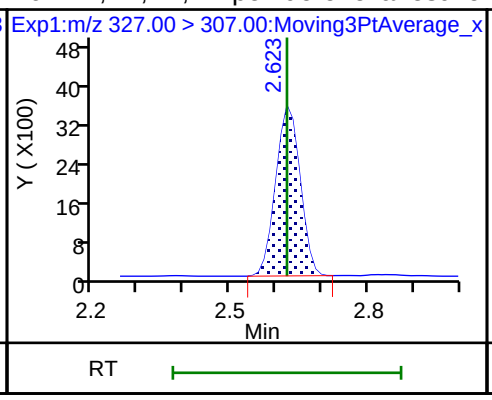
5 Perfluorobutanesulfonic acid



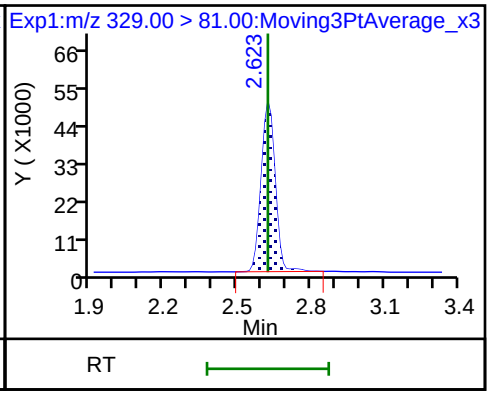
5 Perfluorobutanesulfonic acid



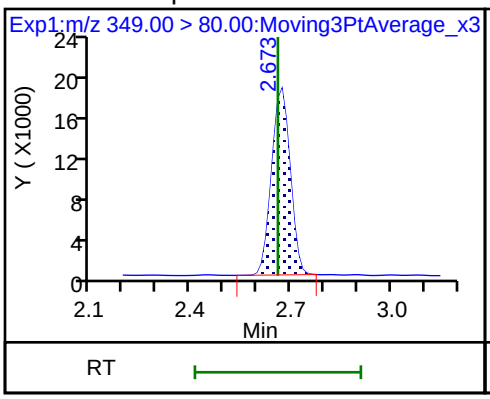
61 1H,1H,2H,2H-perfluorohexanesulfon



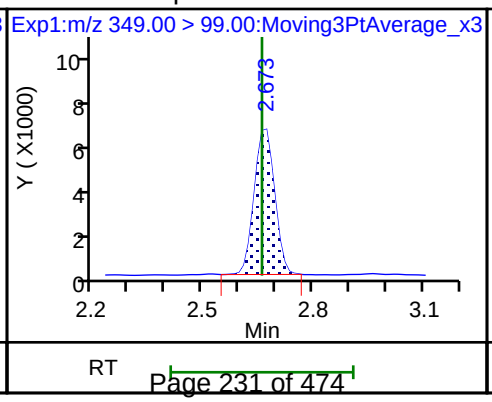
D 60 M2-4:2 FTS



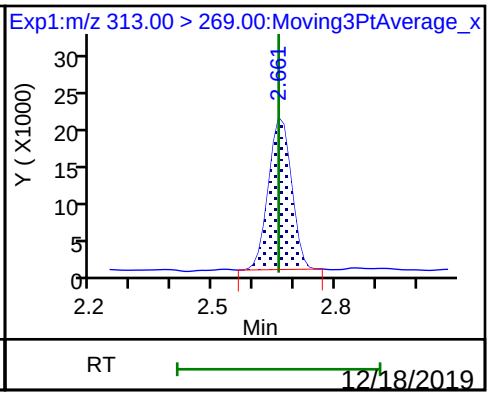
70 Perfluoropentanesulfonic acid



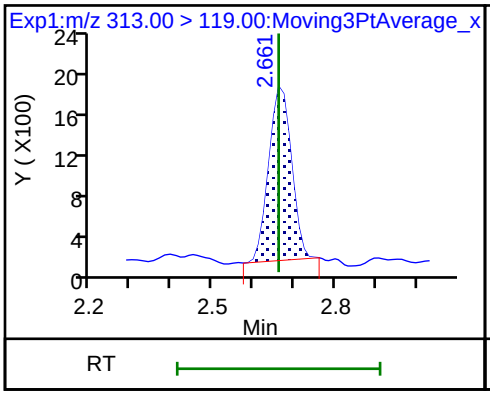
70 Perfluoropentanesulfonic acid



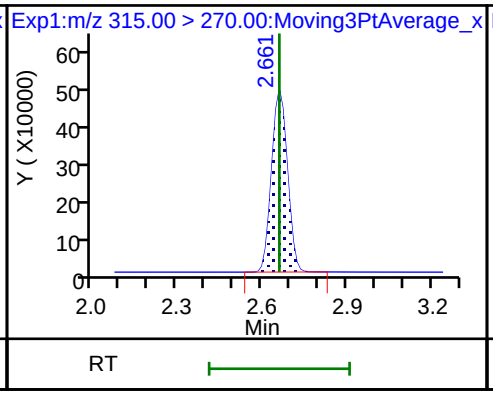
6 Perfluorohexanoic acid



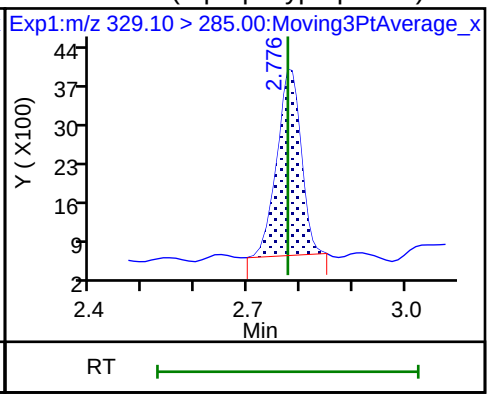
6 Perfluorohexanoic acid



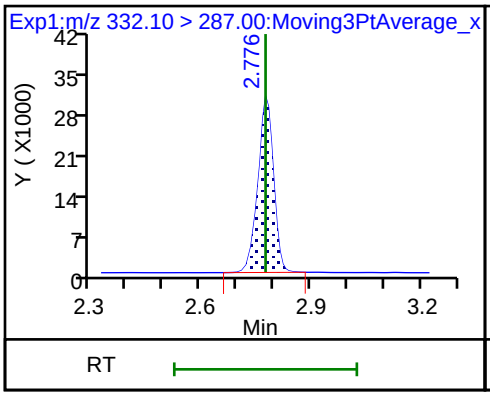
D 7 13C2 PFHxA



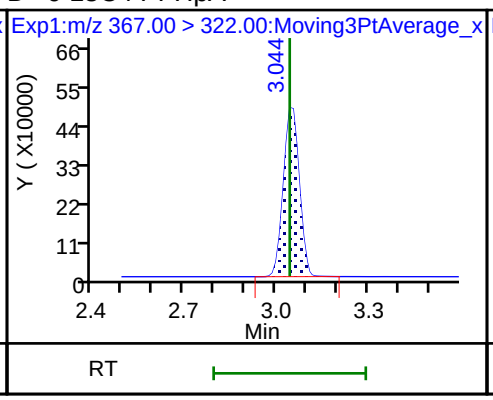
67 Perfluoro(2-propoxypropanoic) acid



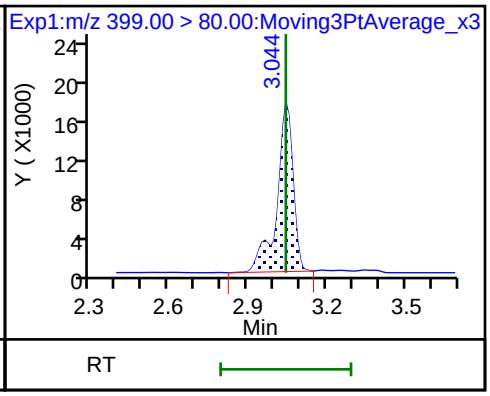
D 64 13C3 HFPO-DA



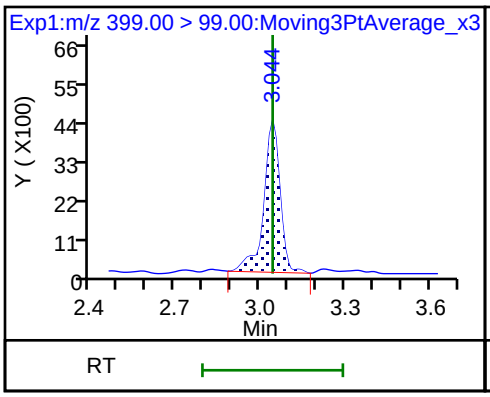
D 9 13C4 PFHpA



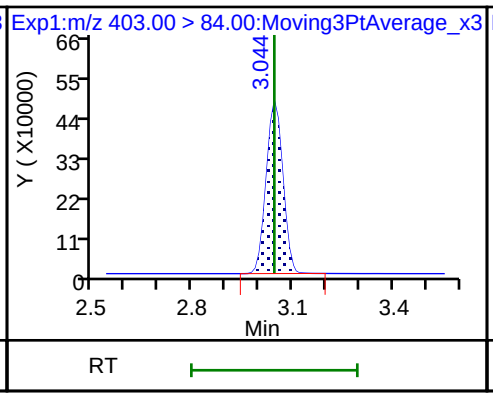
8 Perfluorohexanesulfonic acid



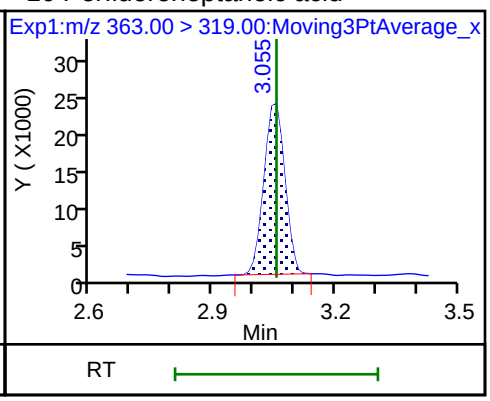
8 Perfluorohexanesulfonic acid



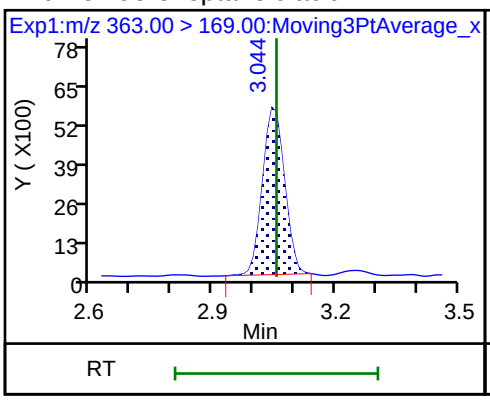
D 11 18O2 PFHxS



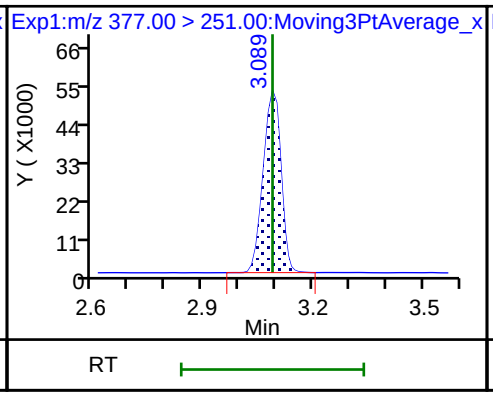
10 Perfluoroheptanoic acid



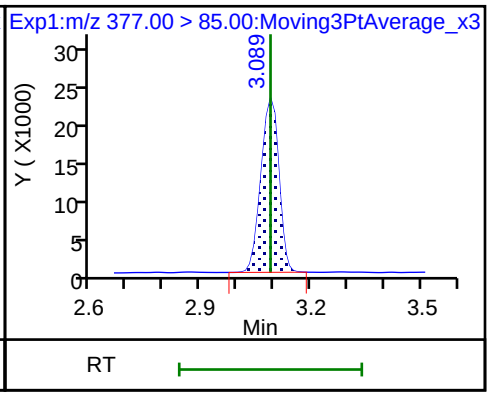
10 Perfluoroheptanoic acid



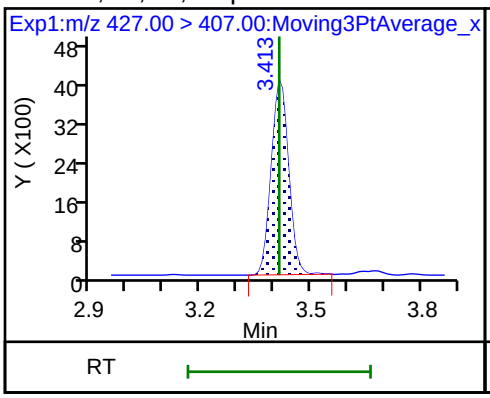
77 DONA



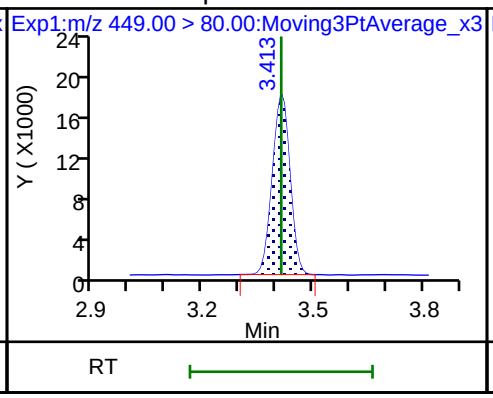
77 DONA



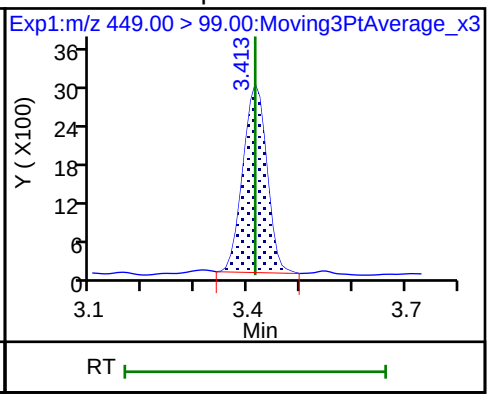
13 1H,1H,2H,2H-perfluorooctanesulfoni



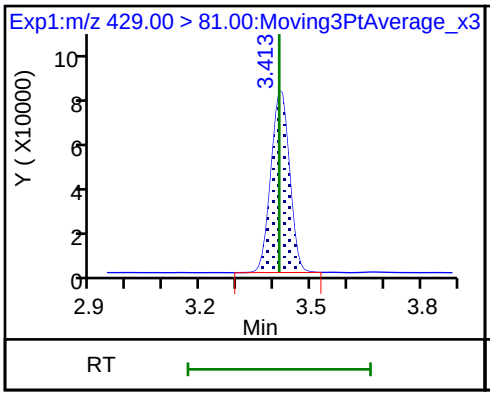
16 Perfluoroheptanesulfonic acid



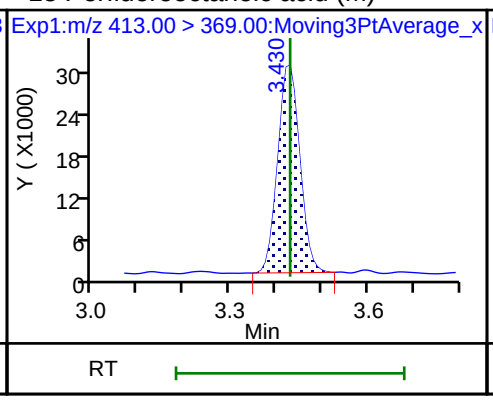
16 Perfluoroheptanesulfonic acid



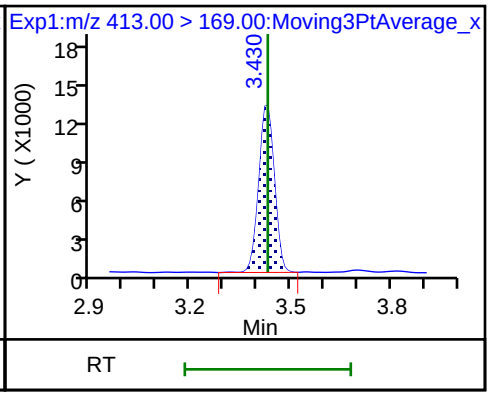
D 12 M2-6:2 FTS



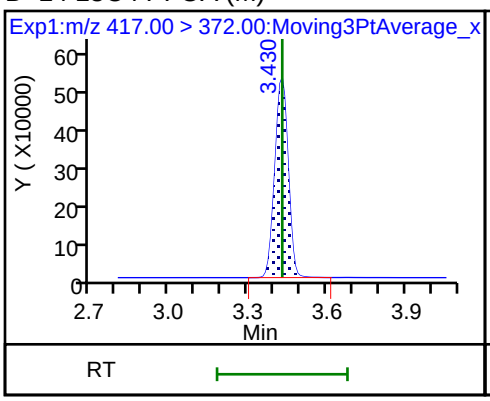
15 Perfluorooctanoic acid (M)



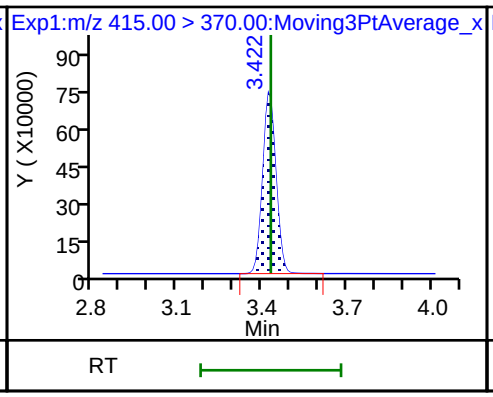
15 Perfluorooctanoic acid



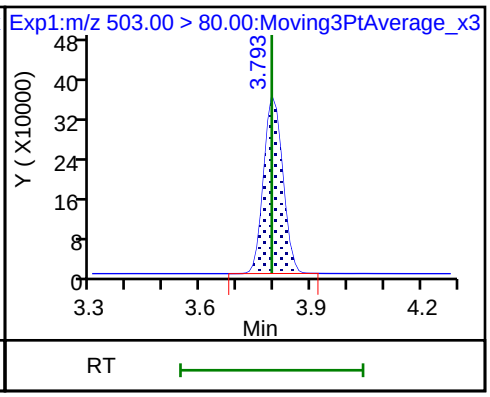
D 14 13C4 PFOA (M)



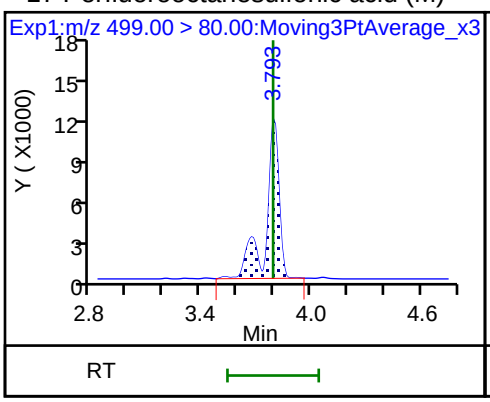
* 62 13C2 PFOA



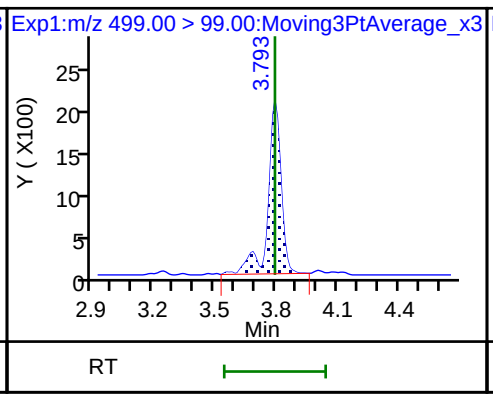
D 18 13C4 PFOS



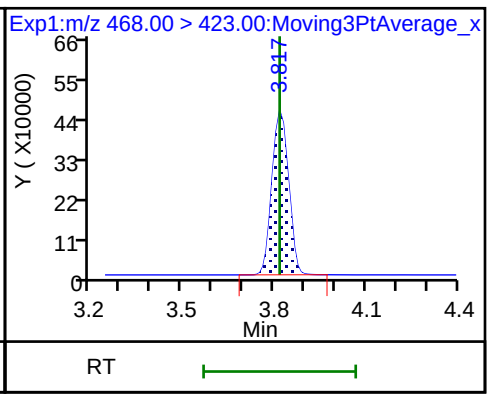
17 Perfluorooctanesulfonic acid (M)



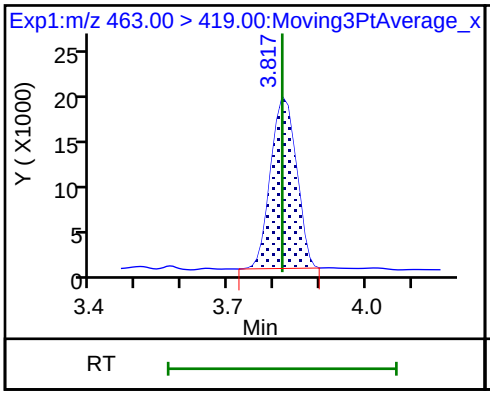
17 Perfluorooctanesulfonic acid



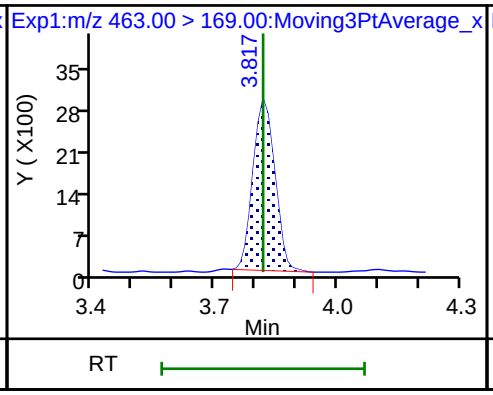
D 19 13C5 PFNA



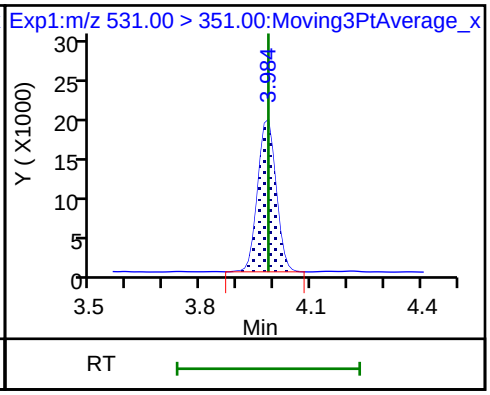
20 Perfluorononanoic acid



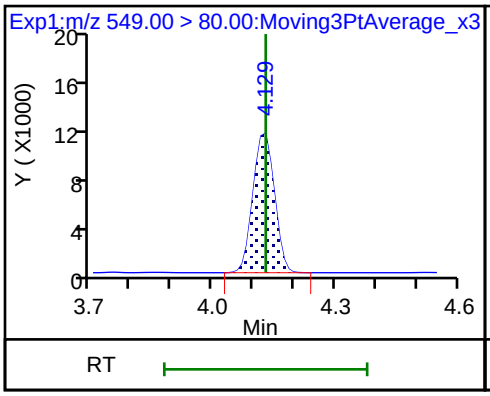
20 Perfluorononanoic acid



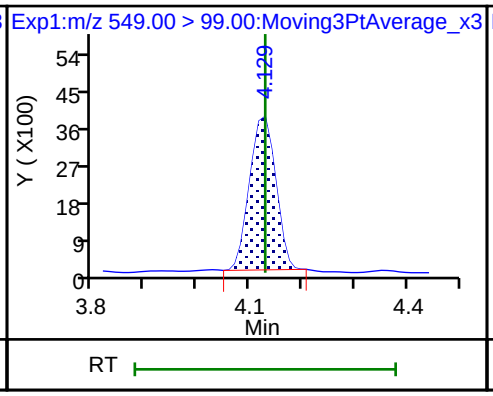
69 9-Chlorohexadecafluoro-3-oxanonane



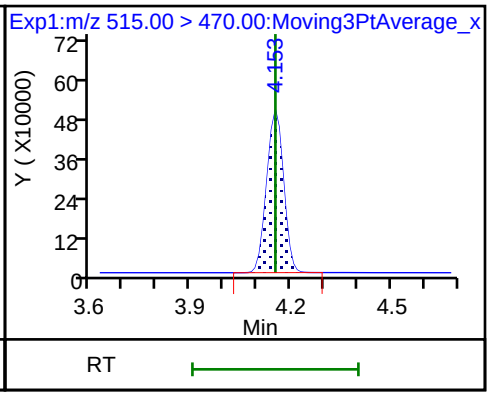
68 Perfluorononanesulfonic acid



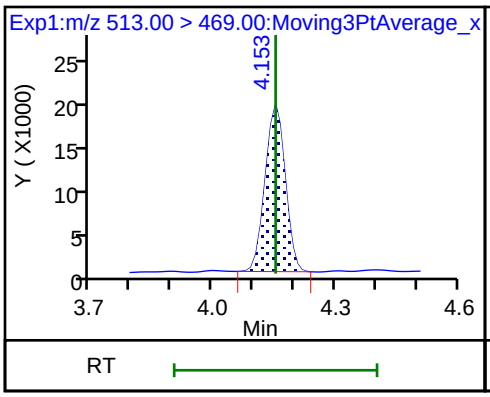
68 Perfluorononanesulfonic acid



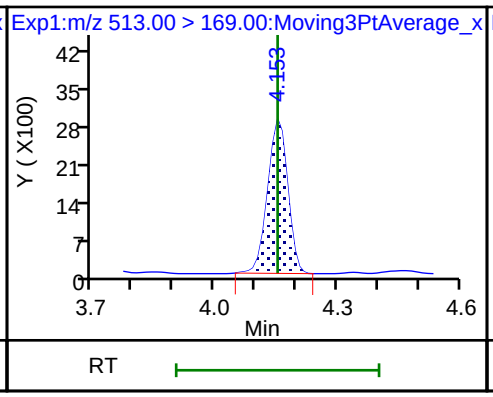
D 23 13C2 PFDA



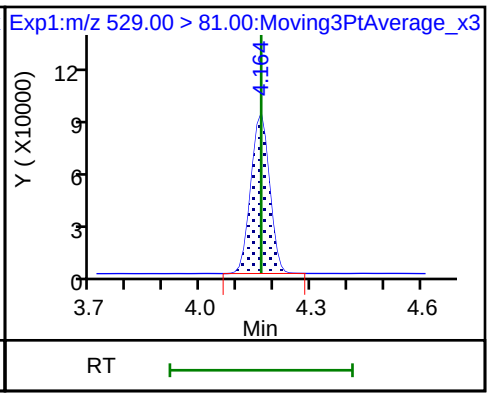
24 Perfluorodecanoic acid



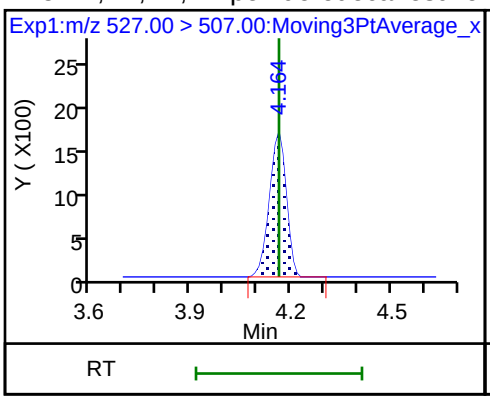
24 Perfluorodecanoic acid



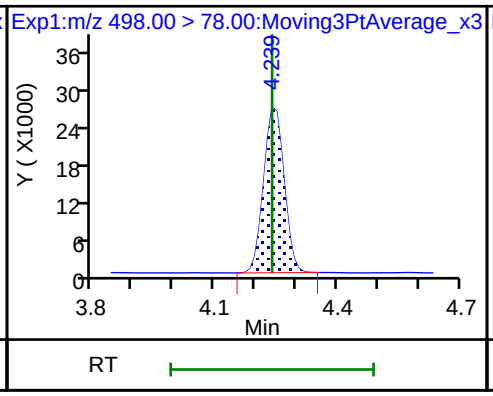
D 26 M2-8:2 FTS



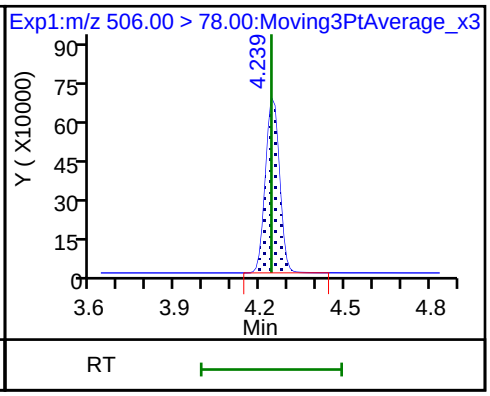
25 1H,1H,2H,2H-perfluorodecanesulfoni



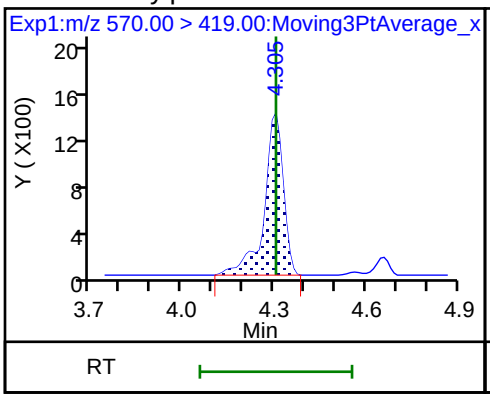
22 Perfluorooctanesulfonamide

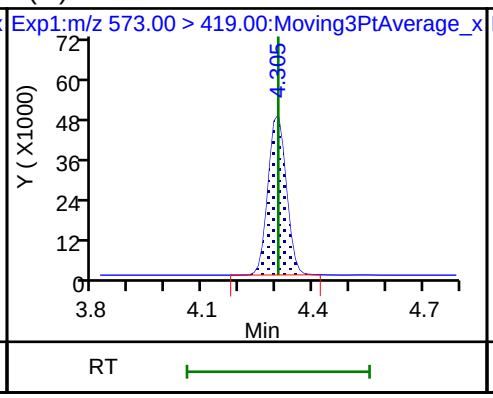


D 21 13C8 FOSA

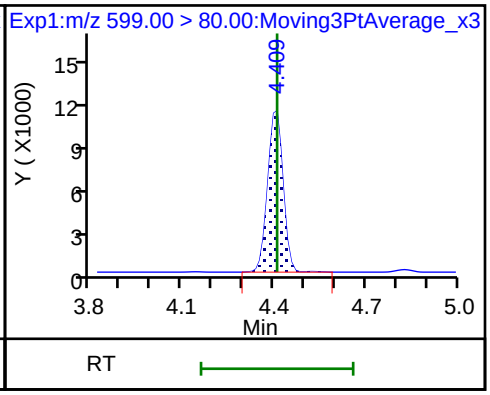


28 N-methylperfluorooctanesulfonamidoD (27) d3-NMeFOSAA

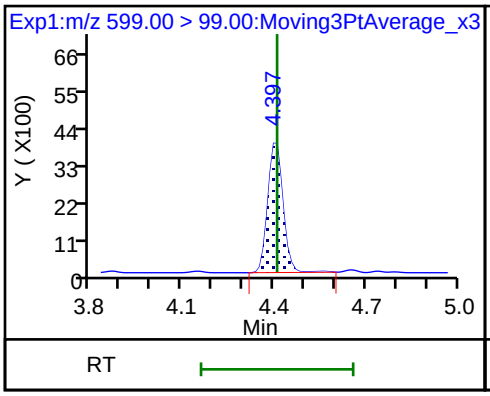




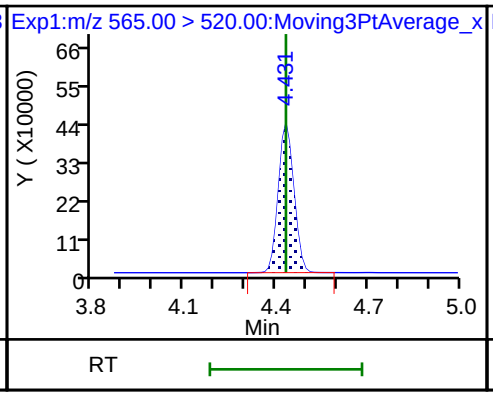
29 Perfluorodecanesulfonic acid



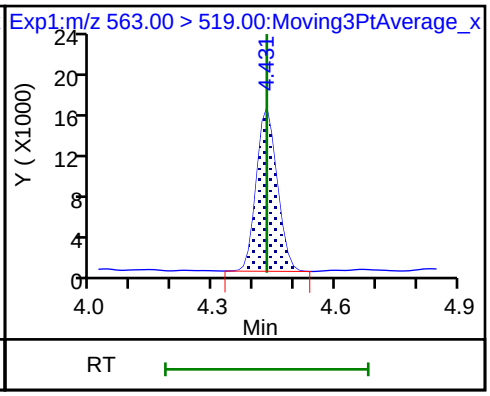
29 Perfluorodecanesulfonic acid



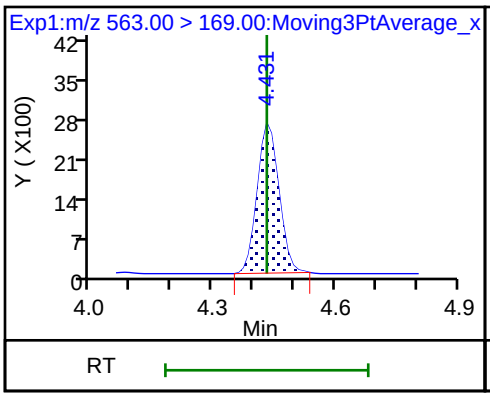
D 30 13C2 PFUnA



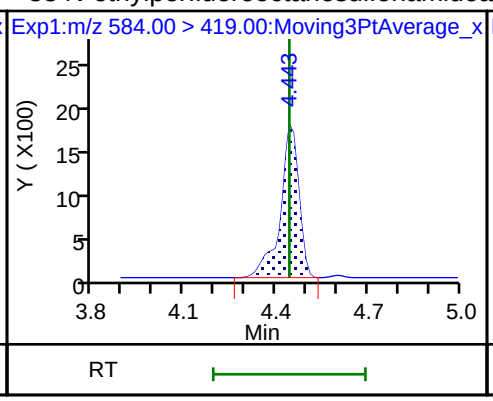
31 Perfluoroundecanoic acid

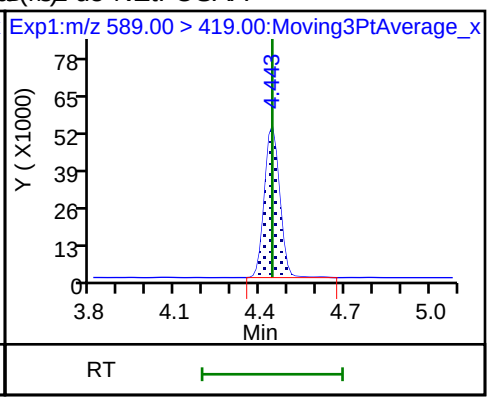


31 Perfluoroundecanoic acid

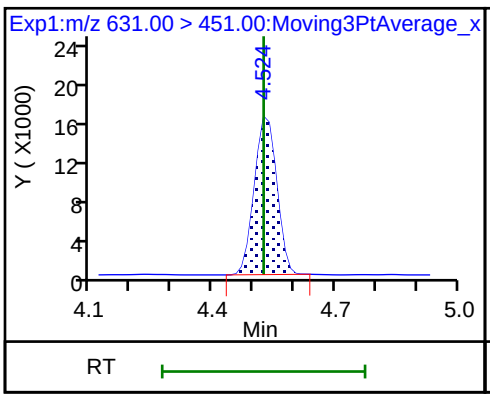


33 N-ethylperfluorooctanesulfonamidoaD (32) d5-NEtFOSAA

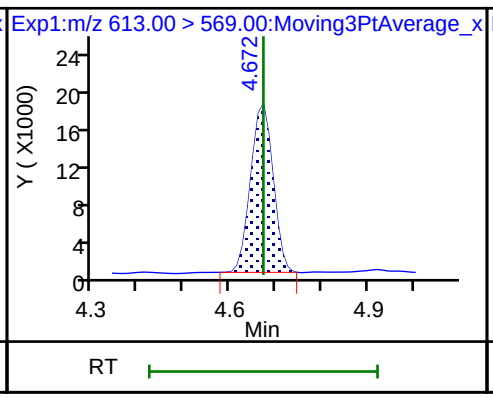




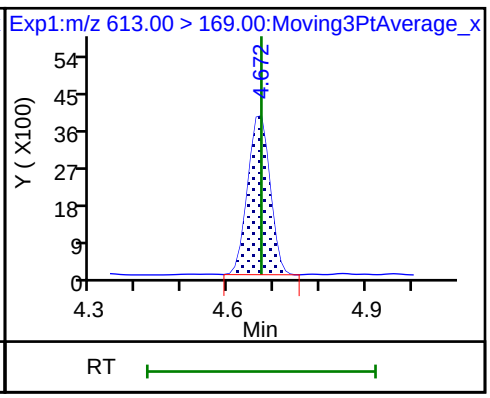
66 11-Chloroeicosafluoro-3-oxaundecan



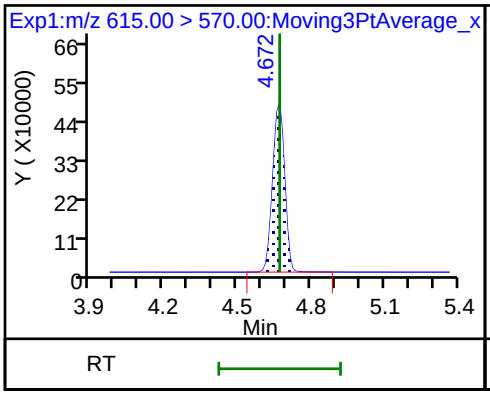
37 Perfluorododecanoic acid



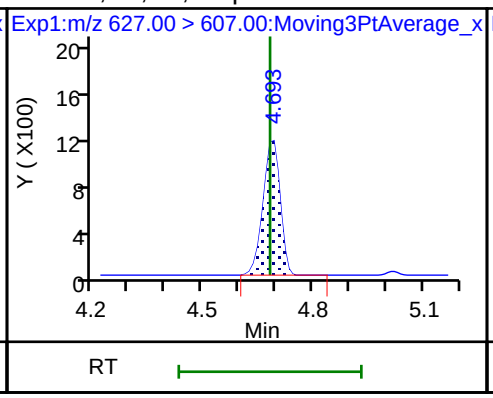
37 Perfluorododecanoic acid



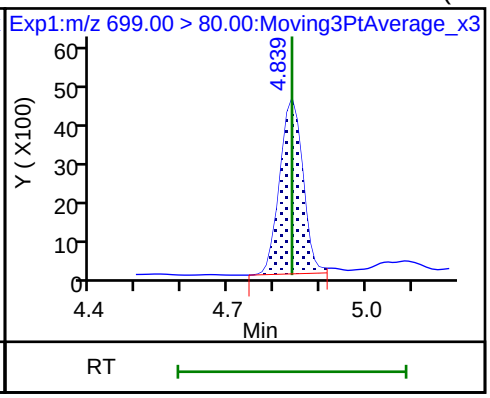
D 36 13C2 PFDoA



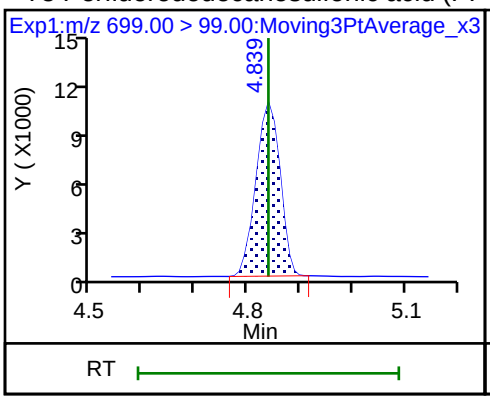
74 1H,1H,2H,2H-perfluorododecanesulfo



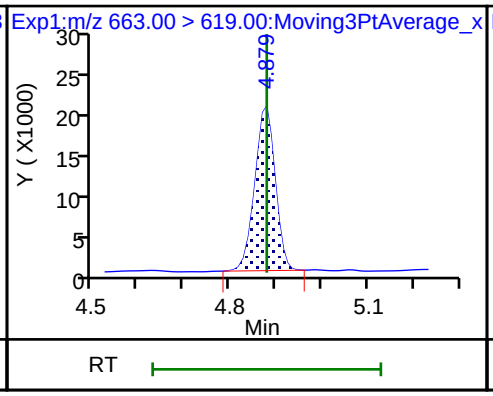
75 Perfluorododecanesulfonic acid (PF (M)



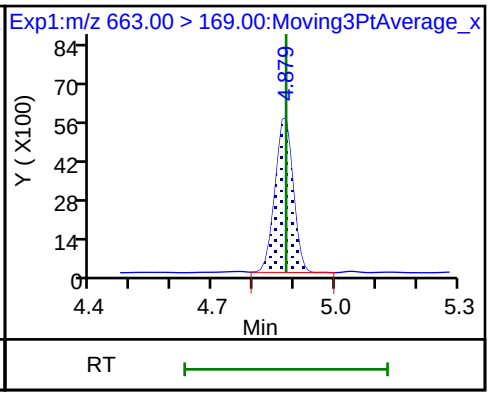
75 Perfluorododecanesulfonic acid (PF



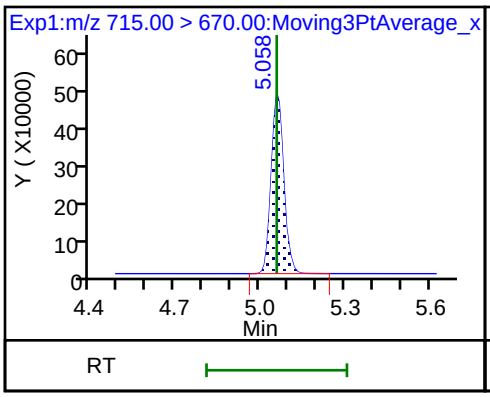
41 Perfluorotridecanoic acid



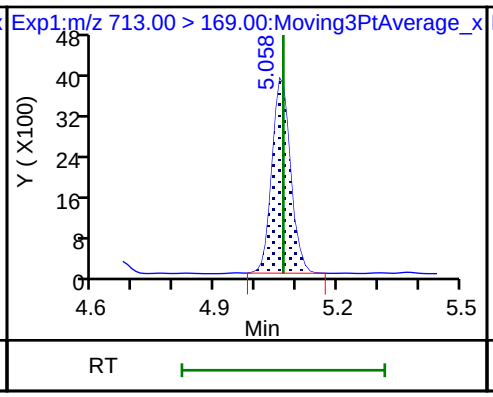
41 Perfluorotridecanoic acid



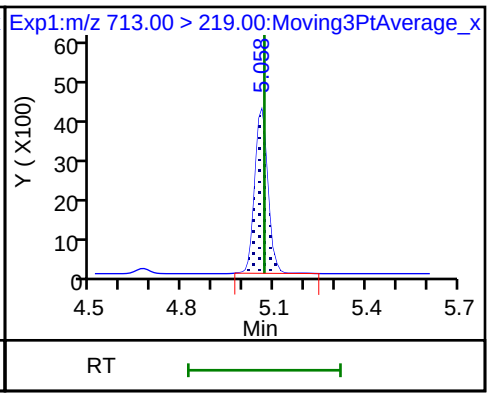
D 43 13C2 PFTeDA



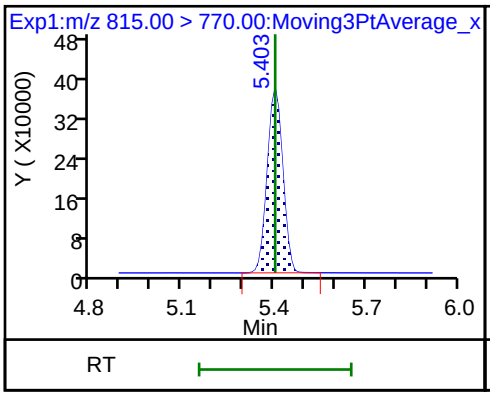
42 Perfluorotetradecanoic acid



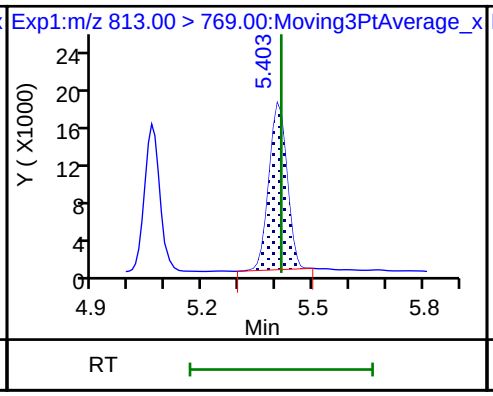
42 Perfluorotetradecanoic acid



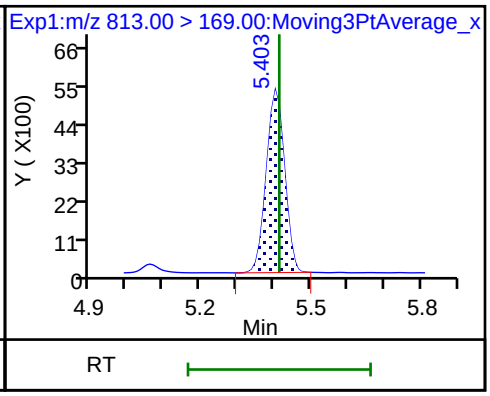
D 44 13C2 PFHxDA



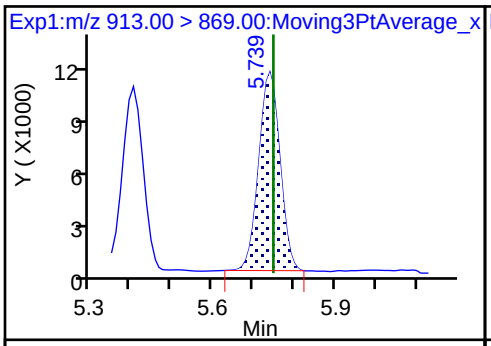
45 Perfluorohexadecanoic acid



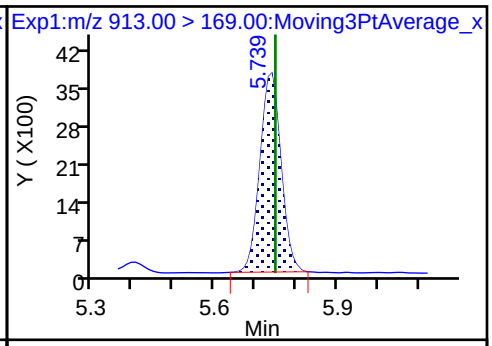
45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

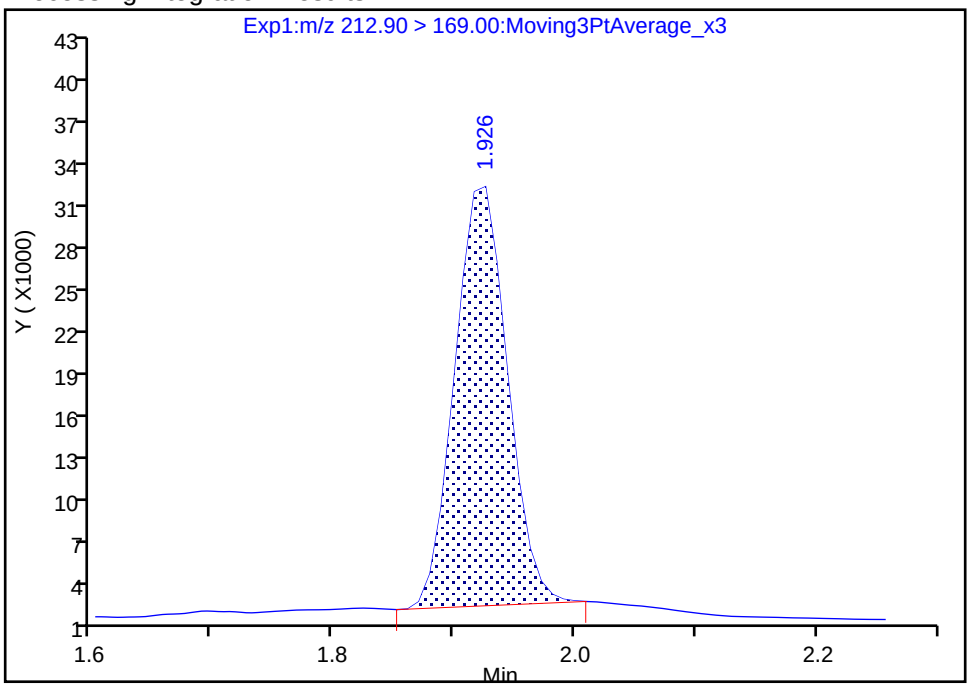
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d				
Injection Date:	06-Dec-2019 14:40:38	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

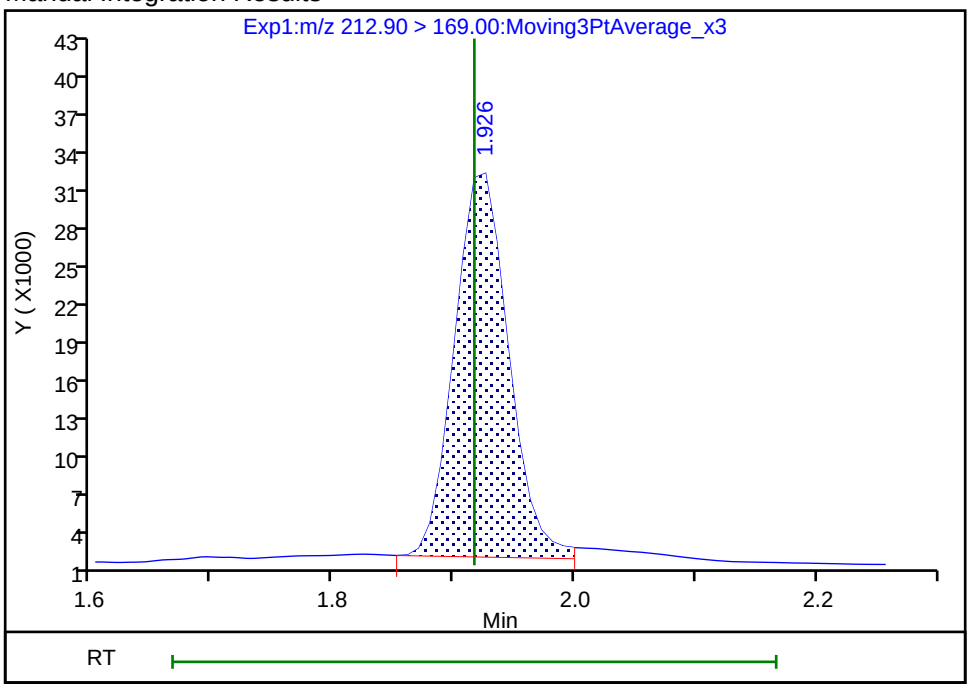
Processing Integration Results

RT: 1.93
Area: 91242
Amount: 0.102089
Amount Units: ng/ml



Manual Integration Results

RT: 1.93
Area: 94789
Amount: 0.107598
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:28:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

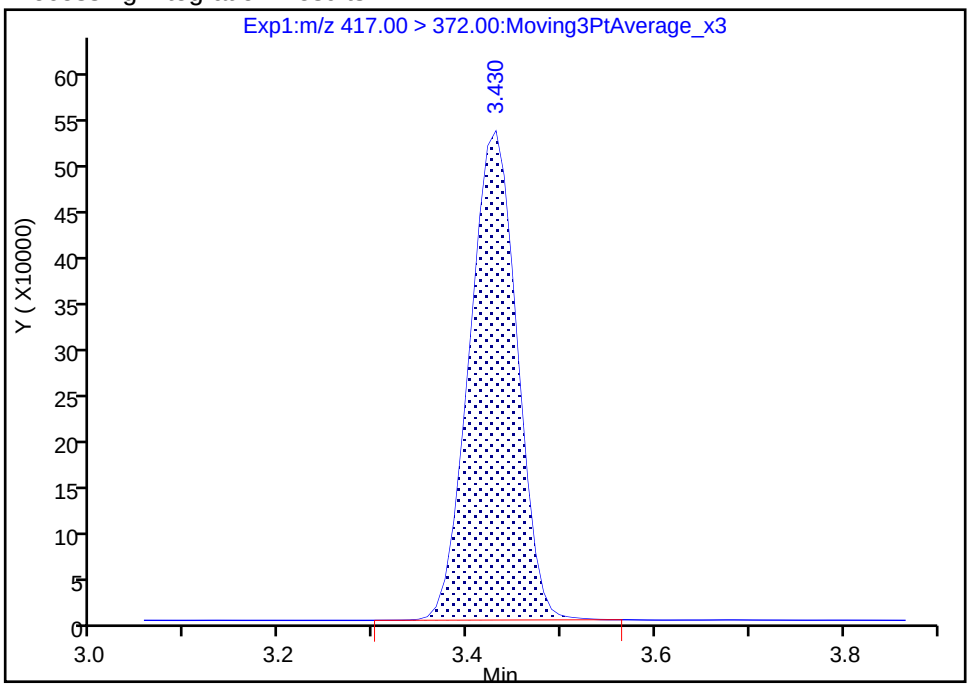
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d				
Injection Date:	06-Dec-2019 14:40:38	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

D 14 13C4 PFOA, CAS: STL00990

Signal: 1

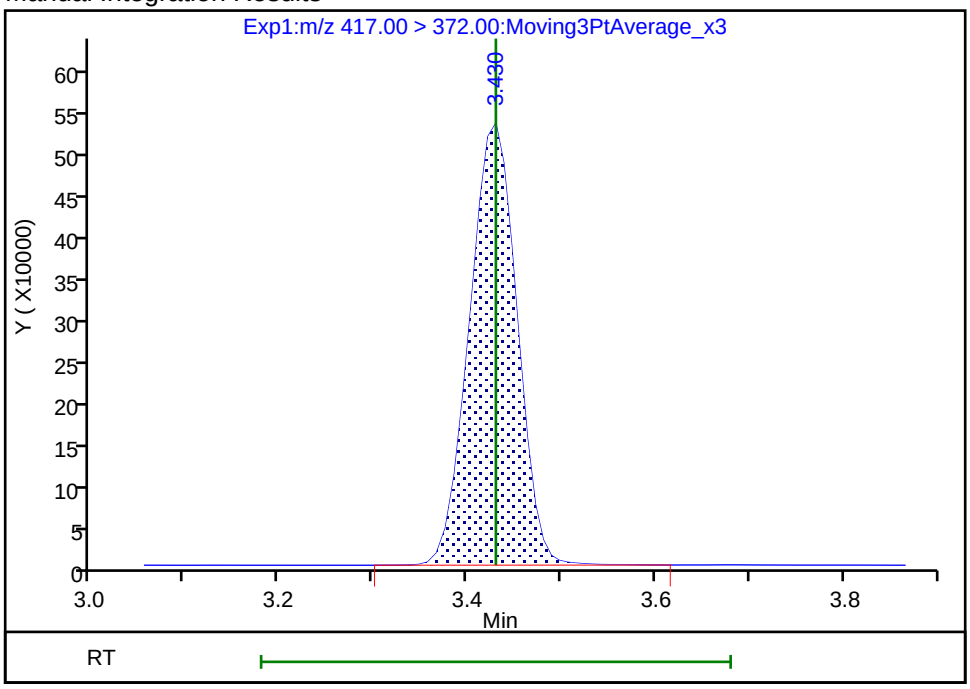
Processing Integration Results

RT: 3.43
Area: 1850104
Amount: 2.122679
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 1854400
Amount: 2.126909
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:45:53
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

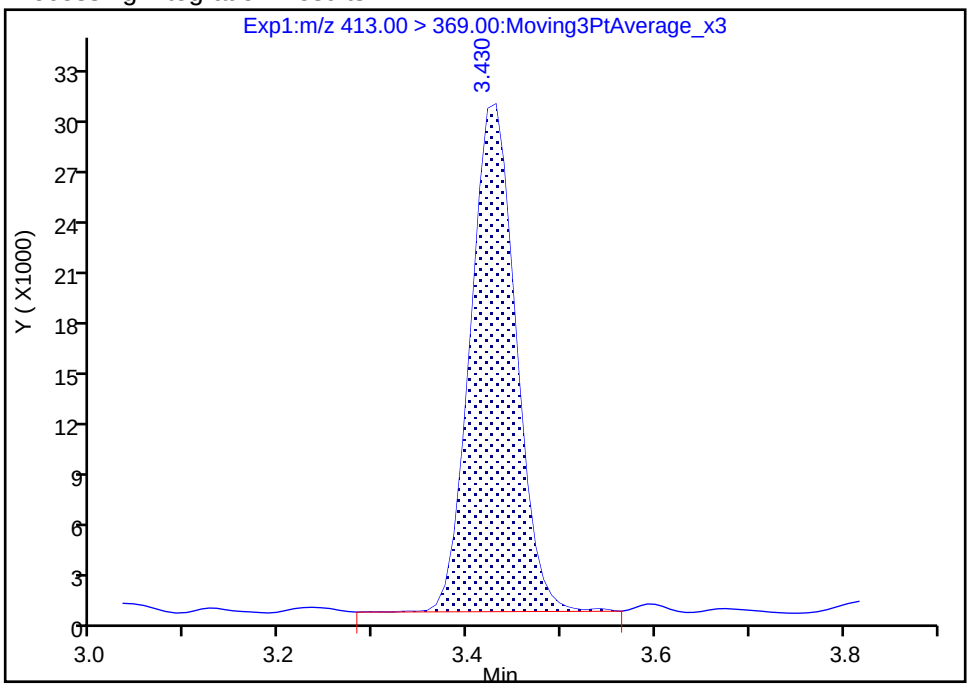
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d				
Injection Date:	06-Dec-2019 14:40:38	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

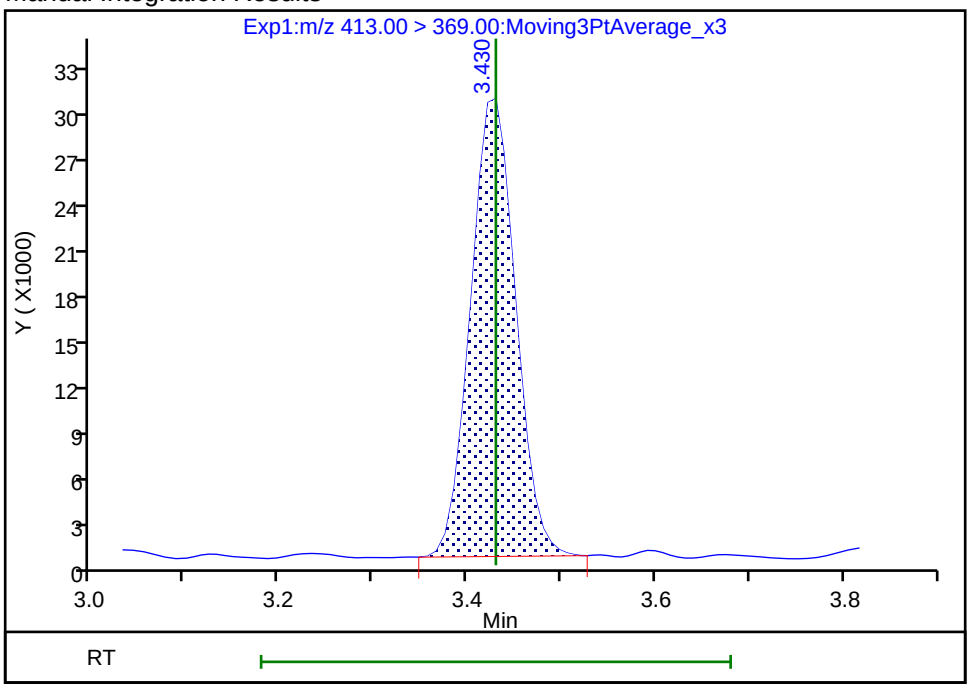
Processing Integration Results

RT: 3.43
Area: 100322
Amount: 0.121688
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 99406
Amount: 0.120785
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:41:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

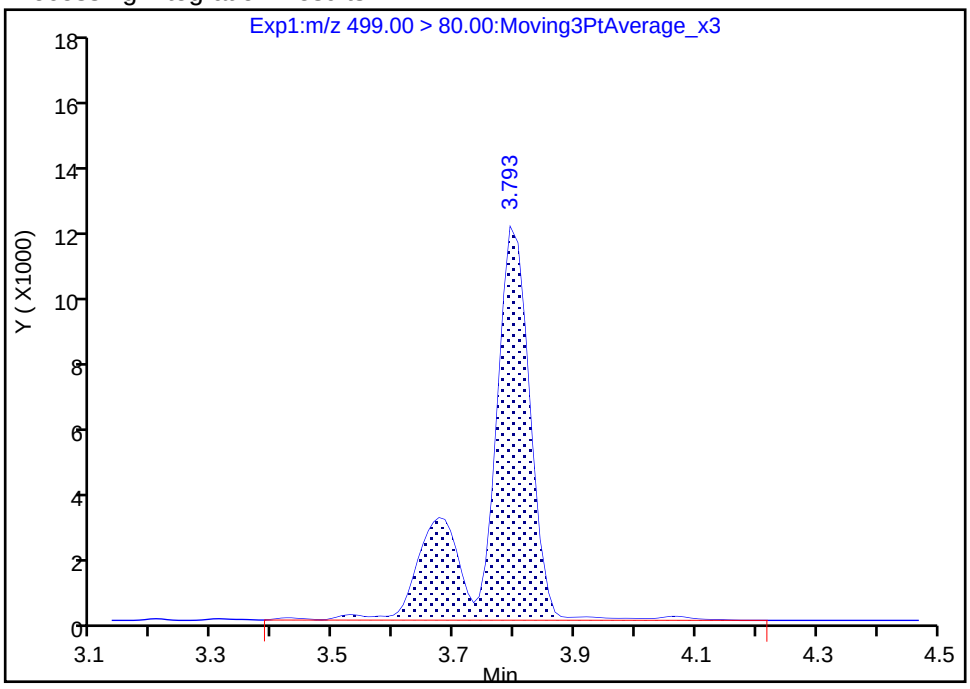
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d				
Injection Date:	06-Dec-2019 14:40:38	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

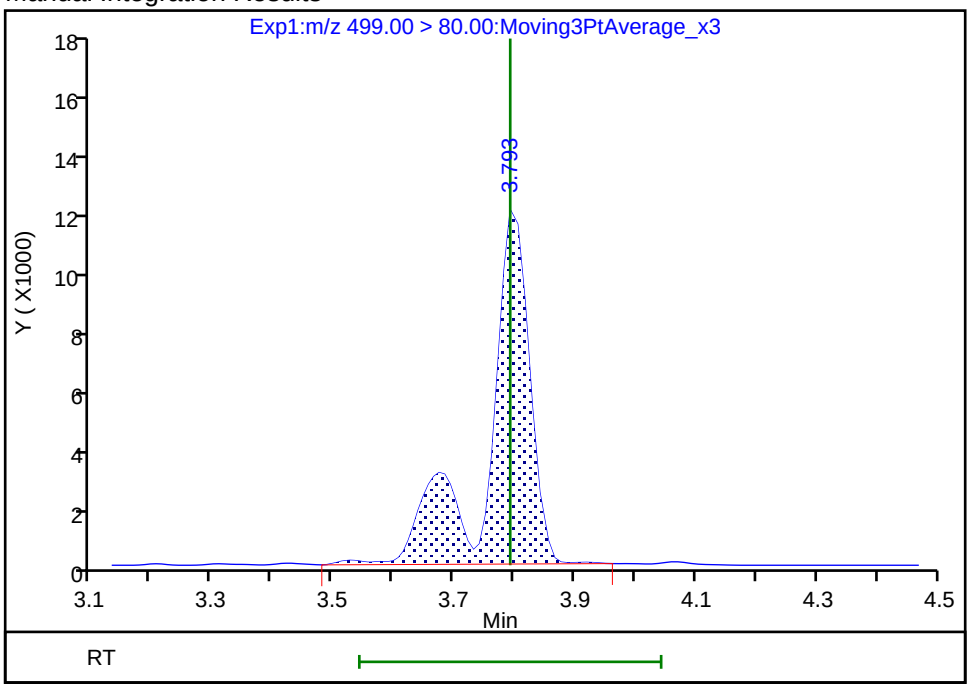
Processing Integration Results

RT: 3.79
Area: 57940
Amount: 0.098146
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 56390
Amount: 0.096454
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:29:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

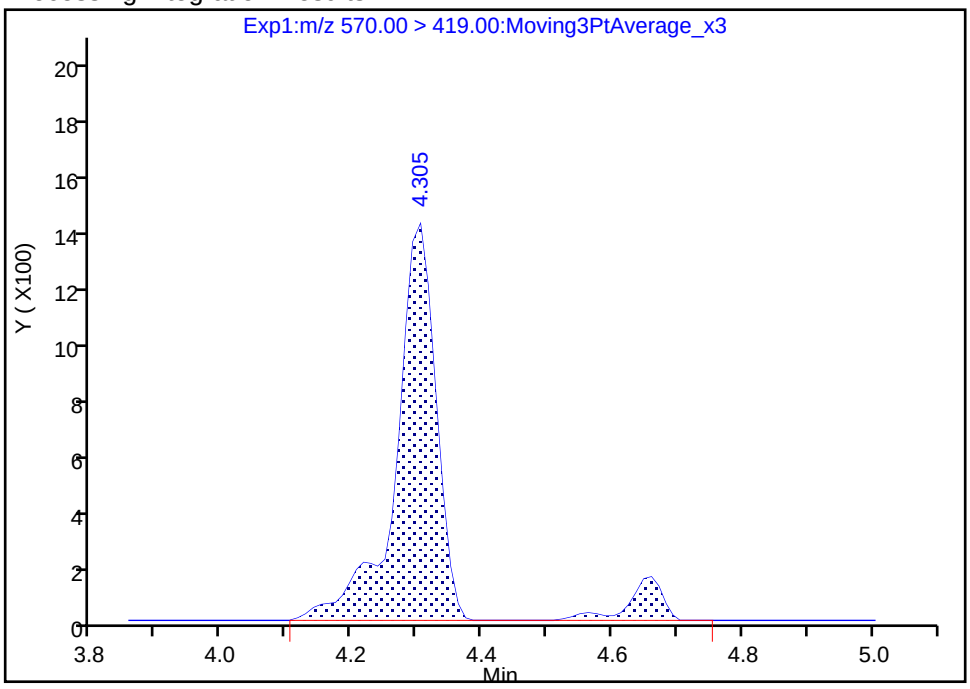
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d				
Injection Date:	06-Dec-2019 14:40:38	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

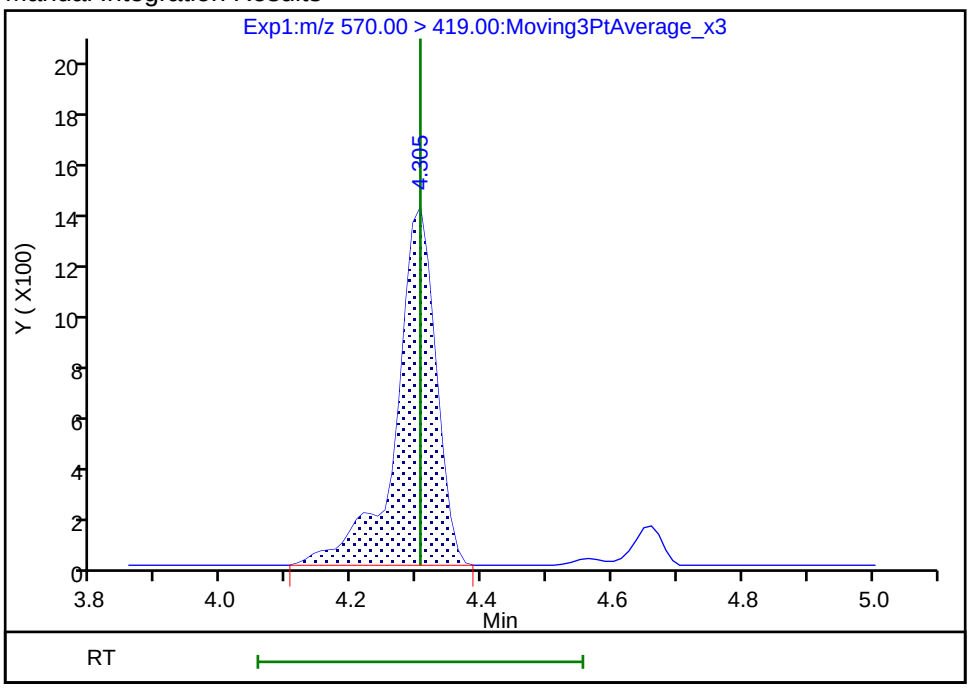
Processing Integration Results

RT: 4.31
Area: 6440
Amount: 0.108150
Amount Units: ng/ml



Manual Integration Results

RT: 4.31
Area: 5895
Amount: 0.102814
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:29:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

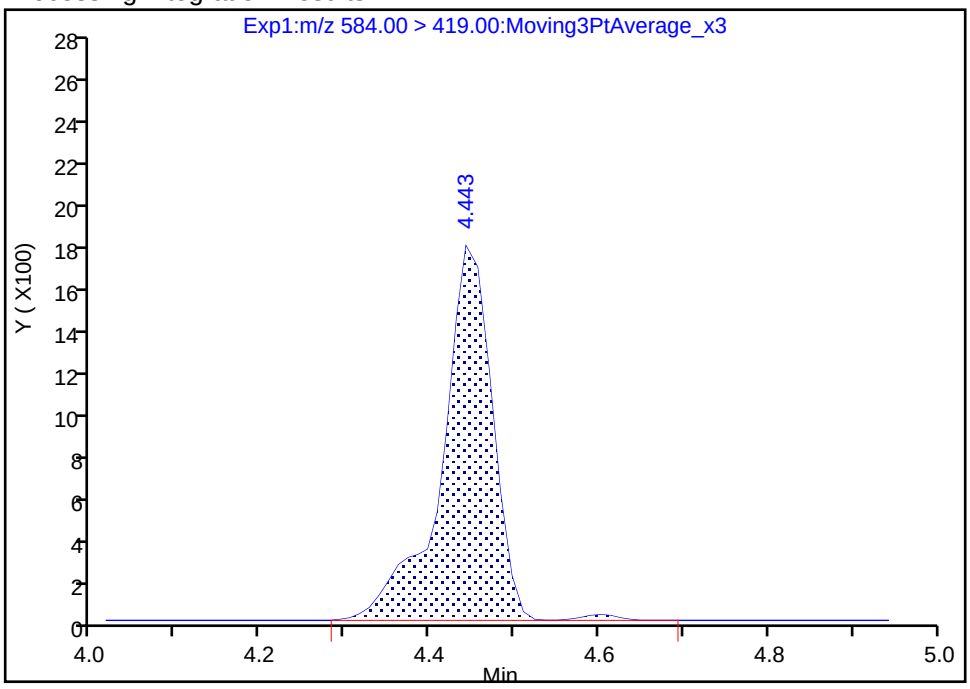
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d				
Injection Date:	06-Dec-2019 14:40:38	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

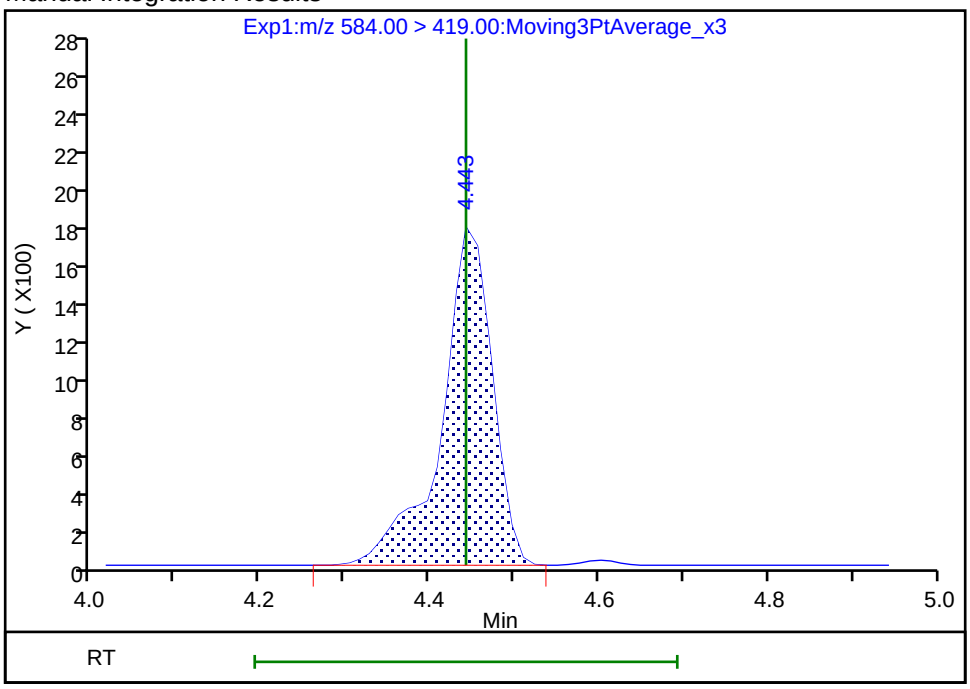
Processing Integration Results

RT: 4.44
Area: 7349
Amount: 0.108764
Amount Units: ng/ml



Manual Integration Results

RT: 4.44
Area: 7276
Amount: 0.111468
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:29:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

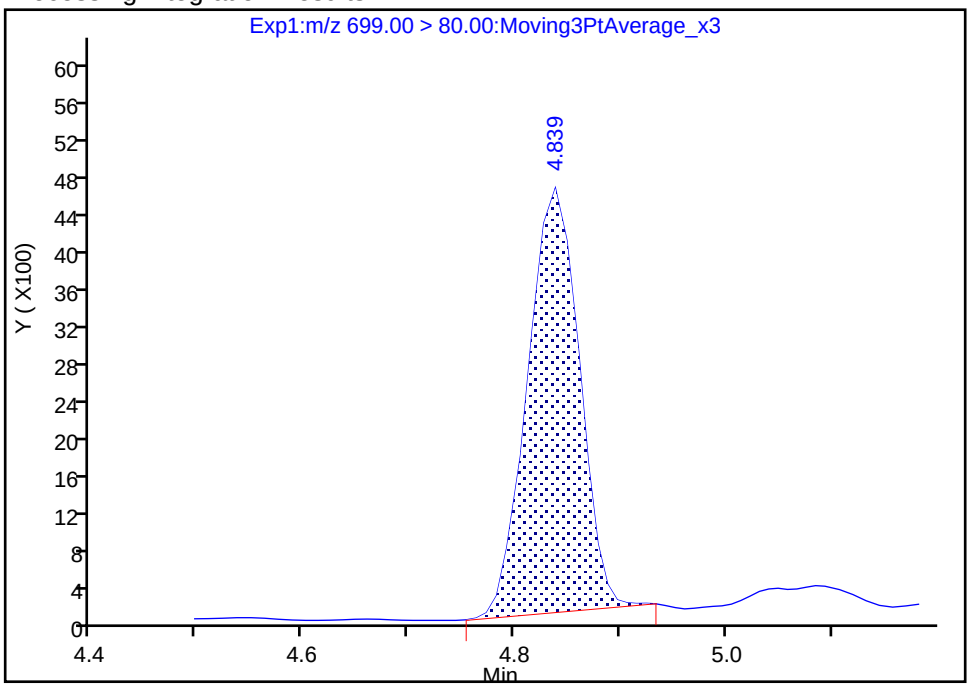
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL006.d				
Injection Date:	06-Dec-2019 14:40:38	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	6
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

75 Perfluorododecanesulfonic acid (PFDoS), CAS: 79780-39-5

Signal: 1

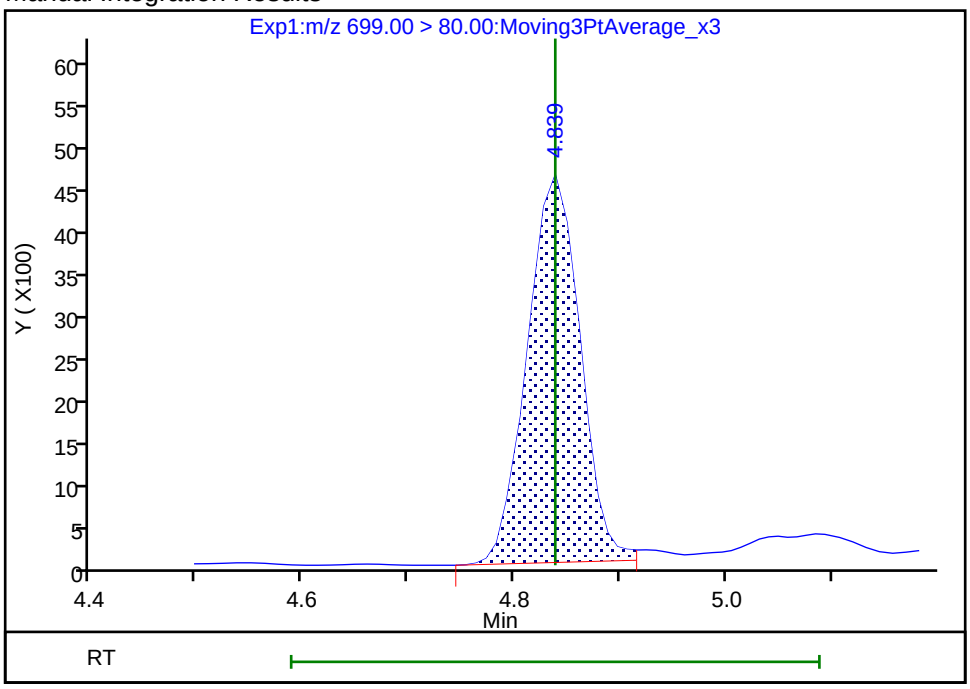
Processing Integration Results

RT: 4.84
Area: 15591
Amount: 0.106245
Amount Units: ng/ml



Manual Integration Results

RT: 4.84
Area: 16050
Amount: 0.108340
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:30:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL007.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 06-Dec-2019 14:48:50 ALS Bottle#: 4 Worklist Smp#: 7
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC 3
Misc. Info.: 200-0039114-007 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 09-Dec-2019 12:10:11 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX0316

First Level Reviewer: chirgwinb Date: 06-Dec-2019 15:31:58
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.926	1.917	0.009	1.000	371453	0.4912		98.2	126	M
D 1 13C4 PFBA										
217.00 > 172.00	1.926	1.917	0.009	0.561	1900105	2.38		95.0	26867	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.284	2.271	0.013	1.006	324223	0.4882		97.6	40.6	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.662	1466250	2.40		95.9	5878	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.298	0.0	0.670	1606325	2.20		94.7	642297	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	321599	0.4283	Target=2.03	96.9	935	
298.90 > 99.00	2.298	2.298	0.0	1.000	167036		1.93(1.01-3.04)	96.9	321	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.623	0.0	1.000	53095	0.4640		99.3	1097	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.623	0.0	0.765	154256	2.27		97.1	320	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.660	0.013	0.875	277882	0.4363	Target=3.08	93.0	1490	
349.00 > 99.00	2.673	2.660	0.013	0.875	98725		2.81(1.54-4.62)	93.0	611	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.660	2.660	0.0	1.000	326930	0.5010	Target=12.44	100	133	
313.00 > 119.00	2.660	2.660	0.0	1.000	26887		12.16(6.22-18.67)	100	71.7	
D 7 13C2 PFHxA										
315.00 > 270.00	2.660	2.660	0.0	0.776	1597923	2.34		93.7	3546	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.784	2.776	0.008	1.000	48707	0.4491		89.8	27.8	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.784	2.776	0.008	0.812	75506	2.54		101	1580	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.044	0.011	0.891	1607290	2.49		99.5	4675	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.044	3.044	0.0	0.996	296847	0.4782	Target=4.13	105	1014	
399.00 > 99.00	3.044	3.044	0.0	0.996	68650		4.32(2.07-6.20)	105	263	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.044	0.011	0.891	1297059	2.25		95.2	5862	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.000	308041	0.4532	Target=3.48	90.6	180	
363.00 > 169.00	3.055	3.055	0.0	1.000	94903		3.25(1.74-5.22)	90.6	374	
77 DONA										
377.00 > 251.00	3.089	3.089	0.0	0.812	737546	0.4656	Target=2.44	98.9	2445	
377.00 > 85.00	3.089	3.089	0.0	0.812	302105		2.44(1.22-3.67)	98.9	993	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.421	3.413	0.008	1.000	41121	0.4396		92.7	551	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.413	3.413	0.0	0.897	249352	0.4540	Target=6.34	95.4	1898	
449.00 > 99.00	3.421	3.413	0.008	0.899	41705		5.98(3.17-9.51)	95.4	561	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.421	3.413	0.008	0.998	235426	2.38		100	909	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.438	3.430	0.008	1.002	357855	0.5054	Target=2.38	101	150	M
413.00 > 169.00	3.430	3.430	0.0	1.000	147739		2.42(1.19-3.57)	101	792	
D 14 13C4 PFOA										
417.00 > 372.00	3.430	3.430	0.0	1.000	1595271	2.33		93.0	3135	
* 62 13C2 PFOA										
415.00 > 370.00	3.430	3.430	0.0		1887522	2.50			3245	
D 18 13C4 PFOS										
503.00 > 80.00	3.805	3.793	0.012	1.109	1071615	2.34		98.1	4702	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.805	3.793	0.012	1.000	205923	0.4254	Target=5.71	91.7	1261	M
499.00 > 99.00	3.805	3.793	0.012	1.000	37265		5.53(2.86-8.57)	91.7	301	M
D 19 13C5 PFNA										
468.00 > 423.00	3.829	3.817	0.012	1.116	1645205	2.61		104	7458	
20 Perfluorononanoic acid										
463.00 > 419.00	3.829	3.817	0.012	1.000	278151	0.4311	Target=6.87	86.2	136	
463.00 > 169.00	3.829	3.817	0.012	1.000	41376		6.72(3.43-10.30)	86.2	651	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.983	3.984	-0.001	1.047	240209	0.4344		93.2	1271	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.128	4.129	-0.001	1.085	189612	0.5119	Target=2.92	107	1779	
549.00 > 99.00	4.128	4.129	-0.001	1.085	63592		2.98(1.46-4.38)	107	434	
D 23 13C2 PFDA										
515.00 > 470.00	4.164	4.153	0.011	1.214	1406212	2.26		90.5	3571	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.164	4.153	0.011	1.000	321619	0.5910	Target=7.21	118	378	
513.00 > 169.00	4.164	4.153	0.011	1.000	41741		7.71(3.60-10.81)	118	329	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.174	4.164	0.010	1.217	265467	2.25		94.0	1068	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.164	4.164	0.0	0.997	24605	0.4809		100	497	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.251	4.239	0.012	1.000	397290	0.4854		97.1	3216	
D 21 13C8 FOSA										
506.00 > 78.00	4.251	4.239	0.012	1.239	2056323	2.53		101	4685	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.317	4.305	0.012	1.003	24203	0.5409		108	207	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.305	4.305	0.0	1.255	128732	2.15		86.0	1155	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.409	4.409	0.0	1.159	146267	0.4534	Target=2.78	94.1	1239	
599.00 > 99.00	4.409	4.409	0.0	1.159	58238		2.51(1.39-4.17)	94.1	752	
D 30 13C2 PFUnA										
565.00 > 520.00	4.431	4.431	0.0	1.292	1217793	2.30		92.2	3484	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.431	4.431	0.0	1.000	207593	0.5026	Target=5.47	101	245	
563.00 > 169.00	4.431	4.431	0.0	1.000	38439		5.40(2.73-8.20)	101	754	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.456	4.442	0.014	1.003	24100	0.4706		94.1	244	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.442	4.442	0.0	1.295	154687	2.33		93.2	1229	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.537	4.523	0.014	1.192	222991	0.4277		90.8	1659	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.671	4.671	0.0	1.000	241313	0.4828	Target=4.84	96.6	56.3	
613.00 > 169.00	4.671	4.671	0.0	1.000	52998		4.55(2.42-7.26)	96.6	676	
D 36 13C2 PFDoA										
615.00 > 570.00	4.671	4.671	0.0	1.362	1352357	2.33		93.3	6505	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.693	4.683	0.010	1.124	16244	0.5001		104	518	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.849	4.838	0.011	1.275	59189	0.4826	Target=0.47	99.7	167	
699.00 > 99.00	4.838	4.838	0.0	1.272	120754		0.49(0.23-0.70)	99.7	1703	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.879	4.879	0.0	1.044	238583	0.5024	Target=3.74	100	64.3	
663.00 > 169.00	4.879	4.879	0.0	1.044	59970		3.98(1.87-5.62)	100	762	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.067	5.058	0.009	1.477	1167458	2.40		96.1	9253	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.067	5.067	0.0	1.000	46717	0.4980	Target=1.01	99.6	647	
713.00 > 219.00	5.058	5.067	-0.009	0.998	41390		1.13(0.50-1.51)	99.6	574	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.413	5.403	0.011	1.578	1067641	2.39		95.6	4187	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.413	5.413	0.0	1.000	198924	0.4978	Target=3.04	99.6	52.4	
813.00 > 169.00	5.413	5.413	0.0	1.000	67315		2.96(1.52-4.56)	99.6	711	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.747	5.747	0.0	1.062	147233	0.4773	Target=2.88	95.5	65.6	
913.00 > 169.00	5.747	5.747	0.0	1.062	50854		2.90(1.44-4.32)	95.5	641	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC3_00003 Amount Added: 100.00 Units: uL

Report Date: 09-Dec-2019 12:10:11 Chrom Revision: 2.3 17-Oct-2019 22:00:42

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL007.d

Injection Date: 06-Dec-2019 14:48:50 Instrument ID: LC812

Lims ID: IC

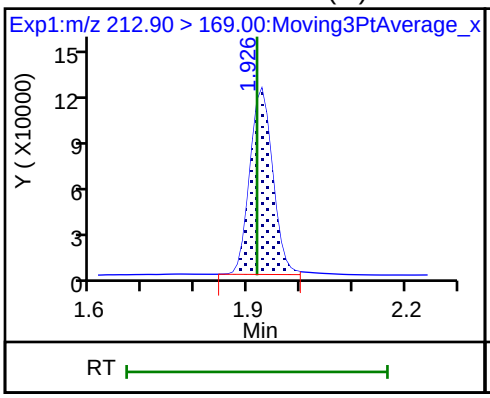
Client ID:

Operator ID: lc812tech ALS Bottle#: 4 Worklist Smp#: 7

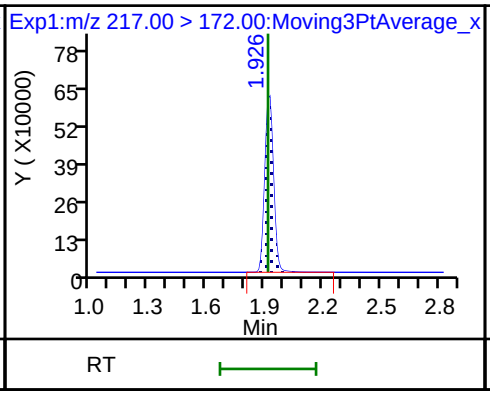
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

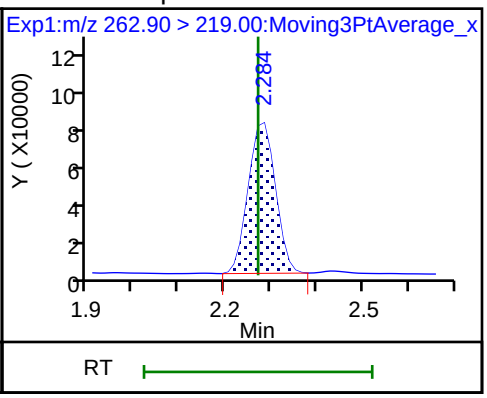
2 Perfluorobutanoic acid (M)



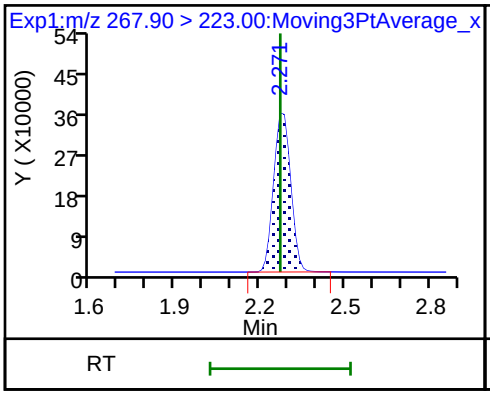
D 1 13C4 PFBA



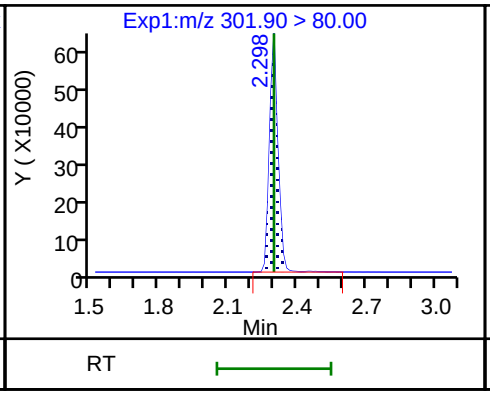
4 Perfluoropentanoic acid



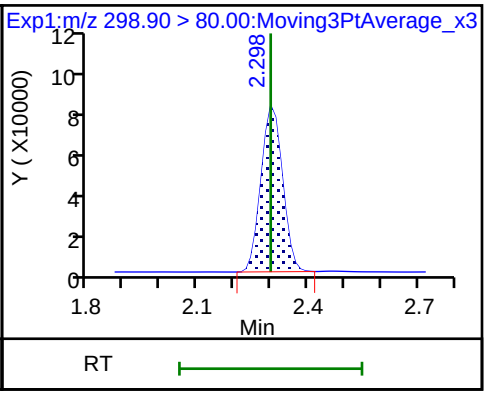
D 3 13C5 PFPeA



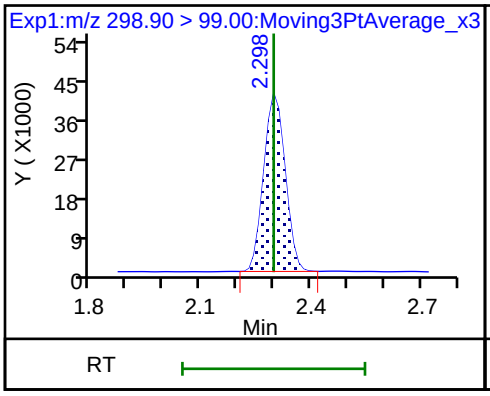
D 47 13C3 PFBS



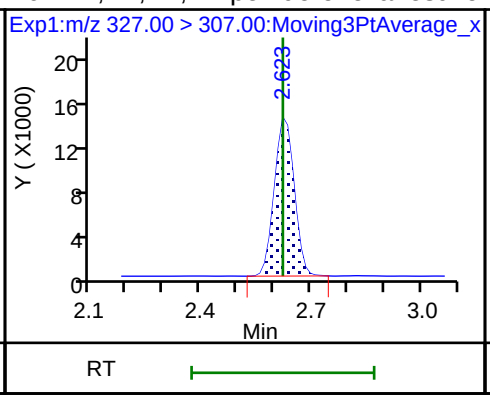
5 Perfluorobutanesulfonic acid



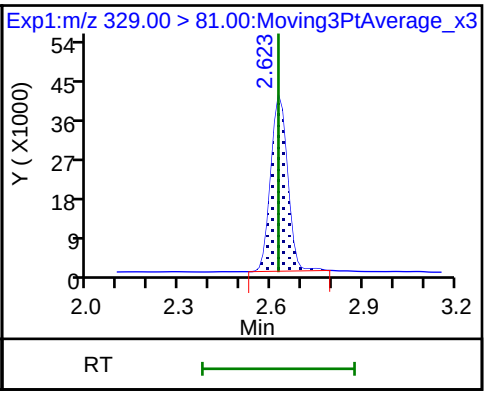
5 Perfluorobutanesulfonic acid



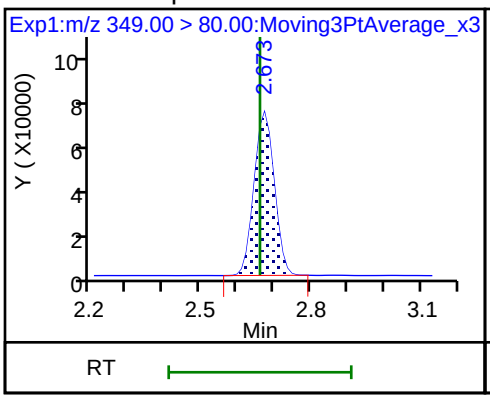
61 1H,1H,2H,2H-perfluorohexanesulfon



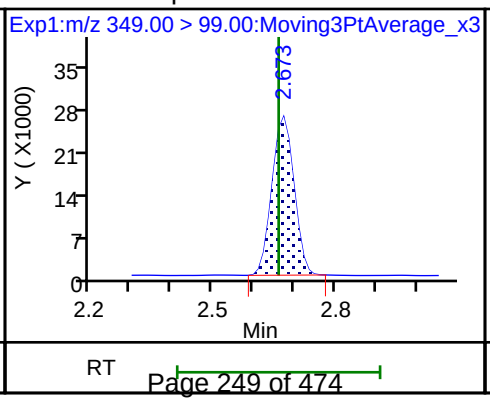
D 60 M2-4:2 FTS



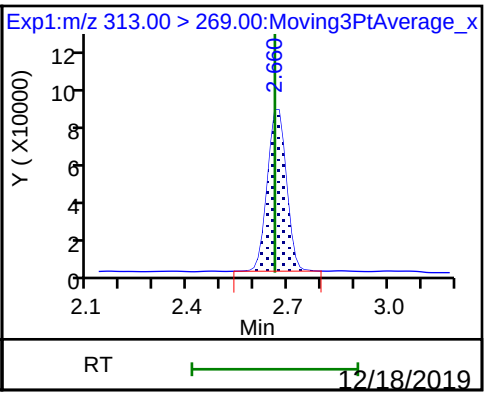
70 Perfluoropentanesulfonic acid



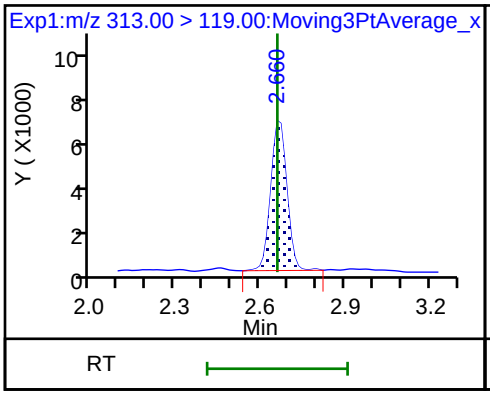
70 Perfluoropentanesulfonic acid



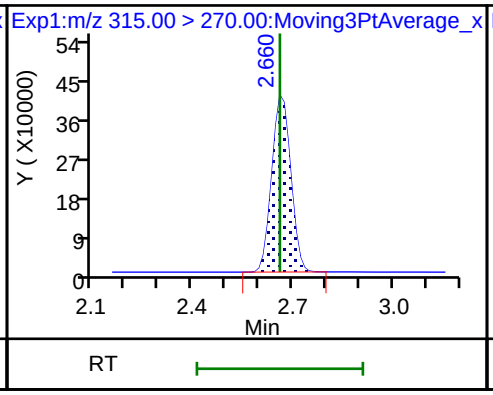
6 Perfluorohexanoic acid



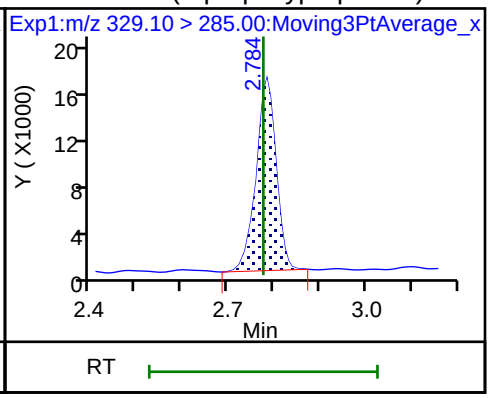
6 Perfluorohexanoic acid



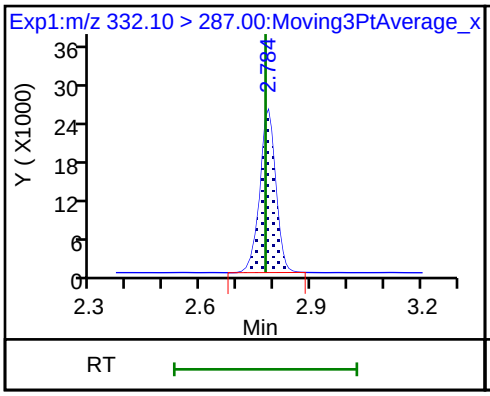
D 7 13C2 PFHxA



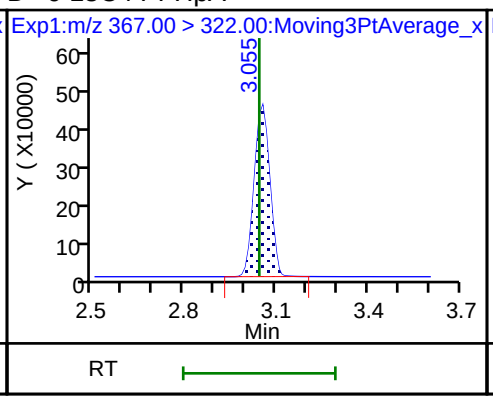
67 Perfluoro(2-propoxypropanoic) acid



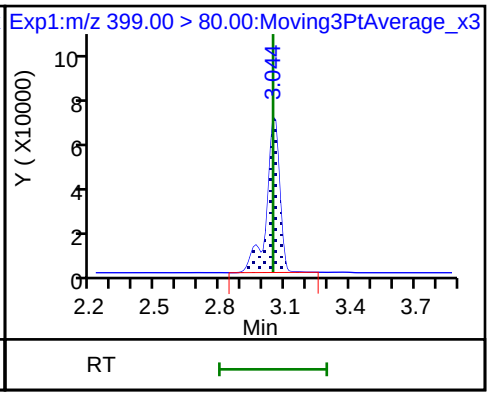
D 64 13C3 HFPO-DA



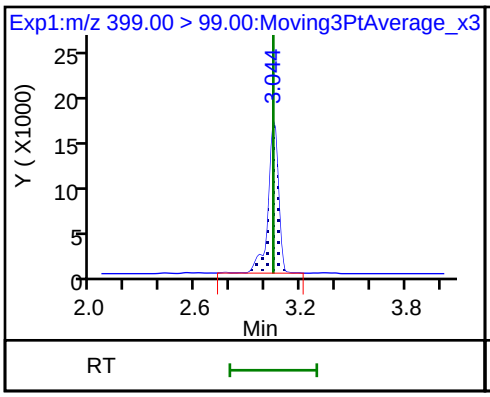
D 9 13C4 PFHpA



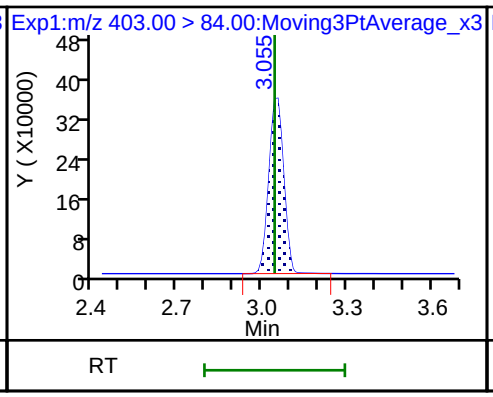
8 Perfluorohexanesulfonic acid



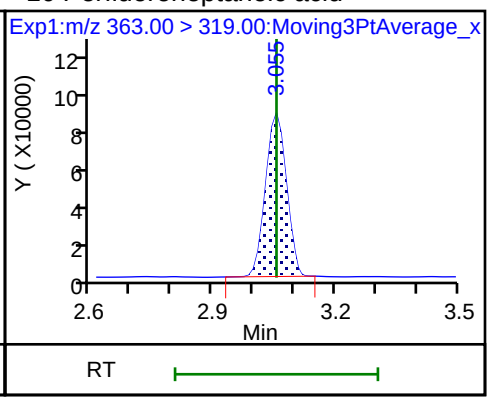
8 Perfluorohexanesulfonic acid



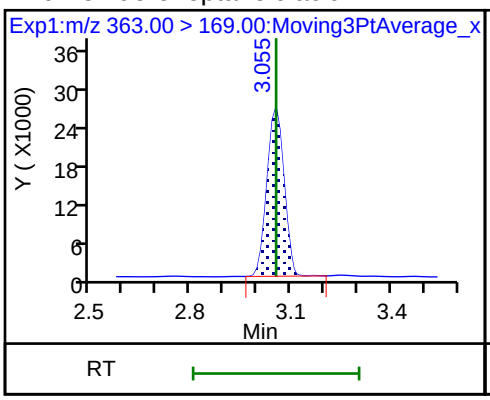
D 11 18O2 PFHxS



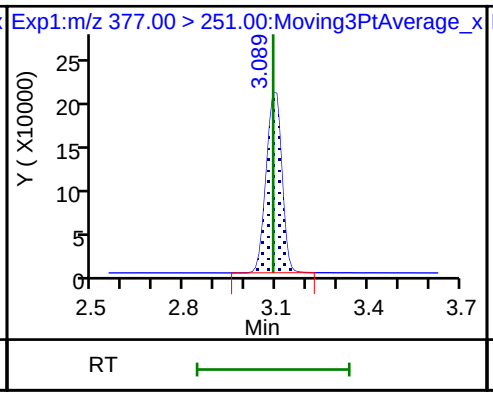
10 Perfluoroheptanoic acid



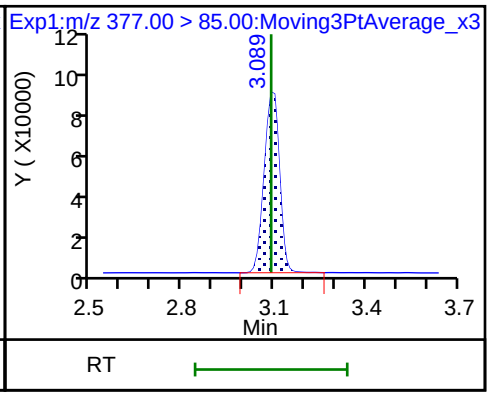
10 Perfluoroheptanoic acid



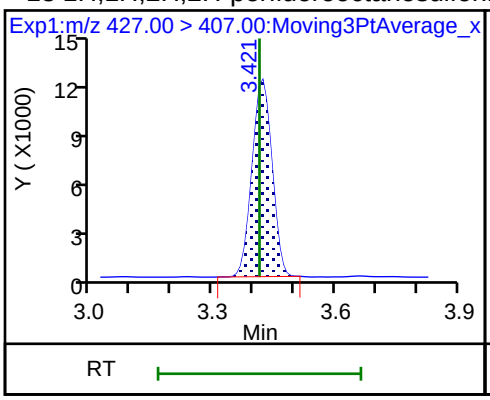
77 DONA



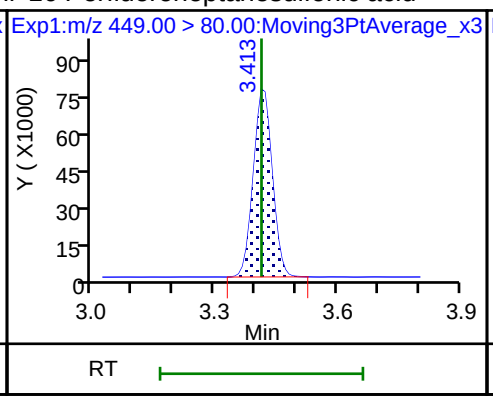
77 DONA



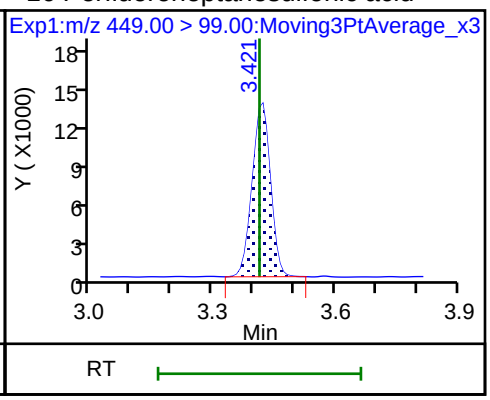
13 1H,1H,2H,2H-perfluorooctanesulfoni



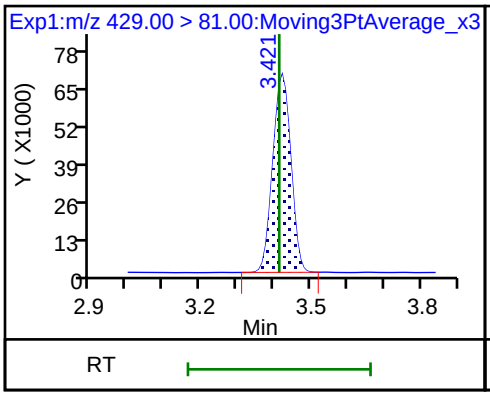
16 Perfluoroheptanesulfonic acid



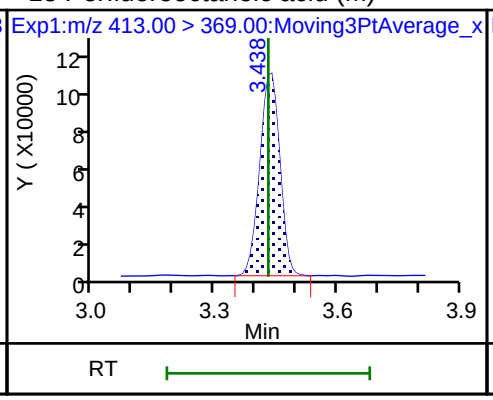
16 Perfluoroheptanesulfonic acid



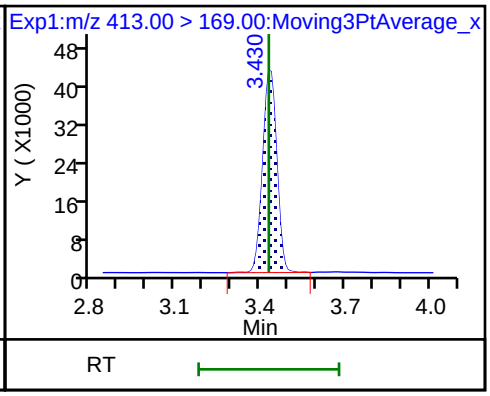
D 12 M2-6:2 FTS



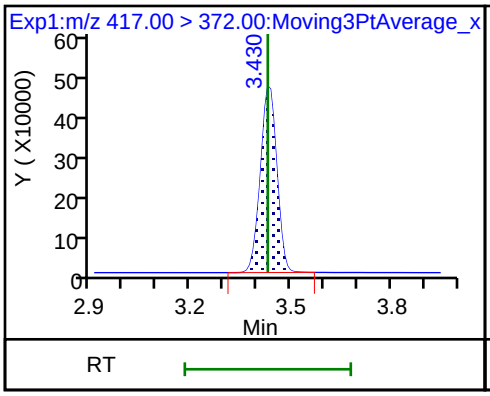
15 Perfluorooctanoic acid (M)



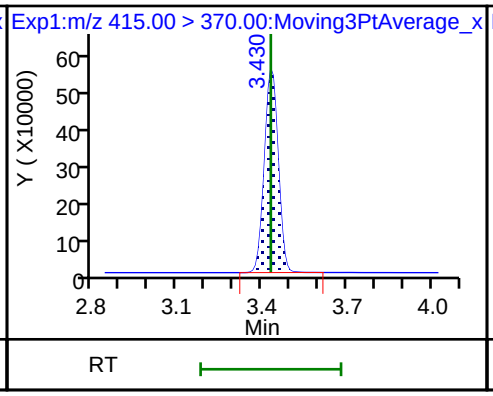
15 Perfluorooctanoic acid



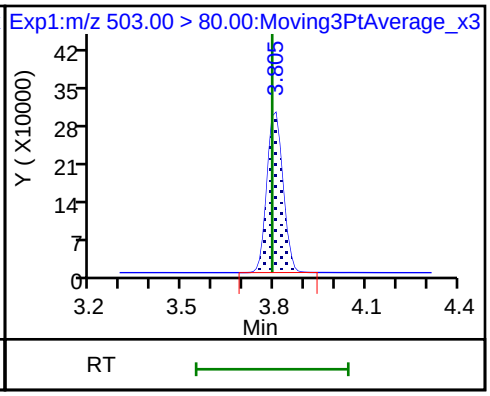
D 14 13C4 PFOA



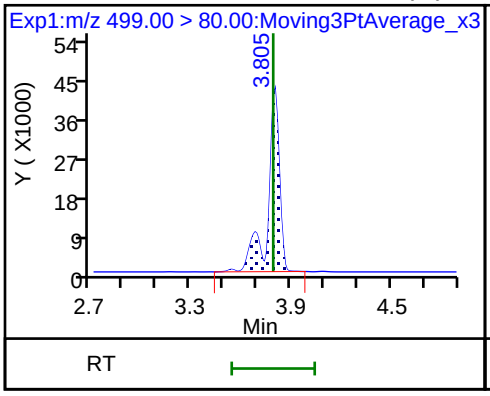
* 62 13C2 PFOA



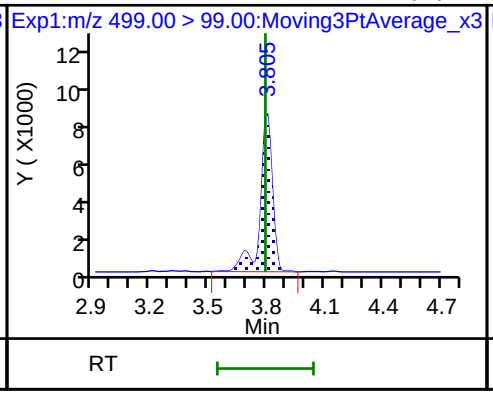
D 18 13C4 PFOS



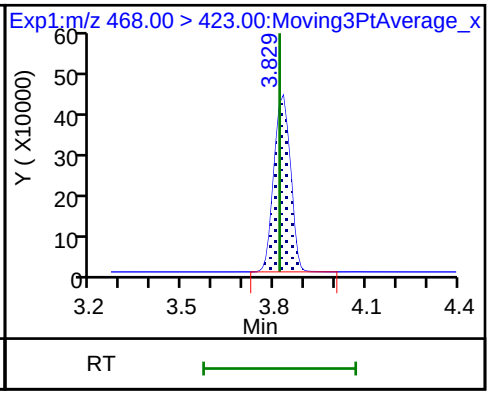
17 Perfluorooctanesulfonic acid (M)



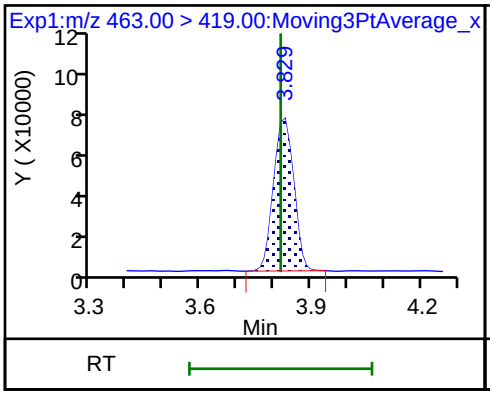
17 Perfluorooctanesulfonic acid (M)



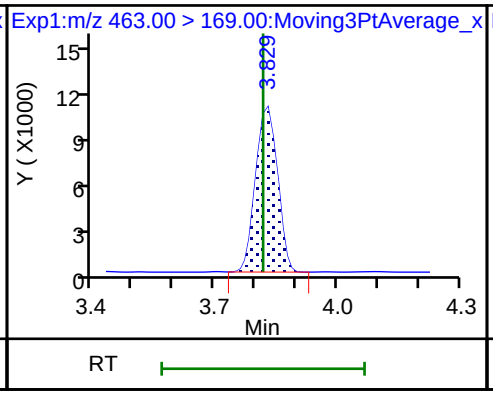
D 19 13C5 PFNA



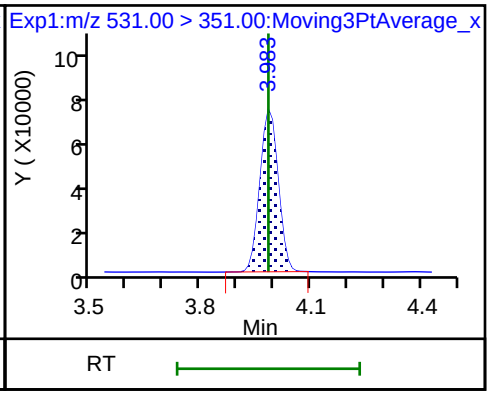
20 Perfluorononanoic acid



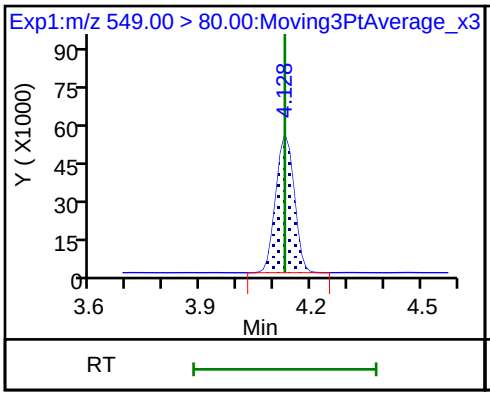
20 Perfluorononanoic acid



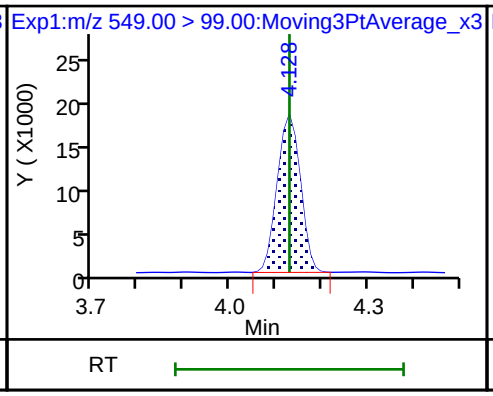
69 9-Chlorohexadecafluoro-3-oxanonane



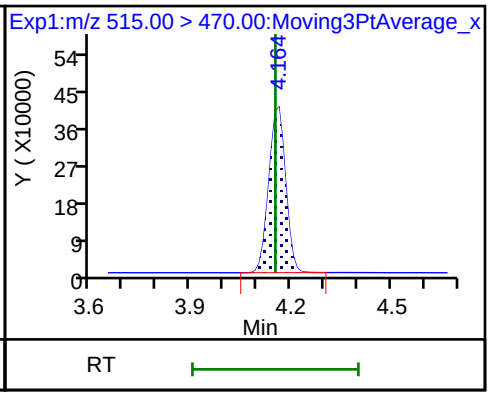
68 Perfluorononanesulfonic acid



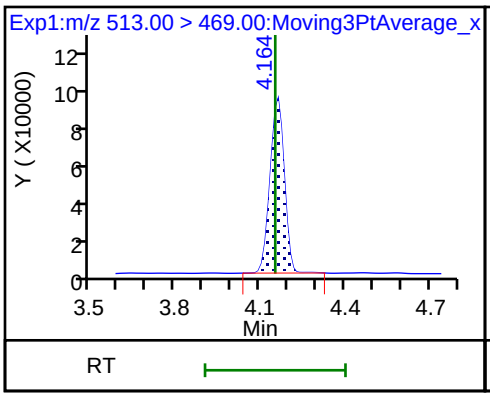
68 Perfluorononanesulfonic acid



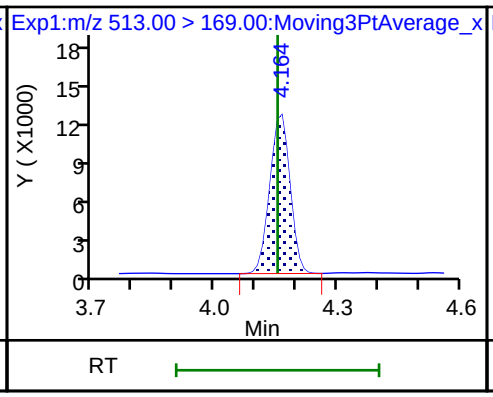
D 23 13C2 PFDA



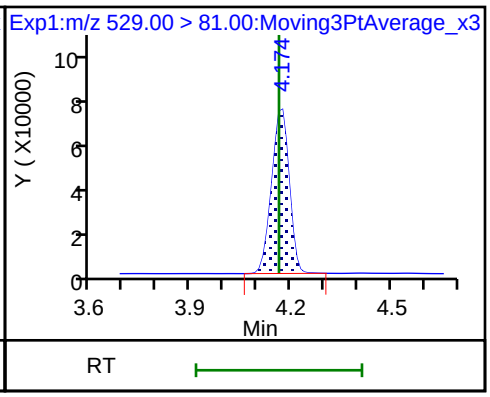
24 Perfluorodecanoic acid



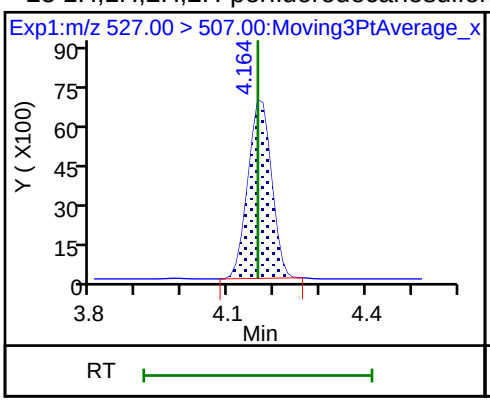
24 Perfluorodecanoic acid



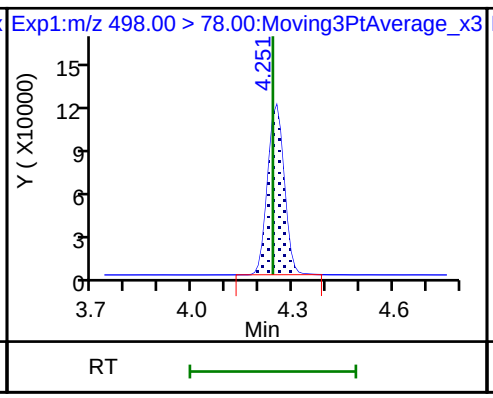
D 26 M2-8:2 FTS



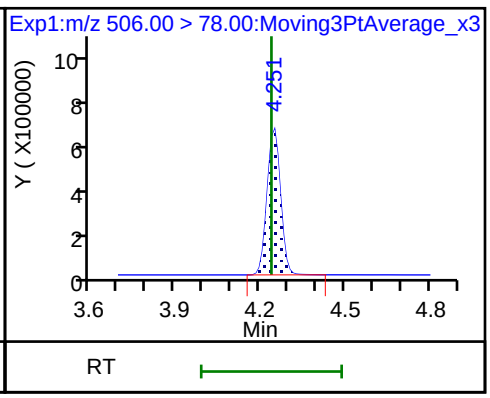
25 1H,1H,2H,2H-perfluorodecanesulfoni



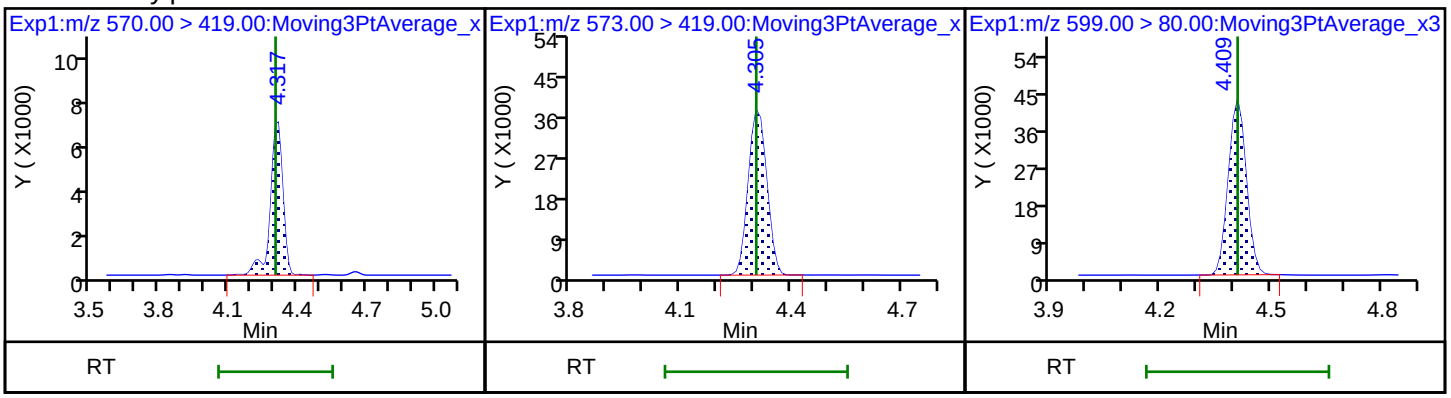
22 Perfluorooctanesulfonamide



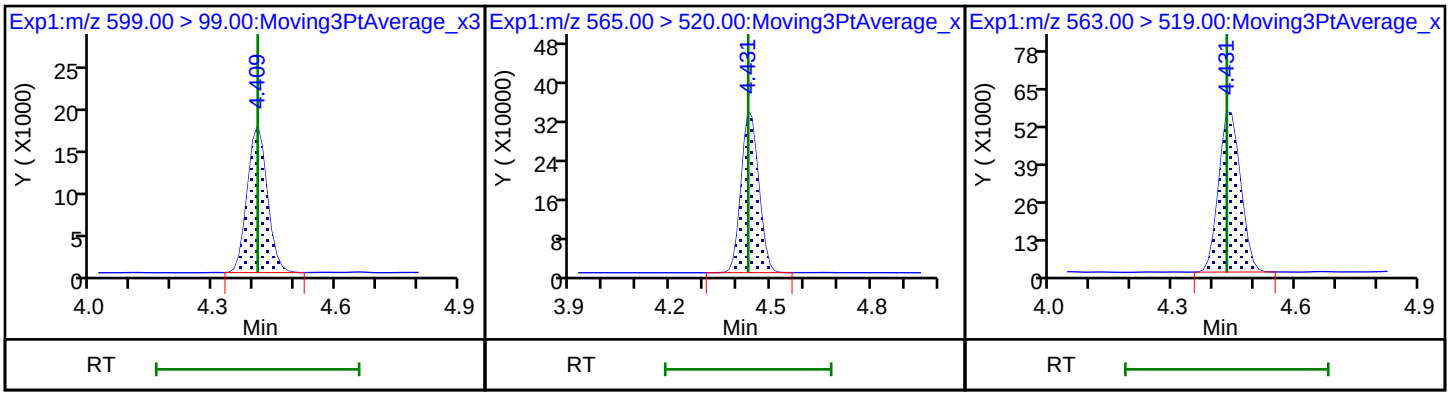
D 21 13C8 FOSA



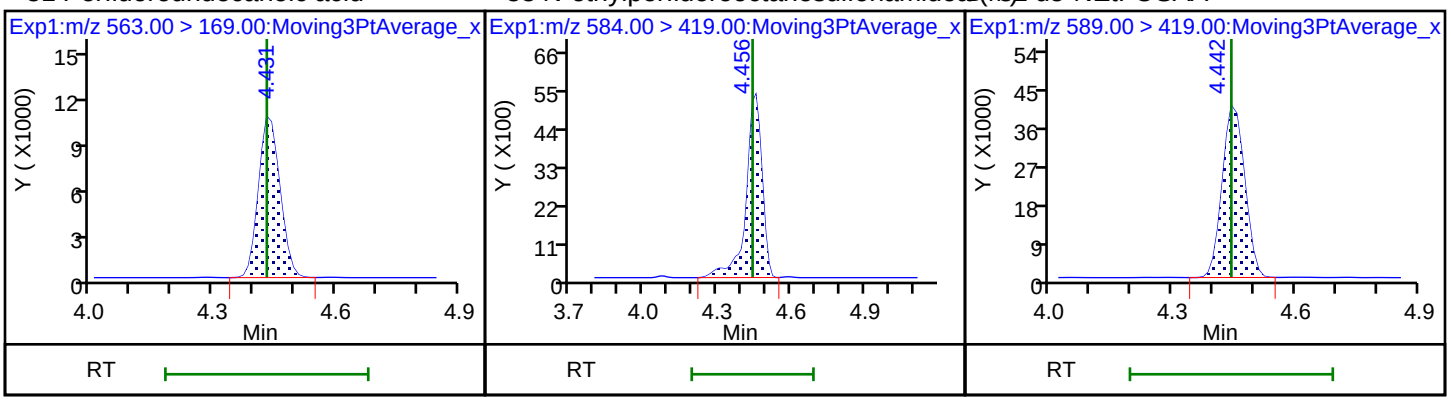
28 N-methylperfluorooctanesulfonamidoD 27 d3-NMeFOSAA 29 Perfluorodecanesulfonic acid



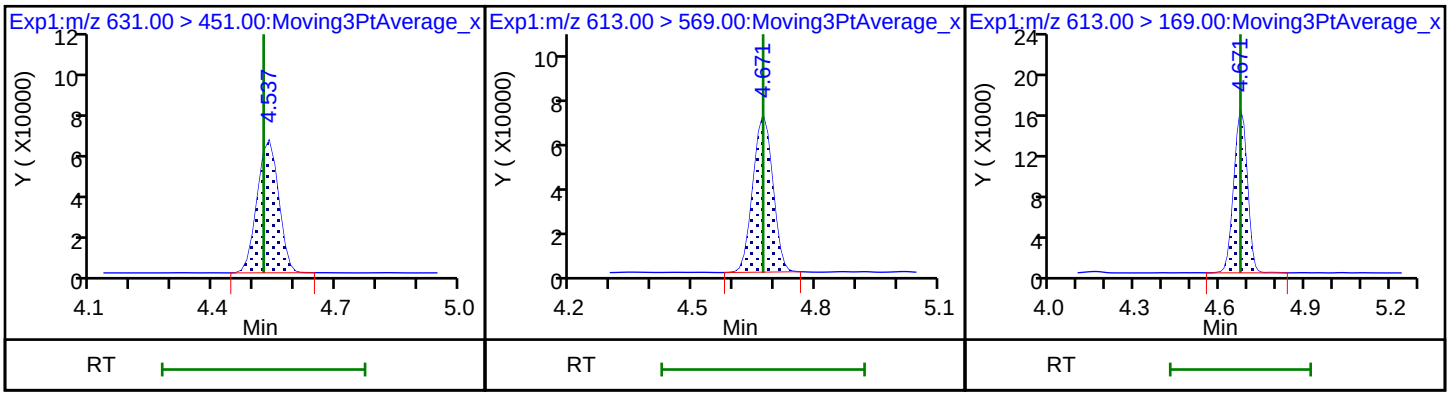
29 Perfluorodecanesulfonic acid D 30 13C2 PFUnA 31 Perfluoroundecanoic acid



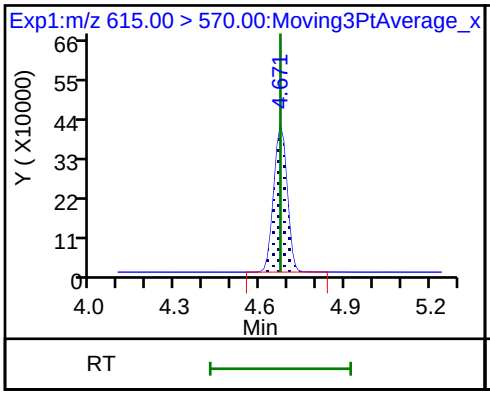
31 Perfluoroundecanoic acid 33 N-ethylperfluorooctanesulfonamidoaD (M)2 d5-NEtFOSAA



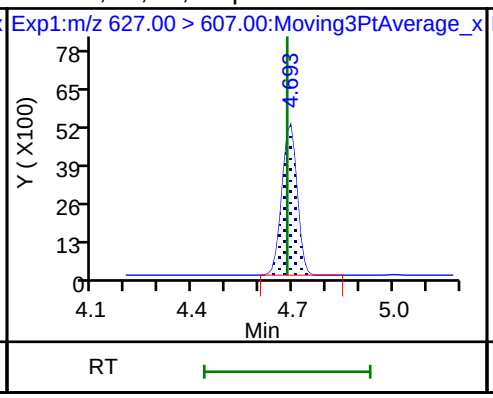
66 11-Chloroeicosafluoro-3-oxaundecan 37 Perfluorododecanoic acid 37 Perfluorododecanoic acid



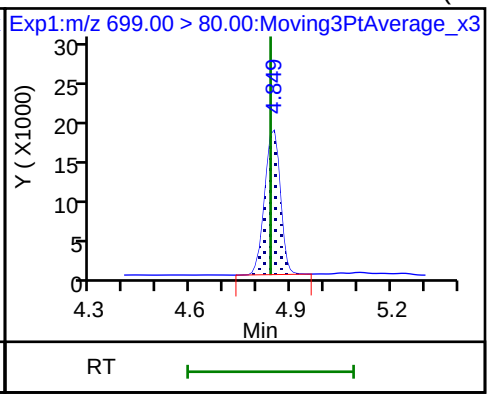
D 36 13C2 PFDoA



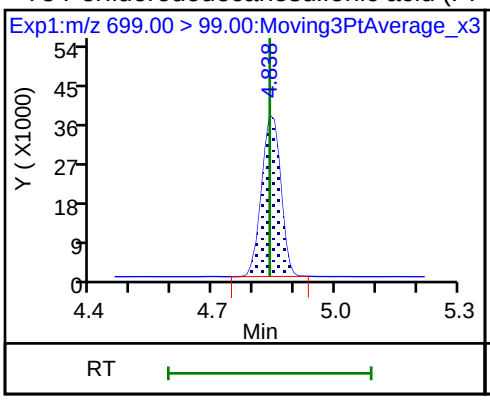
74 1H,1H,2H,2H-perfluorododecanesulfo



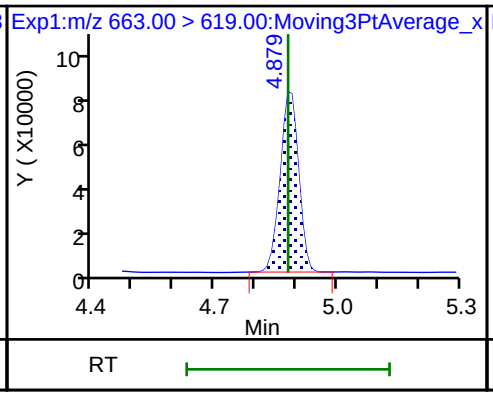
75 Perfluorododecanesulfonic acid (PF



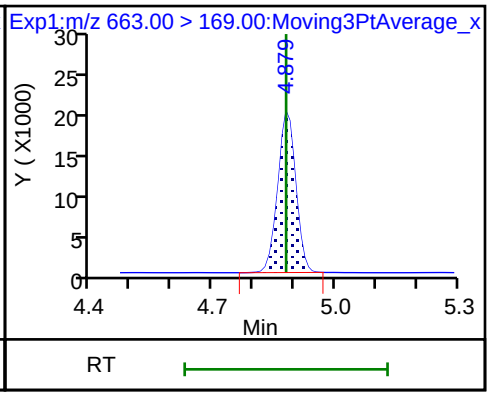
75 Perfluorododecanesulfonic acid (PF



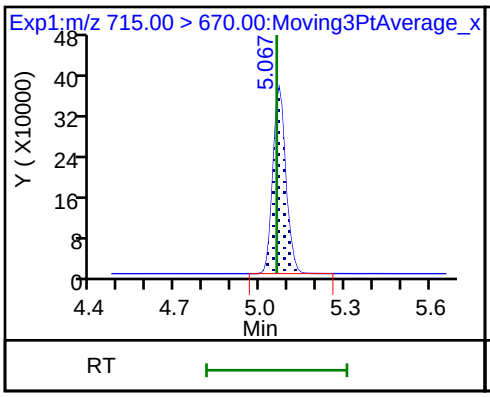
41 Perfluorotridecanoic acid



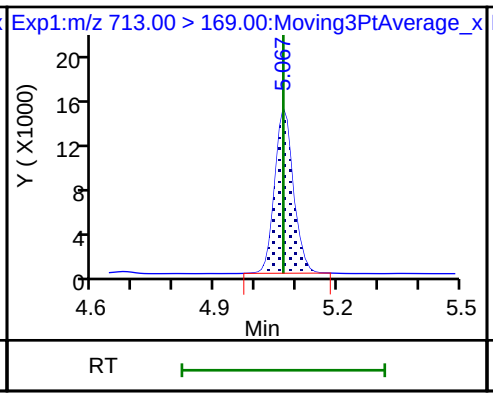
41 Perfluorotridecanoic acid



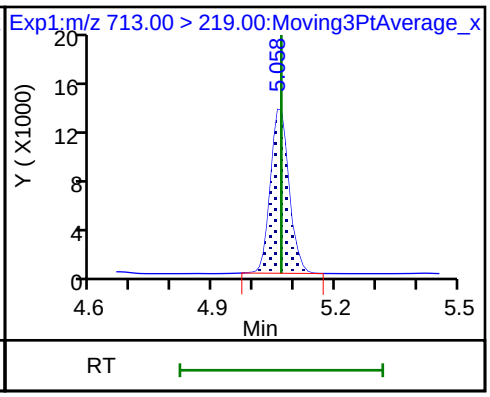
D 43 13C2 PFTeDA



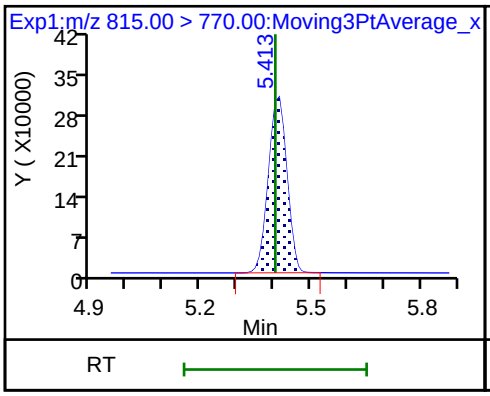
42 Perfluorotetradecanoic acid



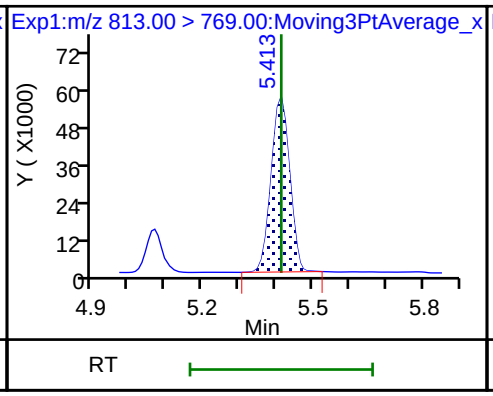
42 Perfluorotetradecanoic acid



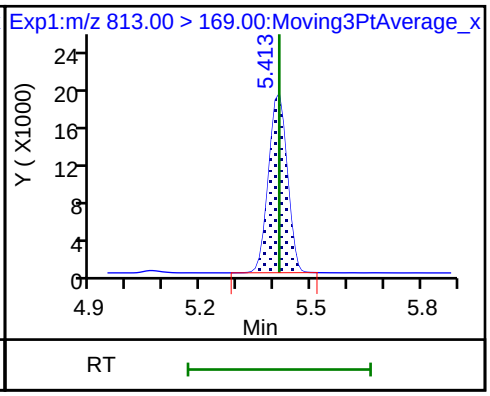
D 44 13C2 PFHxDA



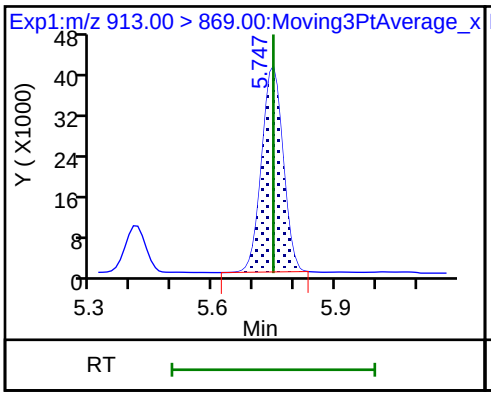
45 Perfluorohexadecanoic acid



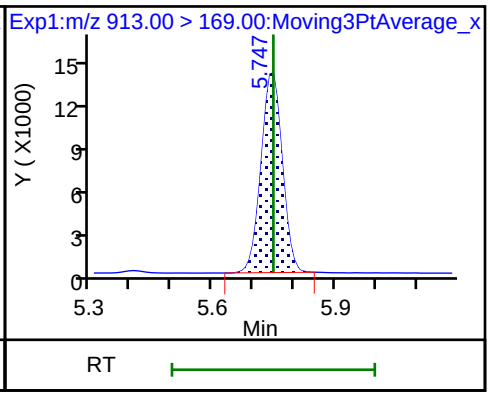
45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

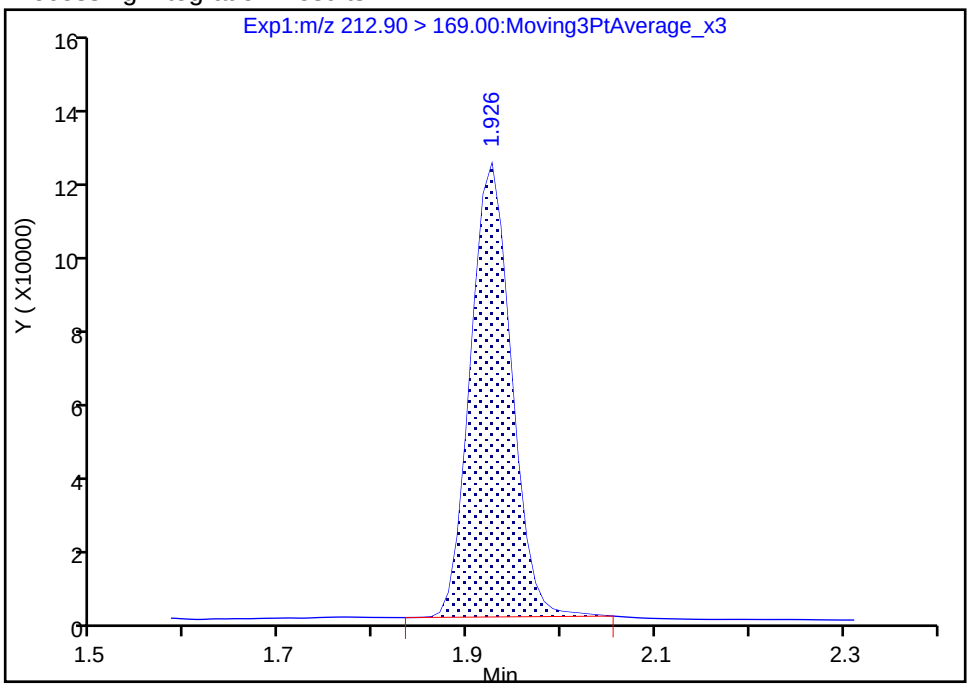
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL007.d				
Injection Date:	06-Dec-2019 14:48:50	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	4	Worklist Smp#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

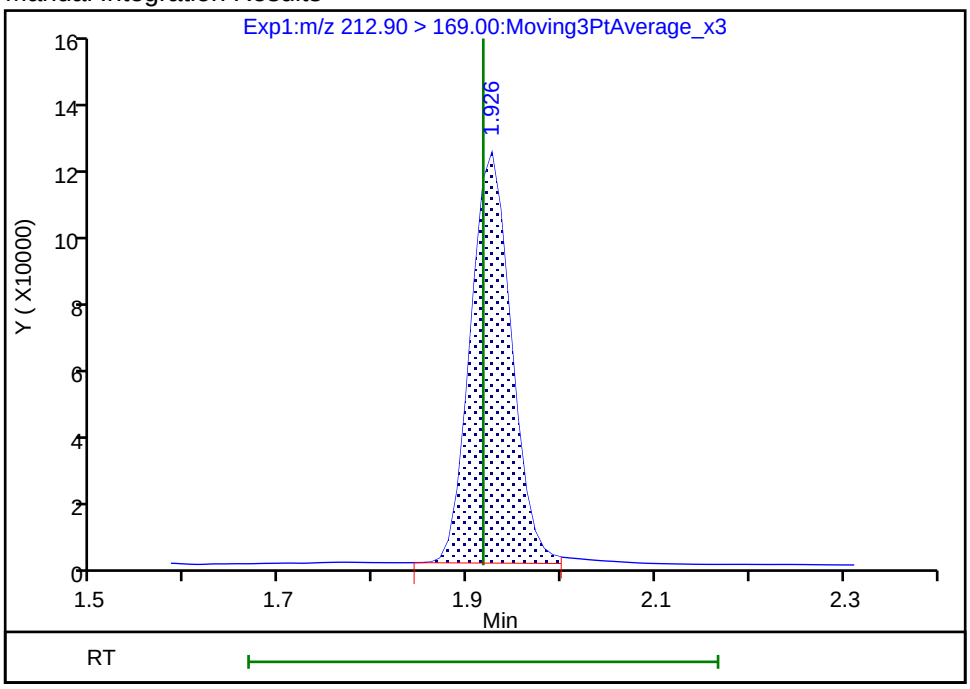
Processing Integration Results

RT: 1.93
Area: 371034
Amount: 0.478895
Amount Units: ng/ml



Manual Integration Results

RT: 1.93
Area: 371453
Amount: 0.491227
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:30:54
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

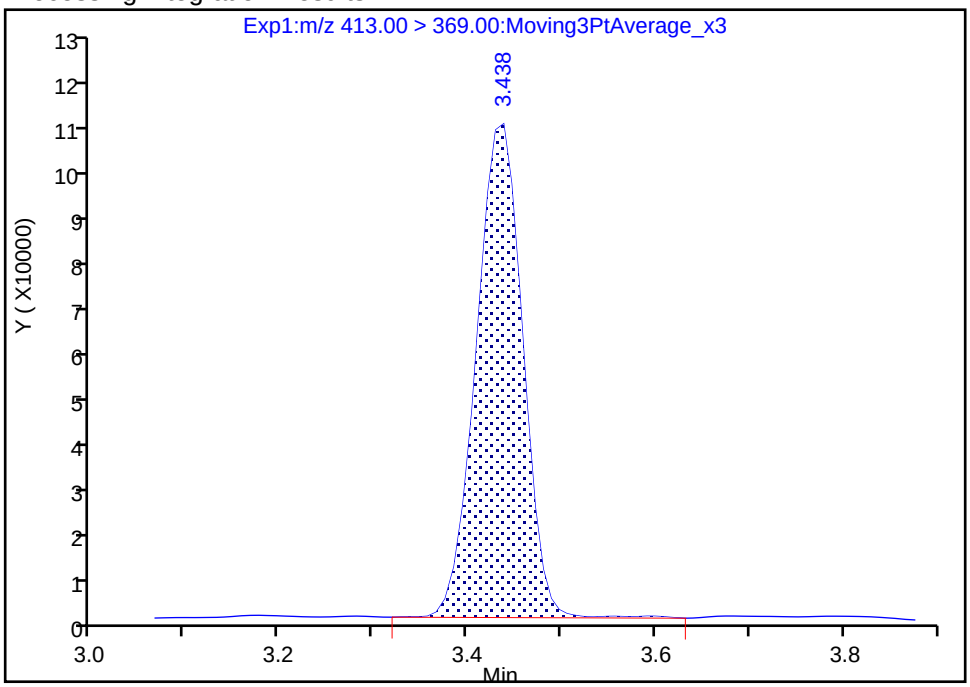
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL007.d				
Injection Date:	06-Dec-2019 14:48:50	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	4	Worklist Smp#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

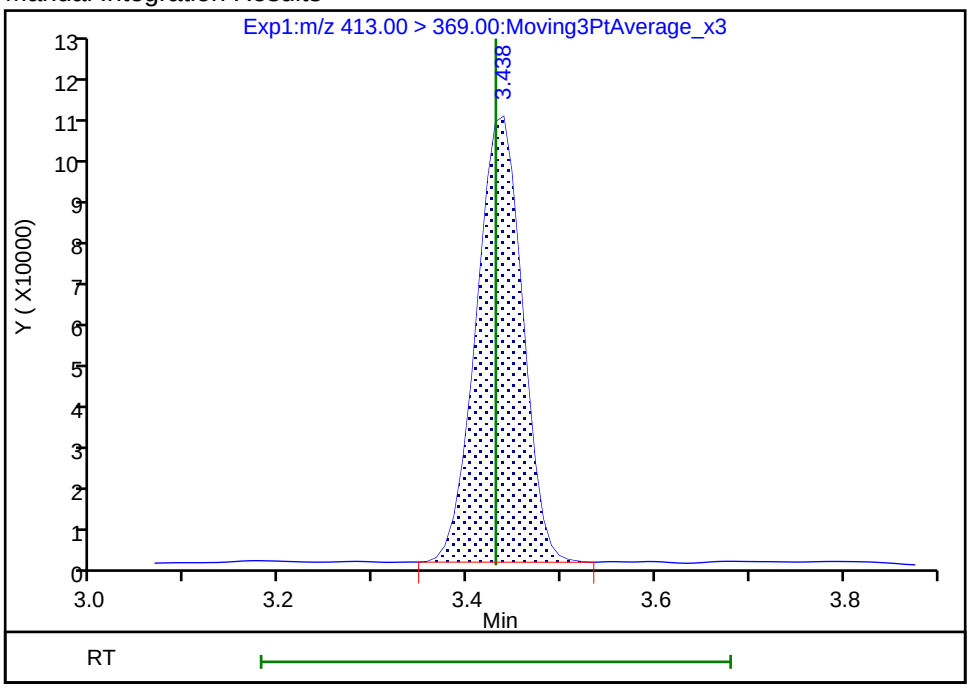
Processing Integration Results

RT: 3.44
Area: 360901
Amount: 0.508633
Amount Units: ng/ml



Manual Integration Results

RT: 3.44
Area: 357855
Amount: 0.505447
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:43:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

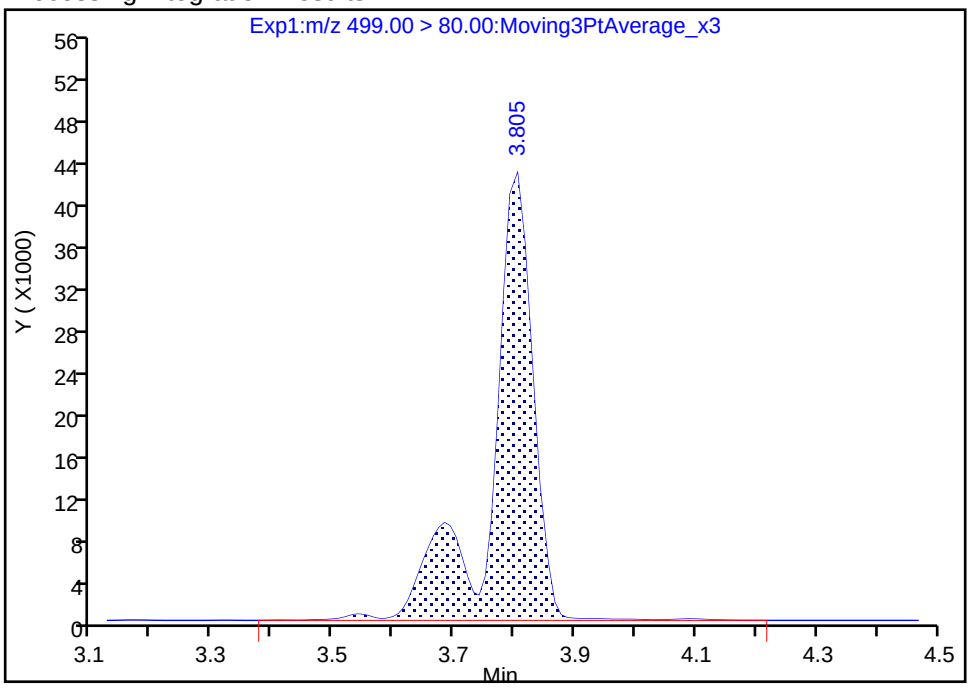
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL007.d				
Injection Date:	06-Dec-2019 14:48:50	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	4	Worklist Smp#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

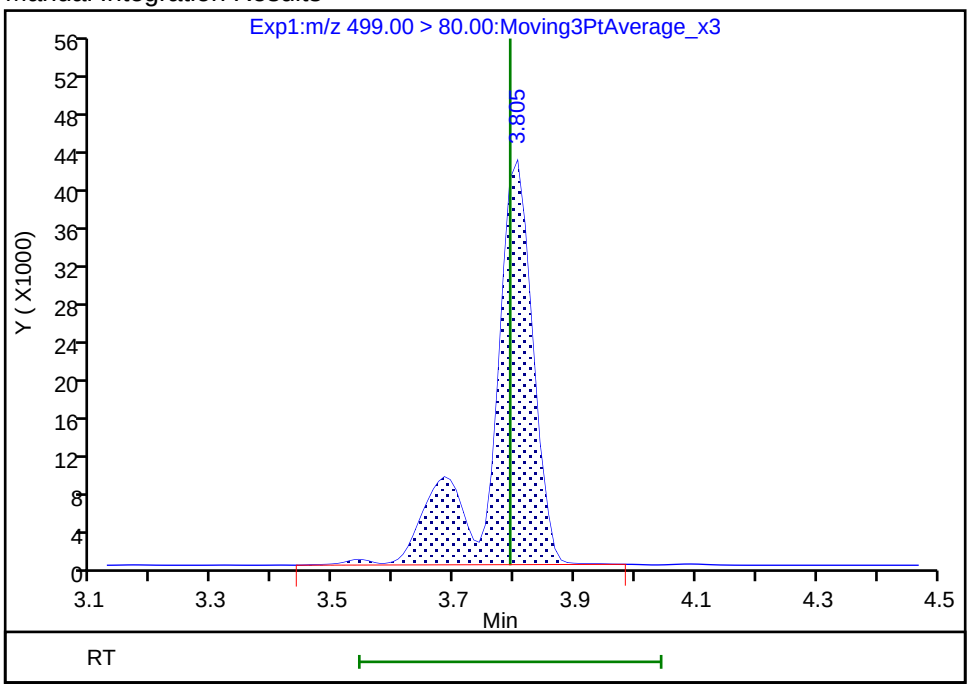
Processing Integration Results

RT: 3.80
Area: 208336
Amount: 0.429289
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 205923
Amount: 0.425430
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:31:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

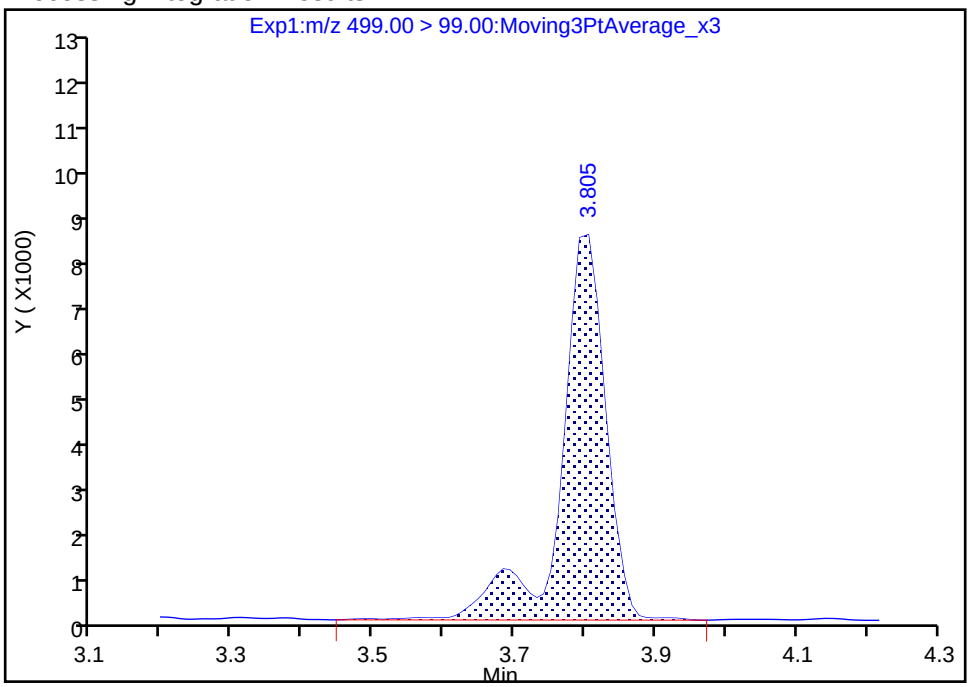
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL007.d				
Injection Date:	06-Dec-2019 14:48:50	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	4	Worklist Smp#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

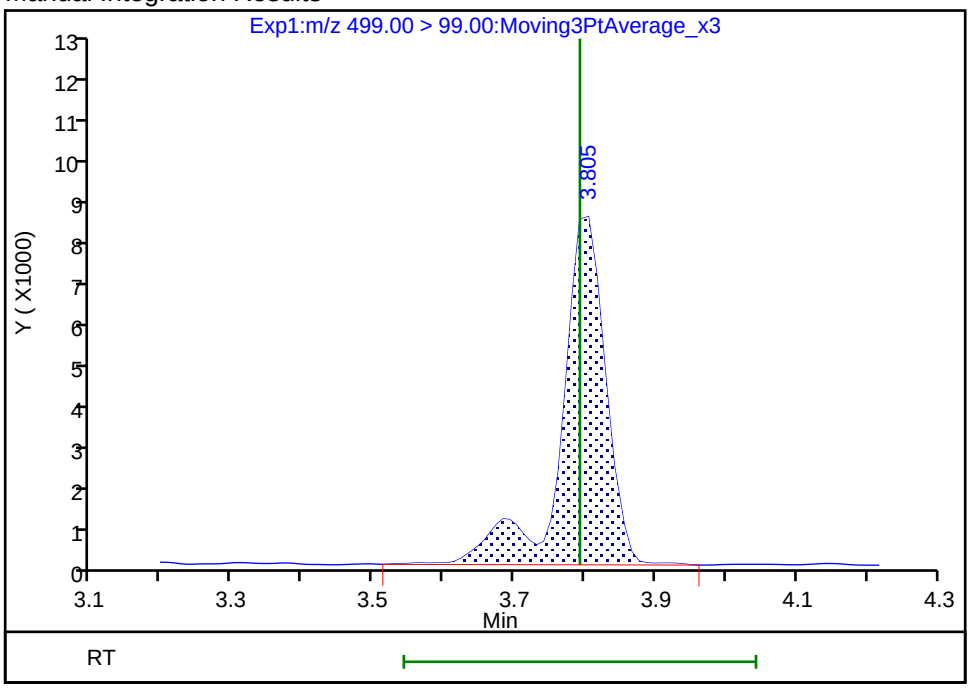
Processing Integration Results

RT: 3.80
Area: 37451
Amount: 0.429289
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 37265
Amount: 0.425430
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:31:20

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

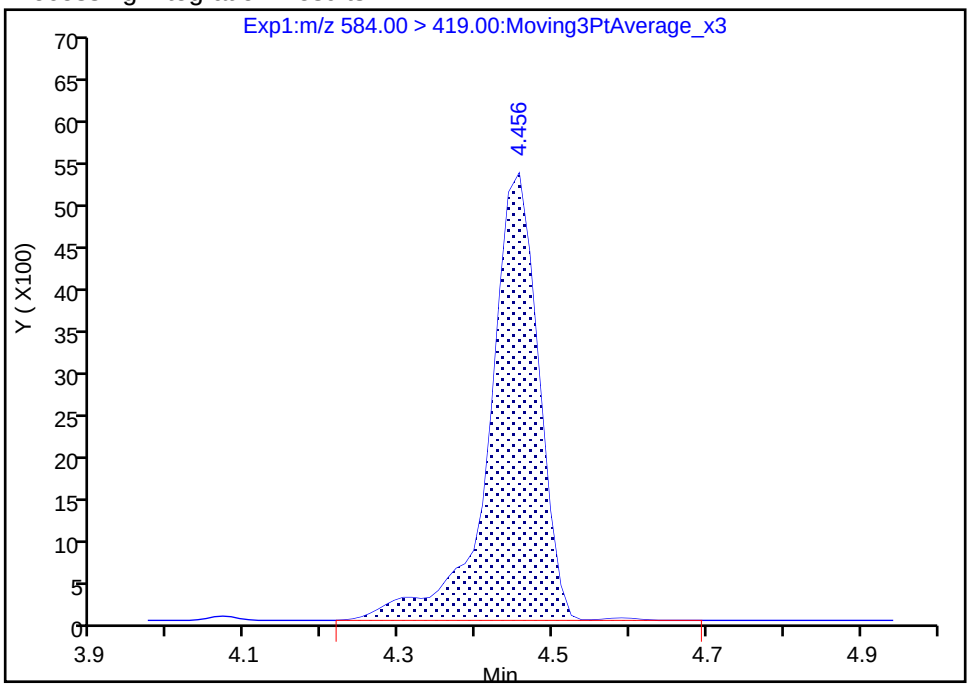
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL007.d				
Injection Date:	06-Dec-2019 14:48:50	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	4	Worklist Smp#:	7
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

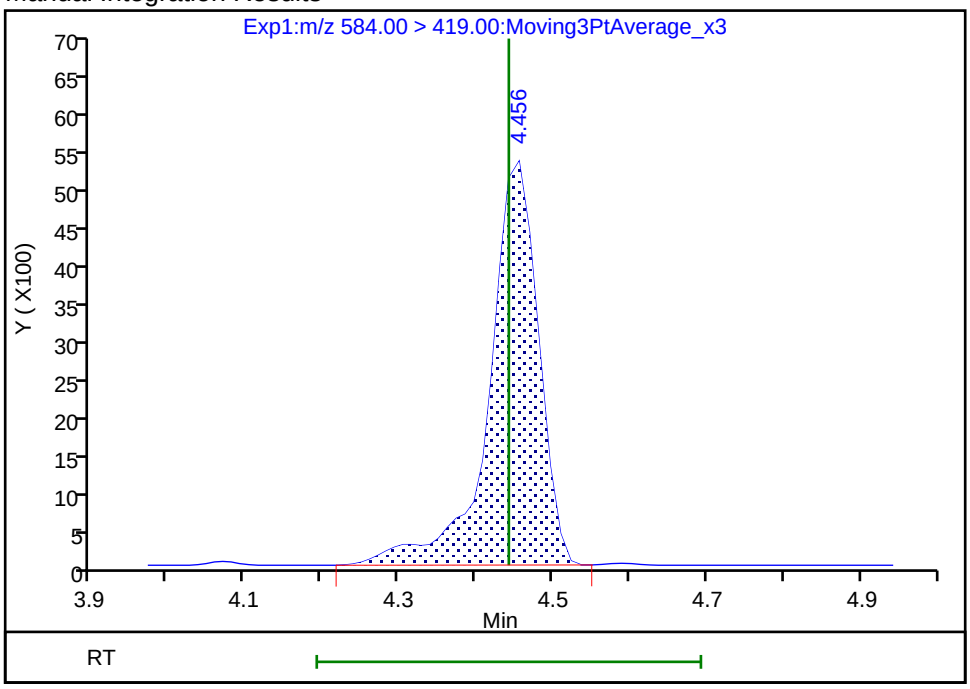
Processing Integration Results

RT: 4.46
Area: 24214
Amount: 0.457985
Amount Units: ng/ml



Manual Integration Results

RT: 4.46
Area: 24100
Amount: 0.470571
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:31:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL008.d
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 4
Inject. Date: 06-Dec-2019 14:57:04 ALS Bottle#: 5 Worklist Smp#: 8
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 200-0039114-008 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 09-Dec-2019 12:11:25 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX0316
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutanoic acid										
212.90 > 169.00	1.917	1.917	0.0	1.000	853862	0.9394		93.9	261	
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.559	2283983	2.91		116	24649	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.271	2.271	0.0	1.000	709122	0.9389		93.9	85.4	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.662	1667452	2.78		111	6260	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.298	0.0	0.670	1947850	2.72		117	366258	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	740774	0.8135	Target=2.03	92.0	3280	
298.90 > 99.00	2.298	2.298	0.0	1.000	365500		2.03(1.01-3.04)	92.0	610	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.623	0.0	1.000	118620	0.9709		104	1778	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.623	0.0	0.765	164686	2.47		106	258	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.660	2.660	0.0	0.874	689064	0.99	Target=3.08	106	2568	
349.00 > 99.00	2.660	2.660	0.0	0.874	196789		3.50(1.54-4.62)	106	1014	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.660	2.660	0.0	1.000	752654	1.00	Target=12.44	100	297	
313.00 > 119.00	2.660	2.660	0.0	1.000	54699		13.76(6.22-18.67)	100	129	
D 7 13C2 PFHxA										
315.00 > 270.00	2.660	2.660	0.0	0.776	1840340	2.75		110	5320	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.776	2.776	0.0	1.000	97144	0.8803		88.0	53.7	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.776	2.776	0.0	0.809	76831	2.63		105	978	
D 9 13C4 PFHpA										
367.00 > 322.00	3.044	3.044	0.0	0.887	1812297	2.86		114	5217	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.044	3.044	0.0	1.000	566993	0.8399	Target=4.13	92.3	1394	
399.00 > 99.00	3.044	3.044	0.0	1.000	145443		3.90(2.07-6.20)	92.3	524	
D 11 18O2 PFHxS										
403.00 > 84.00	3.044	3.044	0.0	0.887	1410640	2.50		106	5892	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.004	791498	1.03	Target=3.48	103	419	
363.00 > 169.00	3.044	3.055	-0.011	1.000	200519		3.95(1.74-5.22)	103	859	
77 DONA										
377.00 > 251.00	3.089	3.089	0.0	0.815	1569524	0.8436	Target=2.44	89.6	4598	
377.00 > 85.00	3.089	3.089	0.0	0.815	630841		2.49(1.22-3.67)	89.6	1961	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.413	3.413	0.0	1.000	89798	0.8569		90.4	925	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.413	3.413	0.0	0.900	589740	0.9143	Target=6.34	96.0	3239	
449.00 > 99.00	3.413	3.413	0.0	0.900	91274		6.46(3.17-9.51)	96.0	1108	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.413	3.413	0.0	0.995	263741	2.72		114	1178	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.430	3.430	0.0	1.000	807792	0.8986	Target=2.38	89.9	329	
413.00 > 169.00	3.430	3.430	0.0	1.000	337043		2.40(1.19-3.57)	89.9	1299	
D 14 13C4 PFOA										
417.00 > 372.00	3.430	3.430	0.0	1.000	2025515	3.01		120	2971	
* 62 13C2 PFOA										
415.00 > 370.00	3.430	3.430	0.0		1852009	2.50			4550	
D 18 13C4 PFOS										
503.00 > 80.00	3.793	3.793	0.0	1.106	1258638	2.81		117	5999	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.793	3.793	0.0	1.000	476832	0.8387	Target=5.71	90.4	1858	M
499.00 > 99.00	3.793	3.793	0.0	1.000	83061		5.74(2.86-8.57)	90.4	1128	M
D 19 13C5 PFNA										
468.00 > 423.00	3.817	3.817	0.0	1.113	1763969	2.85		114	6346	
20 Perfluorononanoic acid										
463.00 > 419.00	3.817	3.817	0.0	1.000	680723	0.9839	Target=6.87	98.4	348	
463.00 > 169.00	3.817	3.817	0.0	1.000	97132		7.01(3.43-10.30)	98.4	1543	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.984	3.984	0.0	1.050	547070	0.8424		90.4	3709	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.129	4.129	0.0	1.089	391621	0.9001	Target=2.92	93.8	2539	
549.00 > 99.00	4.129	4.129	0.0	1.089	124593		3.14(1.46-4.38)	93.8	833	
D 23 13C2 PFDA										
515.00 > 470.00	4.153	4.153	0.0	1.211	1758412	2.88		115	3030	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.153	4.153	0.0	1.000	663877	0.9756	Target=7.21	97.6	637	
513.00 > 169.00	4.153	4.153	0.0	1.000	91244		7.28(3.60-10.81)	97.6	1318	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.164	4.164	0.0	1.214	321836	2.78		116	1234	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.164	4.164	0.0	1.000	59800	0.9641		101	594	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	853601	1.02		102	3758	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.236	2111278	2.65		106	6901	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.305	4.305	0.0	1.000	53457	0.9239		92.4	559	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.305	4.305	0.0	1.255	166463	2.83		113	692	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.409	4.409	0.0	1.162	326562	0.8618	Target=2.78	89.4	2605	
599.00 > 99.00	4.409	4.409	0.0	1.162	118333		2.76(1.39-4.17)	89.4	1203	
D 30 13C2 PFUnA										
565.00 > 520.00	4.431	4.431	0.0	1.292	1538525	2.97		119	7240	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.431	4.431	0.0	1.000	500548	0.9593	Target=5.47	95.9	519	
563.00 > 169.00	4.431	4.431	0.0	1.000	86585		5.78(2.73-8.20)	95.9	1037	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.442	4.442	0.0	1.000	52214	0.8591		85.9	718	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.442	4.442	0.0	1.295	183569	2.82		113	2018	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.523	4.523	0.0	1.193	528727	0.8634		91.7	3651	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.671	4.671	0.0	1.000	613140	0.9866	Target=4.84	98.7	119	
613.00 > 169.00	4.671	4.671	0.0	1.000	119598		5.13(2.42-7.26)	98.7	1108	
D 36 13C2 PFDoA										
615.00 > 570.00	4.671	4.671	0.0	1.362	1681386	2.96		118	6465	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.683	4.683	0.0	1.125	34922	0.8868		92.0	1038	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.838	4.838	0.0	1.276	119154	0.8271	Target=0.47	85.4	329	
699.00 > 99.00	4.838	4.838	0.0	1.276	267290		0.45(0.23-0.70)	85.4	2497	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.879	4.879	0.0	1.044	586051	0.99	Target=3.74	99.3	159	
663.00 > 169.00	4.879	4.879	0.0	1.044	153266		3.82(1.87-5.62)	99.3	1644	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.058	5.058	0.0	1.475	1318503	2.77		111	7884	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.067	5.067	0.0	1.002	105288	0.99	Target=1.01	99.4	1345	
713.00 > 219.00	5.058	5.067	-0.009	1.000	100656		1.05(0.50-1.51)	99.4	1598	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.403	5.403	0.0	1.575	1198766	2.73		109	5417	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.413	5.413	0.0	1.002	462509	1.06	Target=3.04	106	112	
813.00 > 169.00	5.403	5.413	-0.011	1.000	144634		3.20(1.52-4.56)	106	1292	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.747	5.747	0.0	1.064	347376	1.00	Target=2.88	100	127	
913.00 > 169.00	5.739	5.747	-0.008	1.062	121556		2.86(1.44-4.32)	100	1048	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC4_00004 Amount Added: 100.00 Units: uL

Report Date: 09-Dec-2019 12:11:26 Chrom Revision: 2.3 17-Oct-2019 22:00:42

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL008.d

Injection Date: 06-Dec-2019 14:57:04 Instrument ID: LC812

Lims ID: ICIS

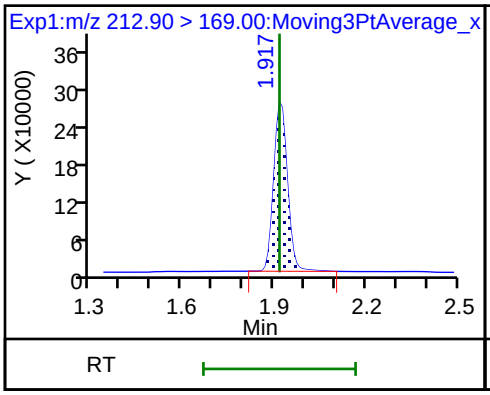
Client ID:

Operator ID: lc812tech ALS Bottle#: 5 Worklist Smp#: 8

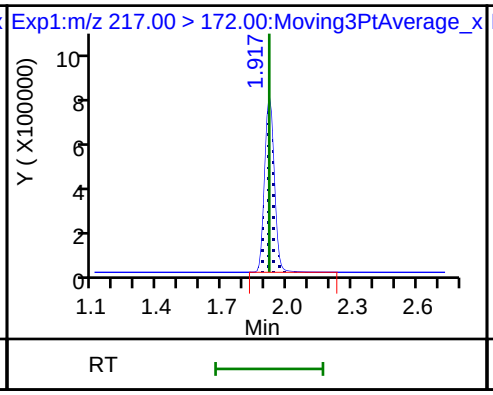
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

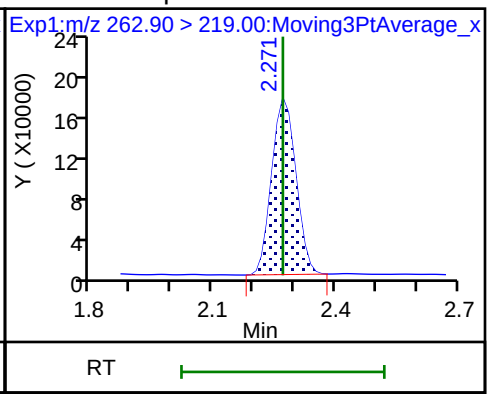
2 Perfluorobutanoic acid



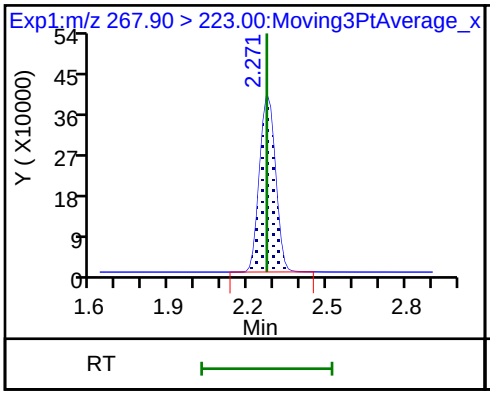
D 1 13C4 PFBA



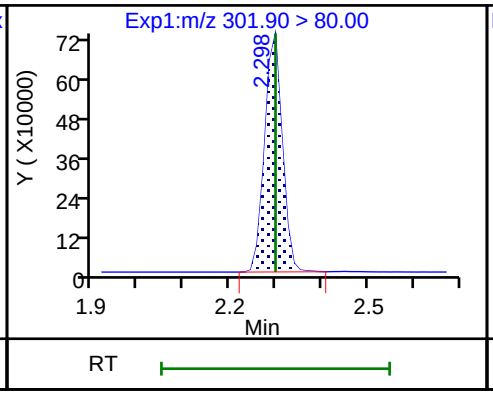
4 Perfluoropentanoic acid



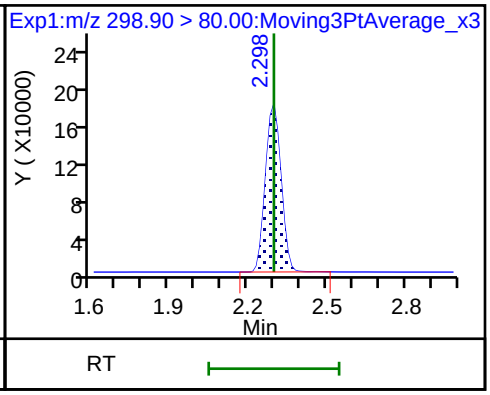
D 3 13C5 PFPeA



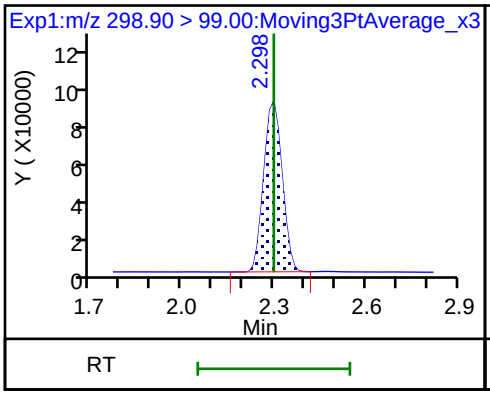
D 47 13C3 PFBS



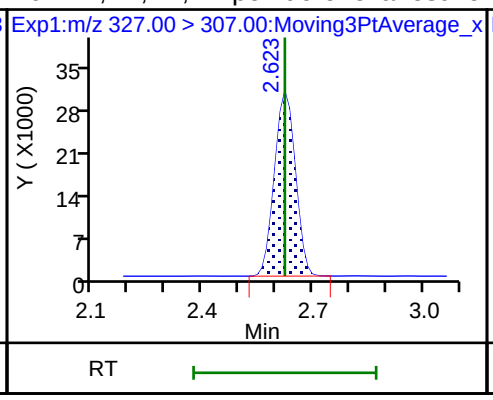
5 Perfluorobutanesulfonic acid



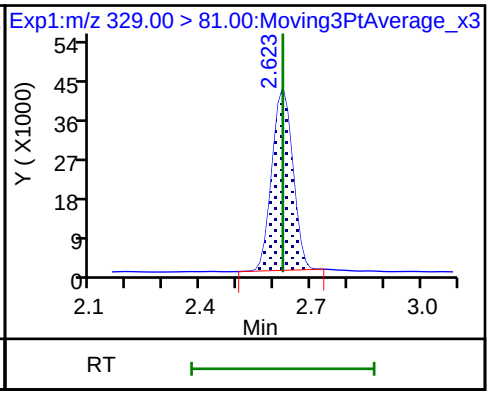
5 Perfluorobutanesulfonic acid



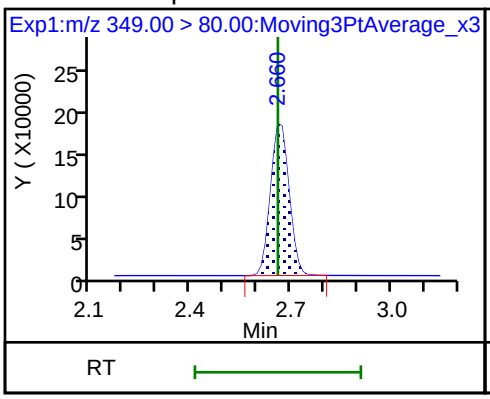
61 1H,1H,2H,2H-perfluorohexanesulfon



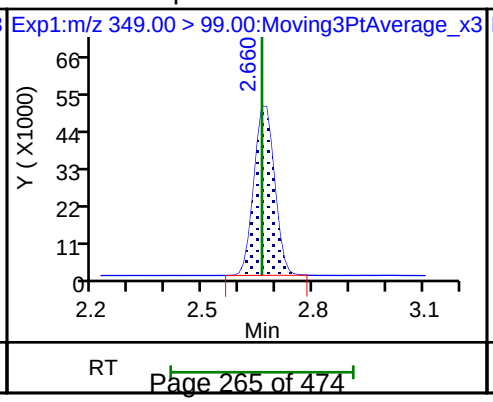
D 60 M2-4:2 FTS



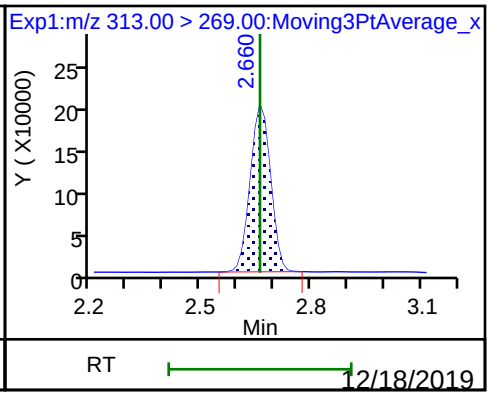
70 Perfluoropentanesulfonic acid



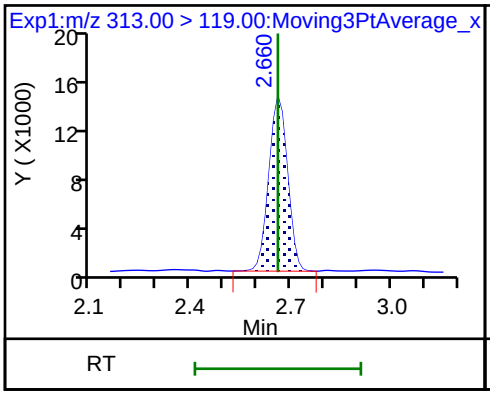
70 Perfluoropentanesulfonic acid



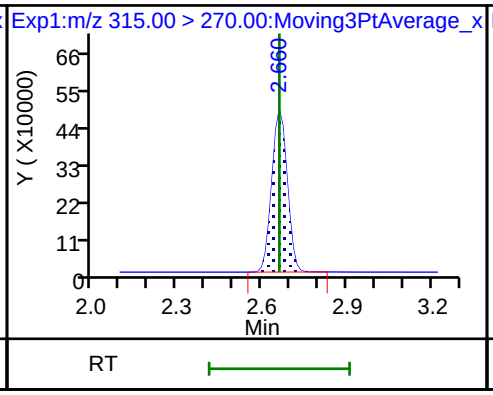
6 Perfluorohexanoic acid



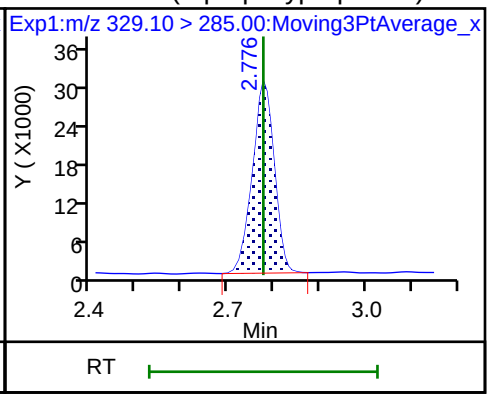
6 Perfluorohexanoic acid



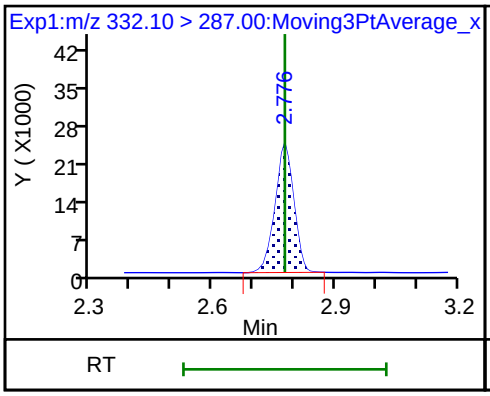
D 7 13C2 PFHxA



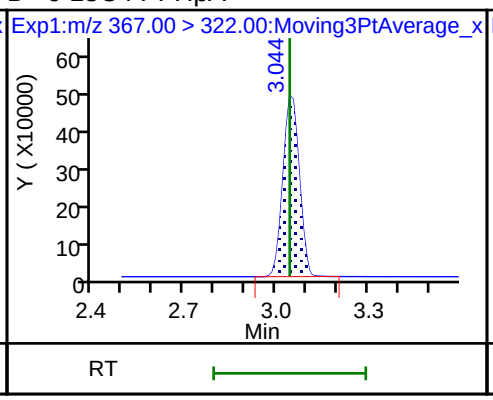
67 Perfluoro(2-propoxypropanoic) acid



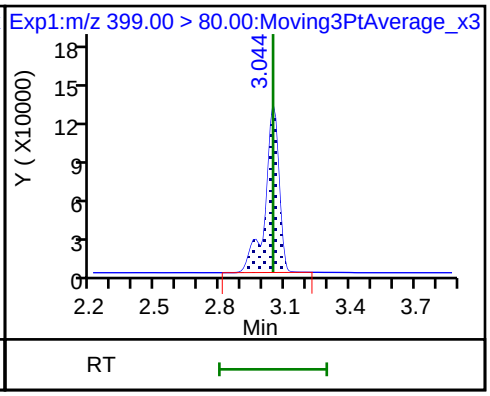
D 64 13C3 HFPO-DA



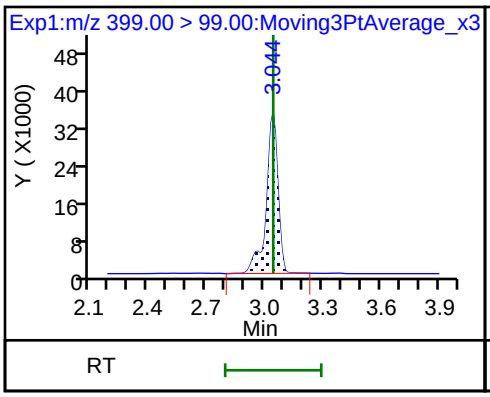
D 9 13C4 PFHpA



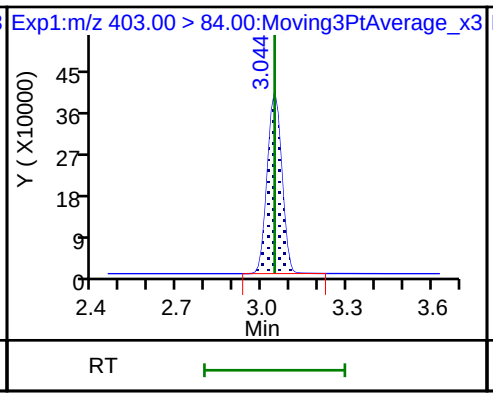
8 Perfluorohexanesulfonic acid



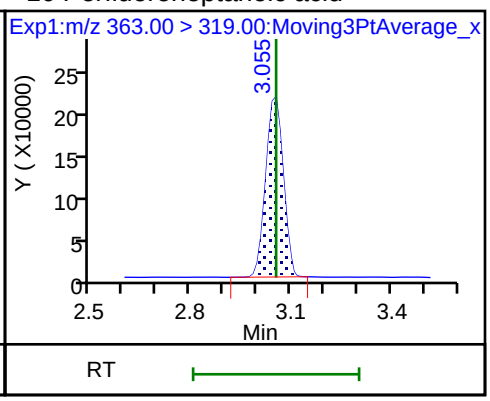
8 Perfluorohexanesulfonic acid



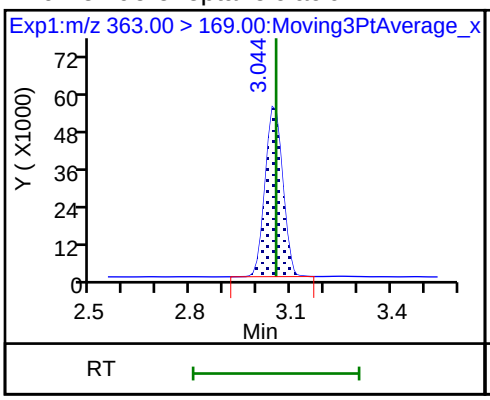
D 11 18O2 PFHxS



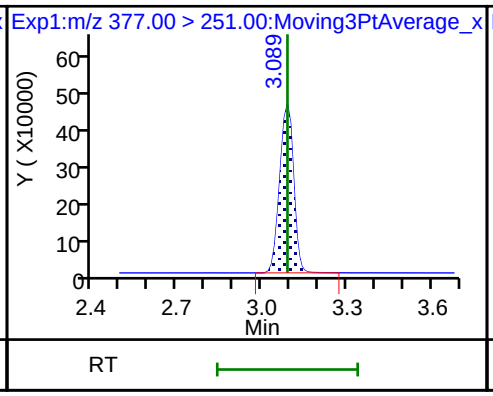
10 Perfluoroheptanoic acid



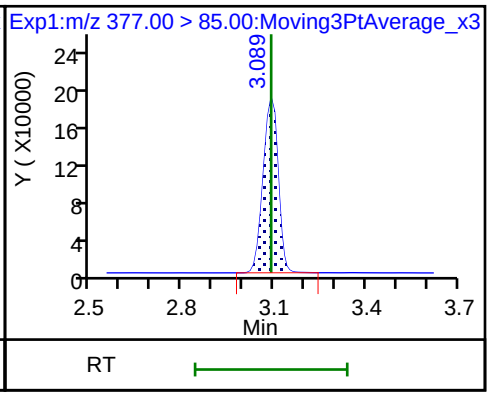
10 Perfluoroheptanoic acid



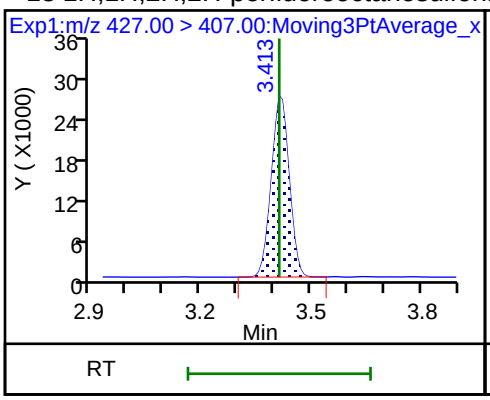
77 DONA



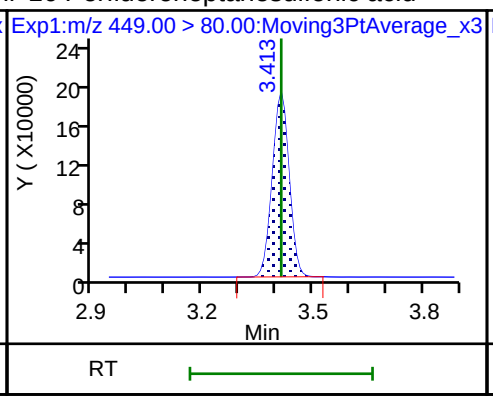
77 DONA



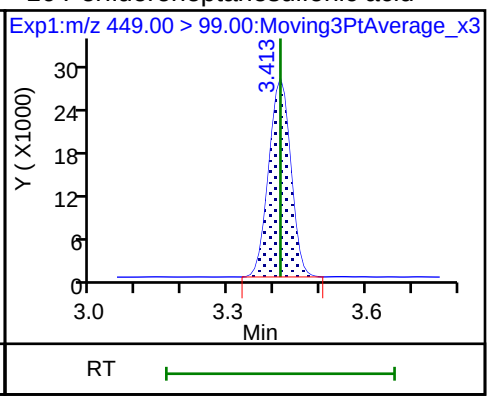
13 1H,1H,2H,2H-perfluorooctanesulfoni



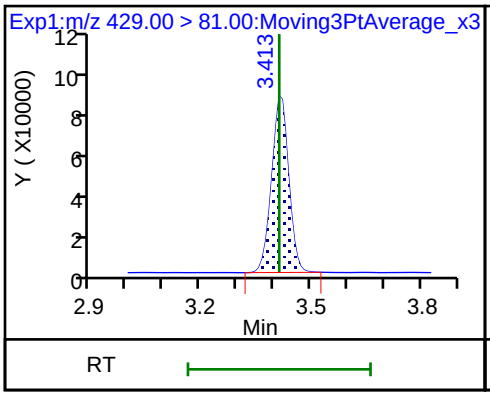
16 Perfluoroheptanesulfonic acid



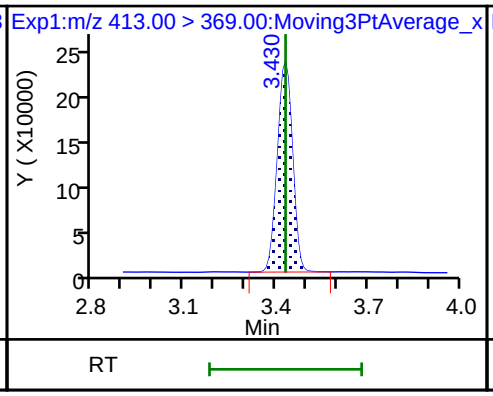
16 Perfluoroheptanesulfonic acid



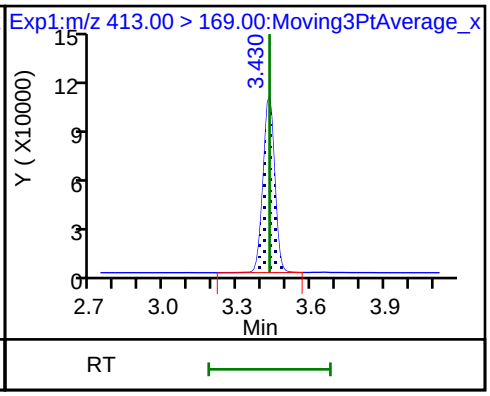
D 12 M2-6:2 FTS



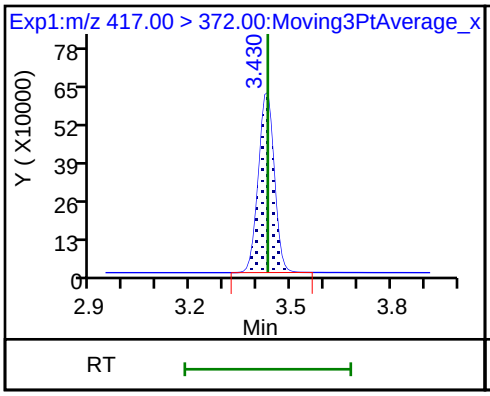
15 Perfluorooctanoic acid



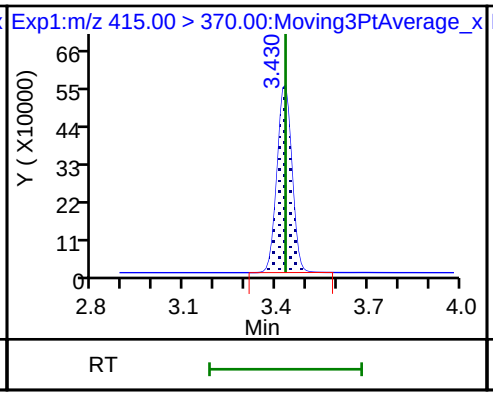
15 Perfluorooctanoic acid



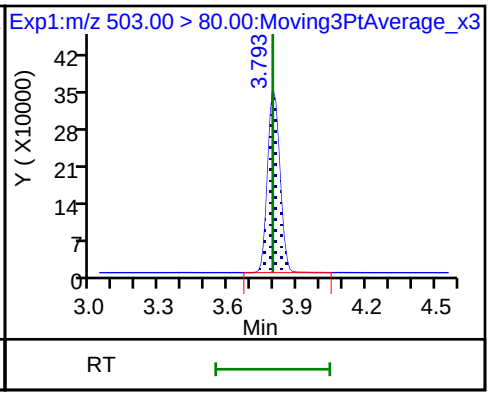
D 14 13C4 PFOA



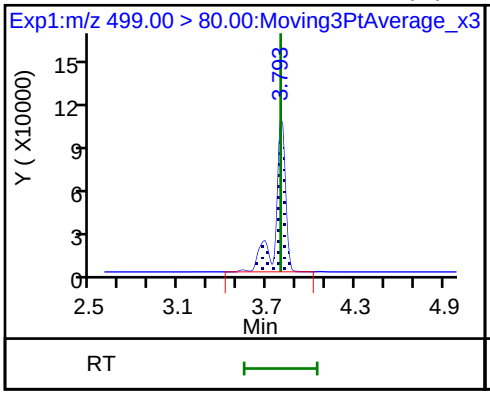
* 62 13C2 PFOA



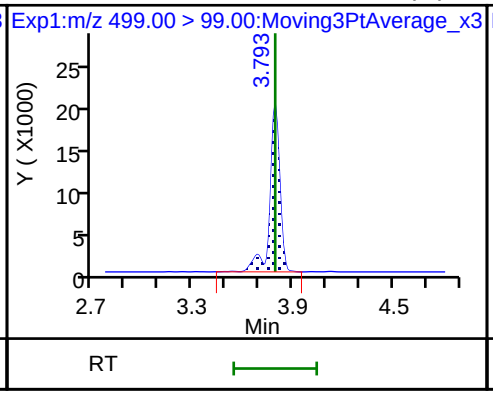
D 18 13C4 PFOS



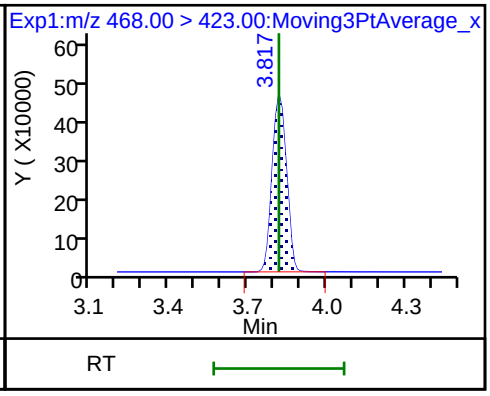
17 Perfluorooctanesulfonic acid (M)



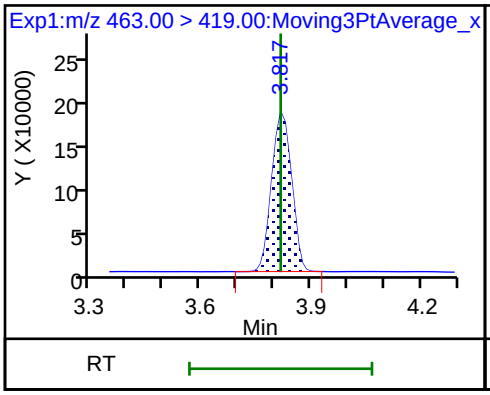
17 Perfluorooctanesulfonic acid (M)



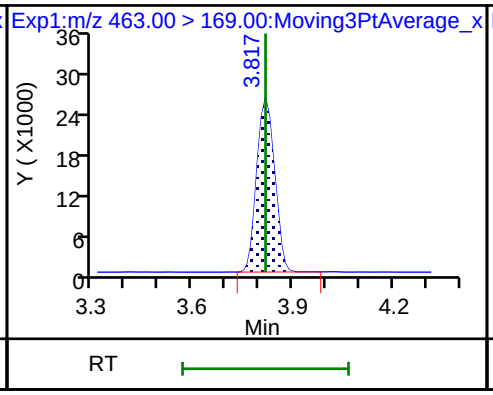
D 19 13C5 PFNA



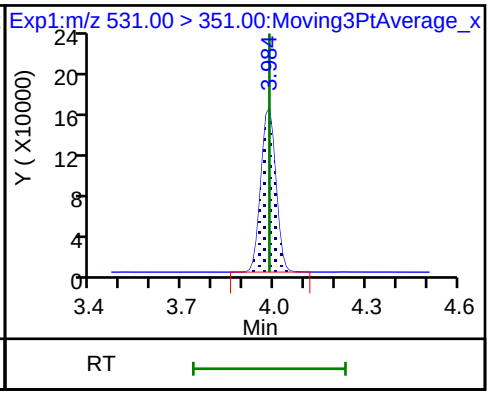
20 Perfluorononanoic acid



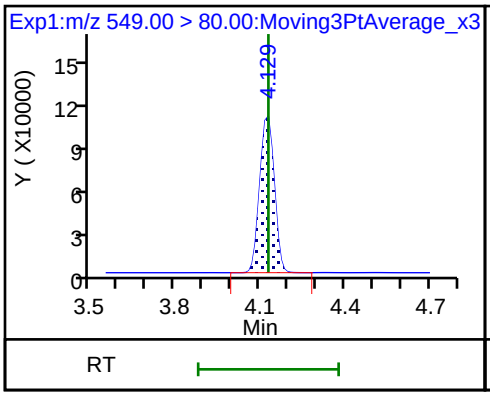
20 Perfluorononanoic acid



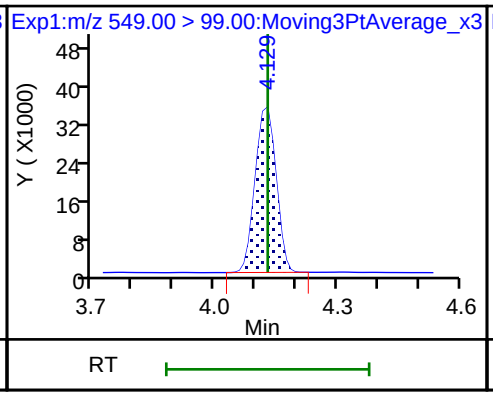
69 9-Chlorohexadecafluoro-3-oxanonane



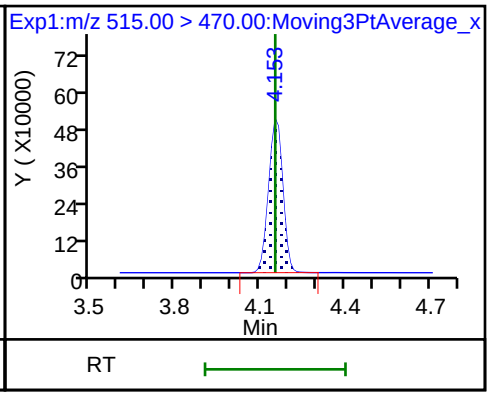
68 Perfluorononanesulfonic acid



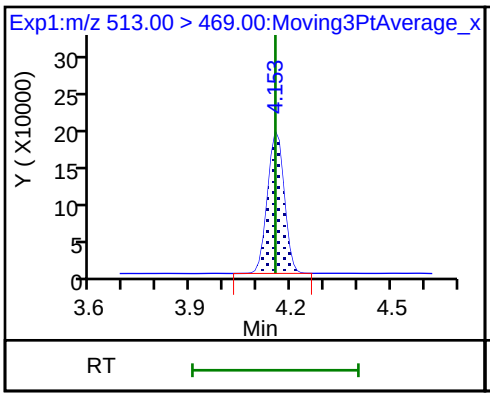
68 Perfluorononanesulfonic acid



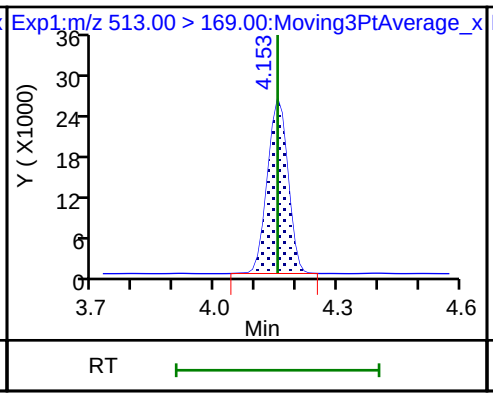
D 23 13C2 PFDA



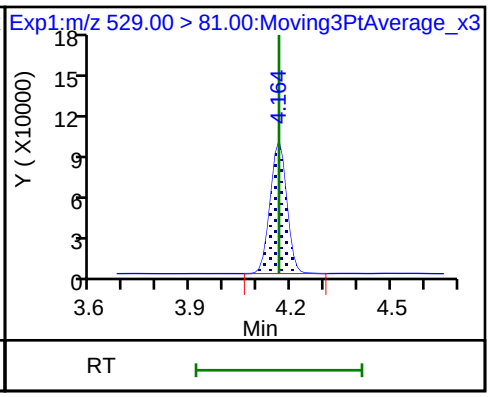
24 Perfluorodecanoic acid



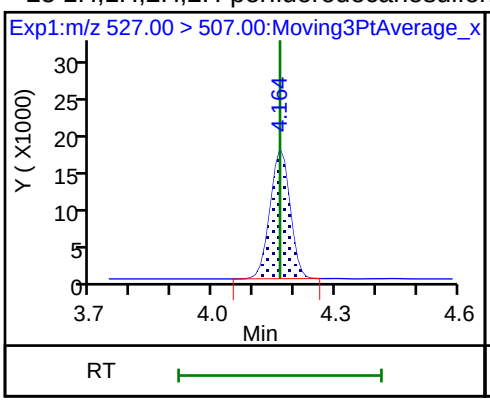
24 Perfluorodecanoic acid



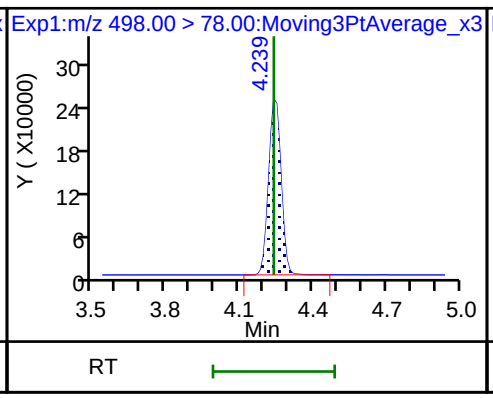
D 26 M2-8:2 FTS



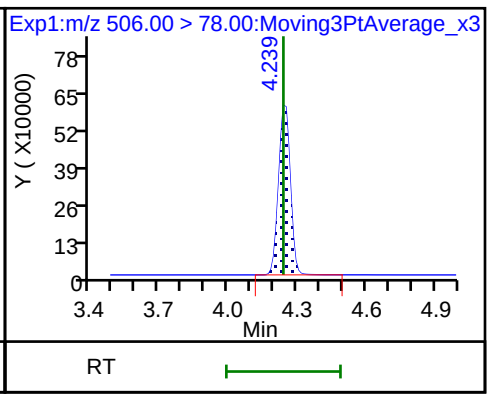
25 1H,1H,2H,2H-perfluorodecanesulfoni



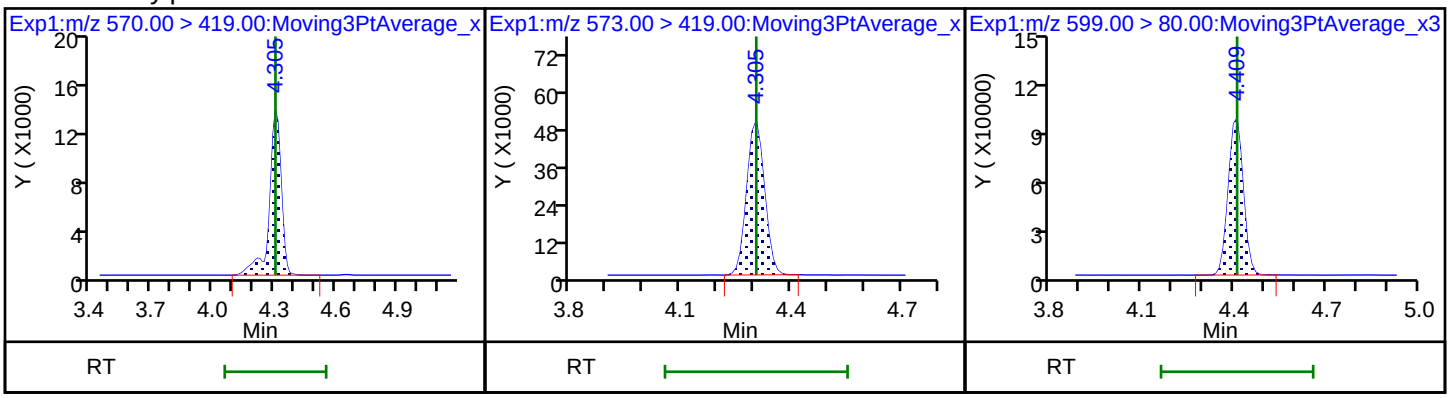
22 Perfluorooctanesulfonamide



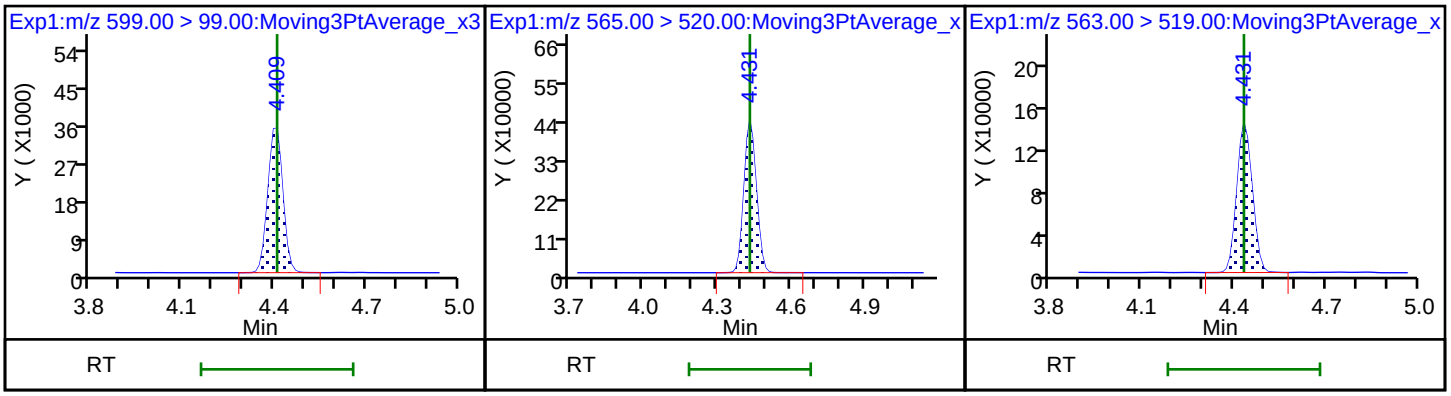
D 21 13C8 FOSA



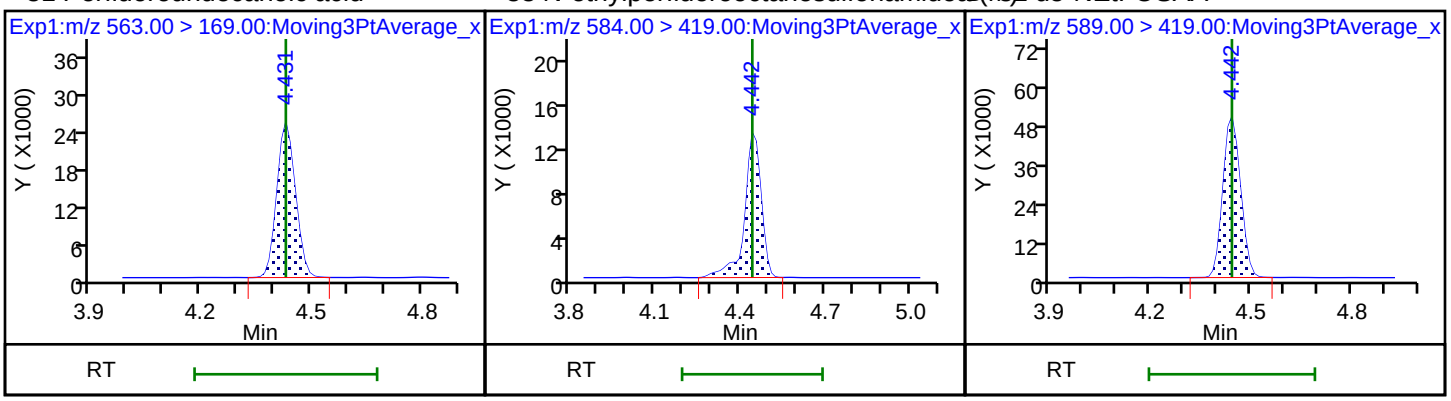
28 N-methylperfluorooctanesulfonamidoD 27 d3-NMeFOSAA 29 Perfluorodecanesulfonic acid



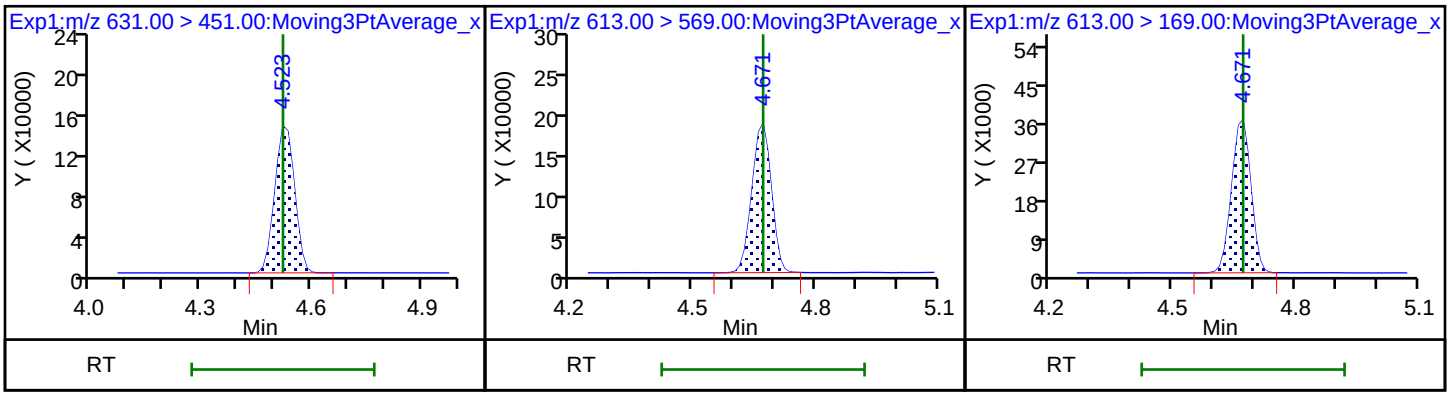
29 Perfluorodecanesulfonic acid D 30 13C2 PFUnA 31 Perfluoroundecanoic acid



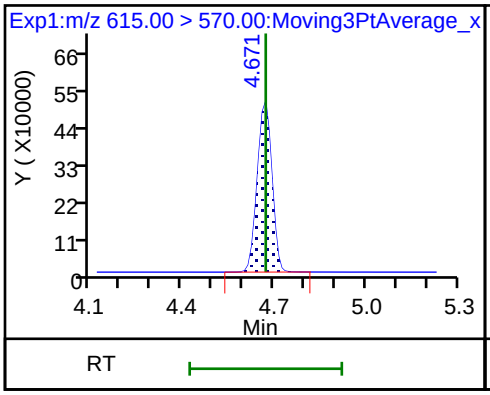
31 Perfluoroundecanoic acid 33 N-ethylperfluorooctanesulfonamidoaD(M)2 d5-NEtFOSAA



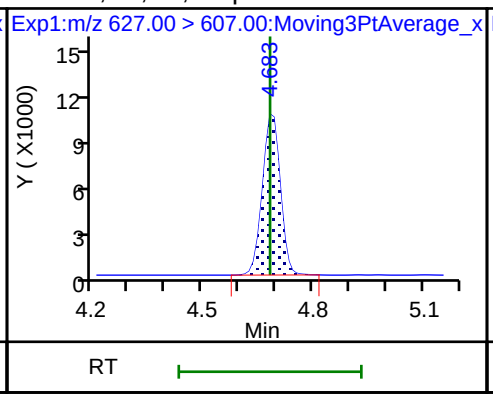
66 11-Chloroeicosafluoro-3-oxaundecan 37 Perfluorododecanoic acid 37 Perfluorododecanoic acid



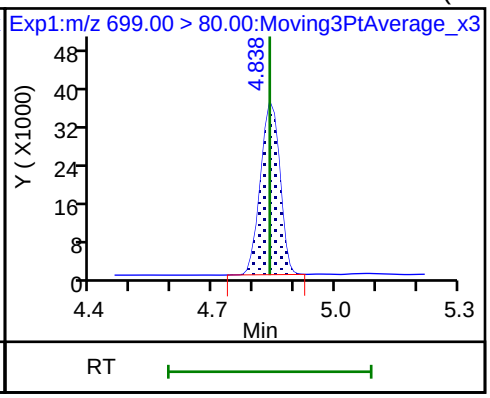
D 36 13C2 PFDoA



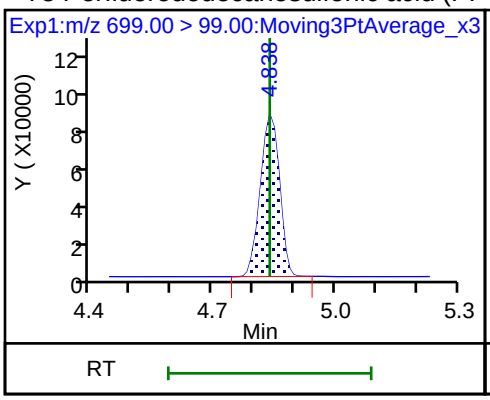
74 1H,1H,2H,2H-perfluorododecanesulfo



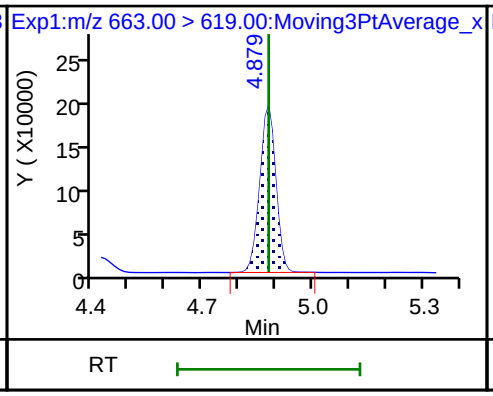
75 Perfluorododecanesulfonic acid (PF



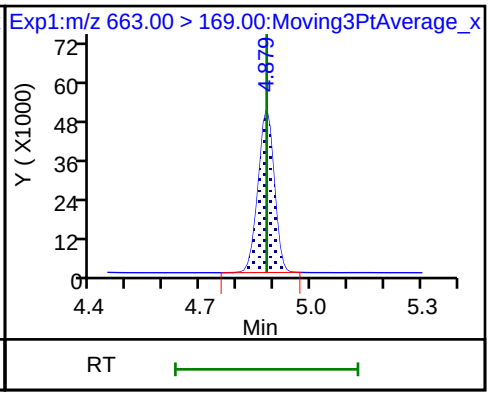
75 Perfluorododecanesulfonic acid (PF



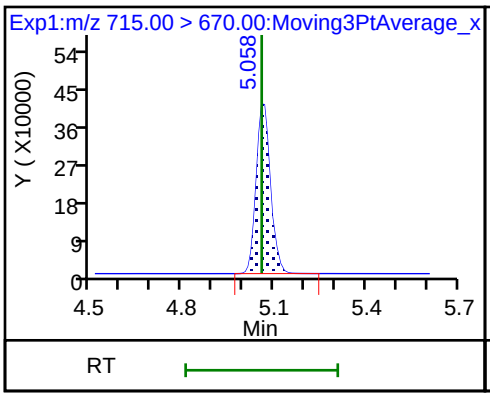
41 Perfluorotridecanoic acid



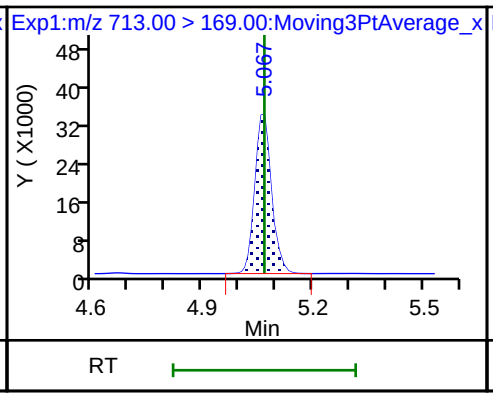
41 Perfluorotridecanoic acid



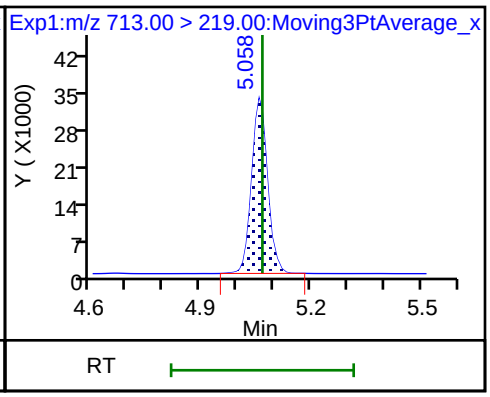
D 43 13C2 PFTeDA



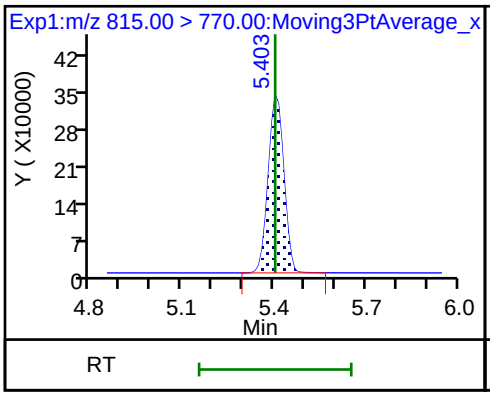
42 Perfluorotetradecanoic acid



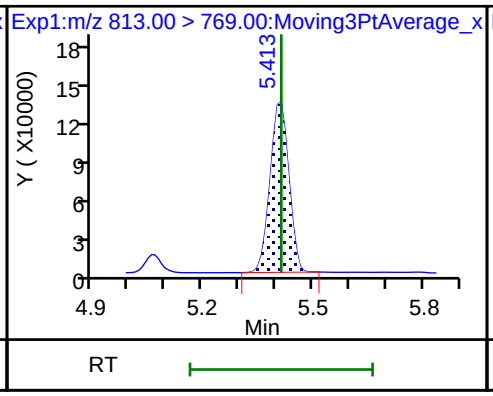
42 Perfluorotetradecanoic acid



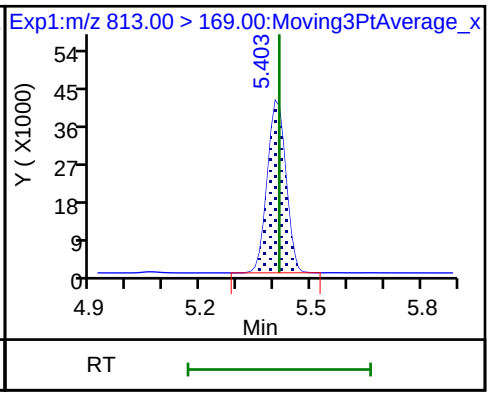
D 44 13C2 PFHxDA



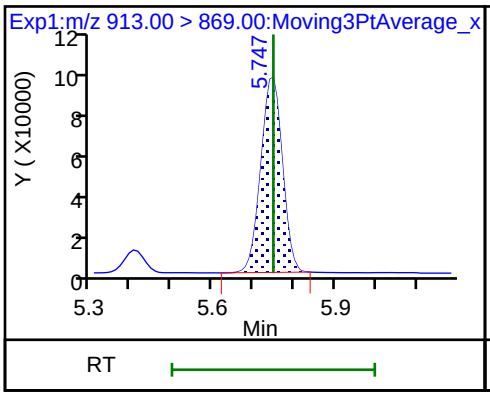
45 Perfluorohexadecanoic acid



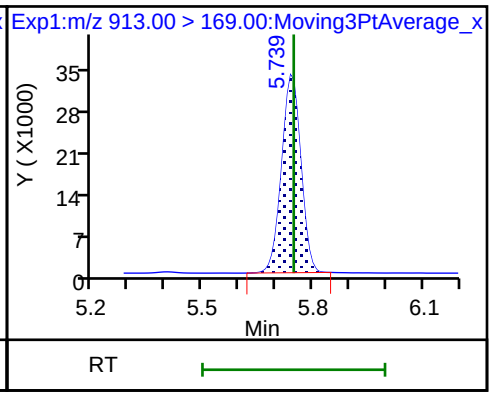
45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

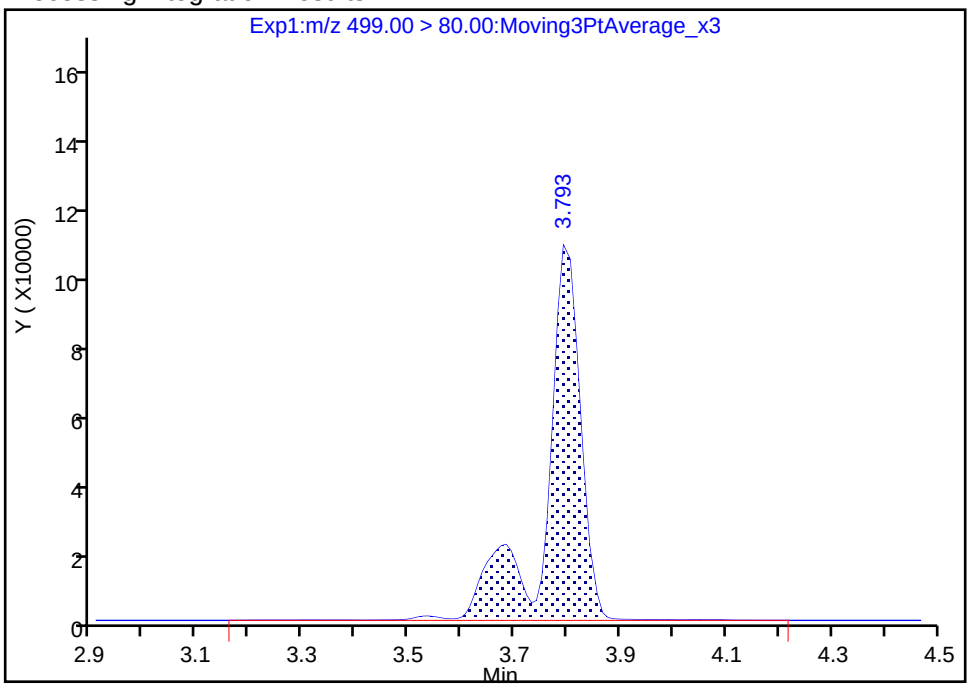
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL008.d				
Injection Date:	06-Dec-2019 14:57:04	Instrument ID:	LC812		
Lims ID:	ICIS				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	5	Worklist Smp#:	8
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

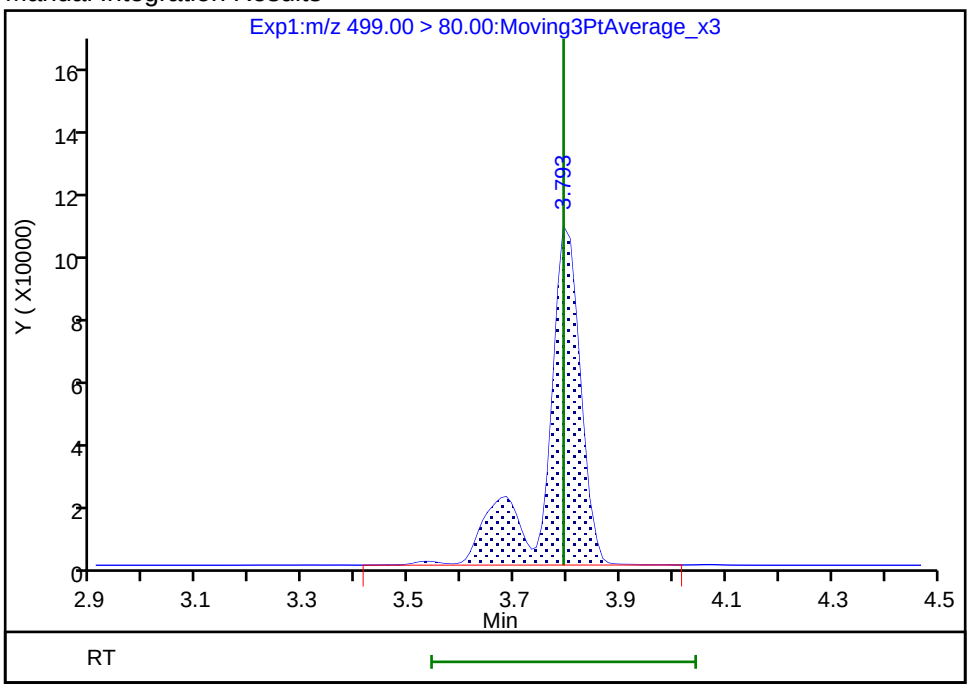
Processing Integration Results

RT: 3.79
Area: 480092
Amount: 0.871924
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 476832
Amount: 0.838738
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:24:06

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

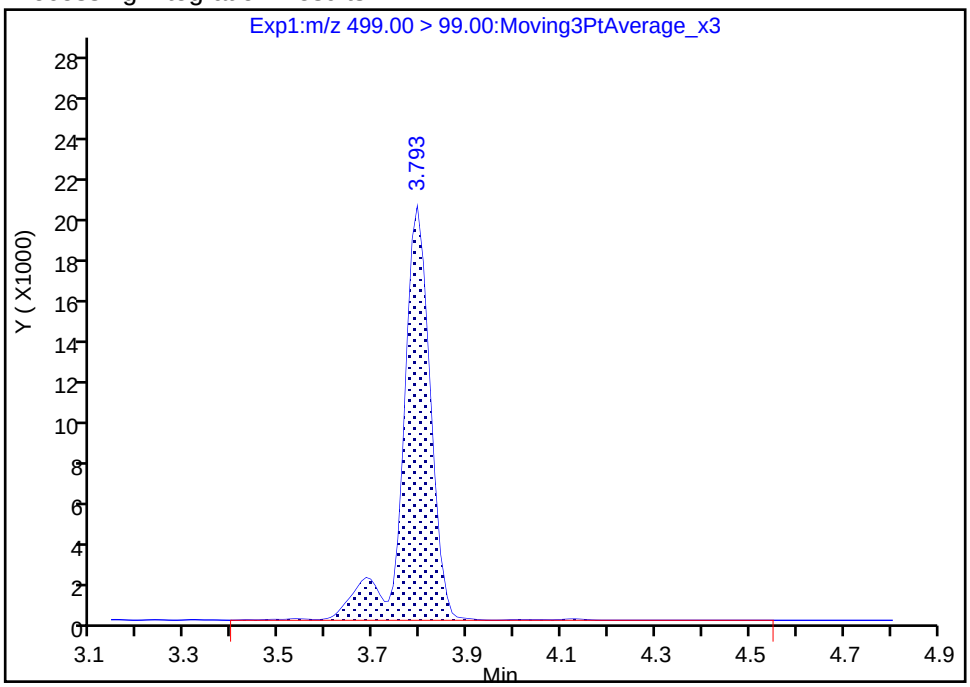
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL008.d				
Injection Date:	06-Dec-2019 14:57:04	Instrument ID:	LC812		
Lims ID:	ICIS				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	5	Worklist Smp#:	8
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

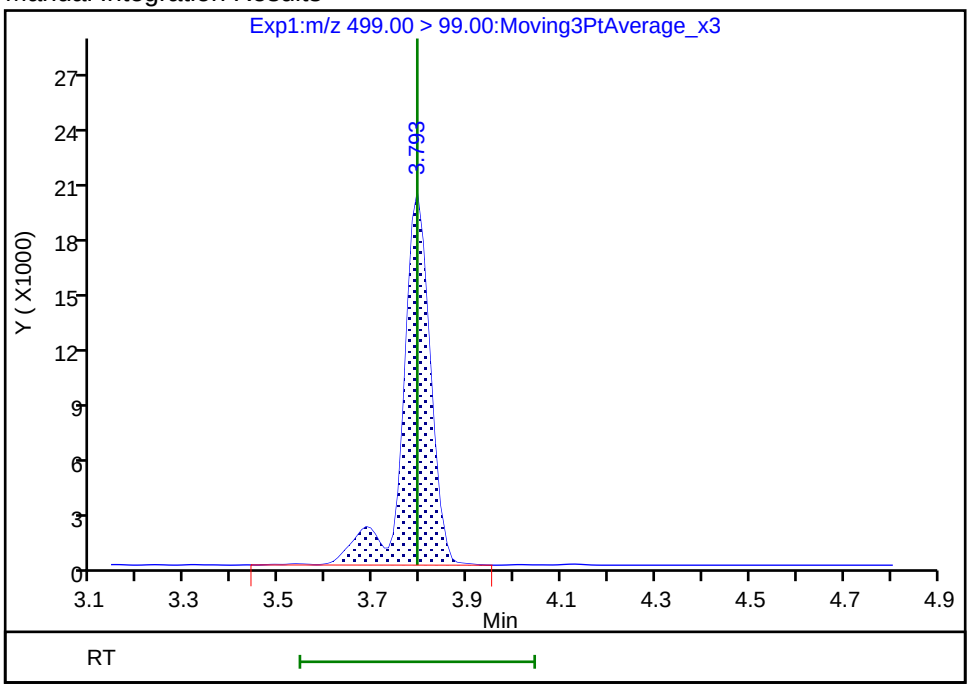
Processing Integration Results

RT: 3.79
Area: 83612
Amount: 0.871924
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 83061
Amount: 0.838738
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:24:14

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

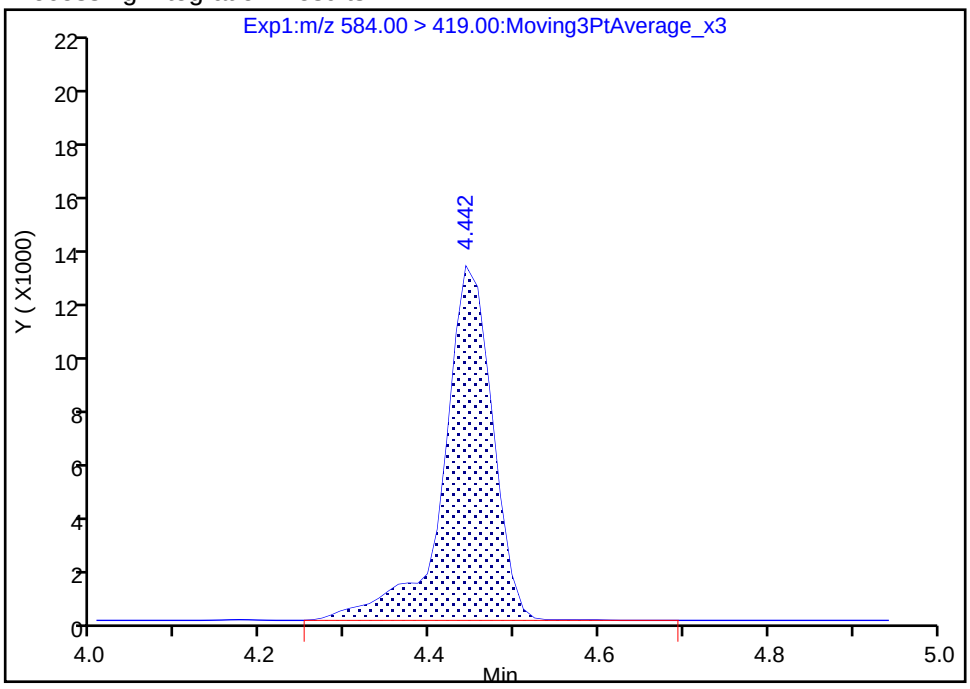
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL008.d				
Injection Date:	06-Dec-2019 14:57:04	Instrument ID:	LC812		
Lims ID:	ICIS				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	5	Worklist Smp#:	8
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

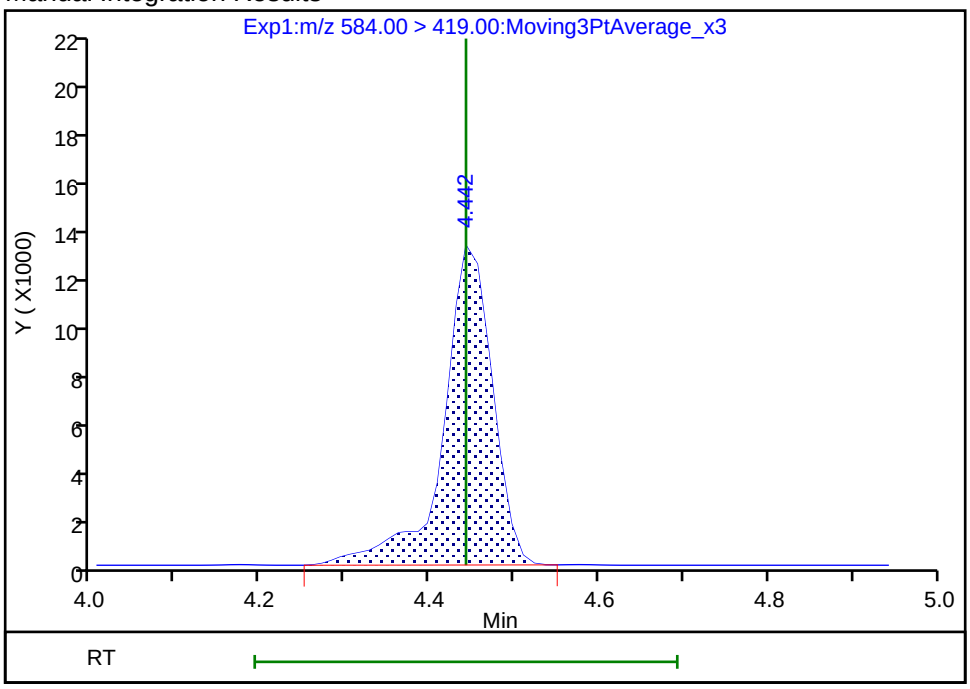
Processing Integration Results

RT: 4.44
Area: 52420
Amount: 0.822215
Amount Units: ng/ml



Manual Integration Results

RT: 4.44
Area: 52214
Amount: 0.859111
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:24:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL009.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 06-Dec-2019 15:05:16 ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC 5
Misc. Info.: 200-0039114-009 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 09-Dec-2019 12:10:14 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX0316

First Level Reviewer: chirgwinb Date: 06-Dec-2019 15:34:08
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutanoic acid										
212.90 > 169.00	1.917	1.917	0.0	1.000	2112806	2.43		97.0	683	
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.560	2189157	2.55		102	28716	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.271	2.271	0.0	1.000	1718895	2.18		87.3	201	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.664	1737813	2.65		106	6005	
D 47 13C3 PFBS										
301.90 > 80.00	2.284	2.298	-0.014	0.668	1995622	2.55		110	671259	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.006	1890516	2.03	Target=2.03	91.7	5328	
298.90 > 99.00	2.298	2.298	0.0	1.006	949407		1.99(1.01-3.04)	91.7	1596	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.623	0.0	1.000	280609	2.09		89.5	2788	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.623	0.0	0.767	180955	2.48		106	343	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.660	2.660	0.0	0.874	1680717	2.39	Target=3.08	102	3743	
349.00 > 99.00	2.660	2.660	0.0	0.874	611352		2.75(1.54-4.62)	102	2537	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.660	2.660	0.0	1.000	1898558	2.42	Target=12.44	96.7	736	
313.00 > 119.00	2.660	2.660	0.0	1.000	158746		11.96(6.22-18.67)	96.7	447	
D 7 13C2 PFHxA										
315.00 > 270.00	2.660	2.660	0.0	0.778	1923126	2.63		105	7207	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.776	2.776	0.0	1.000	276154	2.58		103	157	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.776	2.776	0.0	0.811	74652	2.34		93.4	1118	
D 9 13C4 PFHpA										
367.00 > 322.00	3.044	3.044	0.0	0.890	1725602	2.49		99.5	4699	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.044	3.044	0.0	1.000	1488287	2.17	Target=4.13	95.4	3419	
399.00 > 99.00	3.044	3.044	0.0	1.000	373147		3.99(2.07-6.20)	95.4	835	
D 11 18O2 PFHxS										
403.00 > 84.00	3.044	3.044	0.0	0.890	1433559	2.32		98.0	3811	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.044	3.055	-0.011	1.000	1821610	2.50	Target=3.48	99.8	845	
363.00 > 169.00	3.044	3.055	-0.011	1.000	521681		3.49(1.74-5.22)	99.8	1473	
77 DONA										
377.00 > 251.00	3.089	3.089	0.0	0.815	3905340	2.32	Target=2.44	98.4	5466	
377.00 > 85.00	3.089	3.089	0.0	0.815	1667666		2.34(1.22-3.67)	98.4	3913	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.413	3.413	0.0	1.000	220498	2.20		93.0	1101	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.413	3.413	0.0	0.900	1398368	2.39	Target=6.34	101	5612	
449.00 > 99.00	3.413	3.413	0.0	0.900	223153		6.27(3.17-9.51)	101	1704	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.413	3.413	0.0	0.998	251791	2.37		99.8	797	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.430	3.430	0.0	1.002	2023589	2.48	Target=2.38	99.2	712	M
413.00 > 169.00	3.430	3.430	0.0	1.002	798222		2.54(1.19-3.57)	99.2	2894	
D 14 13C4 PFOA										
417.00 > 372.00	3.421	3.430	-0.009	1.000	1838372	2.50		99.9	4848	
* 62 13C2 PFOA										
415.00 > 370.00	3.421	3.430	-0.009		2025981	2.50			2866	
D 18 13C4 PFOS										
503.00 > 80.00	3.793	3.793	0.0	1.108	1140581	2.33		97.3	2867	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.793	3.793	0.0	1.000	1267930	2.46	Target=5.71	106	4988	M
499.00 > 99.00	3.793	3.793	0.0	1.000	224944		5.64(2.86-8.57)	106	3336	M
D 19 13C5 PFNA										
468.00 > 423.00	3.817	3.817	0.0	1.116	1654835	2.44		97.8	4498	
20 Perfluorononanoic acid										
463.00 > 419.00	3.817	3.817	0.0	1.000	1654904	2.55	Target=6.87	102	736	
463.00 > 169.00	3.817	3.817	0.0	1.000	249138		6.64(3.43-10.30)	102	5108	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.983	3.984	-0.001	1.050	1460233	2.48		106	5796	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.116	4.129	-0.013	1.085	953306	2.42	Target=2.92	101	6297	
549.00 > 99.00	4.116	4.129	-0.013	1.085	323367		2.95(1.46-4.38)	101	2191	
D 23 13C2 PFDA										
515.00 > 470.00	4.153	4.153	0.0	1.214	1746295	2.62		105	3138	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.153	4.153	0.0	1.000	1446289	2.14	Target=7.21	85.6	1122	
513.00 > 169.00	4.153	4.153	0.0	1.000	233335		6.20(3.60-10.81)	85.6	2020	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.164	4.164	0.0	1.217	295643	2.34		97.5	823	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.164	4.164	0.0	1.000	133169	2.34		97.6	2698	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	2131820	2.65		106	2771	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.239	2022406	2.32		92.7	3204	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.305	4.305	0.0	1.000	137453	2.44		97.5	1392	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.305	4.305	0.0	1.258	162301	2.53		101	630	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.397	4.409	-0.012	1.159	936371	2.73	Target=2.78	113	4683	
599.00 > 99.00	4.397	4.409	-0.012	1.159	315108		2.97(1.39-4.17)	113	4342	
D 30 13C2 PFUnA										
565.00 > 520.00	4.431	4.431	0.0	1.295	1499824	2.64		106	6066	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.431	4.431	0.0	1.000	1125345	2.21	Target=5.47	88.5	1431	
563.00 > 169.00	4.431	4.431	0.0	1.000	208469		5.40(2.73-8.20)	88.5	2496	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.442	4.442	0.0	1.000	130088	2.34		93.7	1195	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.442	4.442	0.0	1.298	167771	2.36		94.2	1406	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.523	4.523	0.0	1.193	1360675	2.45		104	5247	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.660	4.671	-0.011	1.000	1516559	2.63	Target=4.84	105	297	
613.00 > 169.00	4.671	4.671	0.0	1.002	282472		5.37(2.42-7.26)	105	2582	
D 36 13C2 PFDoA										
615.00 > 570.00	4.660	4.671	-0.011	1.362	1557975	2.50		100	6330	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.682	4.683	-0.001	1.125	98405	2.72		113	2734	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.838	4.838	0.0	1.276	321545	2.46	Target=0.47	102	757	
699.00 > 99.00	4.838	4.838	0.0	1.276	661426		0.49(0.23-0.70)	102	5067	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.879	4.879	0.0	1.047	1347519	2.46	Target=3.74	98.5	250	
663.00 > 169.00	4.879	4.879	0.0	1.047	361235		3.73(1.87-5.62)	98.5	2012	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.058	5.058	0.0	1.478	1270243	2.44		97.5	8654	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.058	5.067	-0.009	1.000	248067	2.43	Target=1.01	97.2	1936	
713.00 > 219.00	5.058	5.067	-0.009	1.000	247989		1.00(0.50-1.51)	97.2	3561	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.402	5.403	0.0	1.579	1250255	2.61		104	5643	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.402	5.413	-0.011	1.000	1095661	2.45	Target=3.04	98.0	238	
813.00 > 169.00	5.402	5.413	-0.011	1.000	368445		2.97(1.52-4.56)	98.0	2766	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.739	5.747	-0.008	1.062	902508	2.50	Target=2.88	99.9	319	
913.00 > 169.00	5.739	5.747	-0.008	1.062	307397		2.94(1.44-4.32)	99.9	2102	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC5_00004 Amount Added: 100.00 Units: uL

Report Date: 09-Dec-2019 12:10:15 Chrom Revision: 2.3 17-Oct-2019 22:00:42

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL009.d

Injection Date: 06-Dec-2019 15:05:16 Instrument ID: LC812

Lims ID: IC

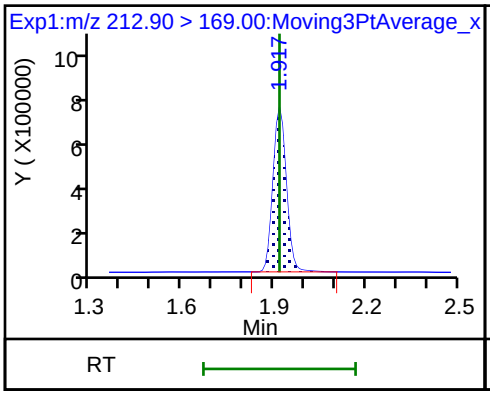
Client ID:

Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 9

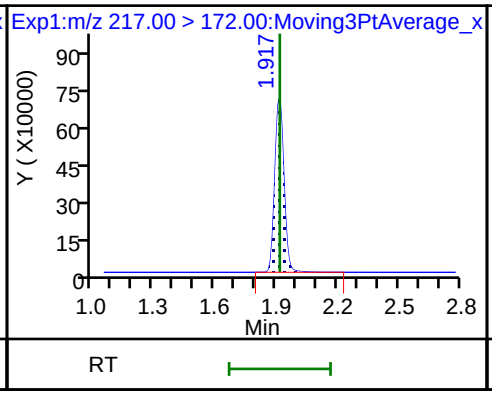
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

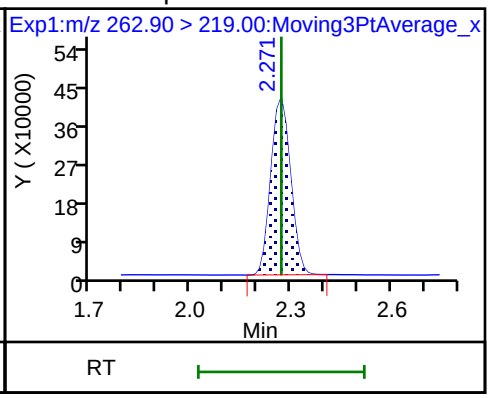
2 Perfluorobutanoic acid



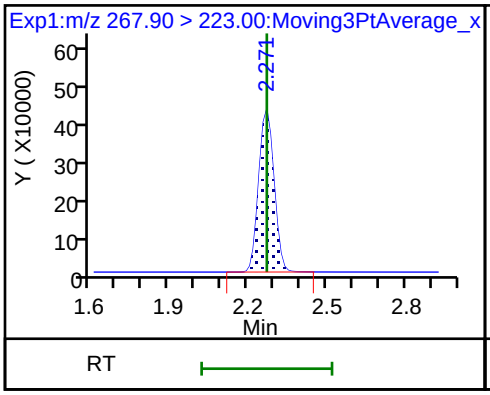
D 1 13C4 PFBA



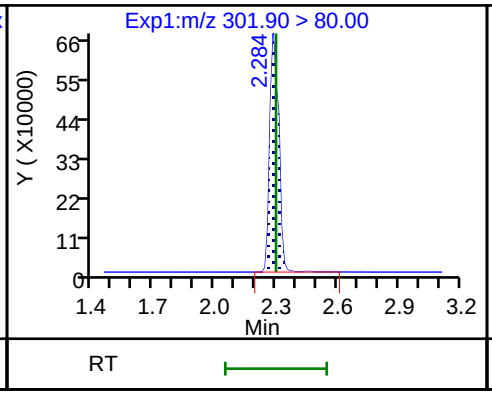
4 Perfluoropentanoic acid



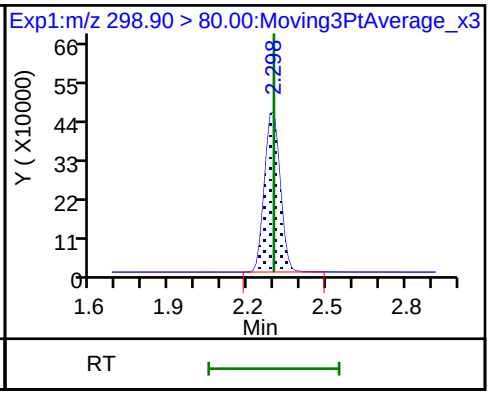
D 3 13C5 PFPeA



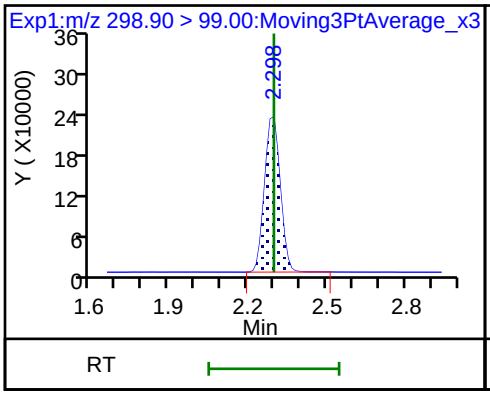
D 47 13C3 PFBS



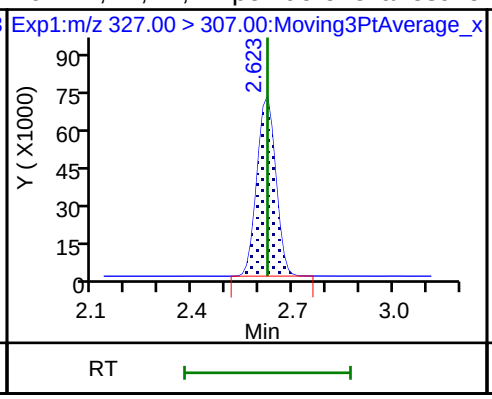
5 Perfluorobutanesulfonic acid



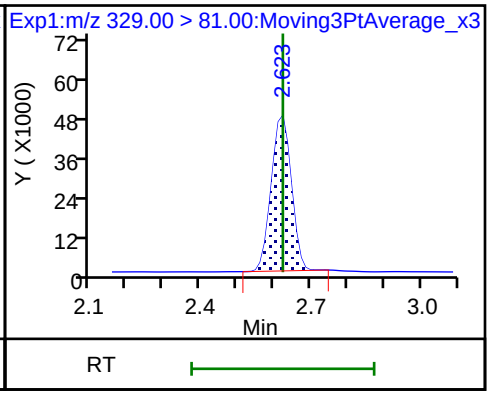
5 Perfluorobutanesulfonic acid



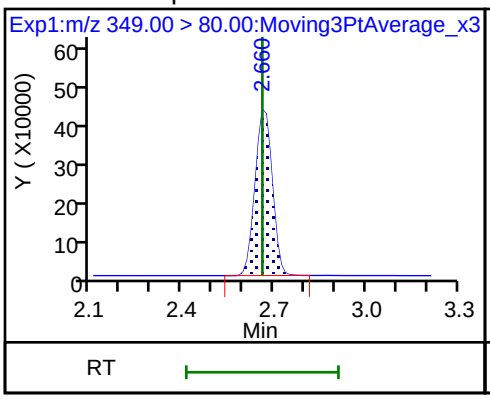
61 1H,1H,2H,2H-perfluorohexanesulfon



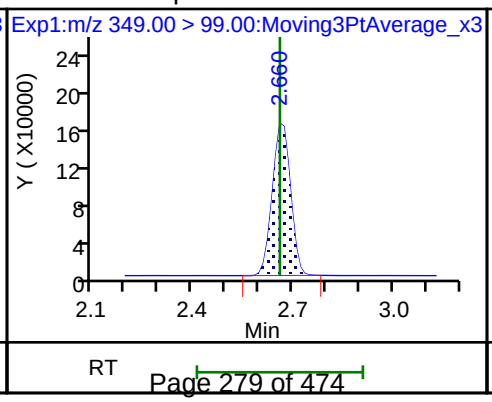
D 60 M2-4:2 FTS



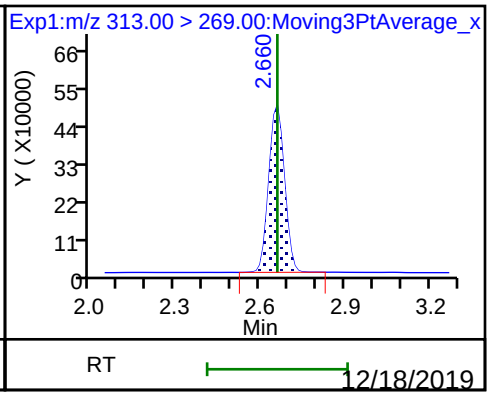
70 Perfluoropentanesulfonic acid



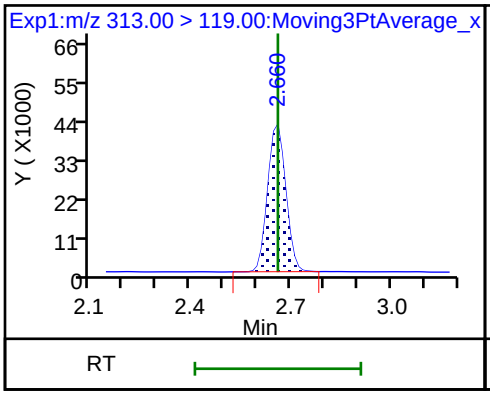
70 Perfluoropentanesulfonic acid



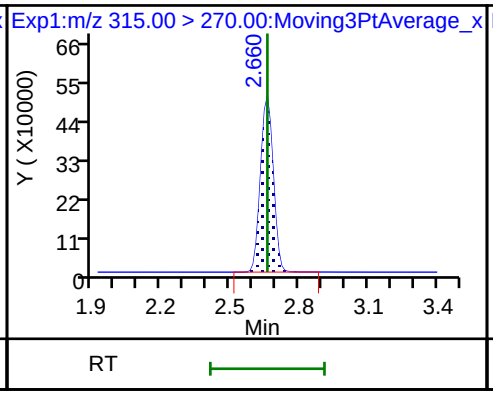
6 Perfluorohexanoic acid



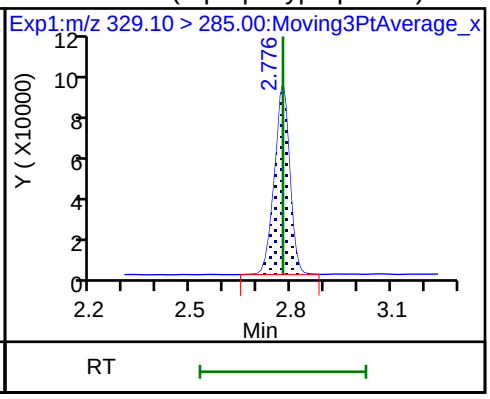
6 Perfluorohexanoic acid



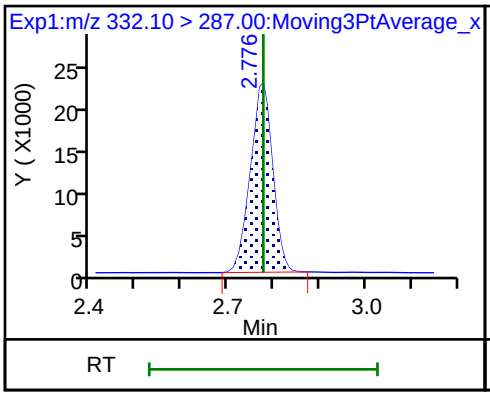
D 7 13C2 PFHxA



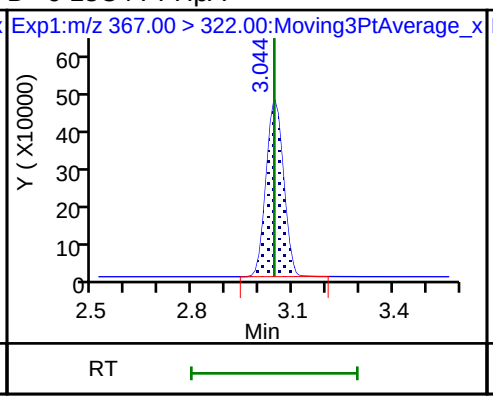
67 Perfluoro(2-propoxypropanoic) acid



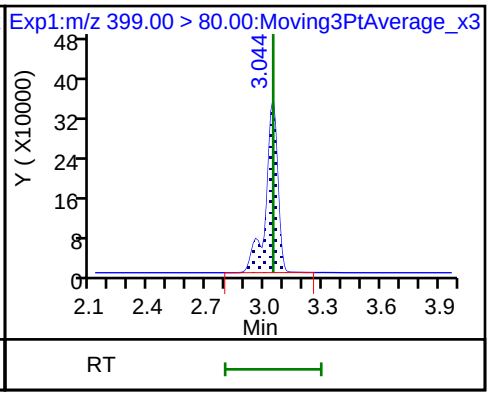
D 64 13C3 HFPO-DA



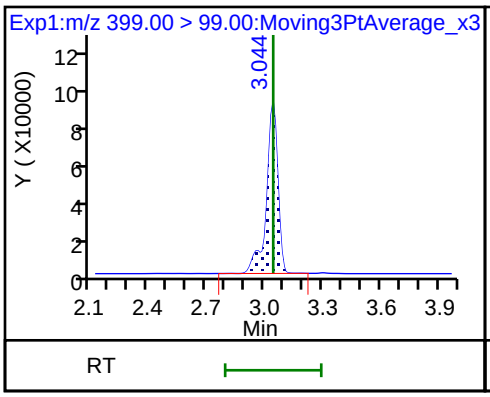
D 9 13C4 PFHpA



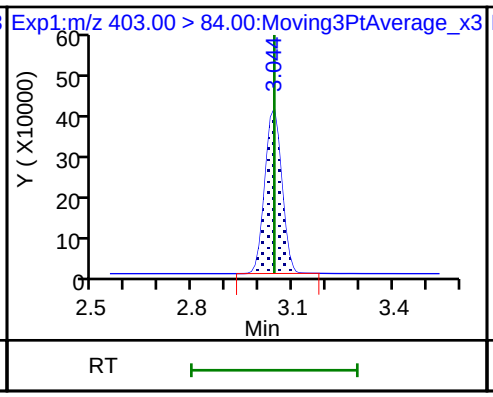
8 Perfluorohexanesulfonic acid



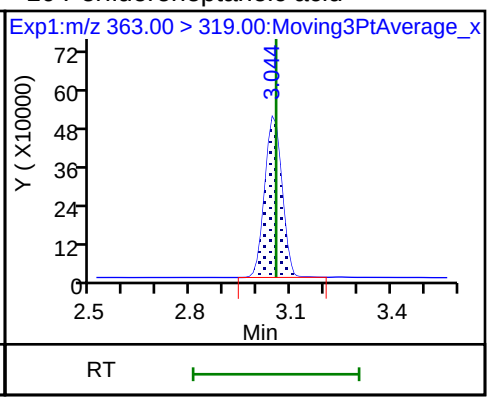
8 Perfluorohexanesulfonic acid



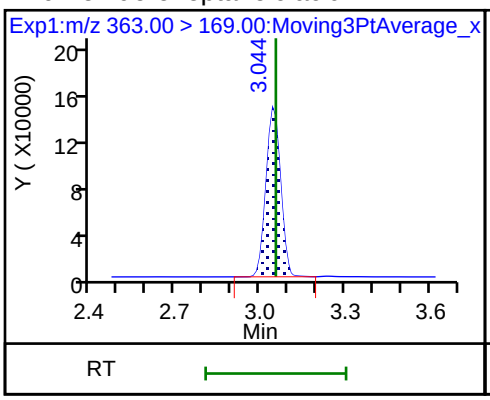
D 11 18O2 PFHxS



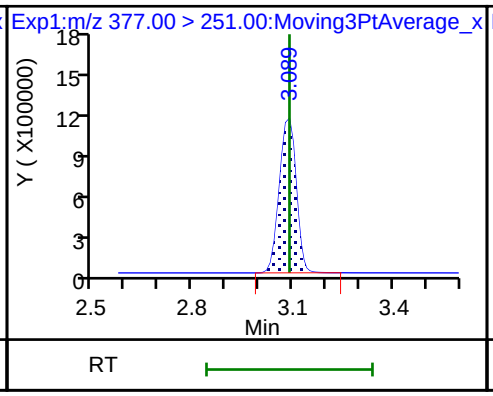
10 Perfluoroheptanoic acid



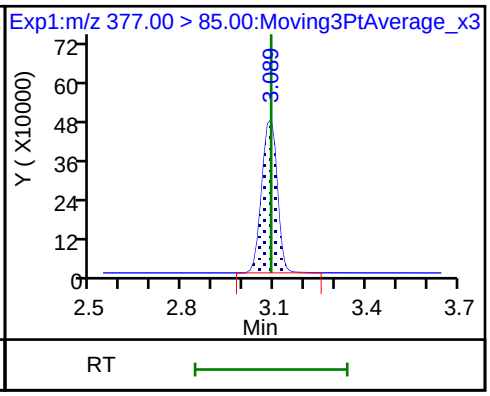
10 Perfluoroheptanoic acid



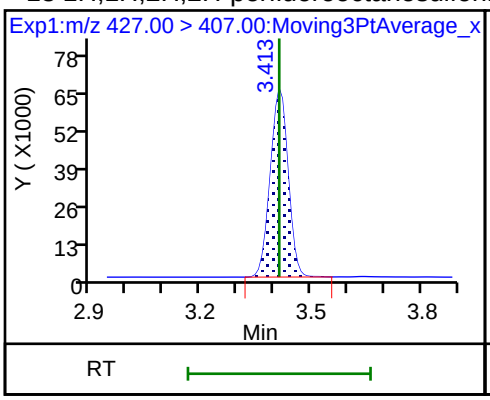
77 DONA



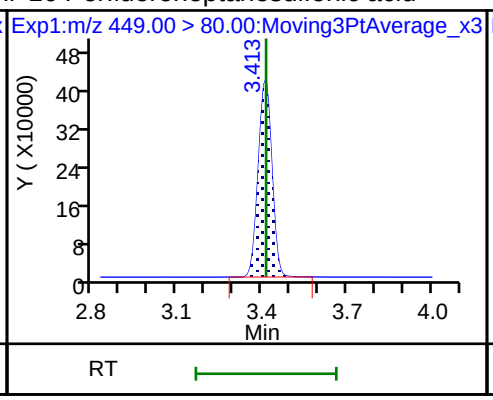
77 DONA



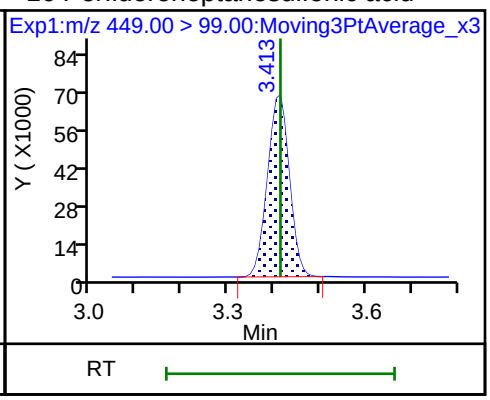
13 1H,1H,2H,2H-perfluorooctanesulfoni



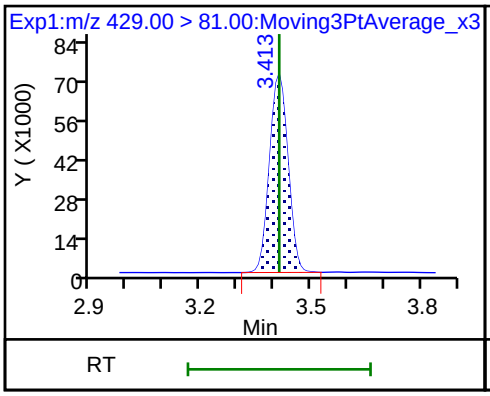
16 Perfluoroheptanesulfonic acid



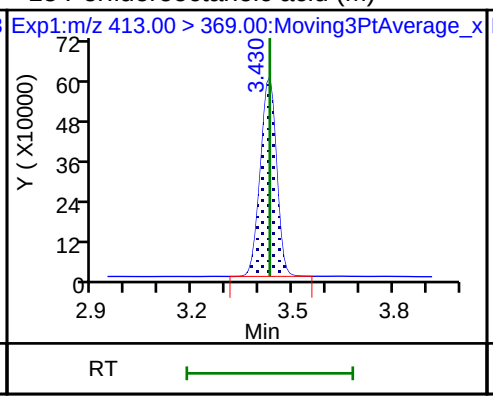
16 Perfluoroheptanesulfonic acid



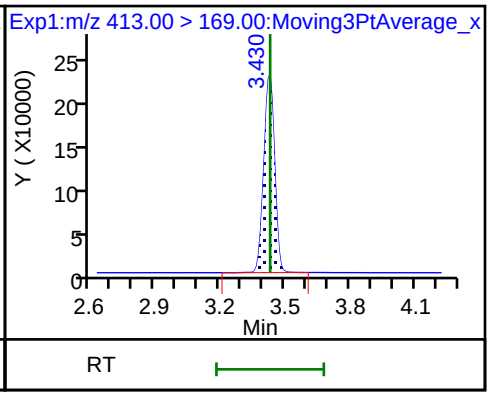
D 12 M2-6:2 FTS



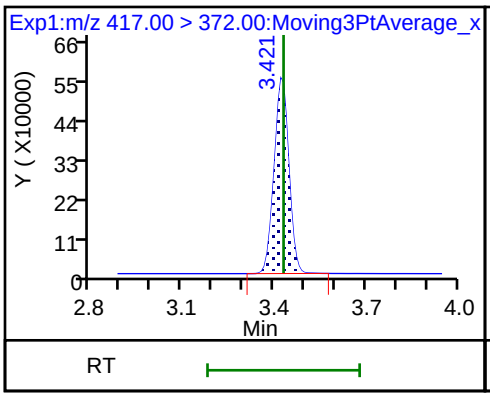
15 Perfluorooctanoic acid (M)



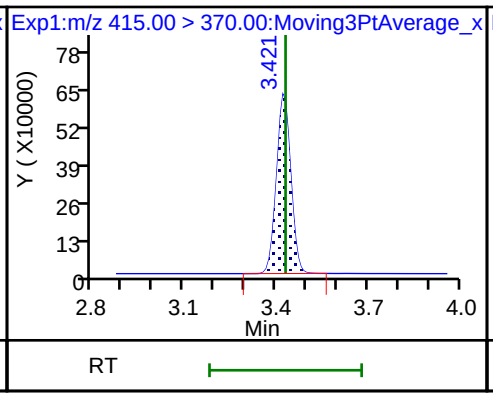
15 Perfluorooctanoic acid



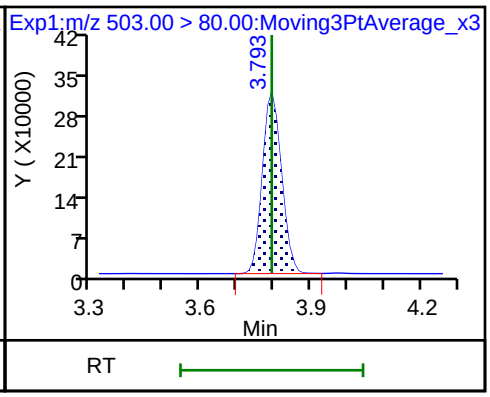
D 14 13C4 PFOA



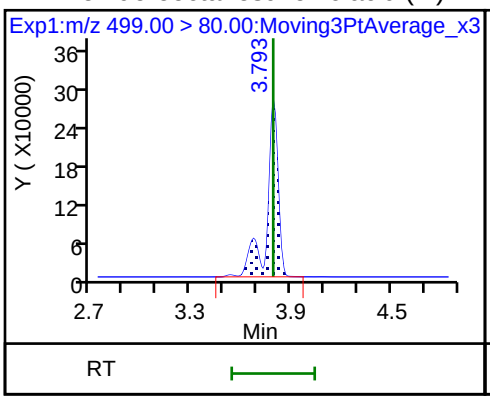
* 62 13C2 PFOA



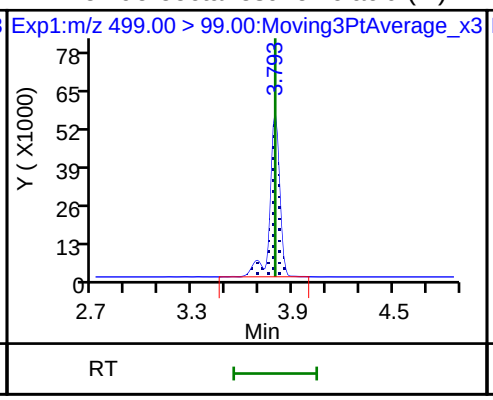
D 18 13C4 PFOS



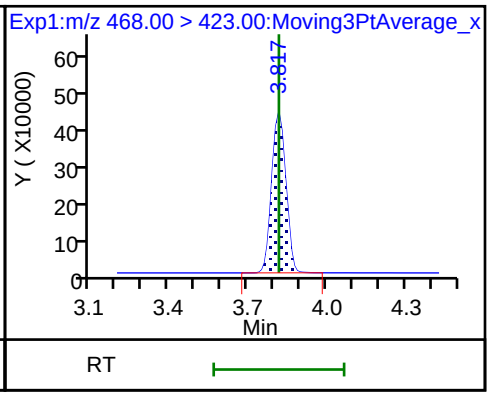
17 Perfluorooctanesulfonic acid (M)



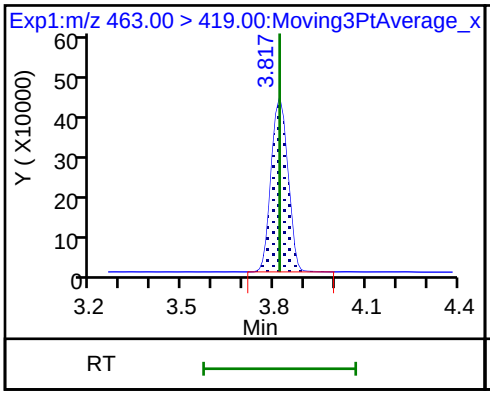
17 Perfluorooctanesulfonic acid (M)



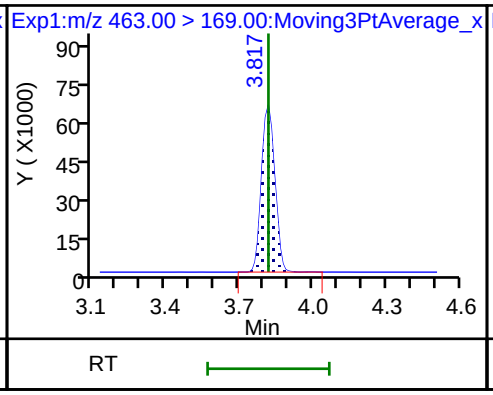
D 19 13C5 PFNA



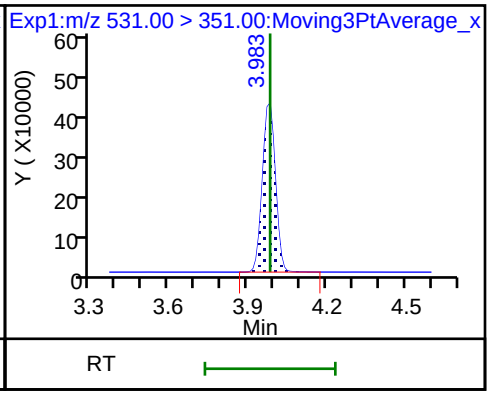
20 Perfluorononanoic acid



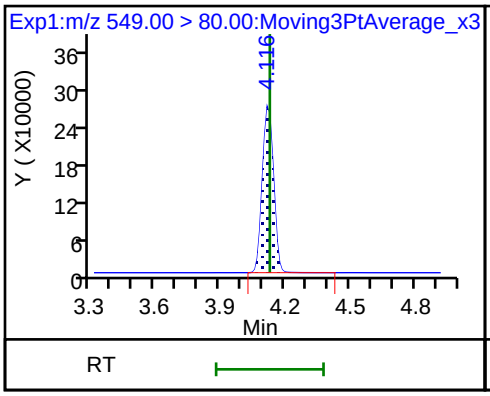
20 Perfluorononanoic acid



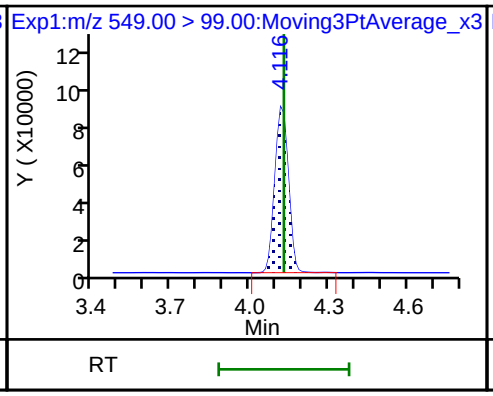
69 9-Chlorohexadecafluoro-3-oxanonane



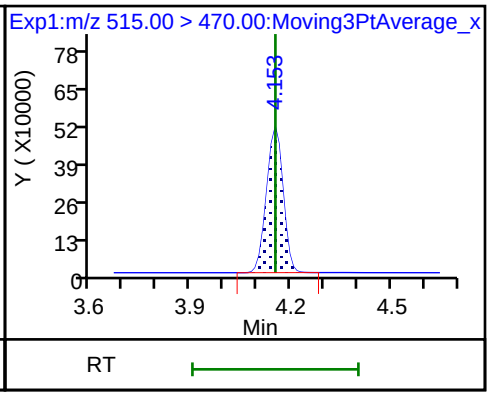
68 Perfluorononanesulfonic acid



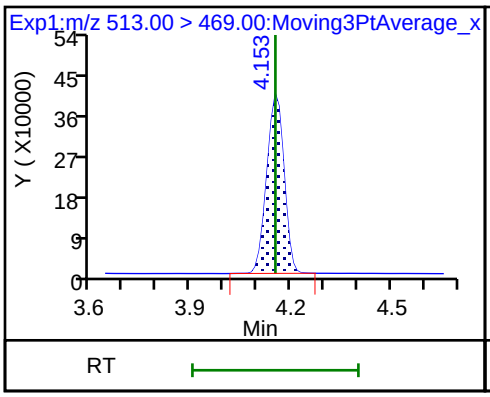
68 Perfluorononanesulfonic acid



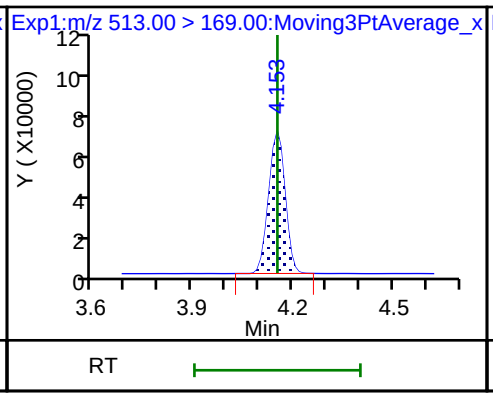
D 23 13C2 PFDA



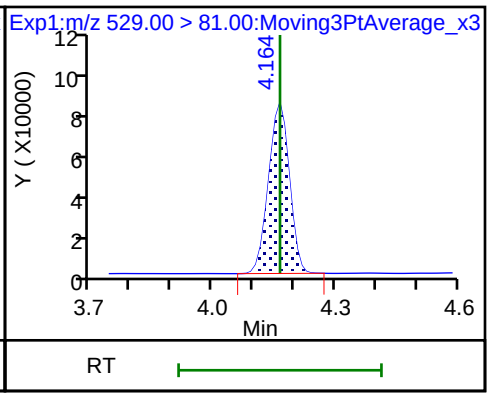
24 Perfluorodecanoic acid



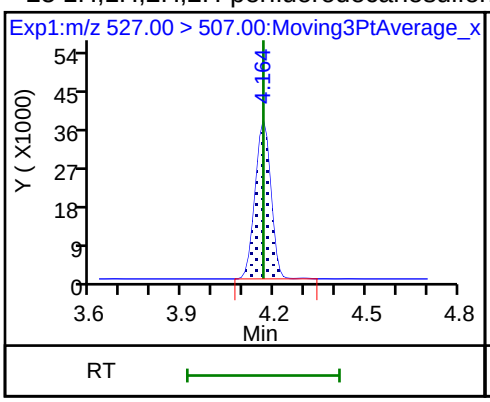
24 Perfluorodecanoic acid



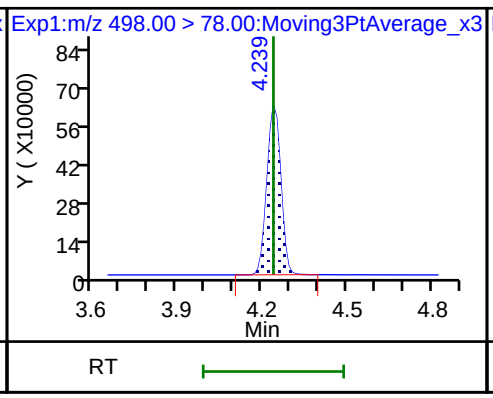
D 26 M2-8:2 FTS



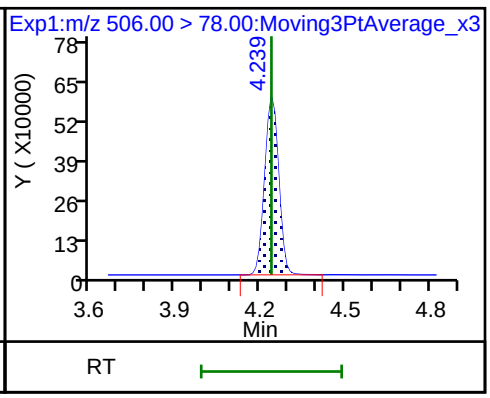
25 1H,1H,2H,2H-perfluorodecanesulfoni



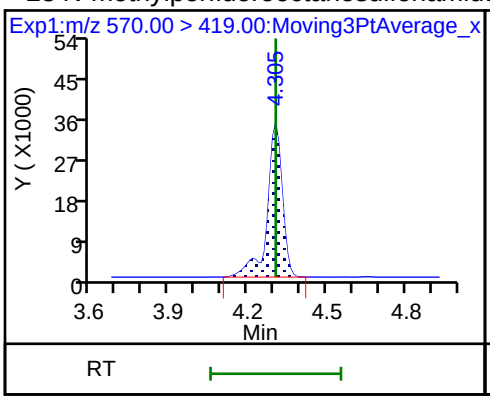
22 Perfluorooctanesulfonamide

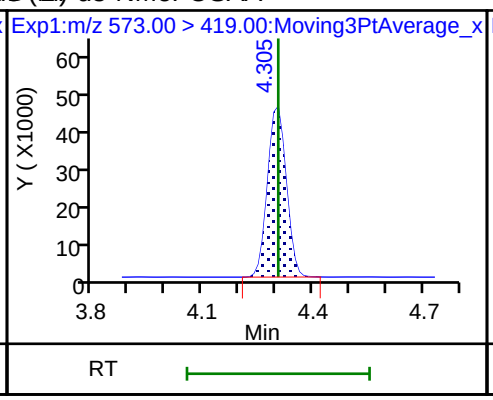


D 21 13C8 FOSA

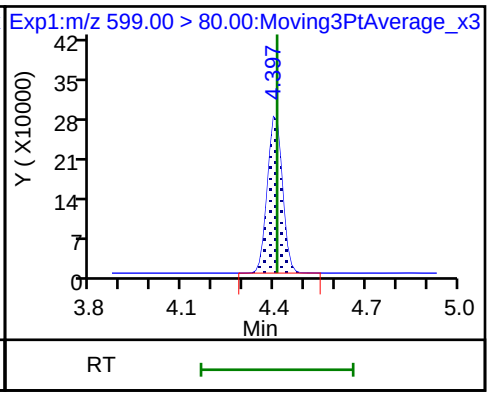


28 N-methylperfluorooctanesulfonamidoa (27) d3-NMeFOSAA

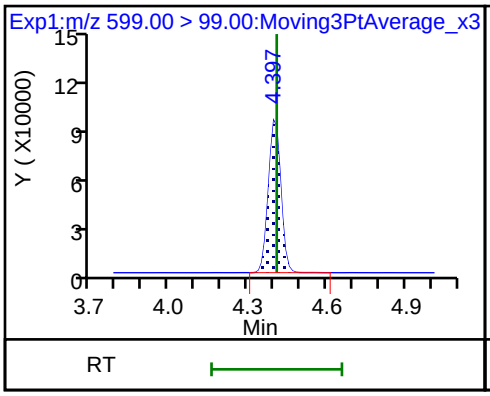




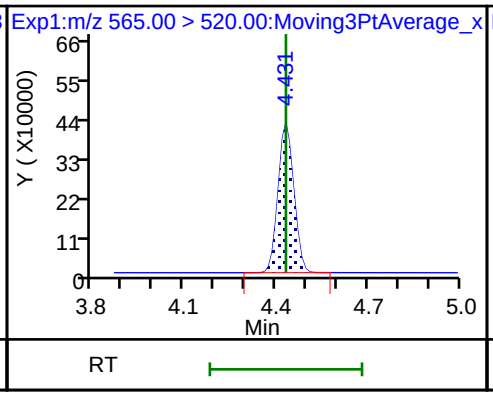
29 Perfluorodecanesulfonic acid



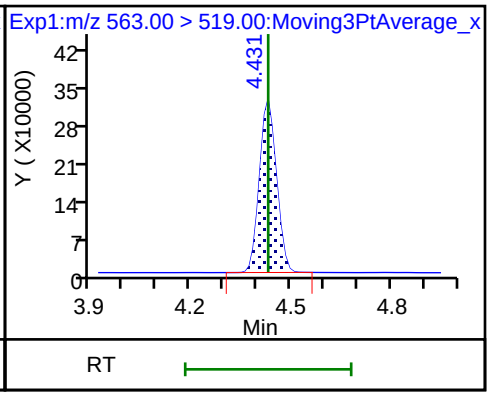
29 Perfluorodecanesulfonic acid



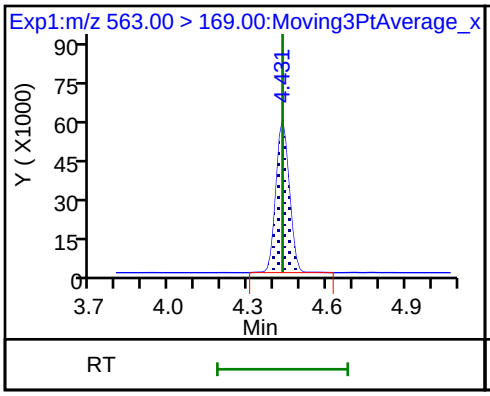
D 30 13C2 PFUnA



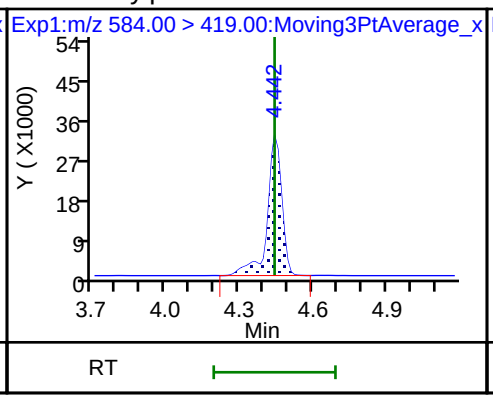
31 Perfluoroundecanoic acid

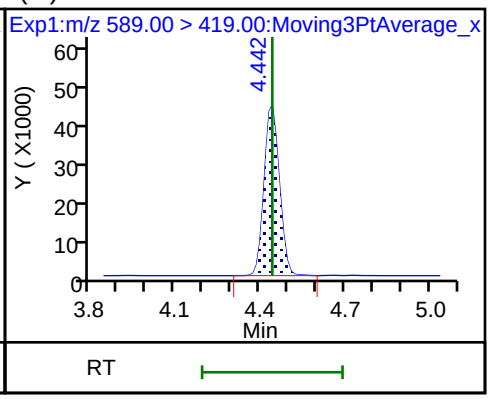


31 Perfluoroundecanoic acid

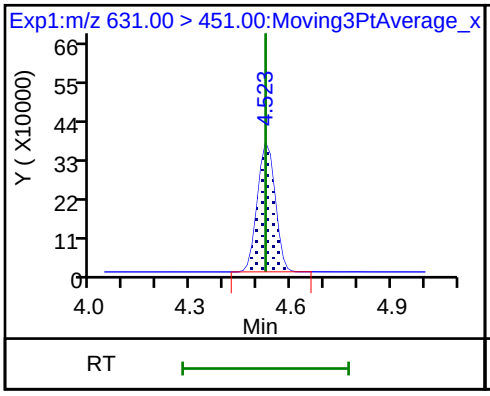


33 N-ethylperfluorooctanesulfonamidoa (32) d5-NEtFOSAA

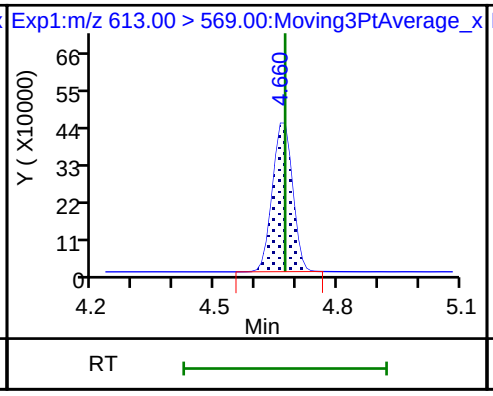




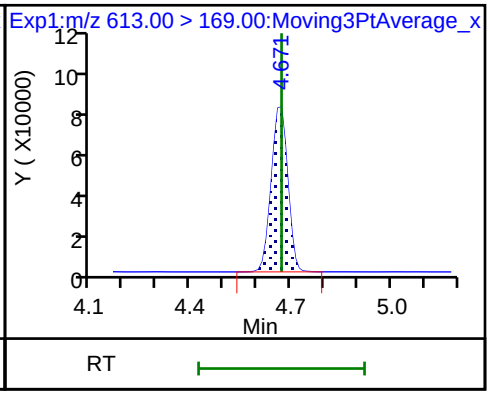
66 11-Chloroeicosafluoro-3-oxaundecan



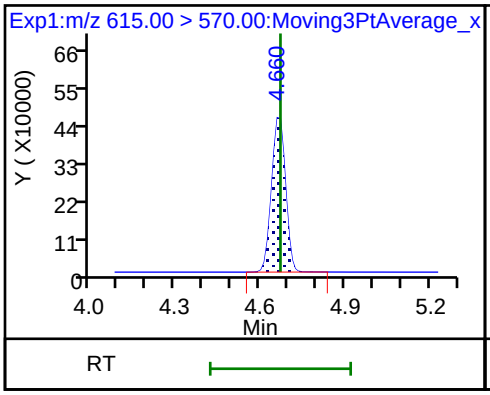
37 Perfluorododecanoic acid



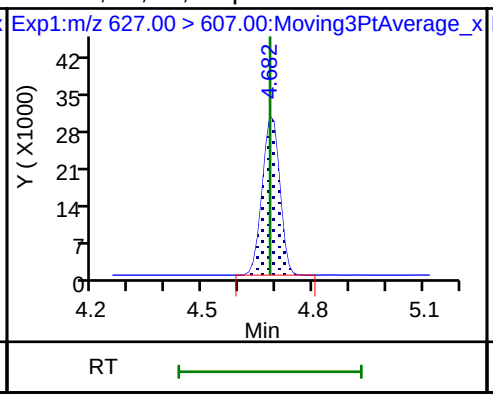
37 Perfluorododecanoic acid



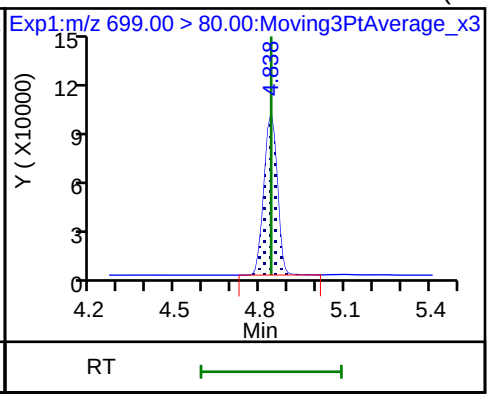
D 36 13C2 PFDoA



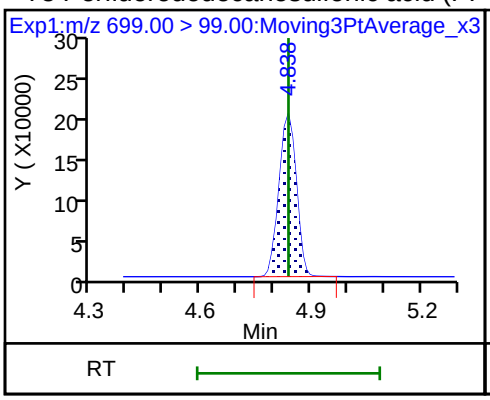
74 1H,1H,2H,2H-perfluorododecanesulfo



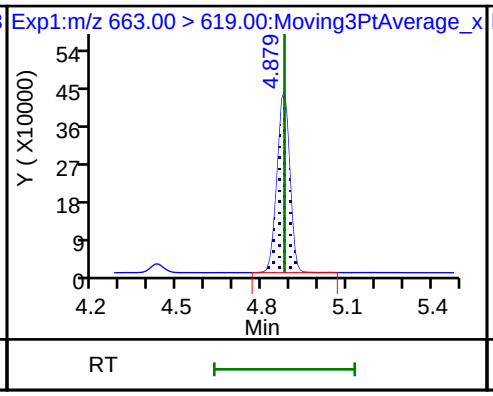
75 Perfluorododecanesulfonic acid (PF



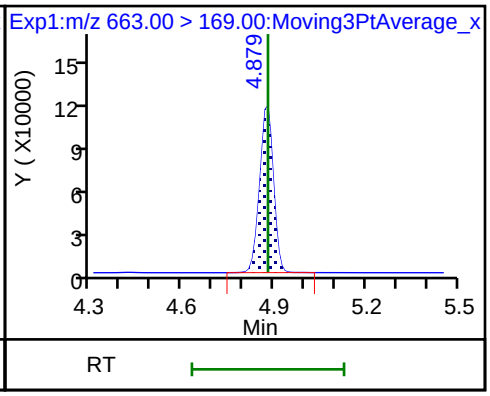
75 Perfluorododecanesulfonic acid (PF



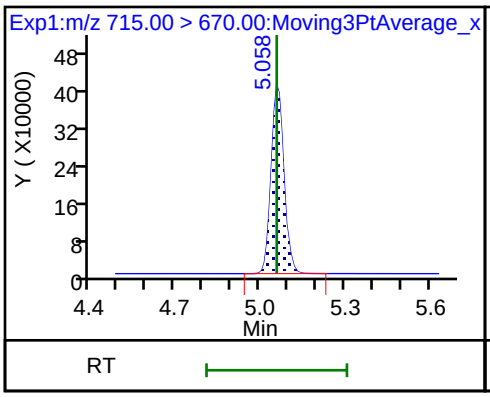
41 Perfluorotridecanoic acid



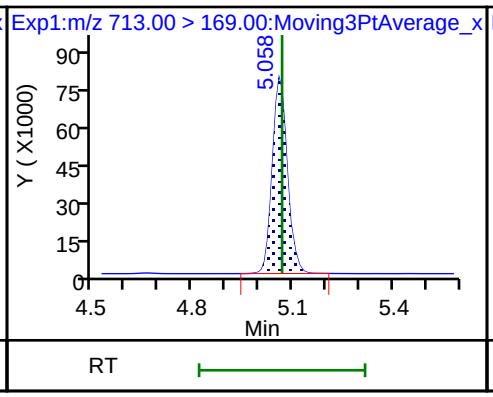
41 Perfluorotridecanoic acid



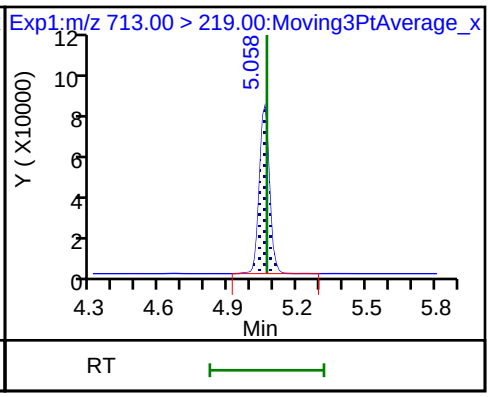
D 43 13C2 PFTeDA



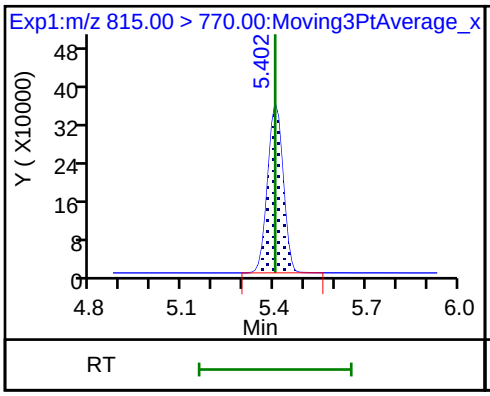
42 Perfluorotetradecanoic acid



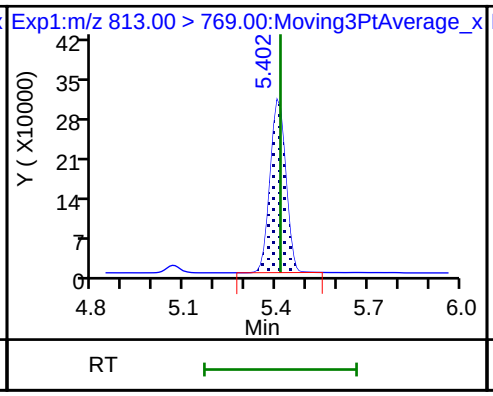
42 Perfluorotetradecanoic acid



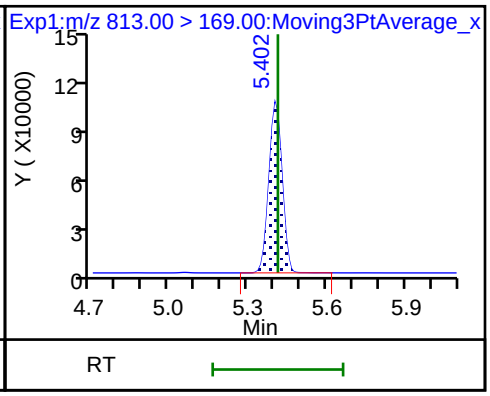
D 44 13C2 PFHxDA



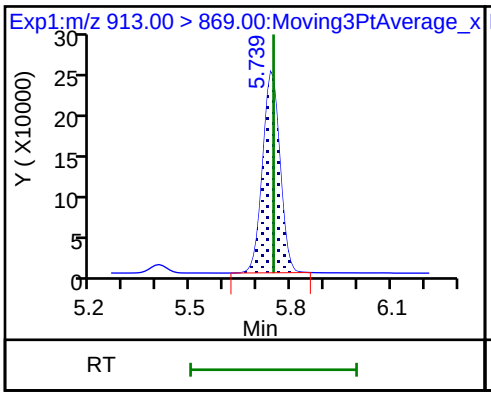
45 Perfluorohexadecanoic acid



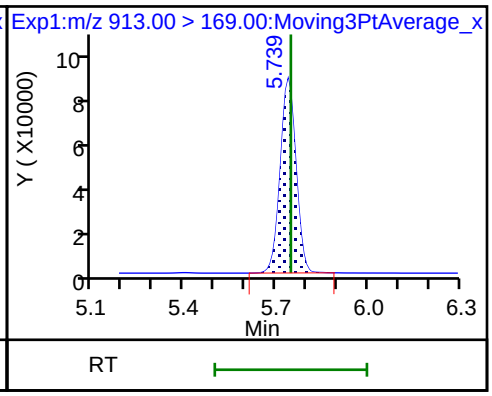
45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

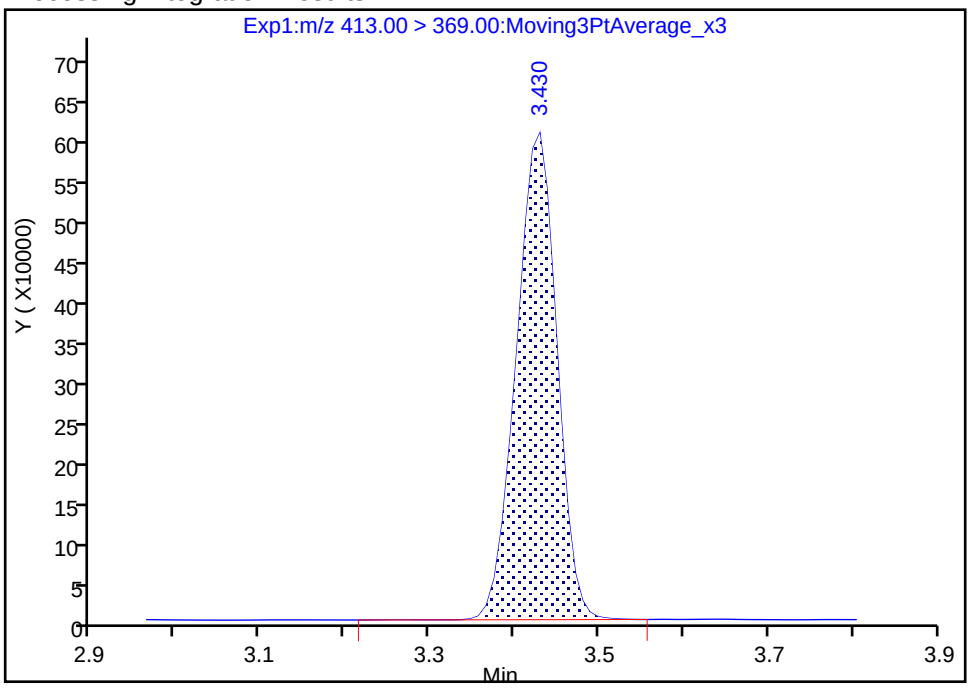
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL009.d
Injection Date: 06-Dec-2019 15:05:16 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 6 Worklist Smp#: 9
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

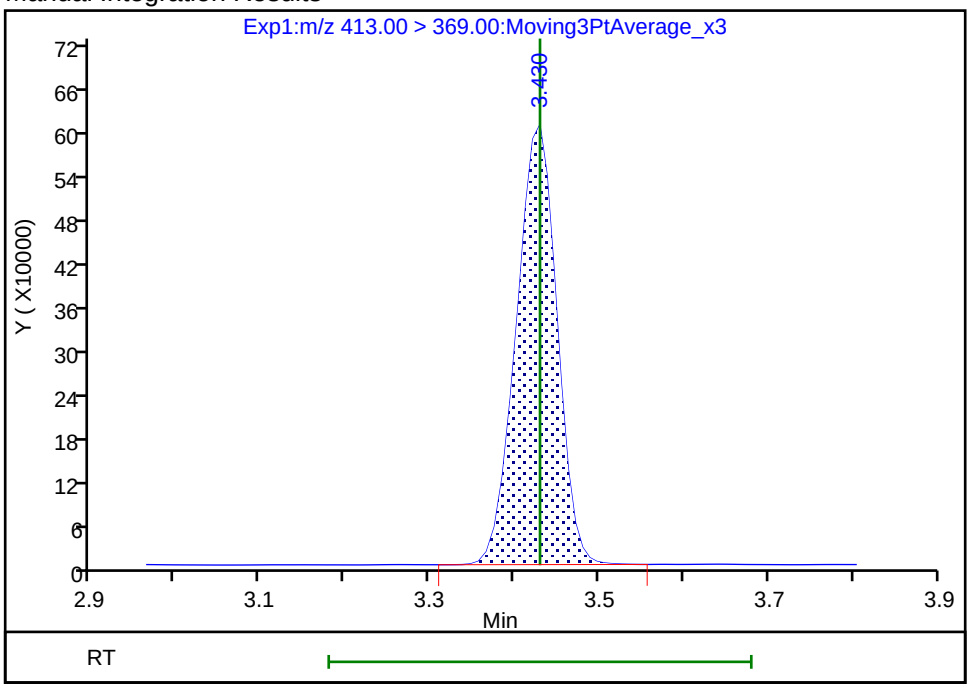
Processing Integration Results

RT: 3.43
Area: 2025401
Amount: 2.480565
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 2023589
Amount: 2.480230
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:44:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

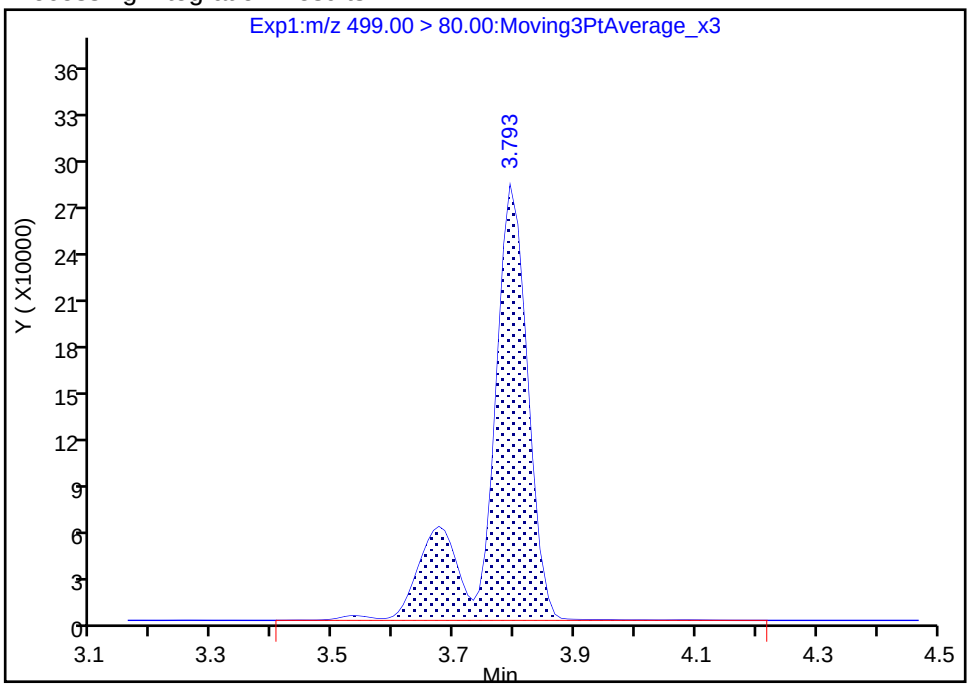
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL009.d				
Injection Date:	06-Dec-2019 15:05:16	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	6	Worklist Smp#:	9
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

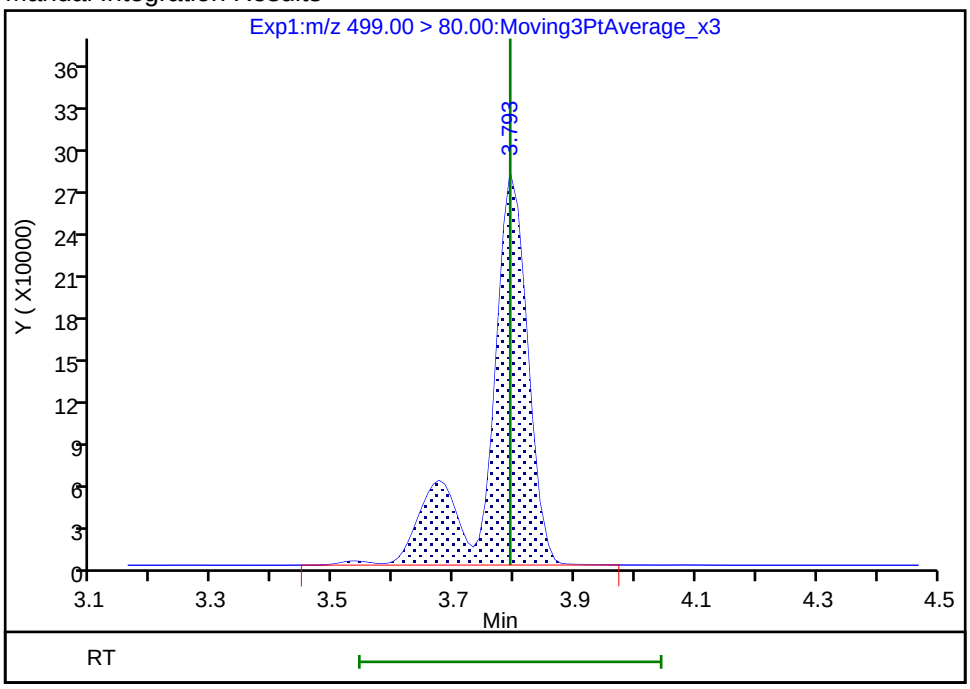
Processing Integration Results

RT: 3.79
Area: 1273354
Amount: 2.439865
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 1267930
Amount: 2.461110
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:33:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

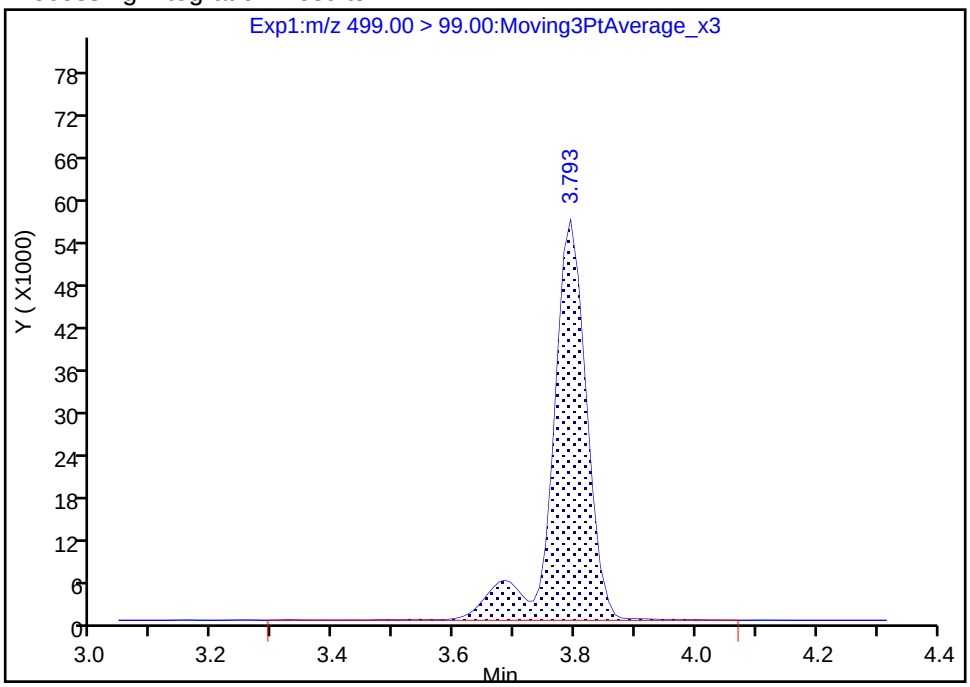
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL009.d				
Injection Date:	06-Dec-2019 15:05:16	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	6	Worklist Smp#:	9
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

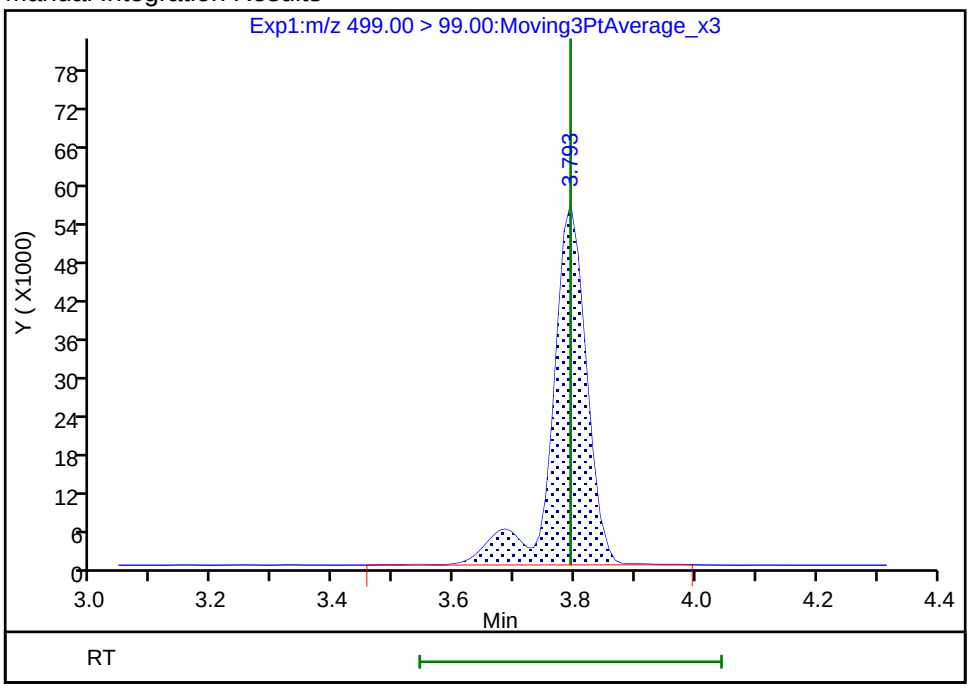
Processing Integration Results

RT: 3.79
Area: 226342
Amount: 2.439865
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 224944
Amount: 2.461110
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:33:23

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

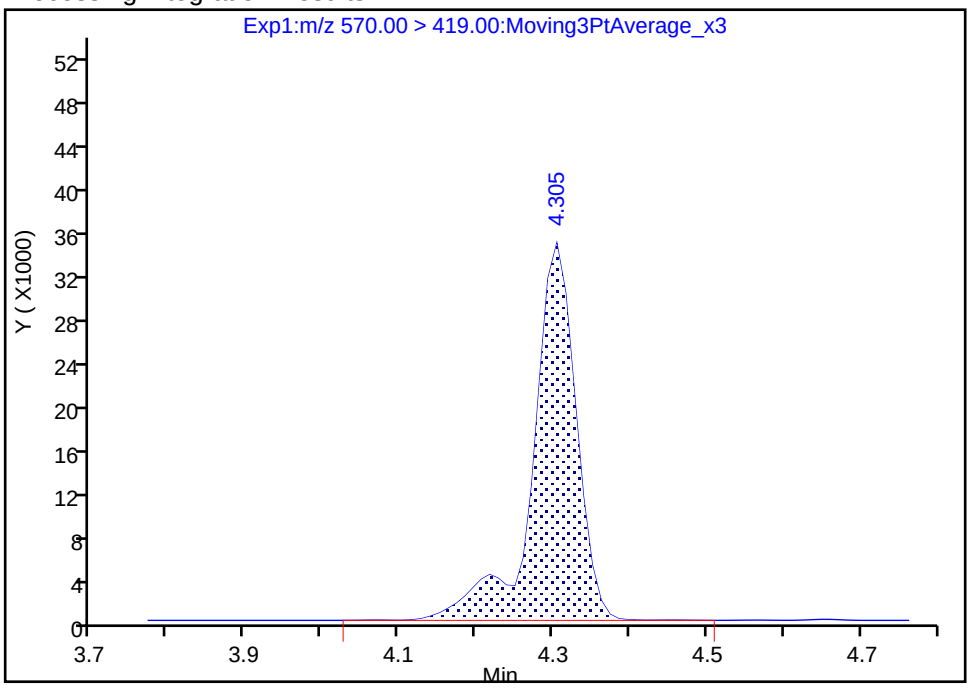
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL009.d				
Injection Date:	06-Dec-2019 15:05:16	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	6	Worklist Smp#:	9
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

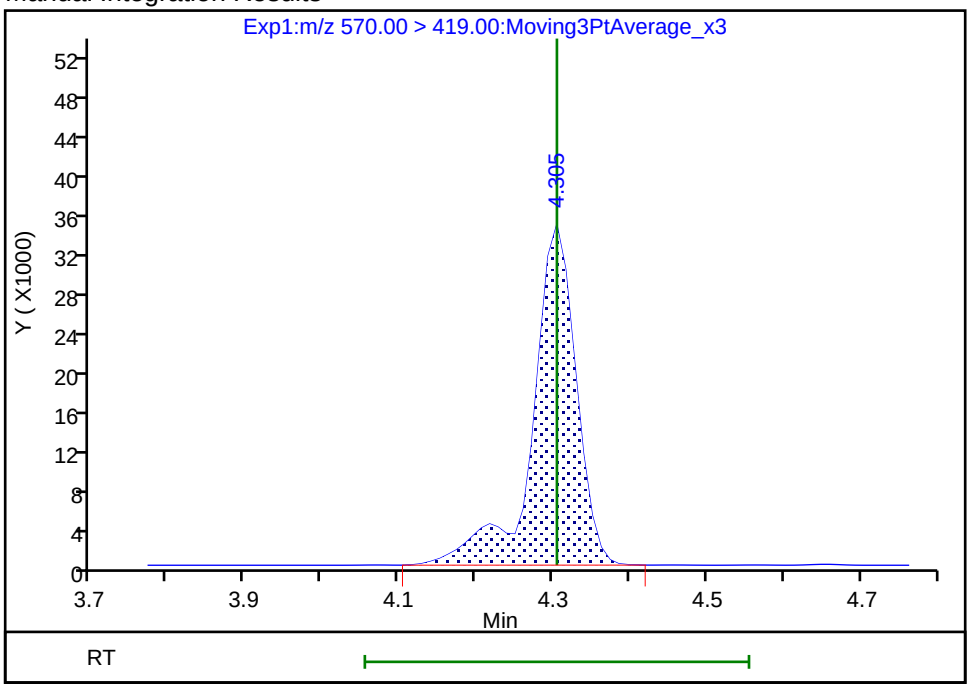
Processing Integration Results

RT: 4.30
Area: 137820
Amount: 2.425426
Amount Units: ng/ml



Manual Integration Results

RT: 4.30
Area: 137453
Amount: 2.436569
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:33:43

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

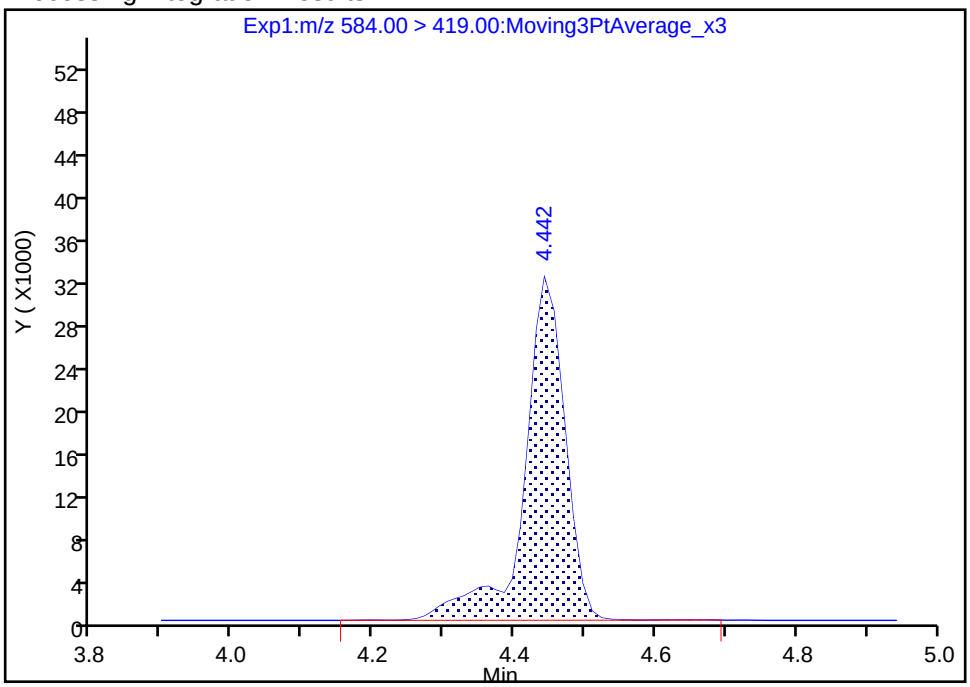
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL009.d				
Injection Date:	06-Dec-2019 15:05:16	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	6	Worklist Smp#:	9
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

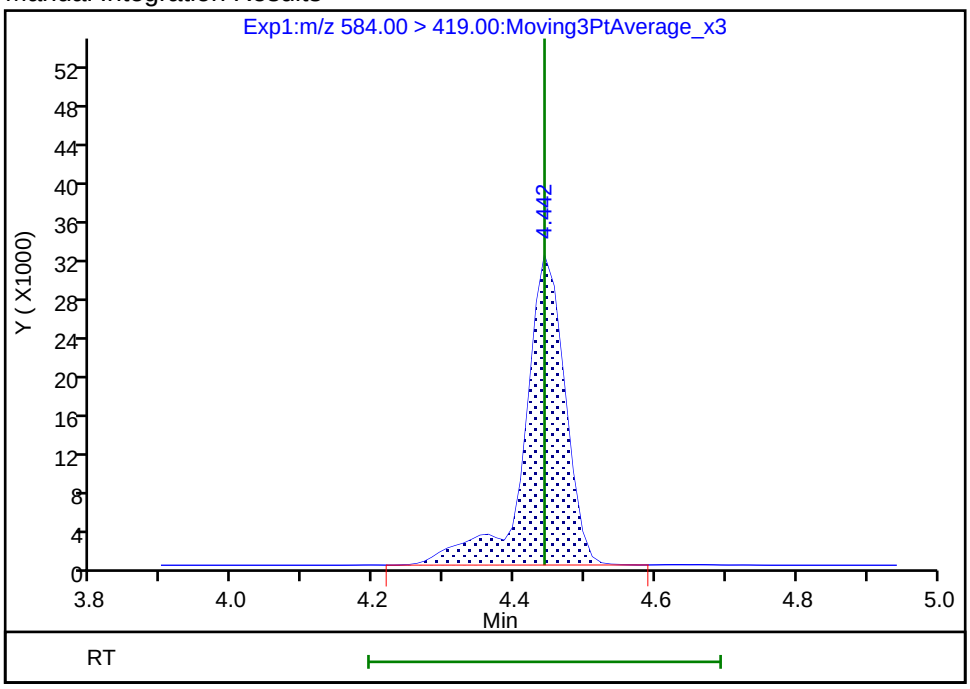
Processing Integration Results

RT: 4.44
Area: 130497
Amount: 2.319349
Amount Units: ng/ml



Manual Integration Results

RT: 4.44
Area: 130088
Amount: 2.341973
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:33:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d
Lims ID: IC
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 06-Dec-2019 15:13:26 ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: IC 6
Misc. Info.: 200-0039114-010 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 09-Dec-2019 12:10:18 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX0316

First Level Reviewer: chirgwinb Date: 06-Dec-2019 15:40:18
Ratio Calibration: Average of Initial Calibration

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutanoic acid										
212.90 > 169.00	1.926	1.917	0.009	1.005	7890334	9.30		93.0	2523	
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.559	2130869	2.50		100	27792	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.271	2.271	0.0	1.000	6633075	9.23		92.3	736	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.662	1586923	2.44		97.5	6093	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.298	0.0	0.670	1688504	2.17		93.5	293230	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	6947766	8.80	Target=2.03	99.6	18395	
298.90 > 99.00	2.298	2.298	0.0	1.000	3618159		1.92(1.01-3.04)	99.6	5463	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.623	0.0	1.000	1151408	9.80		105	7852	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.623	0.0	0.765	158307	2.19		93.6	254	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.660	0.013	0.878	6887561	9.40	Target=3.08	100	16915	
349.00 > 99.00	2.673	2.660	0.013	0.878	2182021		3.16(1.54-4.62)	100	4289	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.661	2.660	0.0	1.000	7062831	9.92	Target=12.44	99.2	2888	
313.00 > 119.00	2.661	2.660	0.0	1.000	548893		12.87(6.22-18.67)	99.2	1115	
D 7 13C2 PFHxA										
315.00 > 270.00	2.661	2.660	0.0	0.776	1743644	2.40		96.1	7481	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.784	2.776	0.008	1.000	1184172	10.6		106	595	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.784	2.776	0.008	0.812	77795	2.46		98.2	1297	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.044	0.011	0.891	1724606	2.51		100	3967	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.044	3.044	0.0	1.000	5851407	8.19	Target=4.13	90.0	14589	
399.00 > 99.00	3.044	3.044	0.0	1.000	1431809		4.09(2.07-6.20)	90.0	3725	
D 11 18O2 PFHxS										
403.00 > 84.00	3.044	3.044	0.0	0.887	1492254	2.43		103	6548	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.000	6895339	9.45	Target=3.48	94.5	2548	
363.00 > 169.00	3.055	3.055	0.0	1.000	2019462		3.41(1.74-5.22)	94.5	3645	
77 DONA										
377.00 > 251.00	3.089	3.089	0.0	0.815	16313820	9.62	Target=2.44	102	12004	
377.00 > 85.00	3.089	3.089	0.0	0.815	6345729		2.57(1.22-3.67)	102	10875	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.413	3.413	0.0	0.998	844224	9.04		95.3	1995	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.413	3.413	0.0	0.900	5747086	9.78	Target=6.34	103	4909	
449.00 > 99.00	3.413	3.413	0.0	0.900	831804		6.91(3.17-9.51)	103	8110	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.422	3.413	0.009	0.998	235092	2.23		94.0	871	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.430	3.430	0.0	1.000	6722811	8.36	Target=2.38	83.6	1756	M
413.00 > 169.00	3.430	3.430	0.0	1.000	3149742		2.13(1.19-3.57)	83.6	5812	
D 14 13C4 PFOA										
417.00 > 372.00	3.430	3.430	0.0	1.000	1811057	2.48		99.2	4145	
* 62 13C2 PFOA										
415.00 > 370.00	3.430	3.430	0.0		2008946	2.50			3313	
D 18 13C4 PFOS										
503.00 > 80.00	3.793	3.793	0.0	1.106	1147139	2.36		98.7	2381	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.805	3.793	0.012	1.003	4517143	8.72	Target=5.71	93.9	6275	M
499.00 > 99.00	3.793	3.793	0.0	1.000	783280		5.77(2.86-8.57)	93.9	4179	M
D 19 13C5 PFNA										
468.00 > 423.00	3.817	3.817	0.0	1.113	1655656	2.47		98.6	5056	
20 Perfluorononanoic acid										
463.00 > 419.00	3.817	3.817	0.0	1.000	5734465	8.83	Target=6.87	88.3	1923	
463.00 > 169.00	3.817	3.817	0.0	1.000	878719		6.53(3.43-10.30)	88.3	8097	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.983	3.984	-0.001	1.050	5186817	8.76		94.0	8459	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.128	4.129	-0.001	1.089	3592295	9.06	Target=2.92	94.4	10100	
549.00 > 99.00	4.128	4.129	-0.001	1.089	1333277		2.69(1.46-4.38)	94.4	4185	
D 23 13C2 PFDA										
515.00 > 470.00	4.164	4.153	0.011	1.214	1586129	2.40		95.9	3242	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.164	4.153	0.011	1.000	6034539	9.83	Target=7.21	98.3	3993	
513.00 > 169.00	4.164	4.153	0.011	1.000	820463		7.36(3.60-10.81)	98.3	2891	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.164	4.164	0.0	1.214	293276	2.34		97.6	1002	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.164	4.164	0.0	1.000	541123	9.57		99.9	2923	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.251	4.239	0.012	1.000	8593529	9.97		99.7	7077	
D 21 13C8 FOSA										
506.00 > 78.00	4.251	4.239	0.012	1.239	2165350	2.50		100	5619	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.305	4.305	0.0	1.000	569245	9.66		96.6	4401	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.305	4.305	0.0	1.255	169500	2.66		106	328	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.409	4.409	0.0	1.162	3254326	9.42	Target=2.78	97.7	5415	
599.00 > 99.00	4.409	4.409	0.0	1.162	1114122		2.92(1.39-4.17)	97.7	2411	
D 30 13C2 PFUnA										
565.00 > 520.00	4.431	4.431	0.0	1.292	1343214	2.39		95.5	4686	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.431	4.431	0.0	1.000	4599988	10.1	Target=5.47	101	1972	
563.00 > 169.00	4.431	4.431	0.0	1.000	811617		5.67(2.73-8.20)	101	2670	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.456	4.442	0.014	1.003	597510	9.38		93.8	3385	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.442	4.442	0.0	1.295	192338	2.72		109	1973	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.537	4.523	0.014	1.196	5434304	9.74		103	6841	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.671	4.671	0.0	1.000	5467302	9.63	Target=4.84	96.3	876	
613.00 > 169.00	4.671	4.671	0.0	1.000	1110422		4.92(2.42-7.26)	96.3	9236	
D 36 13C2 PFDoA										
615.00 > 570.00	4.671	4.671	0.0	1.362	1535578	2.49		99.6	4830	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.693	4.683	0.010	1.127	326752	9.11		94.5	2654	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.838	4.838	0.0	1.276	1255696	9.56	Target=0.47	98.8	3247	
699.00 > 99.00	4.838	4.838	0.0	1.276	2611913		0.48(0.23-0.70)	98.8	7979	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.879	4.879	0.0	1.044	5352503	9.93	Target=3.74	99.3	1073	
663.00 > 169.00	4.879	4.879	0.0	1.044	1396000		3.83(1.87-5.62)	99.3	5734	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.067	5.058	0.009	1.477	1240396	2.40		96.0	8410	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.067	5.067	0.0	1.000	994106	9.97	Target=1.01	99.7	5117	
713.00 > 219.00	5.058	5.067	-0.009	0.998	977124		1.02(0.50-1.51)	99.7	6665	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.413	5.403	0.011	1.578	1185102	2.49		99.7	4726	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.413	5.413	0.0	1.000	4196835	10.0	Target=3.04	99.9	743	
813.00 > 169.00	5.413	5.413	0.0	1.000	1416681		2.96(1.52-4.56)	99.9	4744	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.747	5.747	0.0	1.062	3410532	9.96	Target=2.88	99.6	974	
913.00 > 169.00	5.747	5.747	0.0	1.062	1249080		2.73(1.44-4.32)	99.6	4629	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC6_00003 Amount Added: 100.00 Units: uL

Report Date: 09-Dec-2019 12:10:19 Chrom Revision: 2.3 17-Oct-2019 22:00:42

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Injection Date: 06-Dec-2019 15:13:26 Instrument ID: LC812

Lims ID: IC

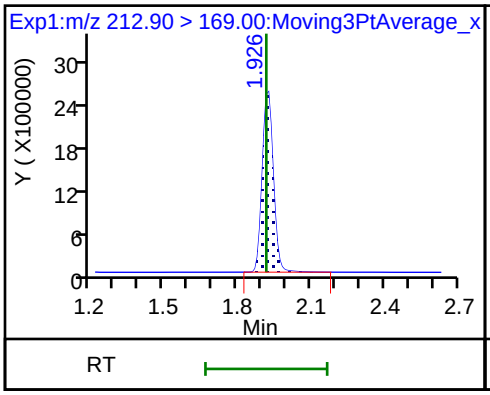
Client ID:

Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10

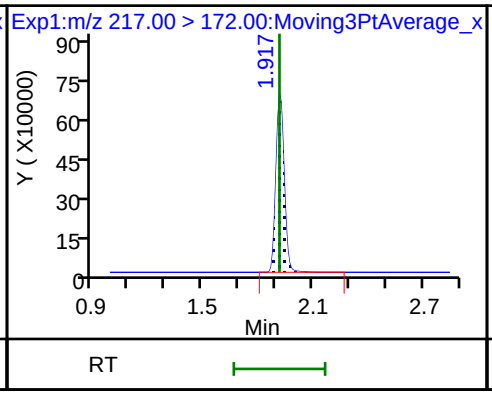
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

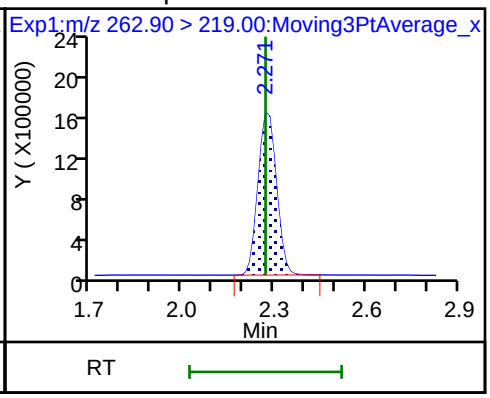
2 Perfluorobutanoic acid



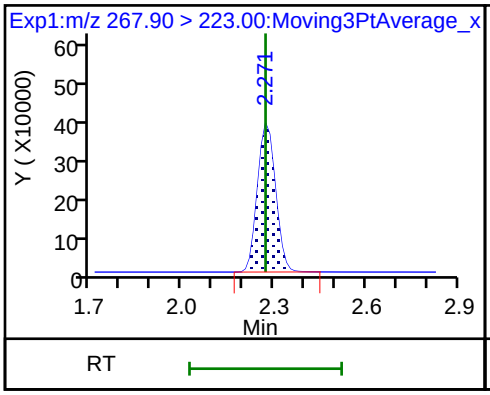
D 1 13C4 PFBA



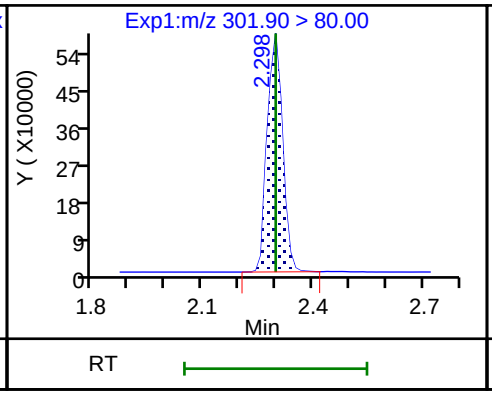
4 Perfluoropentanoic acid



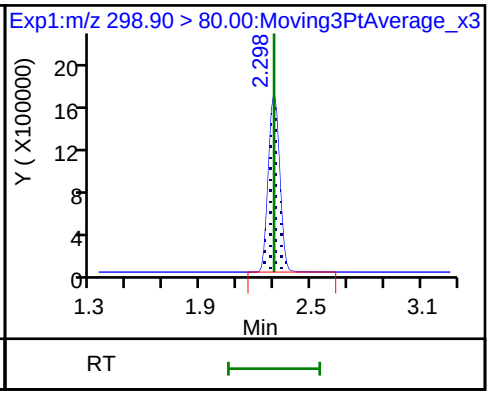
D 3 13C5 PFPeA



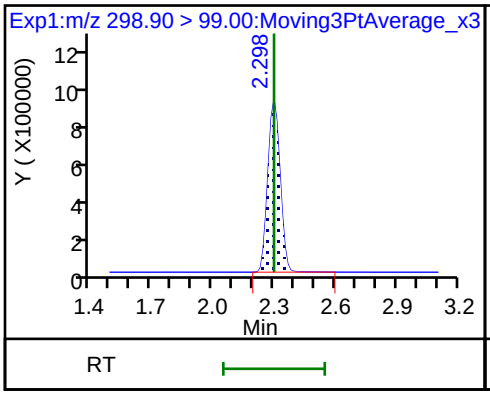
D 47 13C3 PFBS



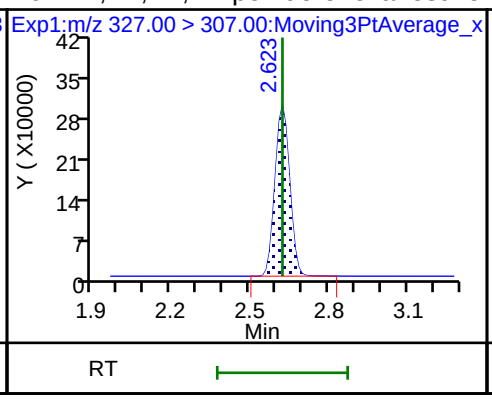
5 Perfluorobutanesulfonic acid



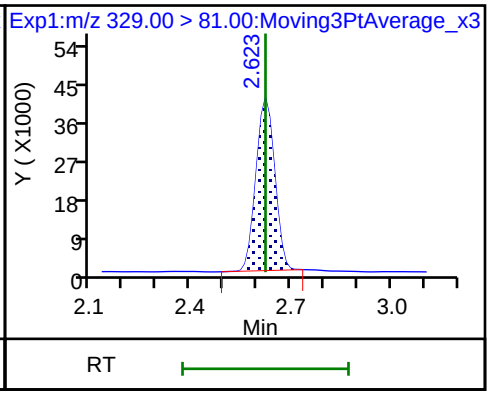
5 Perfluorobutanesulfonic acid



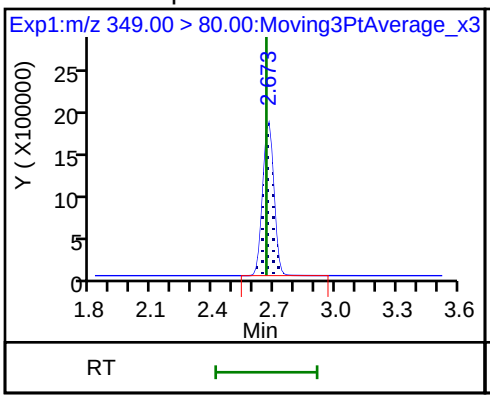
61 1H,1H,2H,2H-perfluorohexanesulfon



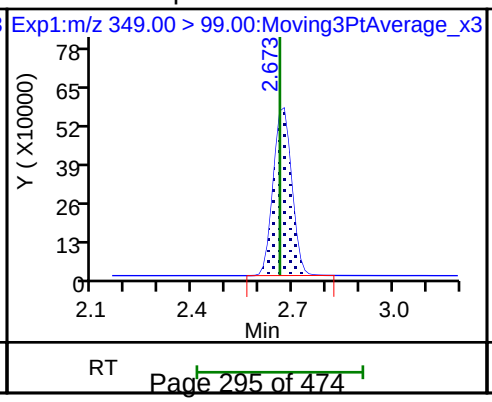
D 60 M2-4:2 FTS



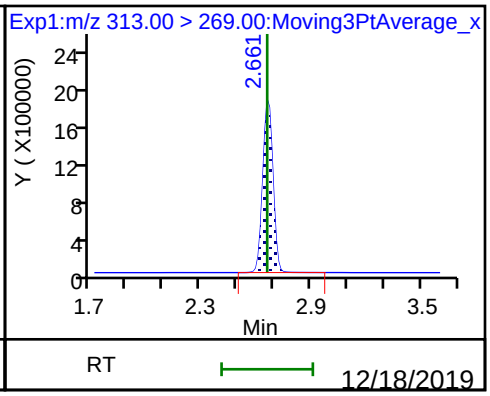
70 Perfluoropentanesulfonic acid



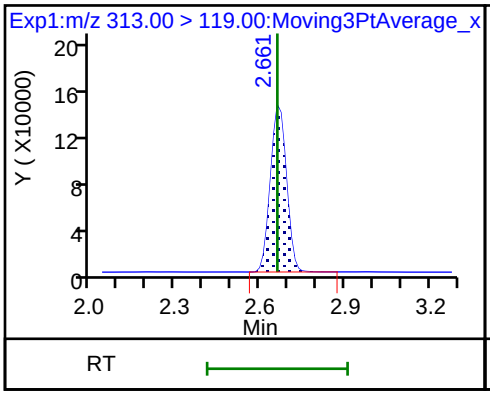
70 Perfluoropentanesulfonic acid



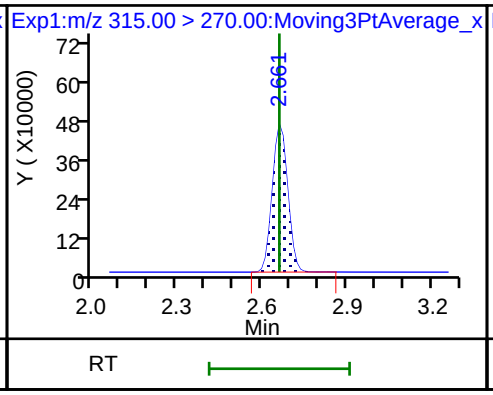
6 Perfluorohexanoic acid



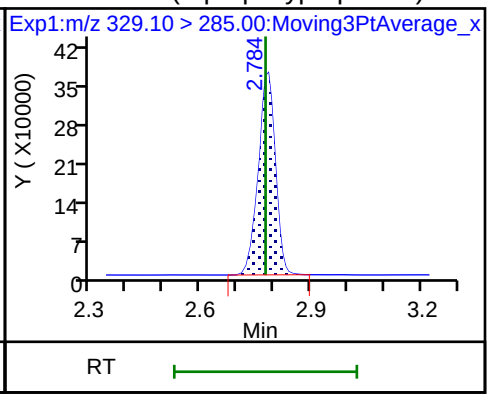
6 Perfluorohexanoic acid



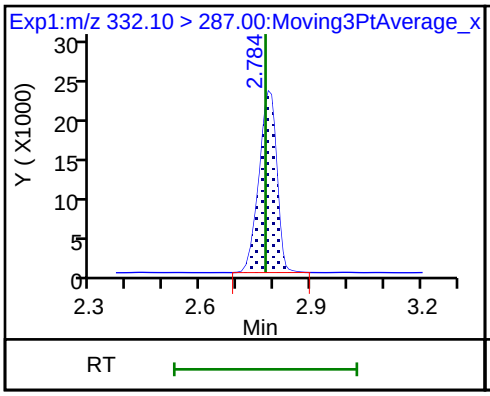
D 7 13C2 PFHxA



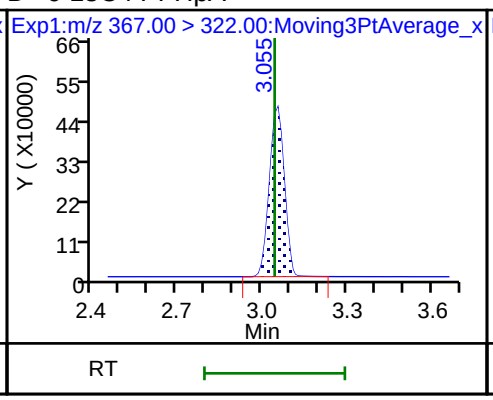
67 Perfluoro(2-propoxypropanoic) acid



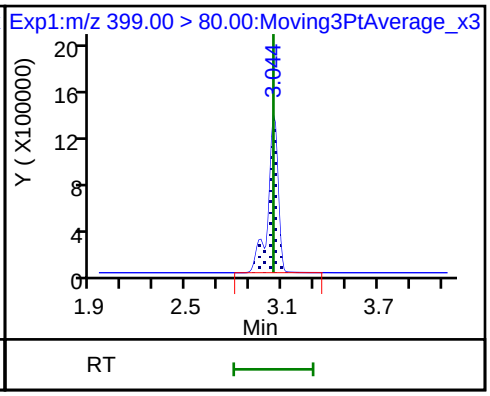
D 64 13C3 HFPO-DA



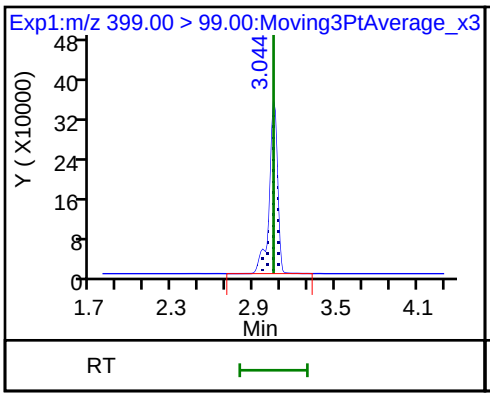
D 9 13C4 PFHpA



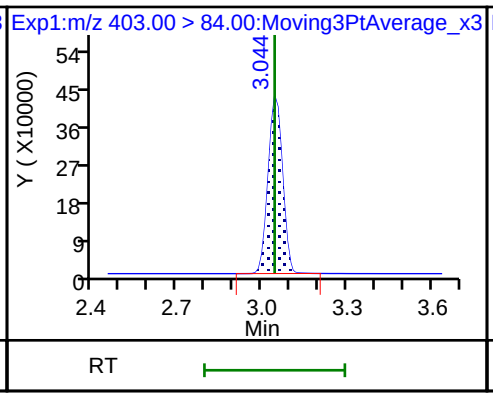
8 Perfluorohexanesulfonic acid



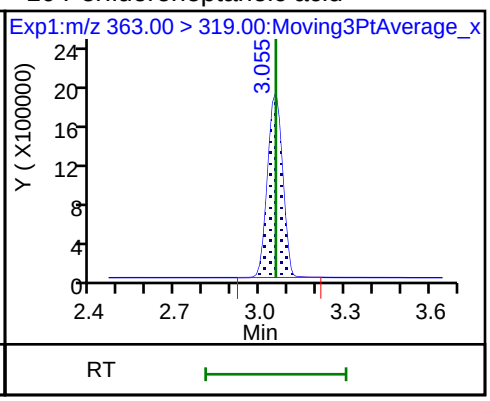
8 Perfluorohexanesulfonic acid



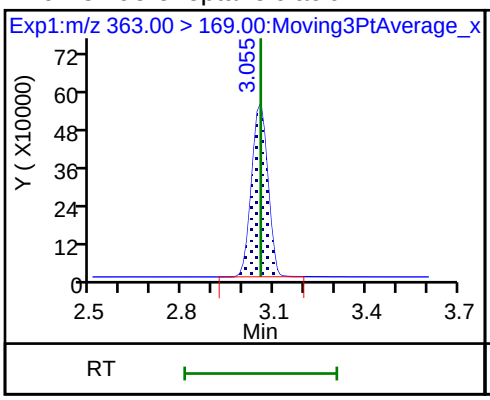
D 11 18O2 PFHxS



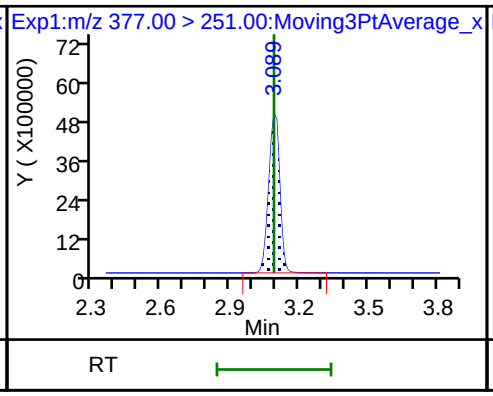
10 Perfluoroheptanoic acid



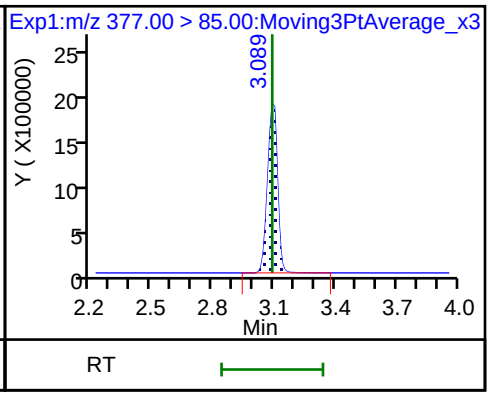
10 Perfluoroheptanoic acid



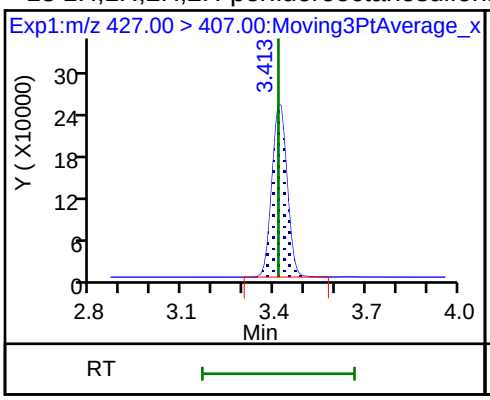
77 DONA



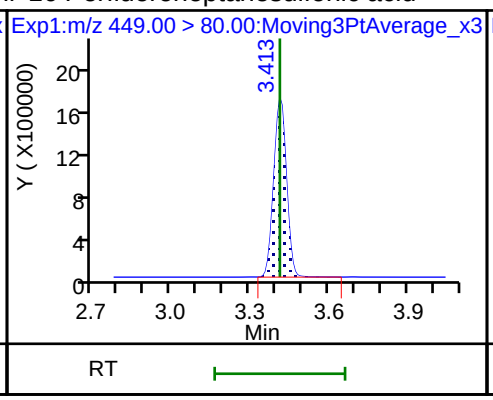
77 DONA



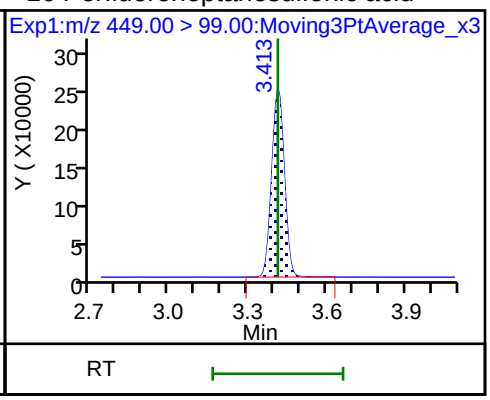
13 1H,1H,2H,2H-perfluorooctanesulfoni



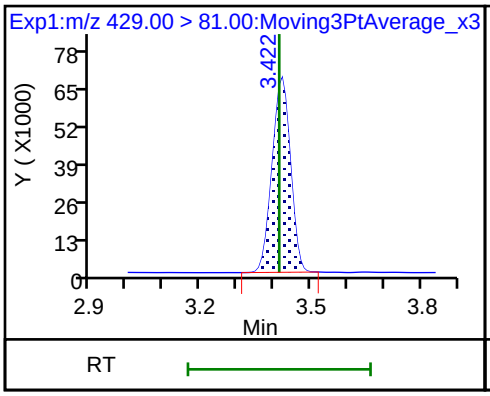
16 Perfluoroheptanesulfonic acid



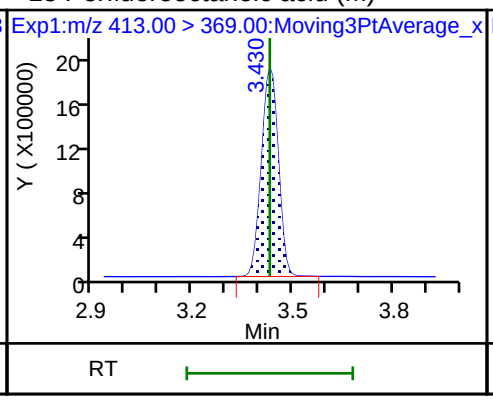
16 Perfluoroheptanesulfonic acid



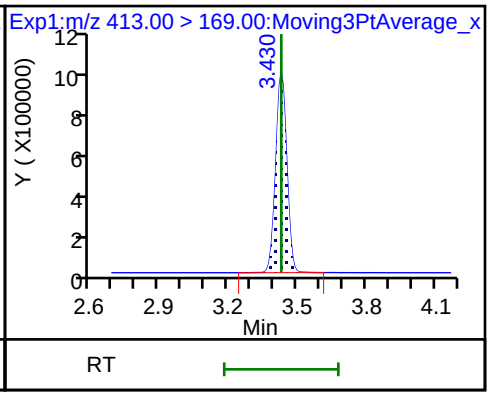
D 12 M2-6:2 FTS



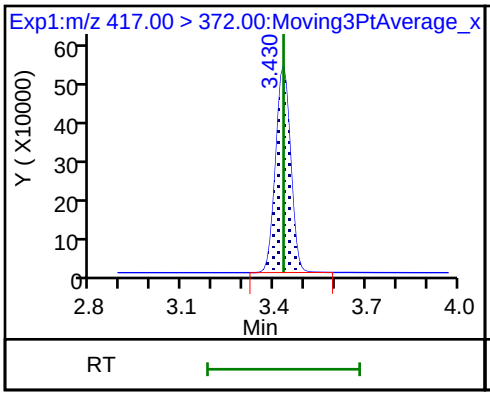
15 Perfluorooctanoic acid (M)



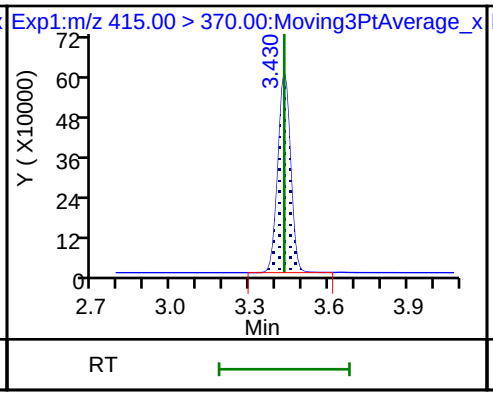
15 Perfluorooctanoic acid



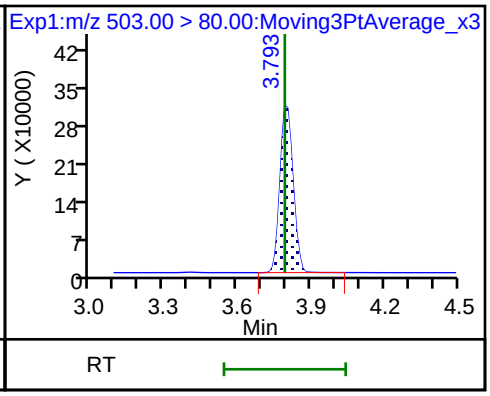
D 14 13C4 PFOA



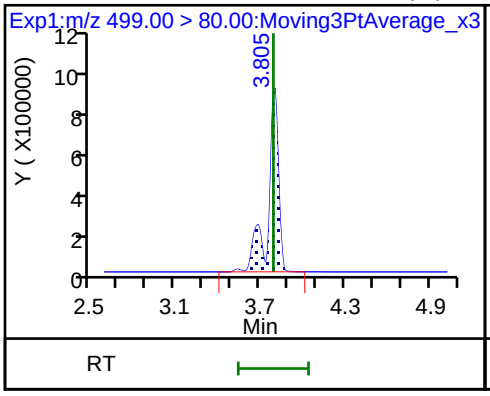
* 62 13C2 PFOA



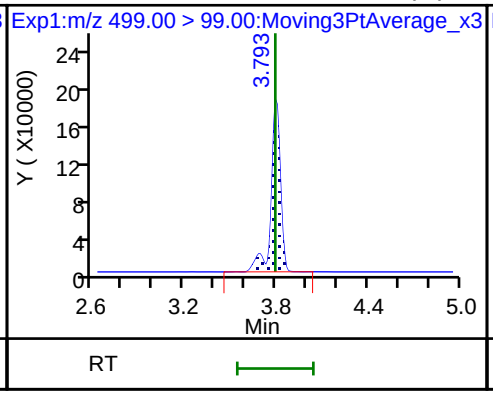
D 18 13C4 PFOS



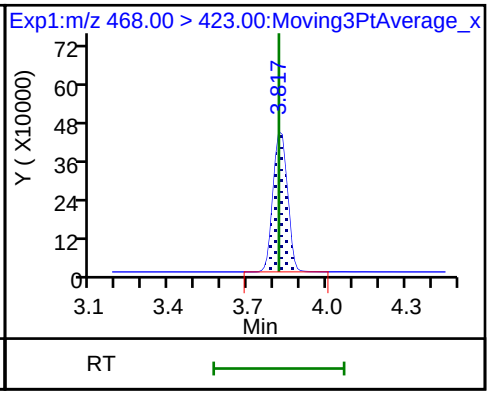
17 Perfluorooctanesulfonic acid (M)



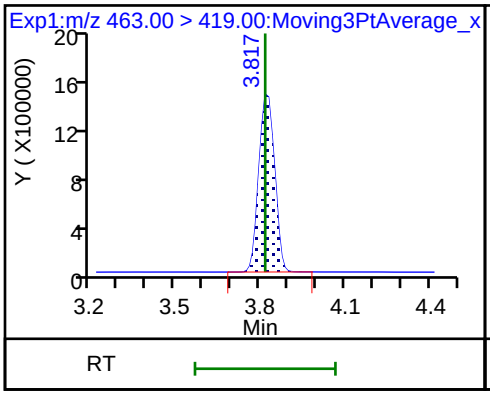
17 Perfluorooctanesulfonic acid (M)



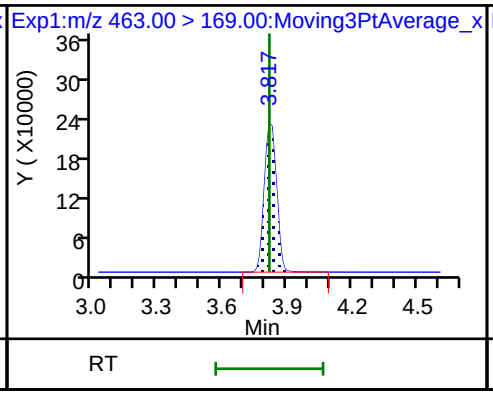
D 19 13C5 PFNA



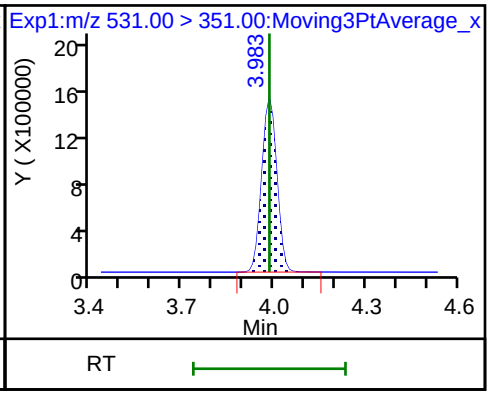
20 Perfluorononanoic acid



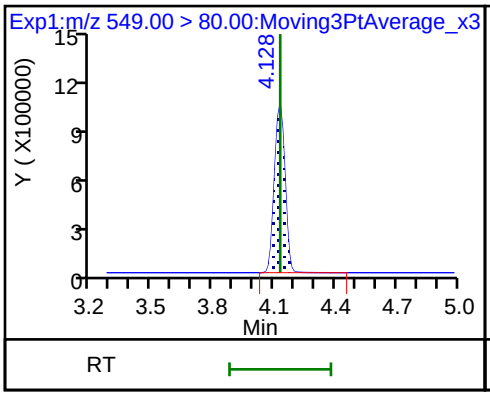
20 Perfluorononanoic acid



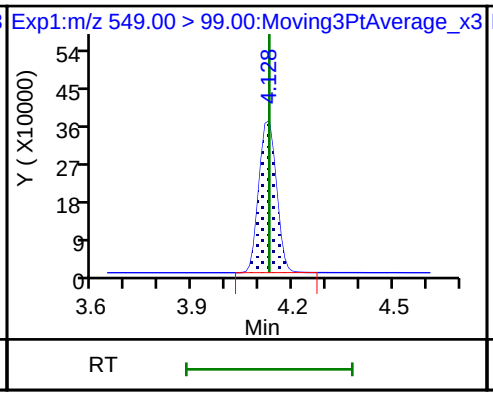
69 9-Chlorohexadecafluoro-3-oxanonane



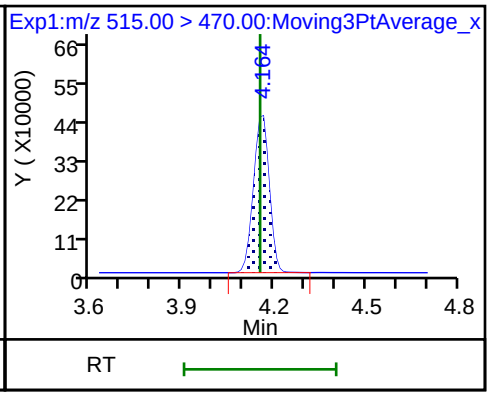
68 Perfluorononanesulfonic acid



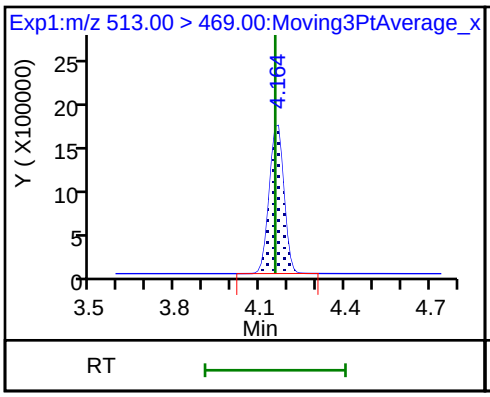
68 Perfluorononanesulfonic acid



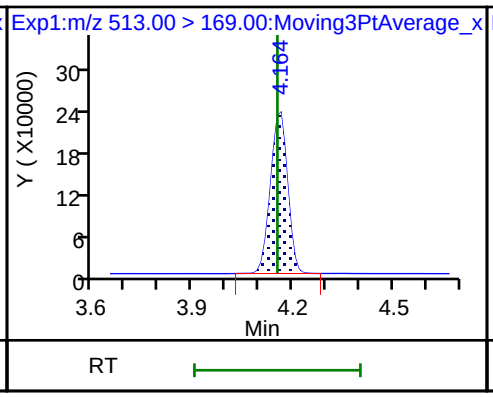
D 23 13C2 PFDA



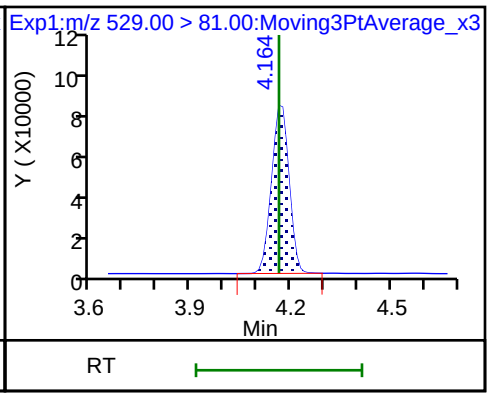
24 Perfluorodecanoic acid



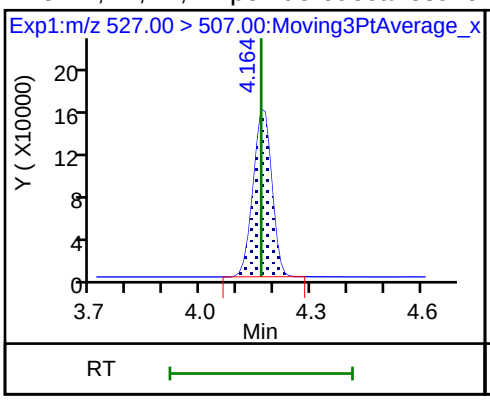
24 Perfluorodecanoic acid



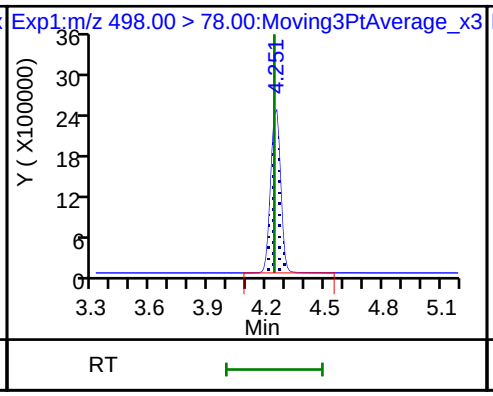
D 26 M2-8:2 FTS



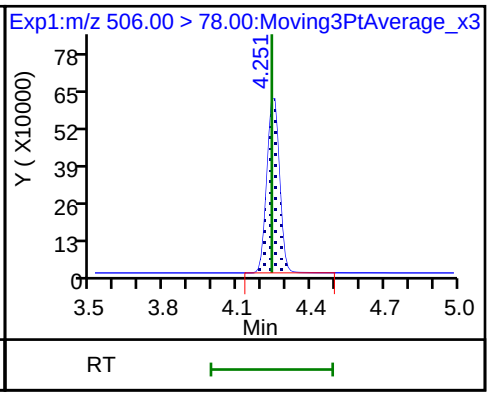
25 1H,1H,2H,2H-perfluorodecanesulfoni



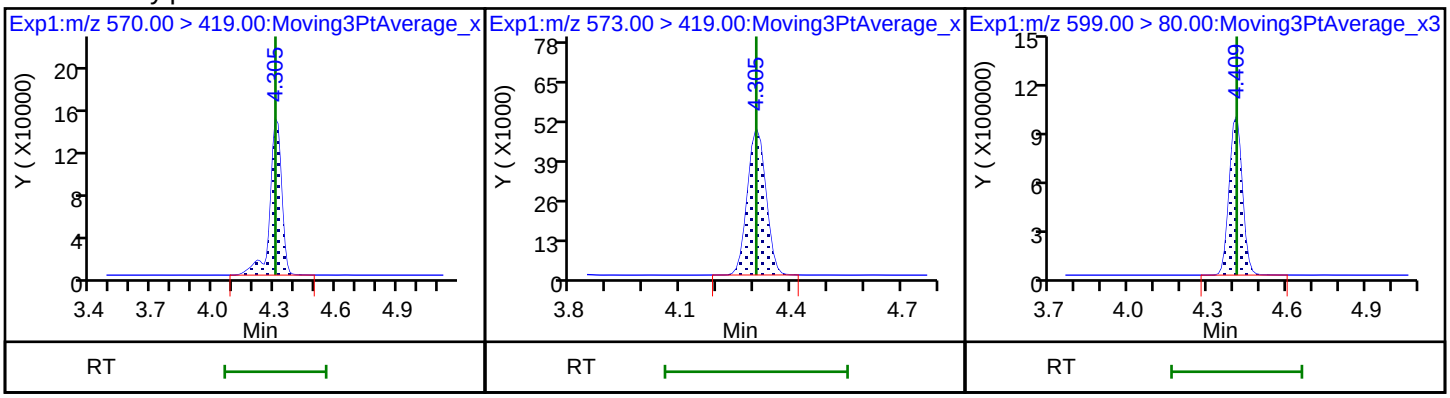
22 Perfluorooctanesulfonamide



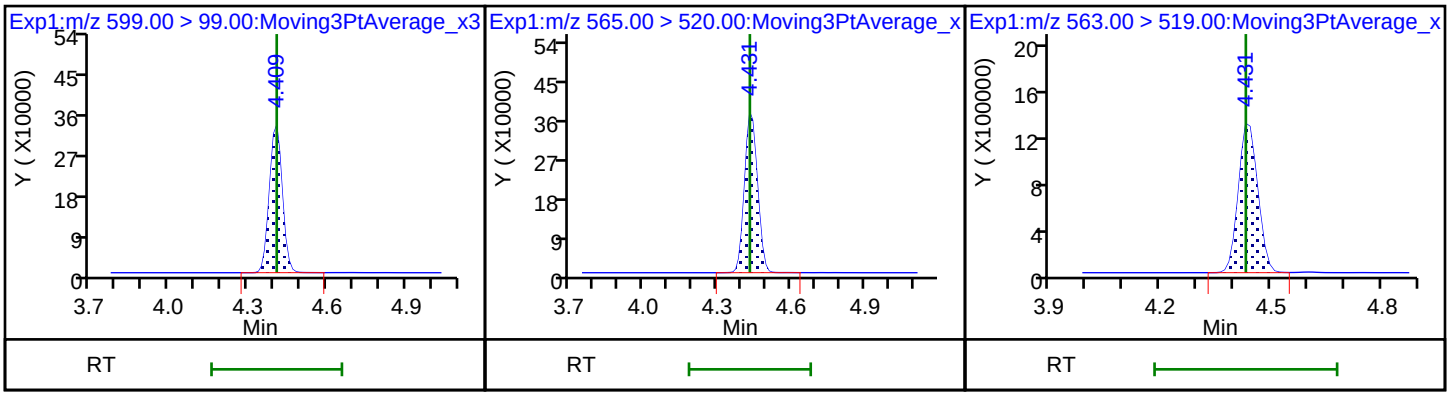
D 21 13C8 FOSA



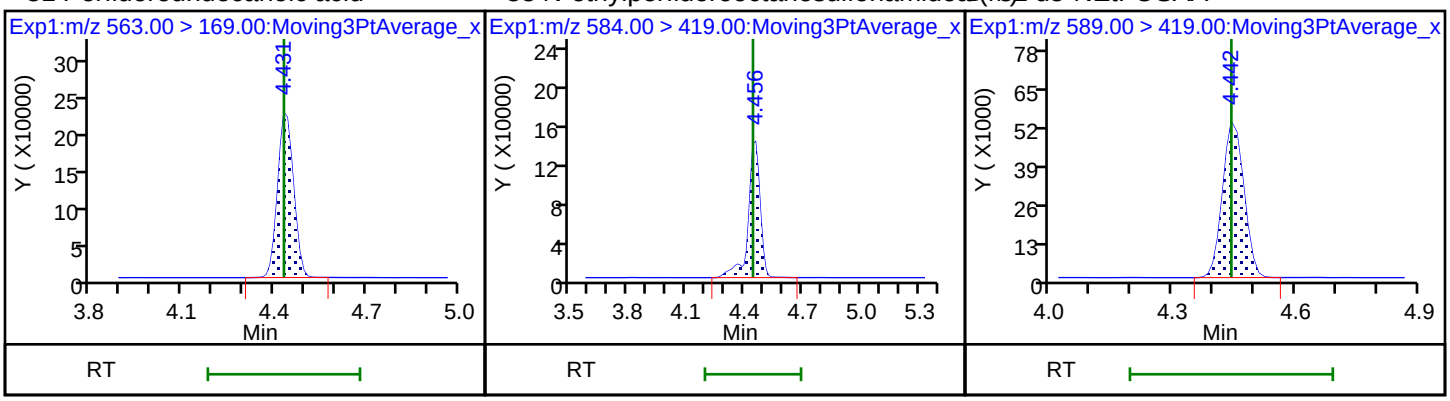
28 N-methylperfluorooctanesulfonamidoD 27 d3-NMeFOSAA 29 Perfluorodecanesulfonic acid



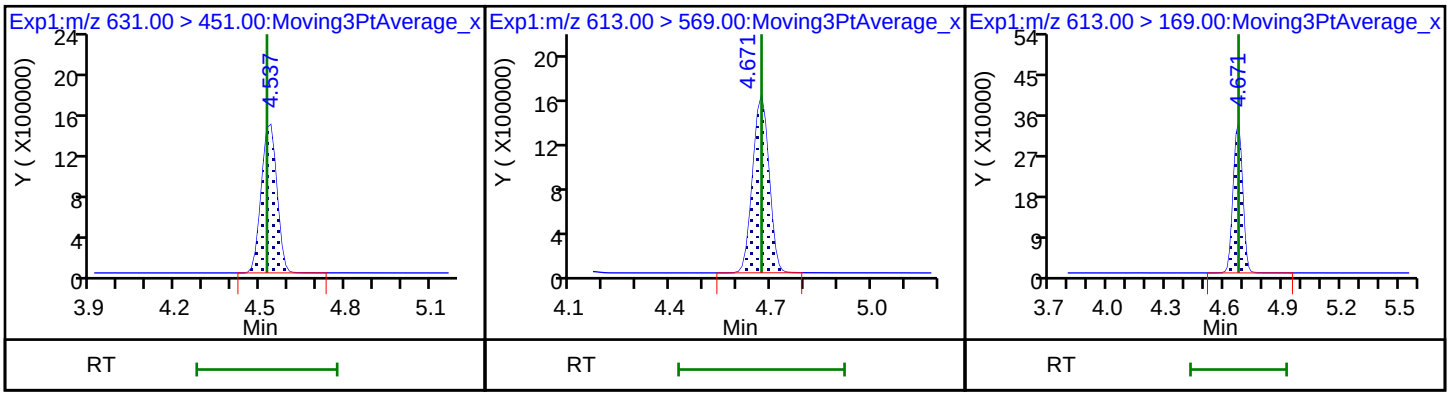
29 Perfluorodecanesulfonic acid D 30 13C2 PFUnA 31 Perfluoroundecanoic acid



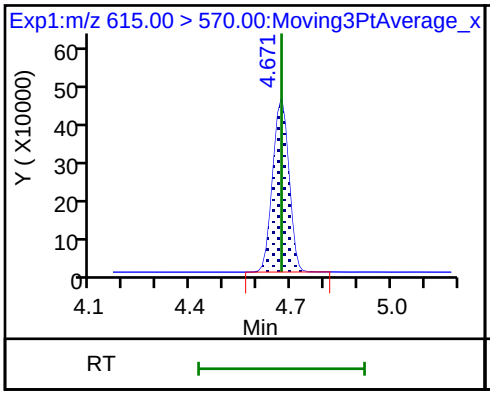
31 Perfluoroundecanoic acid 33 N-ethylperfluorooctanesulfonamidoaD (M)2 d5-NEtFOSAA



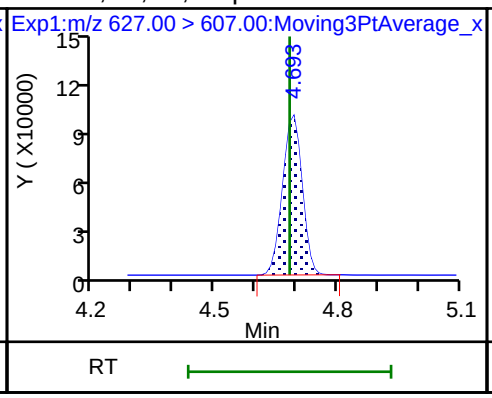
66 11-Chloroeicosafluoro-3-oxaundecan 37 Perfluorododecanoic acid 37 Perfluorododecanoic acid



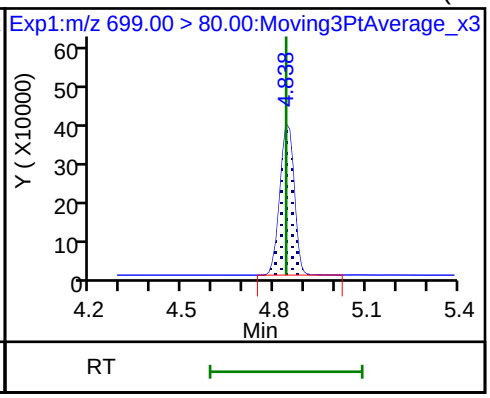
D 36 13C2 PFDoA



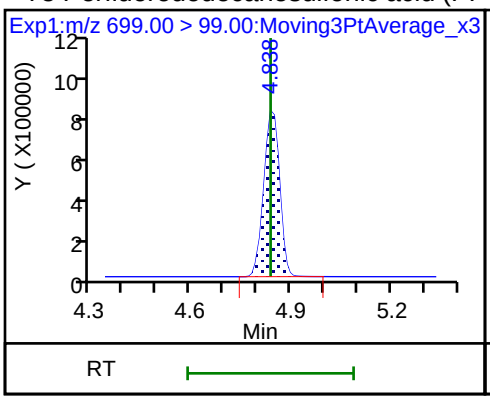
74 1H,1H,2H,2H-perfluorododecanesulfo



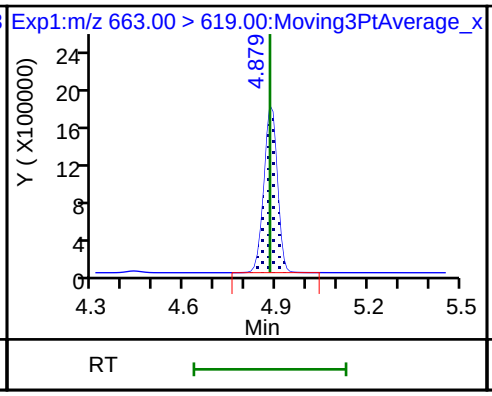
75 Perfluorododecanesulfonic acid (PF



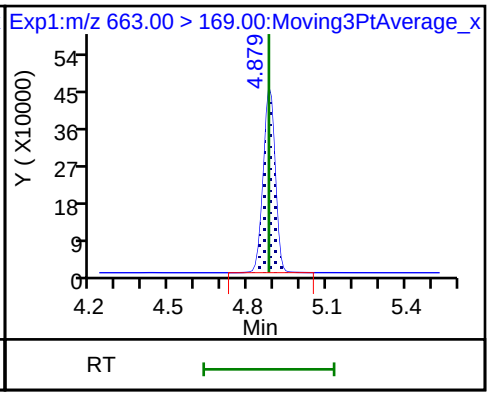
75 Perfluorododecanesulfonic acid (PF



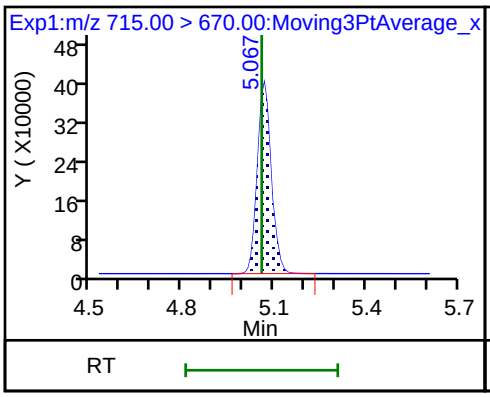
41 Perfluorotridecanoic acid



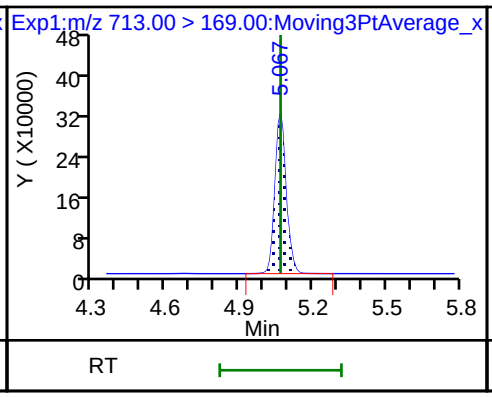
41 Perfluorotridecanoic acid



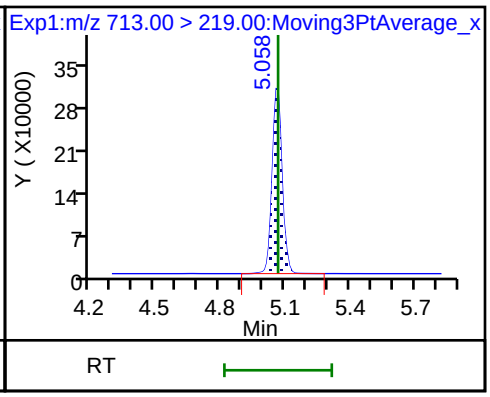
D 43 13C2 PFTeDA



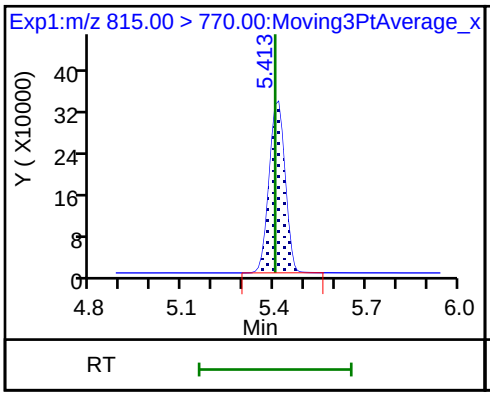
42 Perfluorotetradecanoic acid



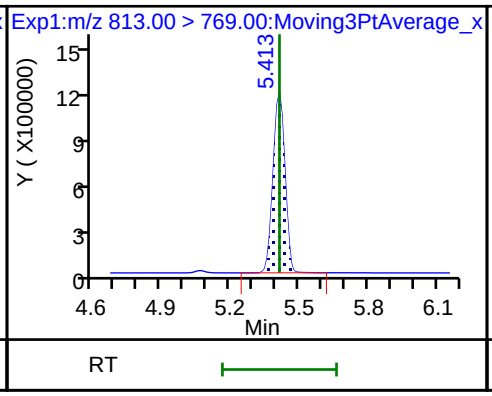
42 Perfluorotetradecanoic acid



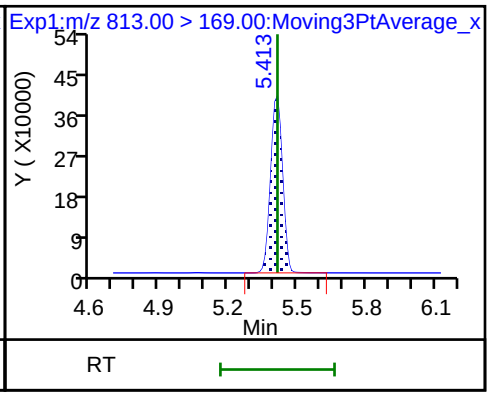
D 44 13C2 PFHxDA



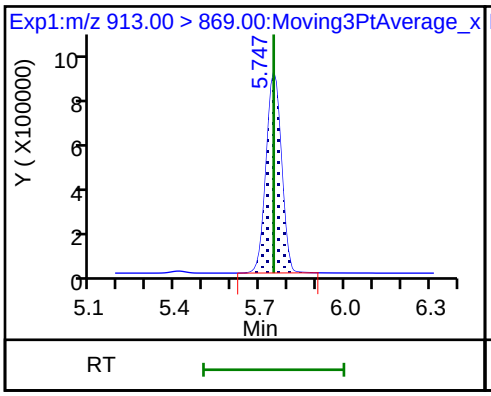
45 Perfluorohexadecanoic acid



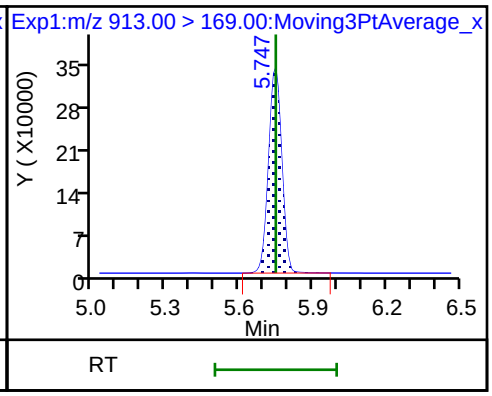
45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

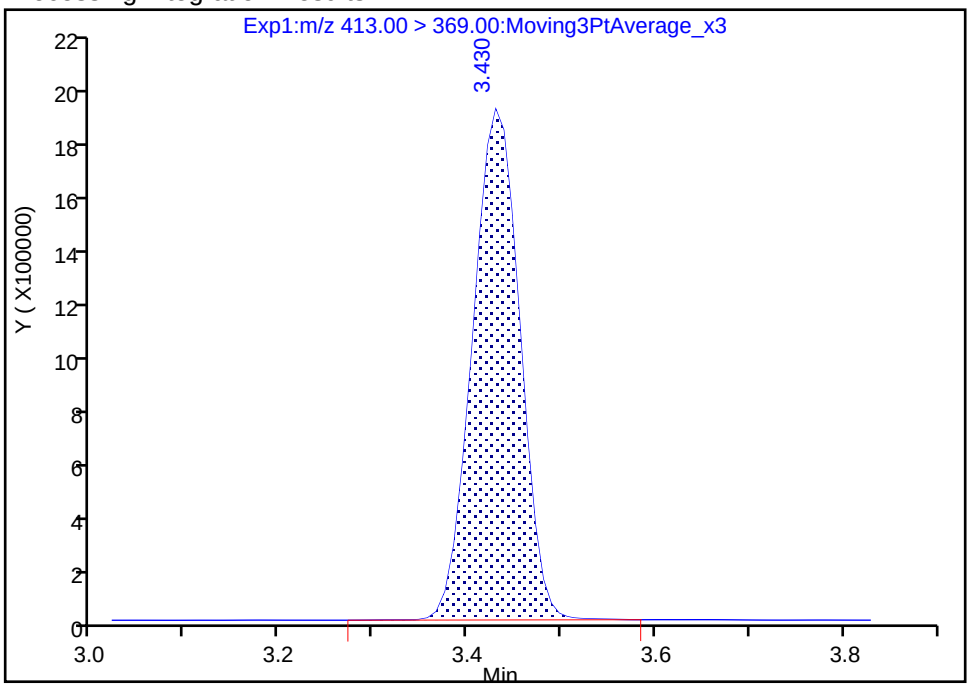
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d
Injection Date: 06-Dec-2019 15:13:26 Instrument ID: LC812
Lims ID: IC
Client ID:
Operator ID: lc812tech ALS Bottle#: 7 Worklist Smp#: 10
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

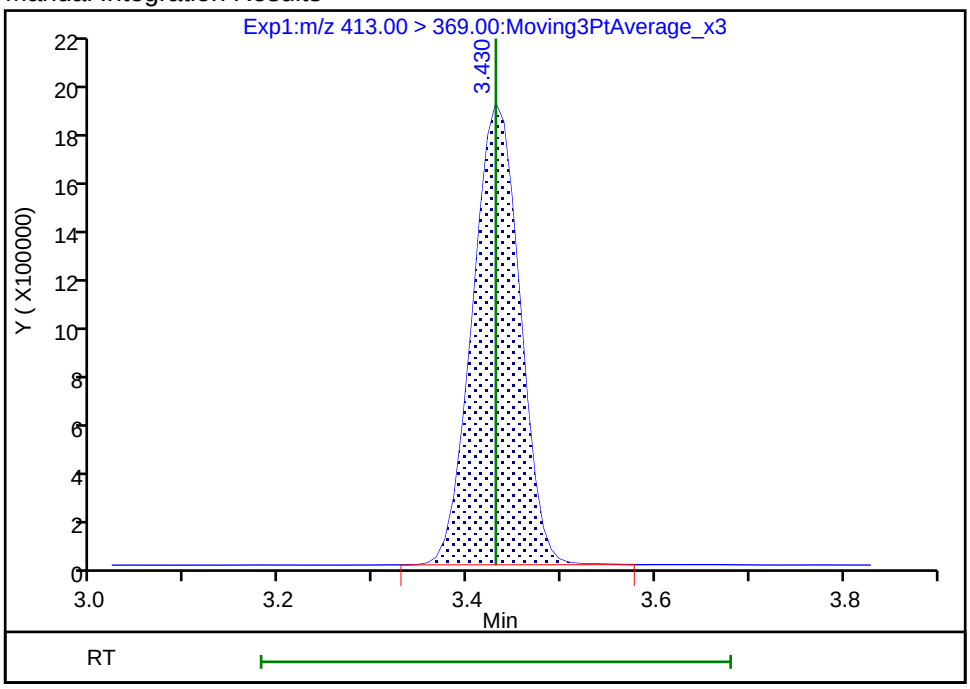
Processing Integration Results

RT: 3.43
Area: 6729799
Amount: 8.367720
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 6722811
Amount: 8.364150
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:44:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

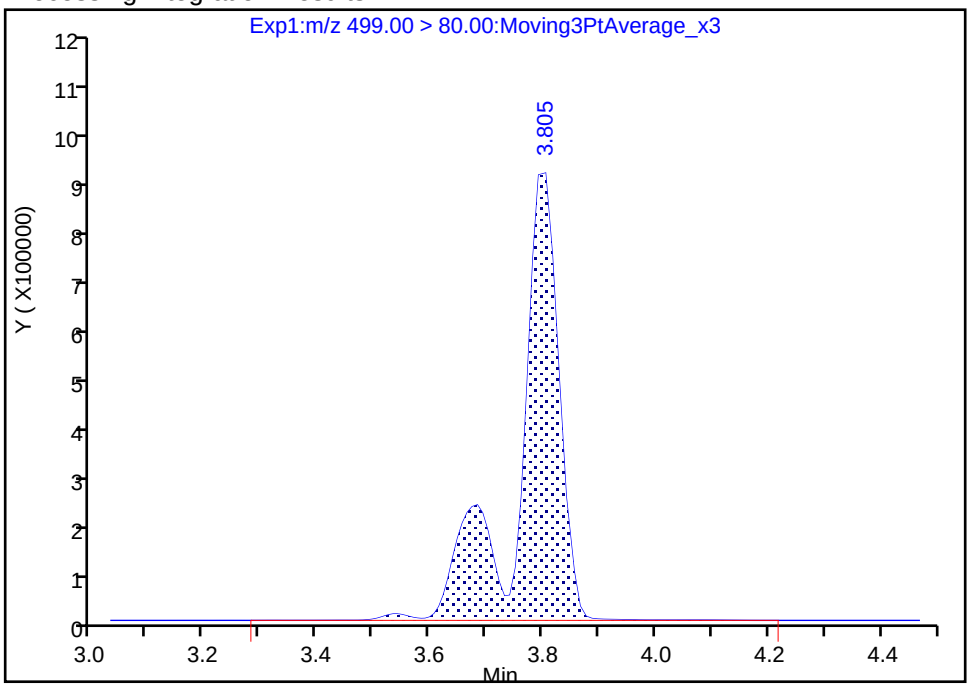
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d				
Injection Date:	06-Dec-2019 15:13:26	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

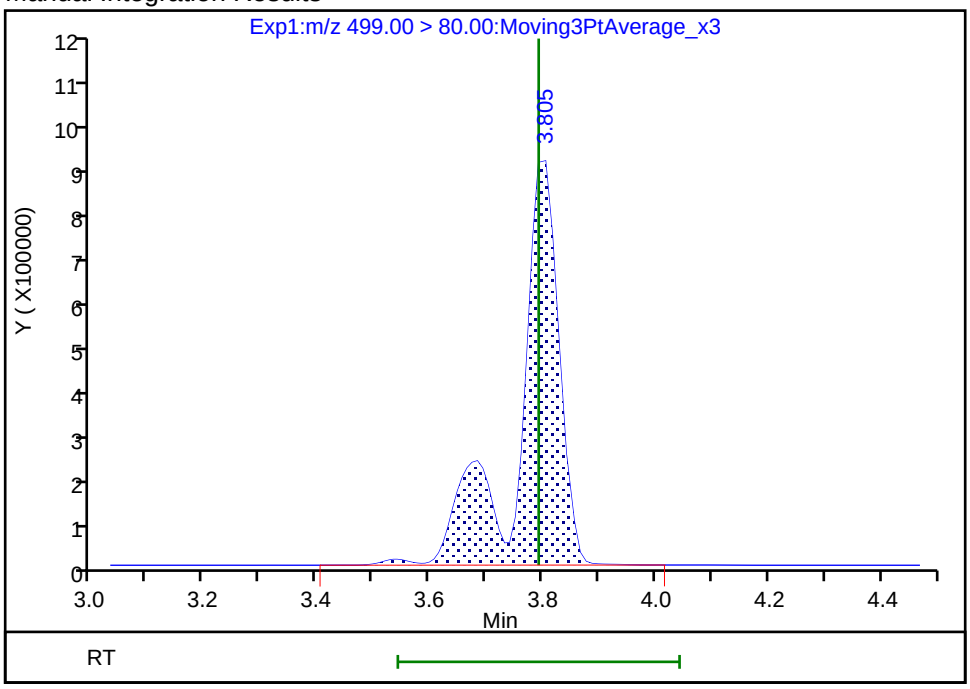
Processing Integration Results

RT: 3.80
Area: 4531952
Amount: 8.741950
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 4517143
Amount: 8.717857
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:34:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

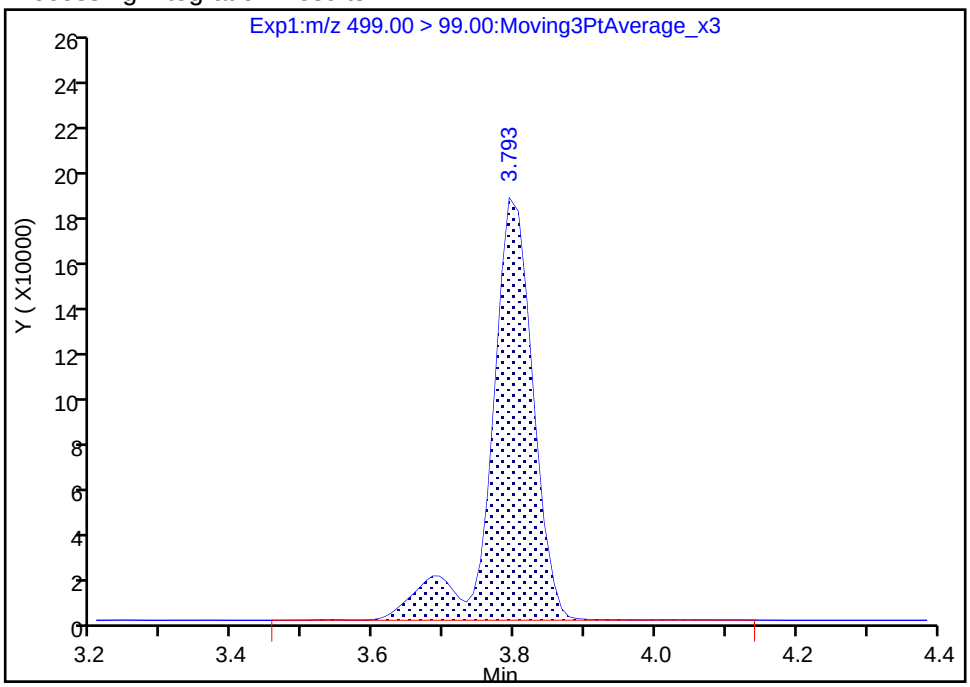
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d				
Injection Date:	06-Dec-2019 15:13:26	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

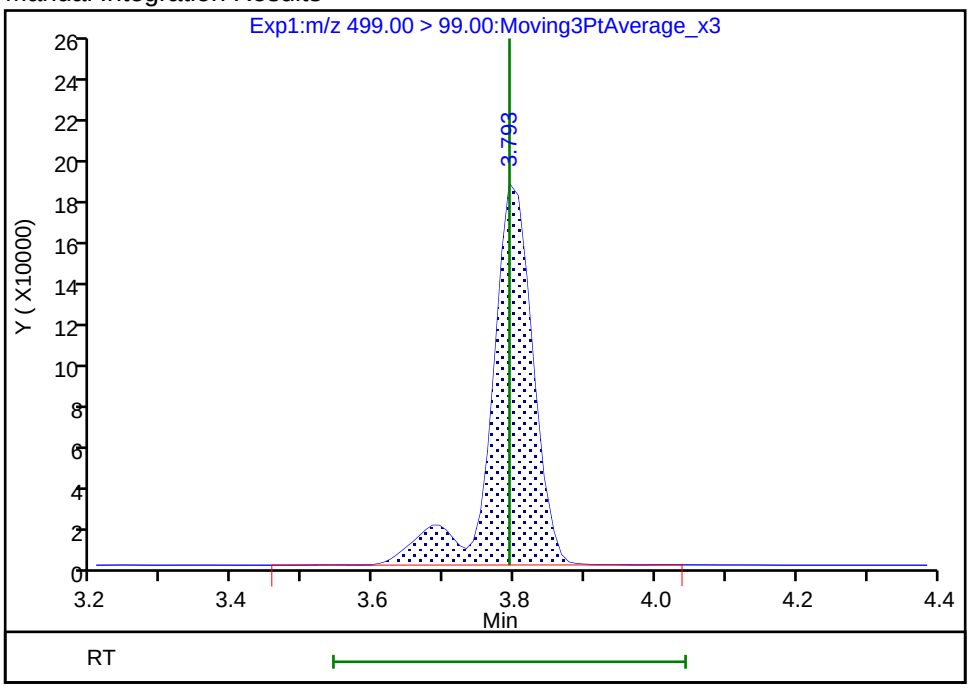
Processing Integration Results

RT: 3.79
Area: 785183
Amount: 8.741950
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 783280
Amount: 8.717857
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:34:59

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

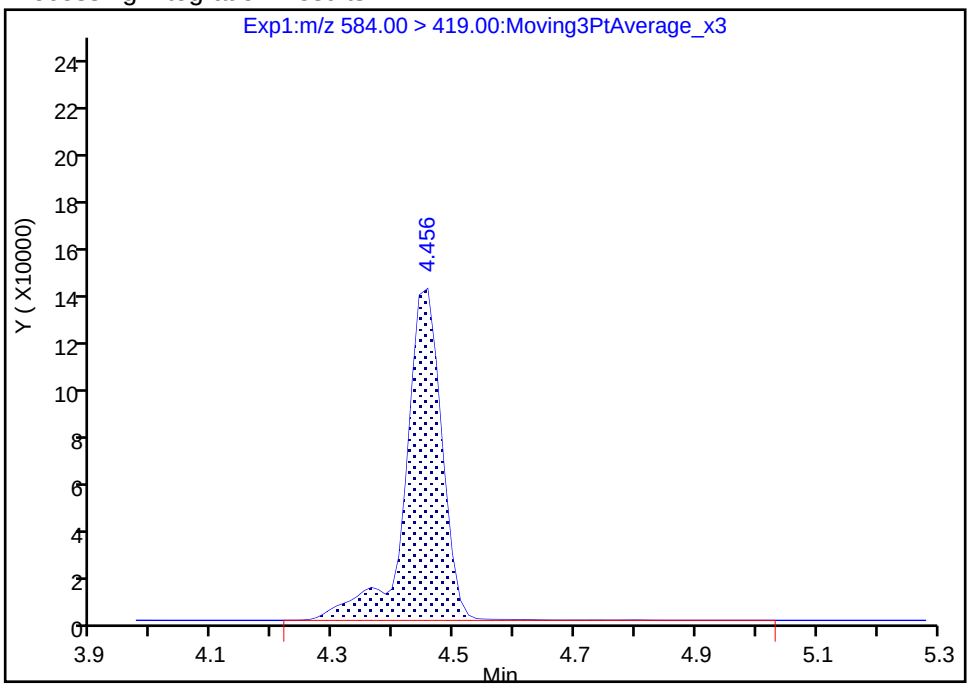
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d				
Injection Date:	06-Dec-2019 15:13:26	Instrument ID:	LC812		
Lims ID:	IC				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	7	Worklist Smp#:	10
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

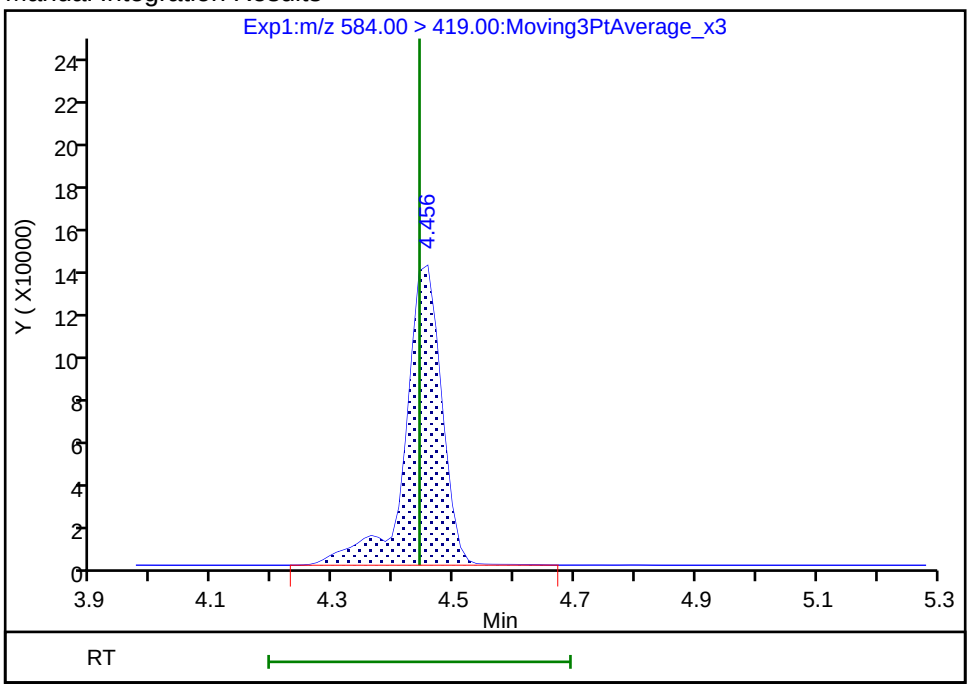
Processing Integration Results

RT: 4.46
Area: 598720
Amount: 9.399022
Amount Units: ng/ml



Manual Integration Results

RT: 4.46
Area: 597510
Amount: 9.382997
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:35:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: ICV 200-150448/12 Calibration Date: 12/06/2019 15:29

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619ICAL012.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9949	1.063		1070	1000	6.8	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.132	1.233		1100	1010	8.9	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.087	1.246		911	1000	14.6	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.732	1.630		941	1000	-5.9	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.021	1.027		1020	1010	0.6	40.0
Perfluoropentanesulfonic acid	AveID	1.161	1.325		1140	1000	14.1	50.0
HFPO-DA	AveID	3.591	3.683		1040	1010	2.6	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.132	1.207		1080	1010	6.6	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	0.9291		879	1000	-12.1	40.0
DONA	AveID	3.533	3.950		1120	1000	11.8	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.225	1.297		1060	1000	5.9	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.9437	1.002		1060	1000	6.2	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.110	1.115		1010	1000	0.5	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.080	1.083		1010	1010	0.3	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9805	1.061		1080	1000	8.2	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	1.233	1.199		973	1000	-2.7	50.0
Perfluorononanesulfonic acid	AveID	0.8262	0.9243		1130	1010	11.9	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9675	1.189		1230	1000	22.9	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.4616	0.5324		1160	1010	15.3	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.995	1.072		1080	1000	7.7	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8689	0.8932		1030	1000	2.8	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7196	0.8104		1140	1010	12.6	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8479	0.8718		1030	1000	2.8	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8277	0.8064		974	1000	-2.6	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	1.163	1.316		1130	1000	13.2	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9240	0.9363		1010	1000	1.3	40.0
10:2 FTS	AveID	0.2931	0.3725		613	482	27.1	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2736	0.3119		552	484	14.0	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8778	0.8518		970	1000	-3.0	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2009	0.2159		1070	1000	7.5	40.0

FORM VII 537 (modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: ICV 200-150448/12 Calibration Date: 12/06/2019 15:29

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619ICAL012.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L1ID		0.9903		531	500	6.2	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7223	0.7032		487	500	-2.6	50.0
13C4 PFBA	Ave	1.059	1.011		2390	2500	-4.6	50.0
13C5 PFPeA	Ave	0.8099	0.7657		2360	2500	-5.5	50.0
13C3 PFBS	Ave	0.9661	0.9164		2210	2330	-5.1	50.0
M2-4:2 FTS	Ave	0.0901	0.0950		2460	2340	5.4	50.0
13C2 PFHxA	Ave	0.9031	0.9447		2620	2500	4.6	50.0
13C3 HFPO-DA	Ave	0.0394	0.0395		2500	2500	0.0	50.0
18O2 PFHxS	Ave	0.7630	0.8059		2500	2370	5.6	50.0
13C4 PFHpA	Ave	0.8562	1.019		2980	2500	19.0	50.0
M2-6:2 FTS	Ave	0.1311	0.1276		2310	2380	-2.7	50.0
13C4 PFOA	Ave	0.9086	0.9360		2580	2500	3.0	50.0
13C4 PFOS	Ave	0.6053	0.5666		2240	2390	-6.4	50.0
13C5 PFNA	Ave	0.8355	0.8435		2520	2500	1.0	50.0
13C2 PFDA	Ave	0.8233	0.7934		2410	2500	-3.6	50.0
M2-8:2 FTS	Ave	0.1562	0.1514		2320	2400	-3.1	50.0
13C8 FOSA	Ave	1.077	0.9705		2250	2500	-9.9	50.0
d3-NMeFOSAA	Ave	0.0793	0.0761		2400	2500	-4.0	50.0
13C2 PFUnA	Ave	0.6999	0.7184		2570	2500	2.6	50.0
d5-NEtFOSAA	Ave	0.0879	0.0808		2300	2500	-8.1	50.0
13C2 PFDoA	Ave	0.7677	0.7699		2510	2500	0.3	50.0
13C2 PFTeDA	Ave	0.6433	0.6491		2520	2500	0.9	50.0
13C2 PFHxDA	Ave	0.5918	0.6119		2580	2500	3.4	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL012.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 06-Dec-2019 15:29:46 ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 200-0039114-012 Plate: 1 Rack: 1
Operator ID: lc812tech Instrument ID: LC812
Sublist:

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 06-Dec-2019 16:03:31 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX0306

First Level Reviewer: chirgwinb Date: 06-Dec-2019 15:48:22
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutanoic acid										
212.90 > 169.00	1.926	1.917	0.009	1.005	942364	1.07			298	
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.559	2216541	2.39		95.4	29155	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.271	2.271	0.0	1.000	836843	1.10			99.8	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.662	1679452	2.36		94.5	6411	
D 47 13C3 PFBS										
301.90 > 80.00	2.284	2.298	-0.014	0.666	1869124	2.21		94.9	298652	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.006	880998	0.9113	Target=2.03		2176	
298.90 > 99.00	2.298	2.298	0.0	1.006	440452		2.00(1.01-3.04)		823	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.623	0.0	1.000	135766	0.9407			1923	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.623	0.0	0.765	194540	2.46		105	338	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.660	0.013	0.878	936745	1.14	Target=3.50		2367	
349.00 > 99.00	2.673	2.660	0.013	0.878	277095		3.38(1.75-5.25)		1485	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.660	2.660	0.0	1.000	859644	1.02	Target=13.76		302	
313.00 > 119.00	2.660	2.660	0.0	1.000	73389		11.71(6.88-20.64)		187	
D 7 13C2 PFHxA										
315.00 > 270.00	2.660	2.660	0.0	0.776	2072079	2.62		105	6357	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.776	2.776	0.0	1.000	128780	1.04			74.3	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.776	2.776	0.0	0.809	86561	2.50		100	1338	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.044	0.011	0.891	2234861	2.98		119	7286	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.044	3.044	0.0	1.000	861739	1.08	Target=3.90		2224	
399.00 > 99.00	3.044	3.044	0.0	1.000	180070		4.79(1.95-5.85)		521	
D 11 18O2 PFHxS										
403.00 > 84.00	3.044	3.044	0.0	0.887	1672094	2.50		106	5976	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.000	830551	0.8788	Target=3.95		431	
363.00 > 169.00	3.055	3.055	0.0	1.000	231266		3.59(1.97-5.92)		786	
77 DONA										
377.00 > 251.00	3.089	3.089	0.0	0.815	1963596	1.12	Target=2.49		4521	
377.00 > 85.00	3.089	3.089	0.0	0.815	808232		2.43(1.24-3.73)		2758	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.421	3.413	0.008	1.000	112180	1.06			1428	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.413	3.413	0.0	0.900	644964	1.06	Target=6.46		1826	
449.00 > 99.00	3.413	3.413	0.0	0.900	102176		6.31(3.23-9.69)		1137	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.421	3.413	0.008	0.998	265813	2.31		97.3	630	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.430	3.430	0.0	1.000	915910	1.01	Target=2.40		376	
413.00 > 169.00	3.430	3.430	0.0	1.000	388266		2.36(1.20-3.60)		1376	
D 14 13C4 PFOA										
417.00 > 372.00	3.430	3.430	0.0	1.000	2052899	2.58		103	2694	
* 62 13C2 PFOA										
415.00 > 370.00	3.430	3.430	0.0		2193286	2.50			4898	
D 18 13C4 PFOS										
503.00 > 80.00	3.793	3.793	0.0	1.106	1188105	2.24		93.6	4076	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.793	3.793	0.0	1.000	543860	1.01	Target=5.74		1471	M
499.00 > 99.00	3.793	3.793	0.0	1.000	83759		6.49(2.87-8.61)		478	
D 19 13C5 PFNA										
468.00 > 423.00	3.817	3.817	0.0	1.113	1850012	2.52		101	4100	
20 Perfluorononanoic acid										
463.00 > 419.00	3.817	3.817	0.0	1.000	785174	1.08	Target=7.01		356	
463.00 > 169.00	3.817	3.817	0.0	1.000	110564		7.10(3.50-10.51)		1300	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.983	3.984	-0.001	1.050	596177	0.9725			3206	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.128	4.129	-0.001	1.089	464067	1.13	Target=3.14		2292	
549.00 > 99.00	4.128	4.129	-0.001	1.089	167241		2.77(1.57-4.71)		968	
D 23 13C2 PFDA										
515.00 > 470.00	4.153	4.153	0.0	1.211	1740248	2.41		96.4	5510	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.153	4.153	0.0	1.000	827717	1.23	Target=7.28		662	
513.00 > 169.00	4.153	4.153	0.0	1.000	100854		8.21(3.64-10.91)		1124	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.164	4.164	0.0	1.214	318058	2.32		96.9	273	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.164	4.164	0.0	1.000	71403	1.16			1125	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	912768	1.08			2934	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.236	2128483	2.25		90.1	6303	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.305	4.305	0.0	1.000	59613	1.03			253	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.305	4.305	0.0	1.255	166852	2.40		96.0	791	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.409	4.409	0.0	1.162	406871	1.14	Target=2.76		1207	
599.00 > 99.00	4.409	4.409	0.0	1.162	138042		2.95(1.38-4.14)		497	
D 30 13C2 PFUnA										
565.00 > 520.00	4.431	4.431	0.0	1.292	1575626	2.57		103	4537	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.431	4.431	0.0	1.000	549479	1.03	Target=5.78		626	
563.00 > 169.00	4.431	4.431	0.0	1.000	91971		5.97(2.89-8.67)		664	
33 N-ethylperfluorooctanesulfonamidoa										
584.00 > 419.00	4.442	4.442	0.0	1.000	57139	0.9742			848	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.442	4.442	0.0	1.295	177145	2.30		91.9	1355	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.537	4.523	0.014	1.196	654090	1.13			3063	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.671	4.671	0.0	1.000	632369	1.01	Target=5.13		105	
613.00 > 169.00	4.671	4.671	0.0	1.000	125948		5.02(2.56-7.69)		968	
D 36 13C2 PFDoA										
615.00 > 570.00	4.671	4.671	0.0	1.362	1688527	2.51		100	6971	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.693	4.683	0.010	1.127	23845	0.6127			398	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.838	4.838	0.0	1.276	75034	0.5518	Target=0.45		198	
699.00 > 99.00	4.838	4.838	0.0	1.276	156380		0.48(0.22-0.67)		1035	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.879	4.879	0.0	1.044	575289	0.9703	Target=3.82		137	
663.00 > 169.00	4.879	4.879	0.0	1.044	169939		3.39(1.91-5.74)		1392	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.067	5.058	0.009	1.477	1423709	2.52		101	10209	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.067	5.067	0.0	1.000	122930	1.07	Target=1.05		378	
713.00 > 219.00	5.067	5.067	0.0	1.000	126854		0.97(0.52-1.57)		382	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2 PFHxDA										
815.00 > 770.00	5.413	5.403	0.011	1.578	1342046	2.58		103	6015	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.413	5.413	0.0	1.000	265814	0.5310	Target=3.20		69.9	
813.00 > 169.00	5.413	5.413	0.0	1.000	84558		3.14(1.60-4.80)		737	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.747	5.747	0.0	1.062	188753	0.4868	Target=2.86		73.9	
913.00 > 169.00	5.747	5.747	0.0	1.062	67332		2.80(1.43-4.29)		692	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFAS28NCICV_00003 Amount Added: 100.00 Units: uL

Report Date: 06-Dec-2019 16:03:32 Chrom Revision: 2.3 17-Oct-2019 22:00:42

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL012.d

Injection Date: 06-Dec-2019 15:29:46 Instrument ID: LC812

Lims ID: ICV

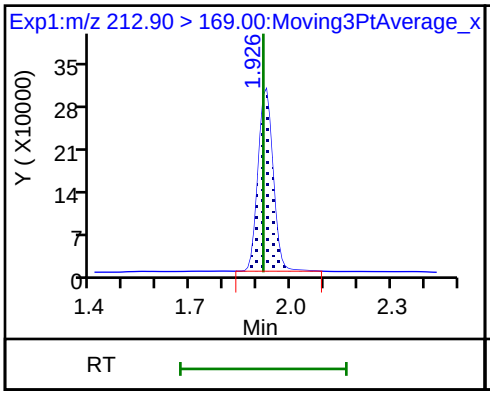
Client ID:

Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12

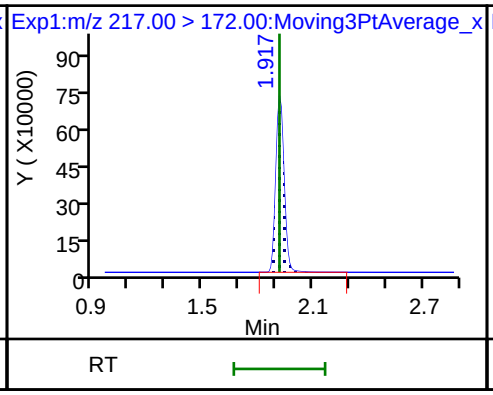
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

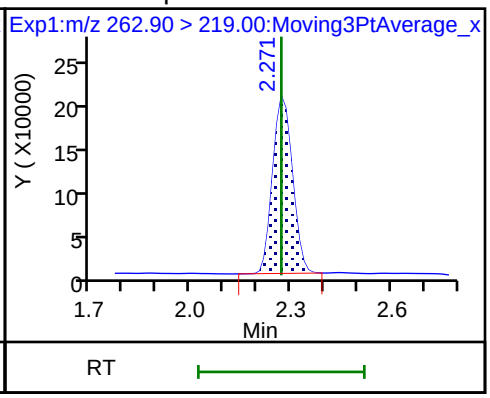
2 Perfluorobutanoic acid



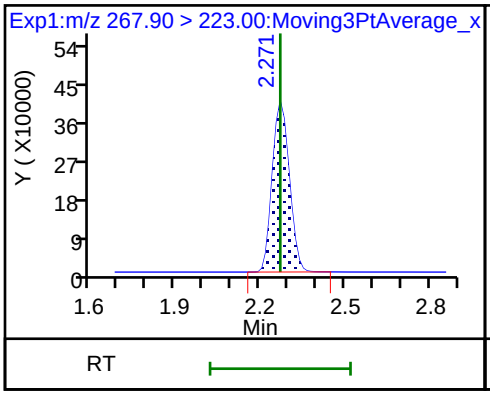
D 1 13C4 PFBA



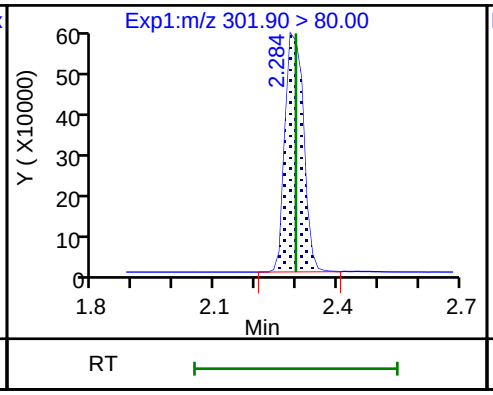
4 Perfluoropentanoic acid



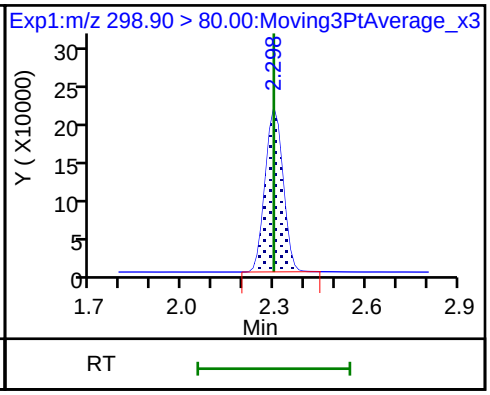
D 3 13C5 PFPeA



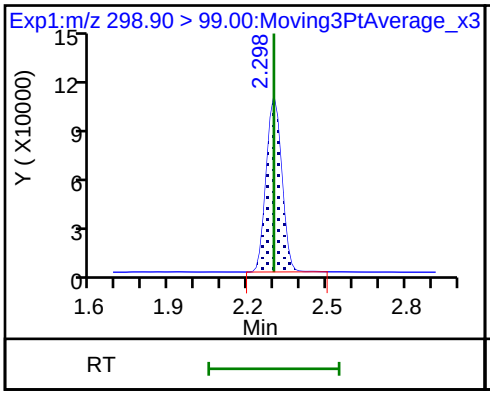
D 47 13C3 PFBS



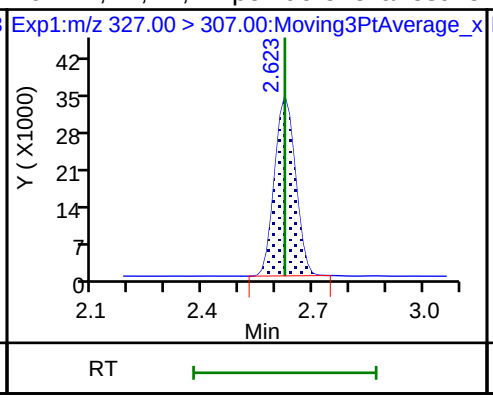
5 Perfluorobutanesulfonic acid



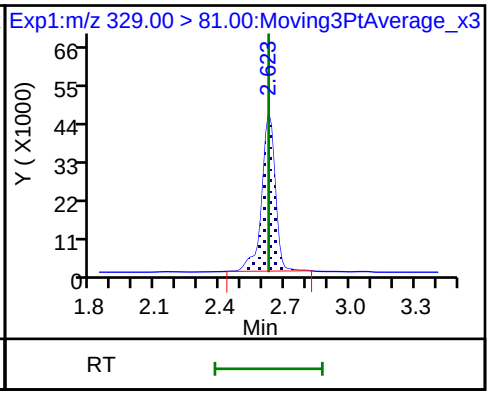
5 Perfluorobutanesulfonic acid



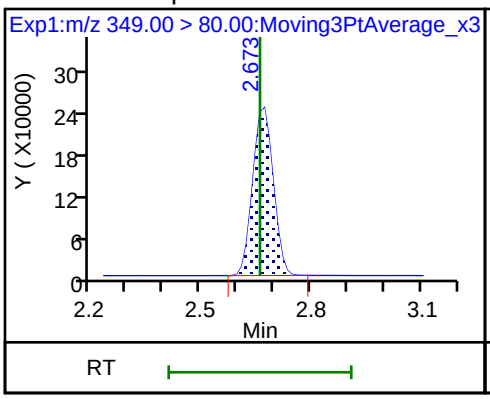
61 1H,1H,2H,2H-perfluorohexanesulfon



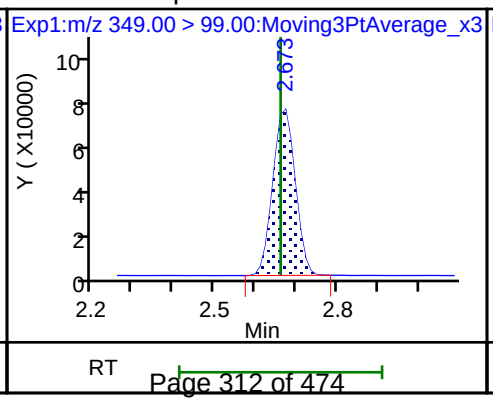
D 60 M2-4:2 FTS



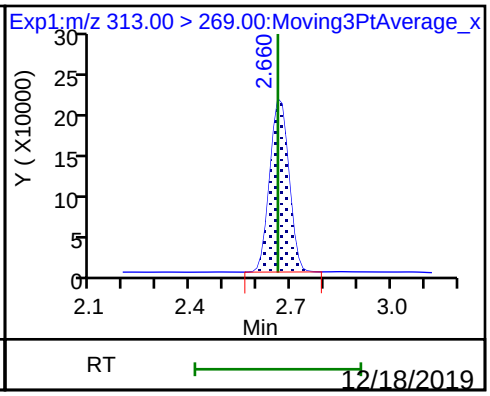
70 Perfluoropentanesulfonic acid



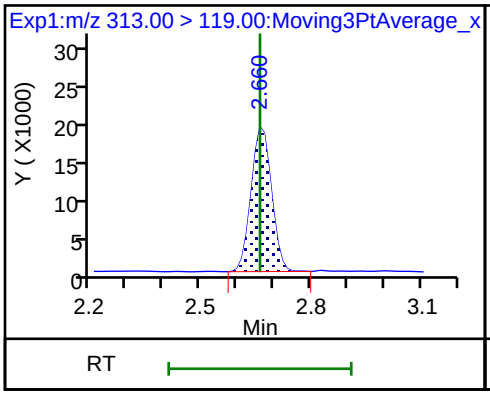
70 Perfluoropentanesulfonic acid



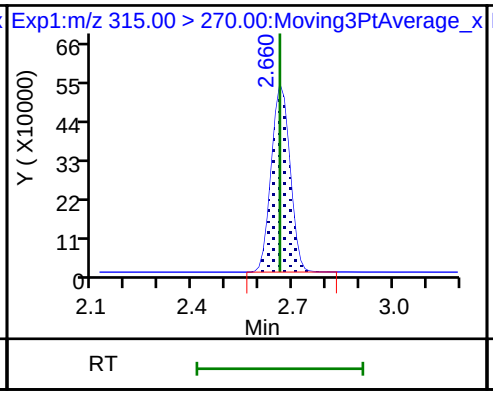
6 Perfluorohexanoic acid



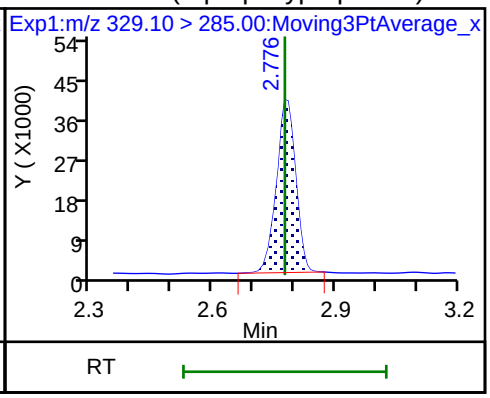
6 Perfluorohexanoic acid



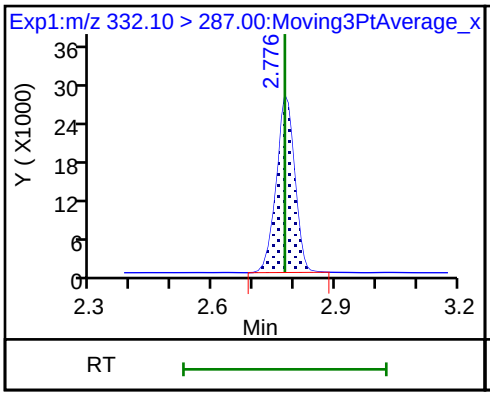
D 7 13C2 PFHxA



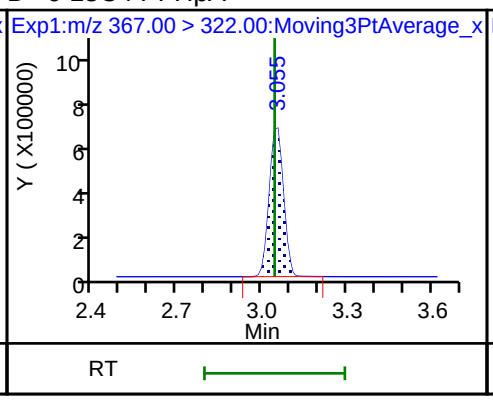
67 Perfluoro(2-propoxypropanoic) acid



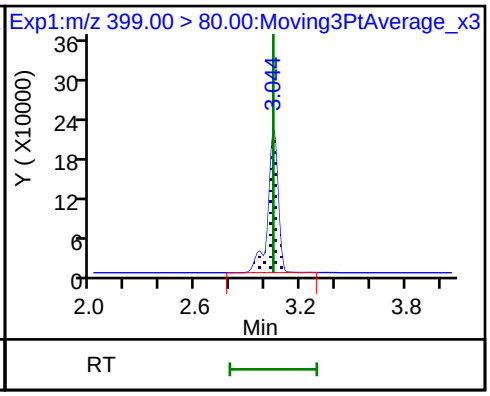
D 64 13C3 HFPO-DA



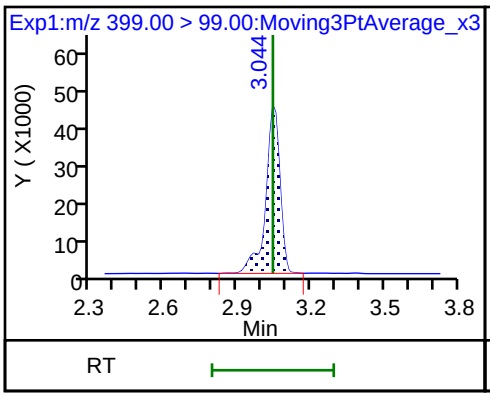
D 9 13C4 PFHpA



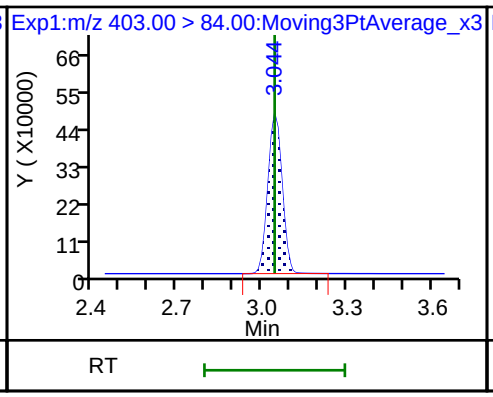
8 Perfluorohexanesulfonic acid



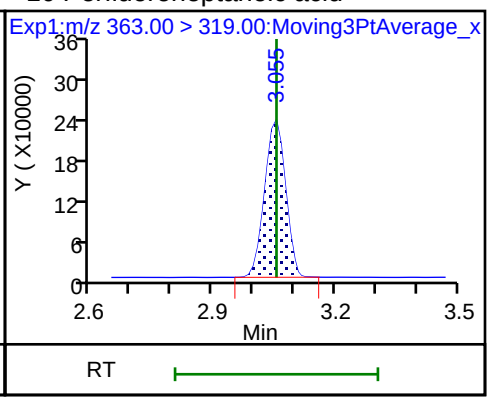
8 Perfluorohexanesulfonic acid



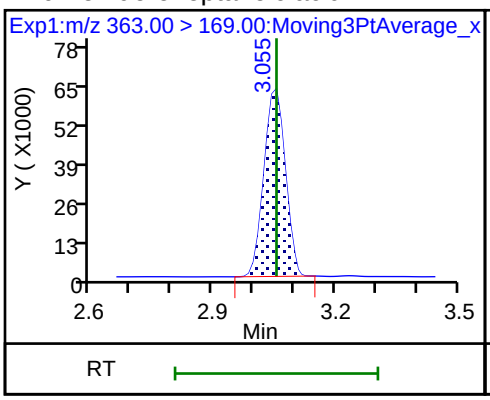
D 11 18O2 PFHxS



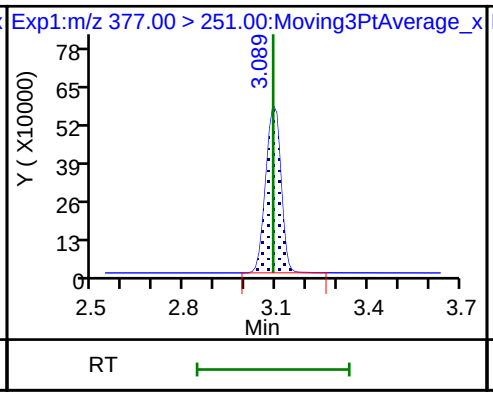
10 Perfluoroheptanoic acid



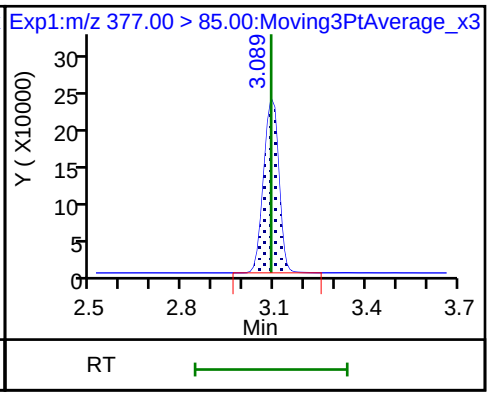
10 Perfluoroheptanoic acid



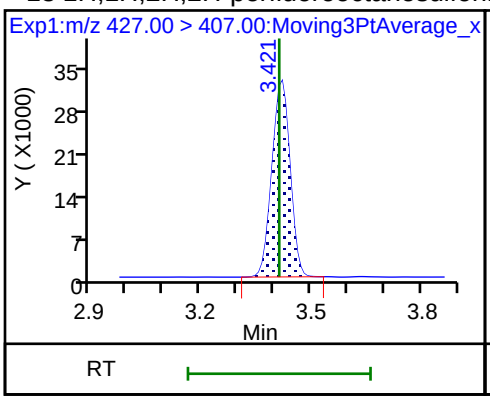
77 DONA



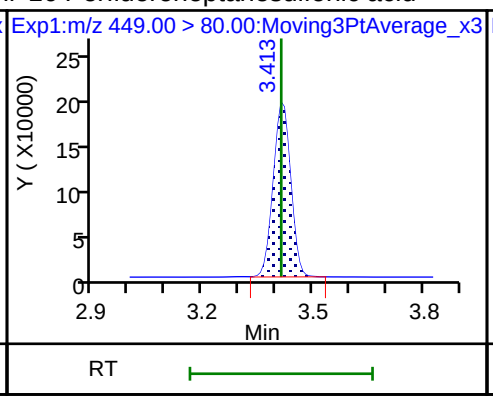
77 DONA



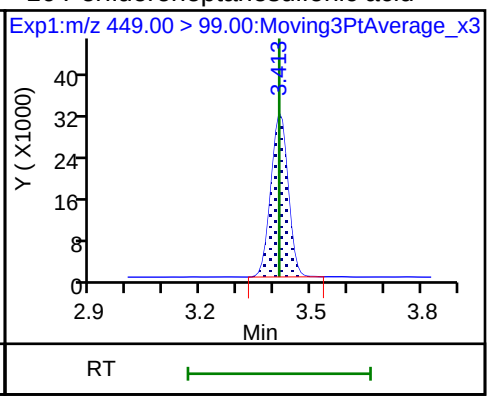
13 1H,1H,2H,2H-perfluorooctanesulfoni



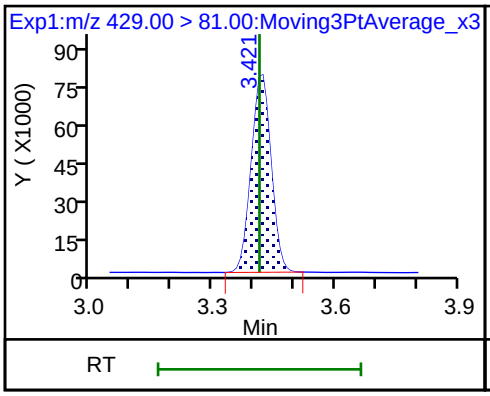
16 Perfluoroheptanesulfonic acid



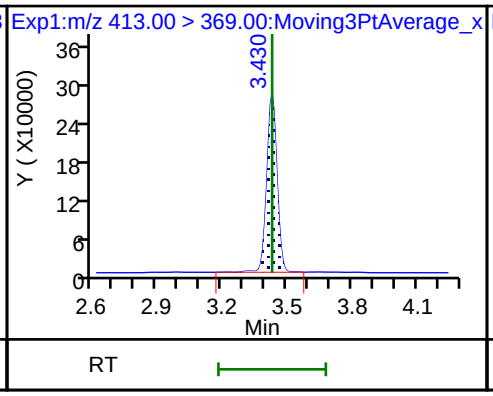
16 Perfluoroheptanesulfonic acid



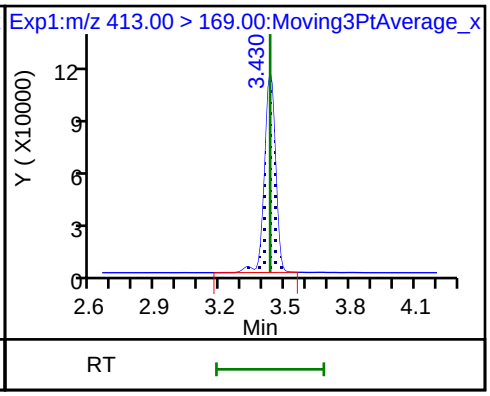
D 12 M2-6:2 FTS



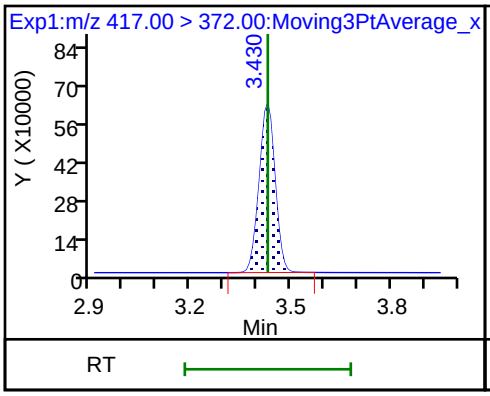
15 Perfluorooctanoic acid



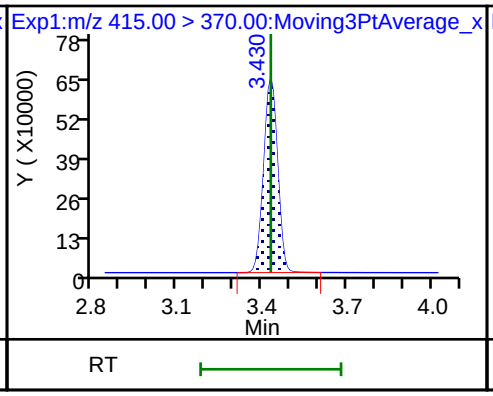
15 Perfluorooctanoic acid



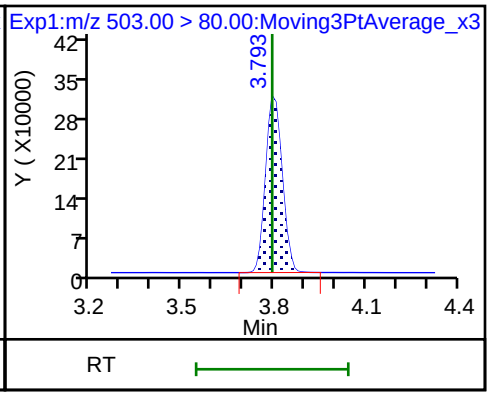
D 14 13C4 PFOA



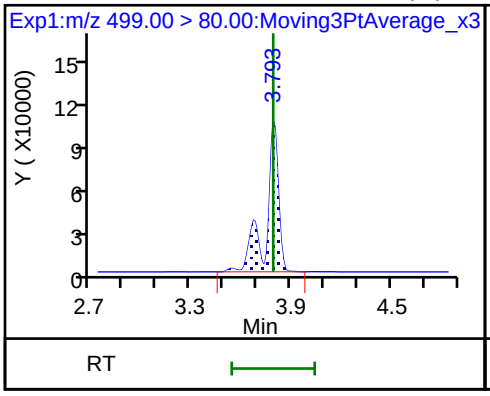
* 62 13C2 PFOA



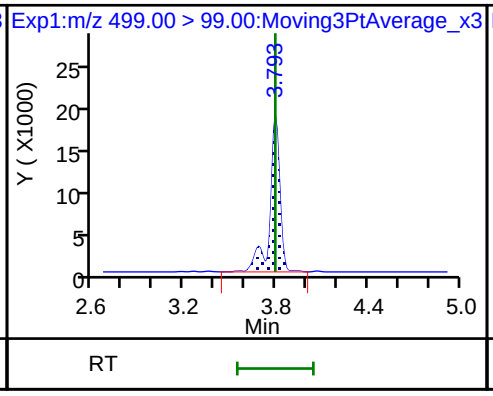
D 18 13C4 PFOS



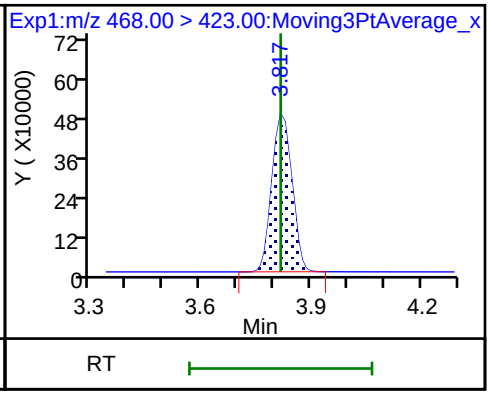
17 Perfluorooctanesulfonic acid (M)



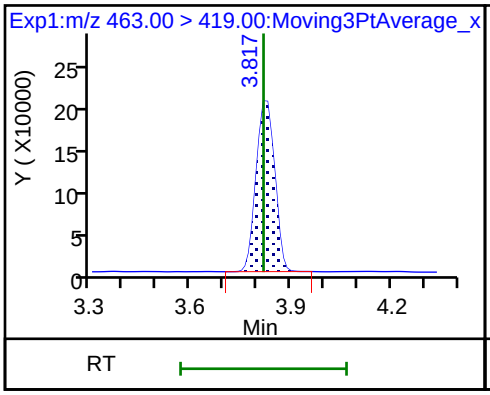
17 Perfluorooctanesulfonic acid



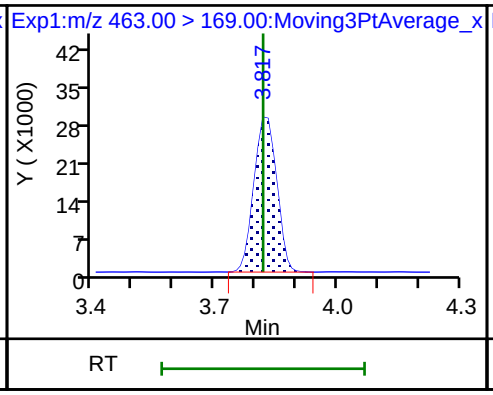
D 19 13C5 PFNA



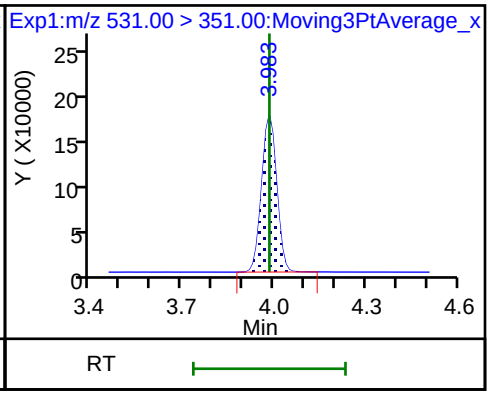
20 Perfluorononanoic acid



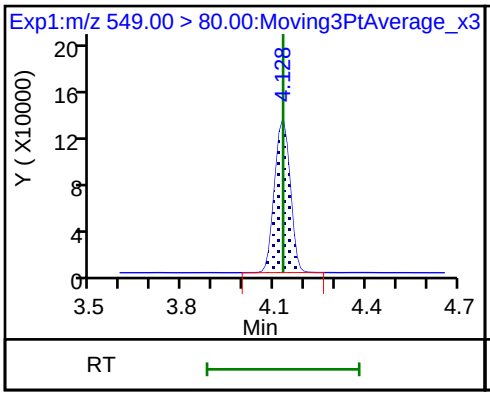
20 Perfluorononanoic acid



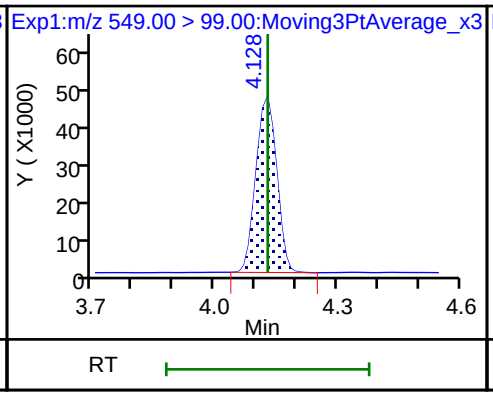
69 9-Chlorohexadecafluoro-3-oxanonane



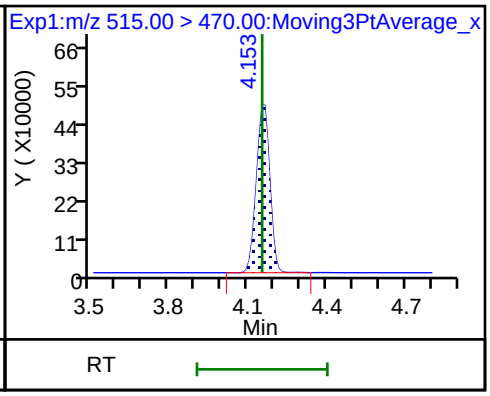
68 Perfluorononanesulfonic acid



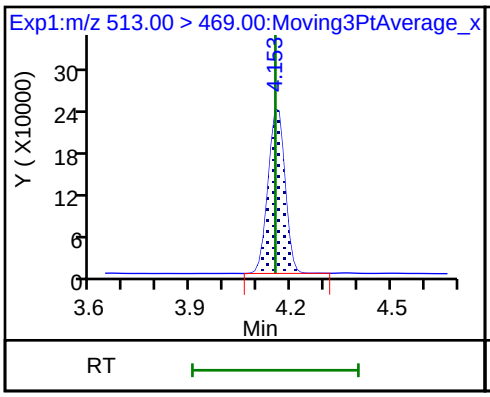
68 Perfluorononanesulfonic acid



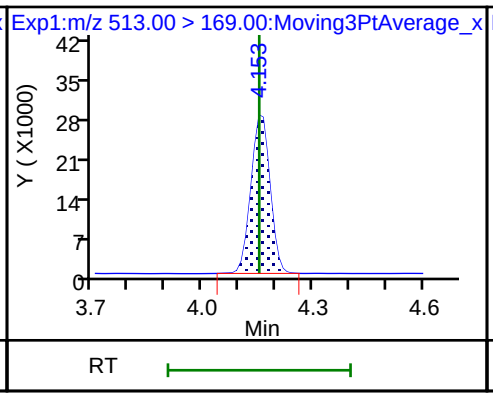
D 23 13C2 PFDA



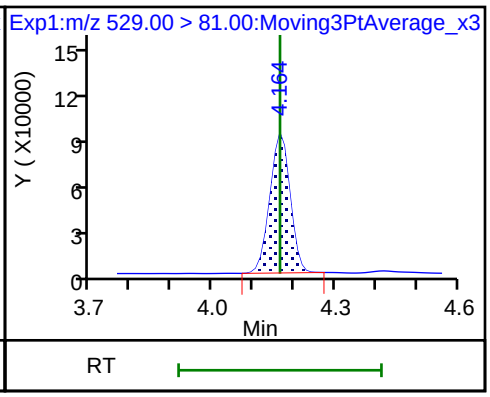
24 Perfluorodecanoic acid



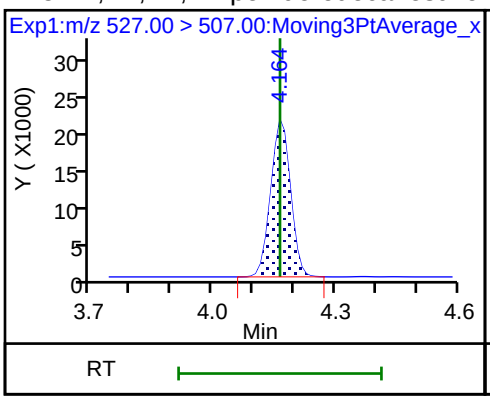
24 Perfluorodecanoic acid



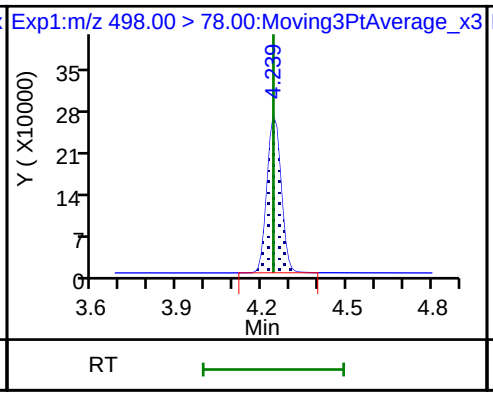
D 26 M2-8:2 FTS



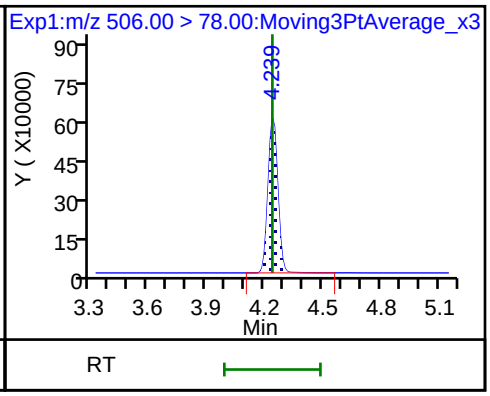
25 1H,1H,2H,2H-perfluorodecanesulfoni



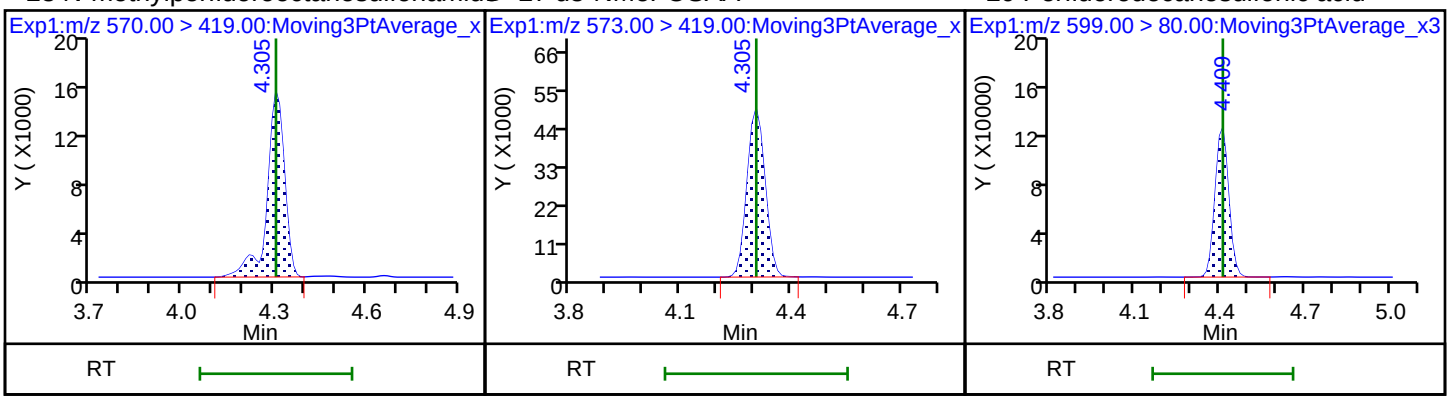
22 Perfluorooctanesulfonamide



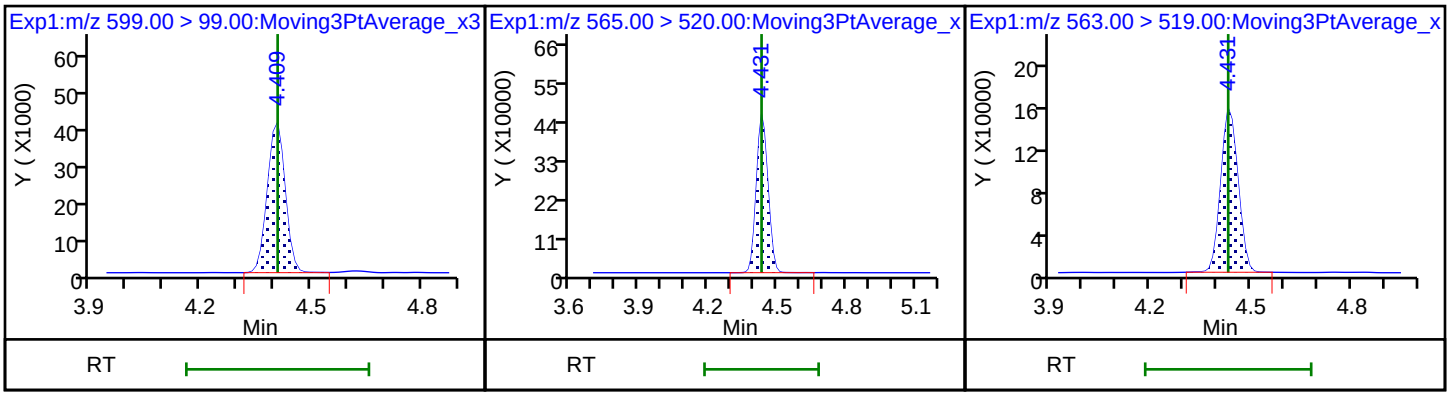
D 21 13C8 FOSA



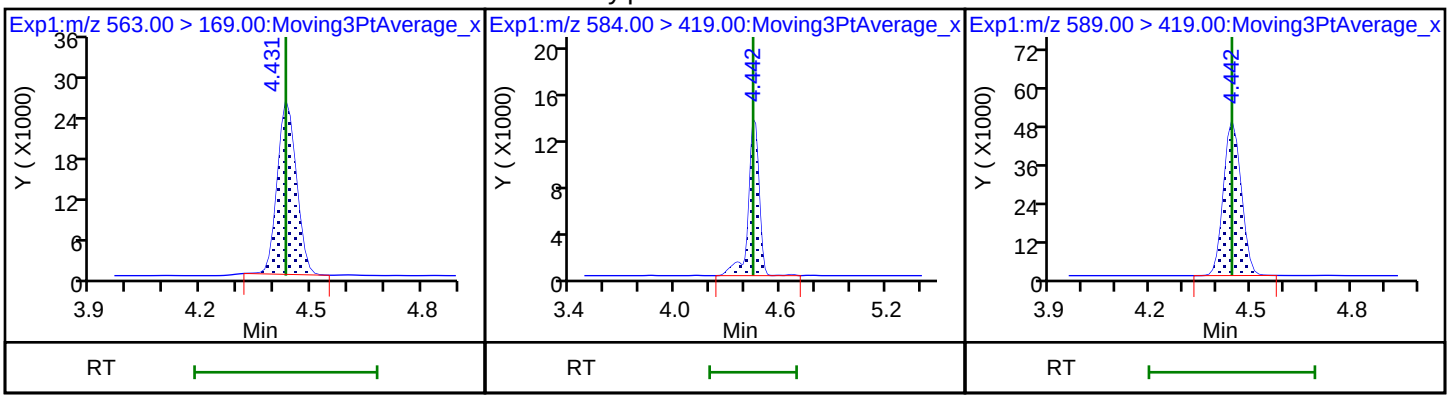
28 N-methylperfluorooctanesulfonamidoD 27 d3-NMeFOSAA 29 Perfluorodecanesulfonic acid



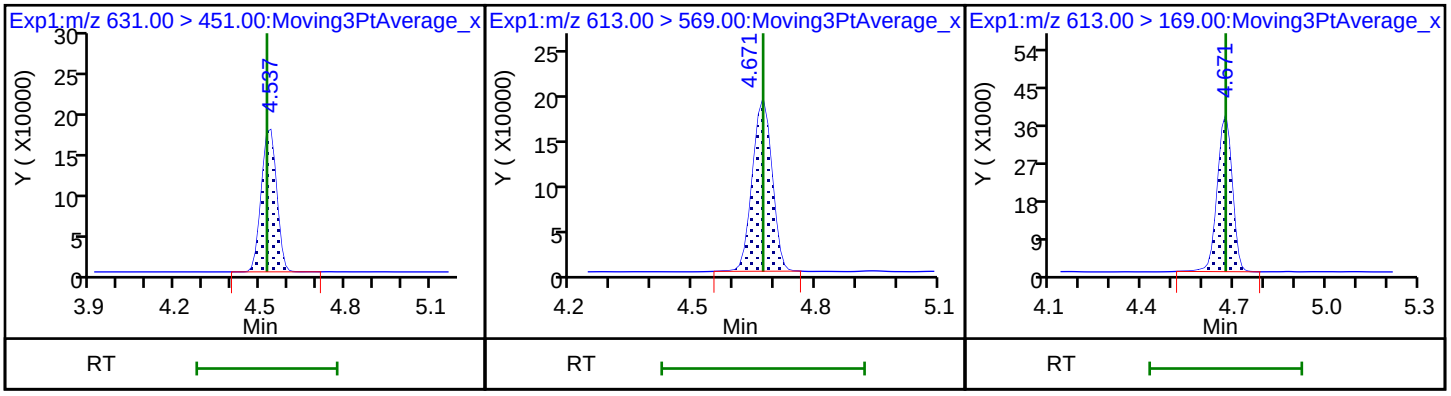
29 Perfluorodecanesulfonic acid D 30 13C2 PFUnA 31 Perfluoroundecanoic acid



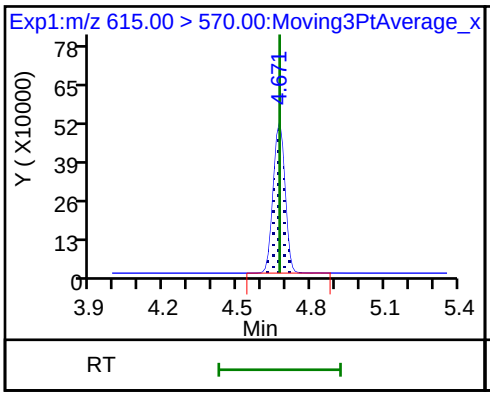
31 Perfluoroundecanoic acid 33 N-ethylperfluorooctanesulfonamidoaD 32 d5-NEtFOSAA



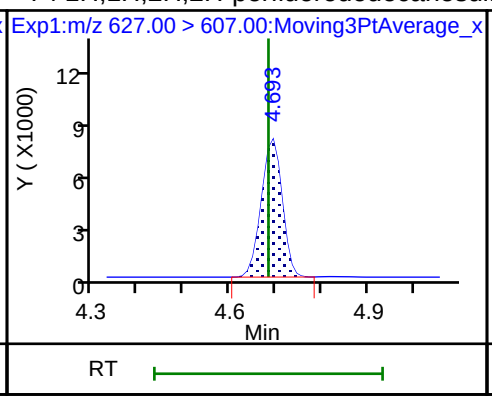
66 11-Chloroeicosafluoro-3-oxaundecan 37 Perfluorododecanoic acid 37 Perfluorododecanoic acid



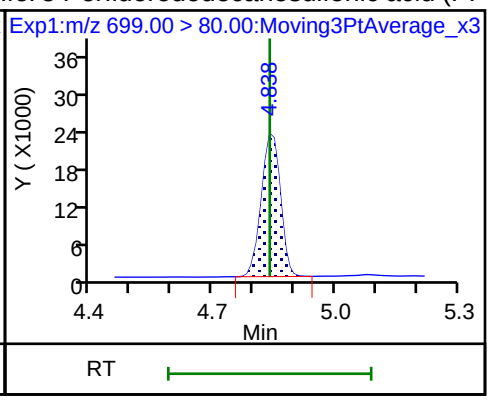
D 36 13C2 PFDoA



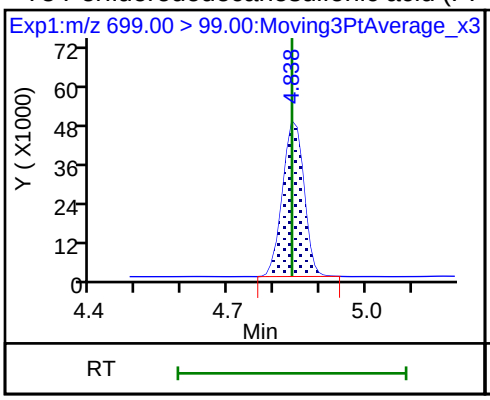
74 1H,1H,2H,2H-perfluorododecanesulfo



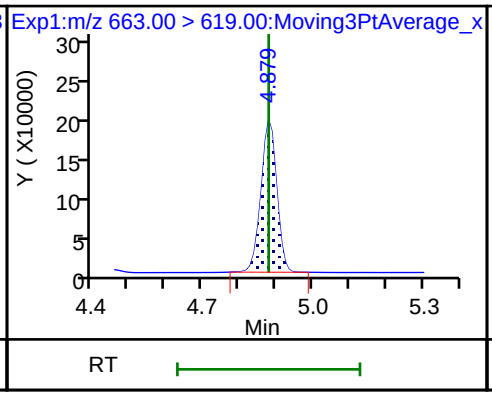
75 Perfluorododecanesulfonic acid (PF



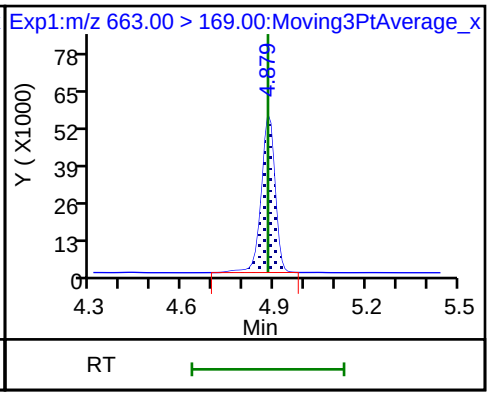
75 Perfluorododecanesulfonic acid (PF



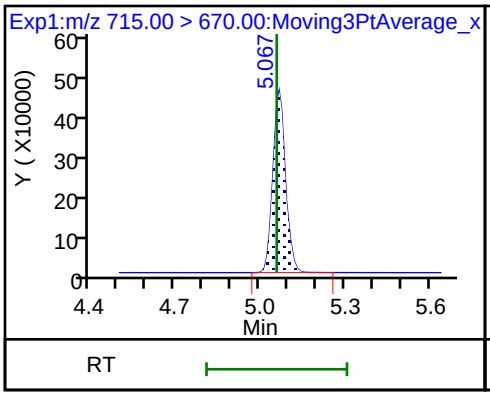
41 Perfluorotridecanoic acid



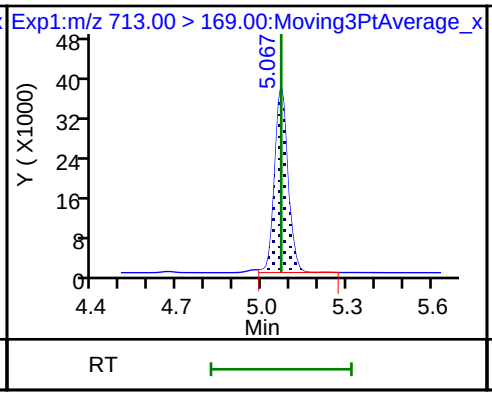
41 Perfluorotridecanoic acid



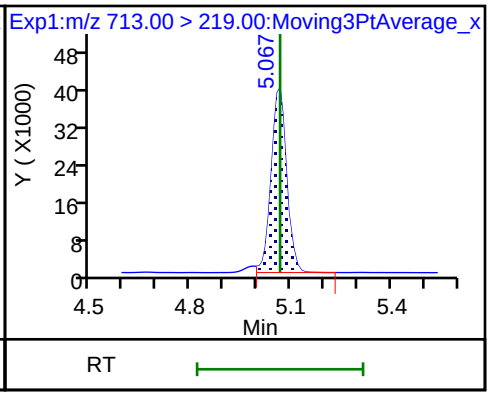
D 43 13C2 PFTeDA



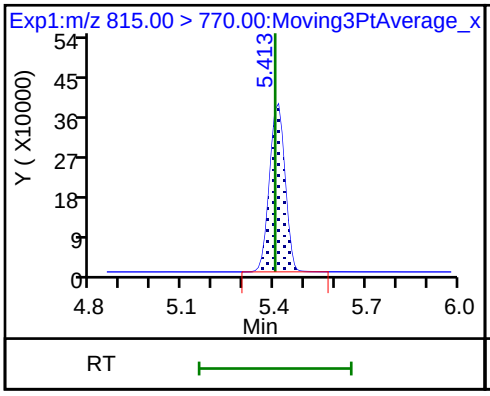
42 Perfluorotetradecanoic acid



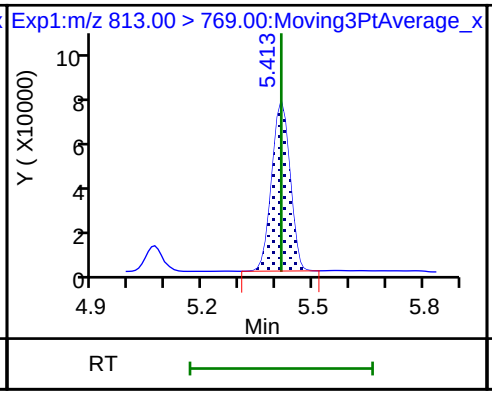
42 Perfluorotetradecanoic acid



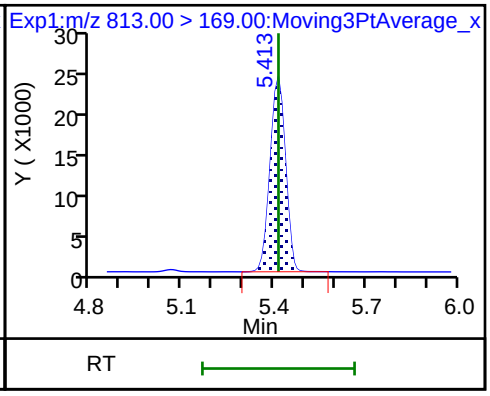
D 44 13C2 PFHxDA



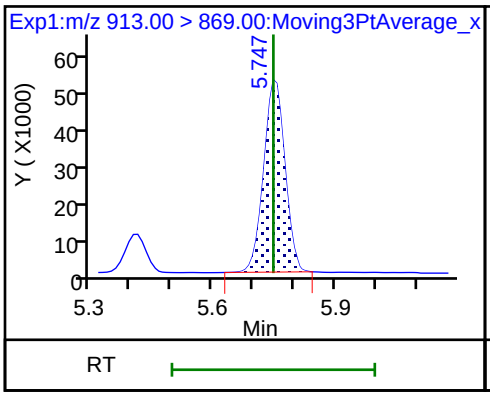
45 Perfluorohexadecanoic acid



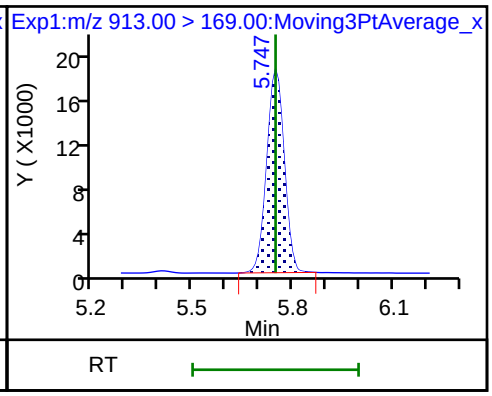
45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

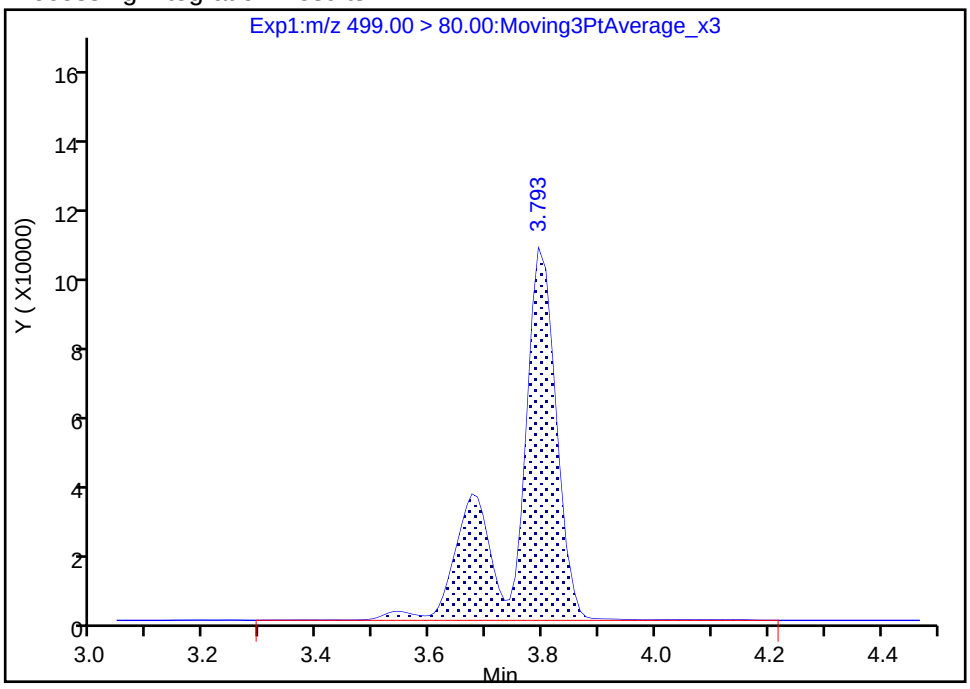
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL012.d
Injection Date: 06-Dec-2019 15:29:46 Instrument ID: LC812
Lims ID: ICV
Client ID:
Operator ID: lc812tech ALS Bottle#: 9 Worklist Smp#: 12
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

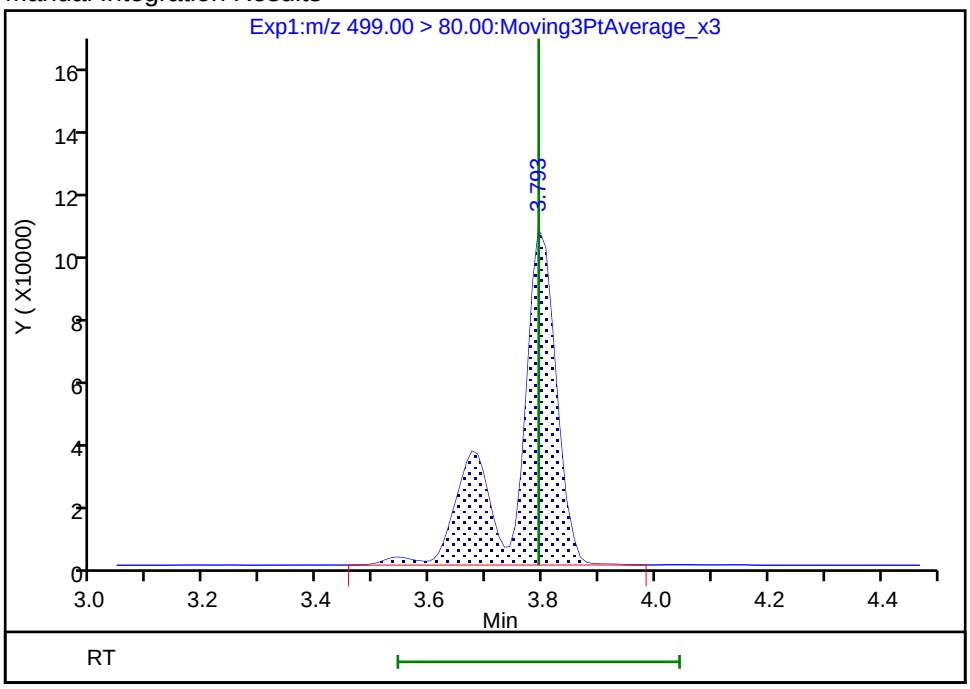
Processing Integration Results

RT: 3.79
Area: 547411
Amount: 1.020048
Amount Units: ng/ml



Manual Integration Results

RT: 3.79
Area: 543860
Amount: 1.013431
Amount Units: ng/ml



Reviewer: chirgwinb, 06-Dec-2019 15:48:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: CCV 200-150462/1 Calibration Date: 12/07/2019 06:22

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619F001.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9949	1.008		1010	1000	1.3	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.132	1.110		980	1000	-2.0	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.087	0.8837		719	884	-18.7	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.732	1.748		943	934	0.9	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.021	1.061		1040	1000	4.0	40.0
Perfluoropentanesulfonic acid	AveID	1.161	1.107		894	938	-4.6	50.0
HFPO-DA	AveID	3.591	4.300		1200	1000	19.7	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.073		1010	1000	1.5	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.132	1.020		820	910	-9.9	40.0
DONA	AveID	3.533	3.433		915	942	-2.8	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.225	1.104		858	952	-9.8	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.9437	0.7291		732	948	-22.7	40.0
Perfluorooctanoic acid (PFOA)	AveID	1.110	1.094		986	1000	-1.4	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.080	1.019		876	928	-5.6	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9805	1.028		1050	1000	4.9	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	1.233	1.007		761	932	-18.3	50.0
Perfluorononanesulfonic acid	AveID	0.8262	0.7499		871	960	-9.2	50.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.4616	0.4600		955	958	-0.3	40.0
Perfluorodecanoic acid (PFDA)	AveID	0.9675	1.113		1150	1000	15.0	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.995	0.9517		956	1000	-4.4	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8689	0.7519		865	1000	-13.5	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7196	0.7278		975	964	1.1	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8479	0.9493		1120	1000	12.0	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8277	0.7143		863	1000	-13.7	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	1.163	1.051		852	942	-9.6	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9240	1.029		1110	1000	11.4	40.0
10:2 FTS	AveID	0.2931	0.2576		847	964	-12.1	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2736	0.2625		929	968	-4.0	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8778	0.8274		943	1000	-5.7	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2009	0.2151		1070	1000	7.1	40.0

FORM VII 537 (modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: CCV 200-150462/1 Calibration Date: 12/07/2019 06:22

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619F001.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L1ID		0.9556		1050	1000	5.2	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7223	0.7279		1010	1000	0.8	50.0
13C4 PFBA	Ave	1.059	1.194		2820	2500	12.7	50.0
13C5 PFPeA	Ave	0.8099	0.8579		2650	2500	5.9	50.0
13C3 PFBS	Ave	0.9661	1.214		2920	2330	25.7	50.0
M2-4:2 FTS	Ave	0.0901	0.0924		2390	2340	2.6	50.0
13C2 PFHxA	Ave	0.9031	0.9904		2740	2500	9.7	50.0
13C3 HFPO-DA	Ave	0.0394	0.0334		2120	2500	-15.4	50.0
13C4 PFHpA	Ave	0.8562	0.9579		2800	2500	11.9	50.0
18O2 PFHxS	Ave	0.7630	0.8768		2720	2370	14.9	50.0
M2-6:2 FTS	Ave	0.1311	0.1502		2720	2380	14.6	50.0
13C4 PFOA	Ave	0.9086	0.9305		2560	2500	2.4	50.0
13C4 PFOS	Ave	0.6053	0.7051		2780	2390	16.5	50.0
13C5 PFNA	Ave	0.8355	0.9112		2730	2500	9.1	50.0
13C2 PFDA	Ave	0.8233	0.8523		2590	2500	3.5	50.0
M2-8:2 FTS	Ave	0.1562	0.1895		2910	2400	21.3	50.0
13C8 FOSA	Ave	1.077	1.173		2720	2500	8.9	50.0
d3-NMeFOSAA	Ave	0.0793	0.0821		2590	2500	3.6	50.0
13C2 PFUnA	Ave	0.6999	0.6779		2420	2500	-3.1	50.0
d5-NEtFOSAA	Ave	0.0879	0.0894		2540	2500	1.7	50.0
13C2 PFDoA	Ave	0.7677	0.7718		2510	2500	0.5	50.0
13C2 PFTeDA	Ave	0.6433	0.7058		2740	2500	9.7	50.0
13C2 PFHxDA	Ave	0.5918	0.5742		2430	2500	-3.0	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F001.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 07-Dec-2019 06:22:13 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: 200-0039120-001 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:18:46 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: chirgwinb Date: 07-Dec-2019 10:45:56
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.557	2360533	2.82		113	34286	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.926	1.926	0.0	1.005	951296	1.01		101	333	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.660	1695757	2.65		106	6426	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.285	2.285	0.0	1.006	753099	0.9805		98.0	80.7	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	749848	0.7187	Target=2.03	81.3	2542	
298.90 > 99.00	2.298	2.298	0.0	1.000	371021		2.02(1.01-3.04)		709	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.312	-0.014	0.668	2231835	2.92		126	858440	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.636	2.636	0.0	1.005	119346	0.9427		101	1277	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.636	-0.013	0.763	170650	2.39		103	225	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.673	0.0	0.875	720025	0.8944	Target=3.50	95.4	2338	
349.00 > 99.00	2.673	2.673	0.0	0.875	229994		3.13(1.75-5.25)		1225	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.673	2.673	0.0	1.000	831179	1.04	Target=13.76	104	370	
313.00 > 119.00	2.673	2.673	0.0	1.000	65710		12.65(6.88-20.64)		209	
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.777	1957763	2.74		110	4607	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.784	2.784	0.0	1.000	113475	1.20		120	63.4	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.784	2.792	-0.008	0.810	65980	2.12		84.6	1036	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.000	812770	1.01	Target=3.95	101	497	
363.00 > 169.00	3.055	3.055	0.0	1.000	254322		3.20(1.97-5.92)		1023	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.889	1639542	2.72		115	5221	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.889	1893493	2.80		112	5702	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.055	3.055	0.0	1.000	643279	0.8199	Target=3.90	90.1	1519	
399.00 > 99.00	3.055	3.055	0.0	1.000	175377		3.67(1.95-5.85)		610	
77 DONA										
377.00 > 251.00	3.101	3.101	0.0	0.815	1802888	0.9154	Target=2.49	97.2	5380	
377.00 > 85.00	3.101	3.101	0.0	0.815	758527		2.38(1.24-3.73)		2241	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.430	3.430	0.0	1.002	82083	0.7324		77.3	1052	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.422	3.430	-0.008	0.899	586064	0.8583	Target=6.46	90.2	2574	
449.00 > 99.00	3.422	3.430	-0.008	0.899	94598		6.20(3.23-9.69)		1120	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.422	3.430	-0.008	0.995	282043	2.72		115	1055	
D 14 13C4 PFOA										
417.00 > 372.00	3.438	3.438	0.0	1.000	1839251	2.56		102	4016	
* 62 13C2 PFOA										
415.00 > 370.00	3.438	3.438	0.0		1976738	2.50			3185	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.438	3.447	-0.009	1.000	805132	0.9863	Target=2.40	98.6	352	
413.00 > 169.00	3.438	3.447	-0.009	1.000	350386		2.30(1.20-3.60)		1492	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.003	527398	0.8763	Target=5.74	94.4	1466	M
499.00 > 99.00	3.805	3.817	-0.012	1.000	87740		6.01(2.87-8.61)		612	M
D 18 13C4 PFOS										
503.00 > 80.00	3.805	3.817	-0.012	1.107	1332430	2.78		116	6014	
20 Perfluorononanoic acid										
463.00 > 419.00	3.829	3.829	0.0	1.000	740951	1.05	Target=7.01	105	381	
463.00 > 169.00	3.829	3.829	0.0	1.000	115445		6.42(3.50-10.51)		1368	
D 19 13C5 PFNA										
468.00 > 423.00	3.829	3.842	-0.013	1.114	1801225	2.73		109	9349	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.994	3.994	0.0	1.050	523320	0.7612		81.7	3025	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.141	4.141	0.0	1.088	401371	0.8714	Target=3.14	90.8	2318	
549.00 > 99.00	4.141	4.141	0.0	1.088	131140		3.06(1.57-4.71)		692	
D 23 13C2 PFDA										
515.00 > 470.00	4.175	4.175	0.0	1.214	1684720	2.59		104	6009	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.175	4.175	0.0	1.000	750023	1.15	Target=7.28	115	1019	
513.00 > 169.00	4.175	4.175	0.0	1.000	98949		7.58(3.64-10.91)		773	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.175	4.185	-0.010	1.214	358819	2.91		121	1975	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.175	4.185	-0.010	1.000	66029	0.9548		99.7	1337	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	882623	0.9563		95.6	2556	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.233	2318667	2.72		109	4907	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.317	4.317	0.0	1.255	162321	2.59		104	574	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.328	4.328	0.0	1.003	48822	0.8653		86.5	494	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.420	4.420	0.0	1.162	391135	0.9750	Target=2.76	101	1759	
599.00 > 99.00	4.420	4.420	0.0	1.162	132529		2.95(1.38-4.14)		2023	
D 30 13C2 PFUnA										
565.00 > 520.00	4.443	4.456	-0.014	1.292	1340090	2.42		96.9	10006	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.443	4.456	-0.014	1.000	508883	1.12	Target=5.78	112	565	
563.00 > 169.00	4.443	4.456	-0.014	1.000	85958		5.92(2.89-8.67)		1355	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.296	176710	2.54		102	1471	
33 N-ethylperfluorooctanesulfonamidoa										
584.00 > 419.00	4.469	4.469	0.0	1.003	50490	0.8630		86.3	427	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.550	4.550	0.0	1.196	551995	0.8515		90.4	3162	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.683	4.693	-0.010	1.000	627920	1.11	Target=5.13	111	137	
613.00 > 169.00	4.683	4.693	-0.010	1.000	117172		5.36(2.56-7.69)		1464	
D 36 13C2 PFDoA										
615.00 > 570.00	4.683	4.693	-0.010	1.362	1525584	2.51		101	4087	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.704	4.714	-0.010	1.127	37206	0.8474		87.9	490	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.861	4.860	0.0	1.277	141649	0.9288	Target=0.45	96.0	445	
699.00 > 99.00	4.861	4.860	0.0	1.277	292667		0.48(0.22-0.67)		3504	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.897	4.906	-0.009	1.046	504911	0.9426	Target=3.82	94.3	97.5	
663.00 > 169.00	4.897	4.906	-0.009	1.046	150451		3.36(1.91-5.74)		1444	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.094	5.094	0.0	1.481	1395131	2.74		110	8671	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.094	5.094	0.0	1.000	120018	1.07	Target=1.05	107	1915	
713.00 > 219.00	5.085	5.094	-0.009	0.998	99671		1.20(0.52-1.57)		2237	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.457	5.457	0.0	1.002	433867	1.05	Target=3.20	105	104	
813.00 > 169.00	5.446	5.457	-0.011	1.000	142876		3.04(1.60-4.80)		1465	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.446	5.457	-0.011	1.584	1135125	2.43		97.0	5472	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.812	5.823	-0.011	1.067	330500	1.01	Target=2.86	101	107	
913.00 > 169.00	5.812	5.823	-0.011	1.067	122801		2.69(1.43-4.29)		1147	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC4_00004 Amount Added: 100.00 Units: uL

Report Date: 12-Dec-2019 18:18:47 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F001.d

Injection Date: 07-Dec-2019 06:22:13 Instrument ID: LC812

Lims ID: CCV L4

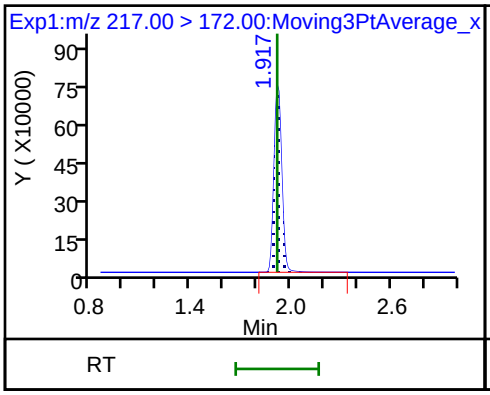
Client ID:

Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1

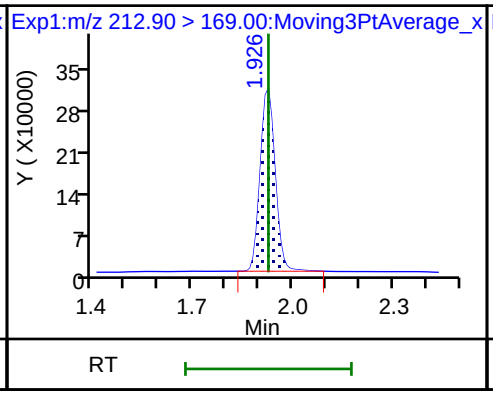
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

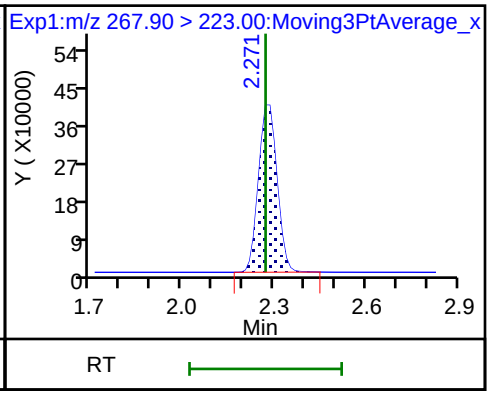
D 1 13C4 PFBA



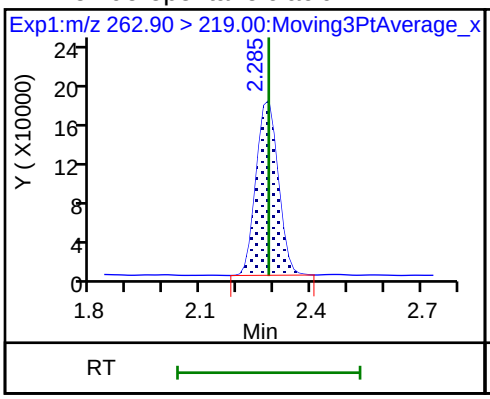
2 Perfluorobutanoic acid



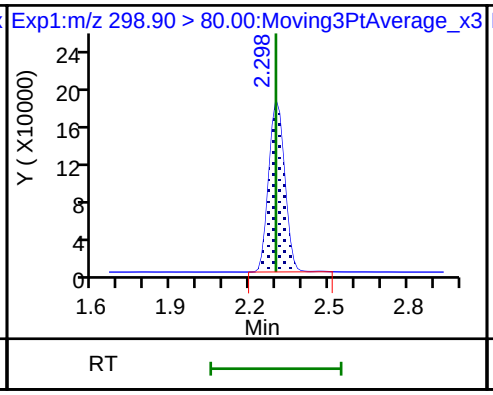
D 3 13C5 PFPeA



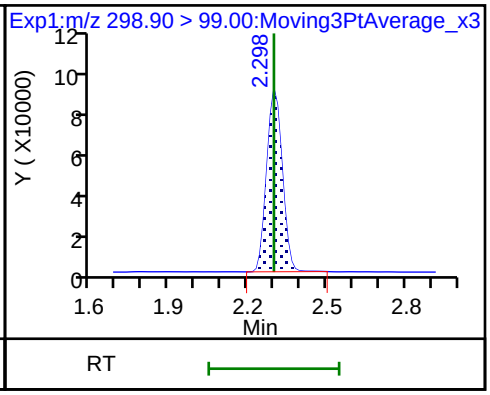
4 Perfluoropentanoic acid



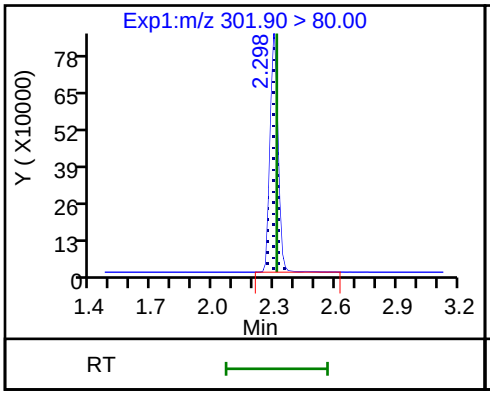
5 Perfluorobutanesulfonic acid



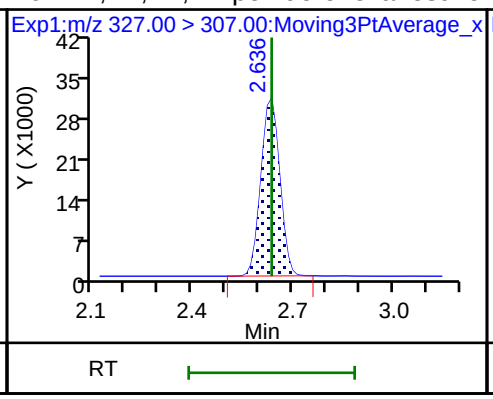
5 Perfluorobutanesulfonic acid



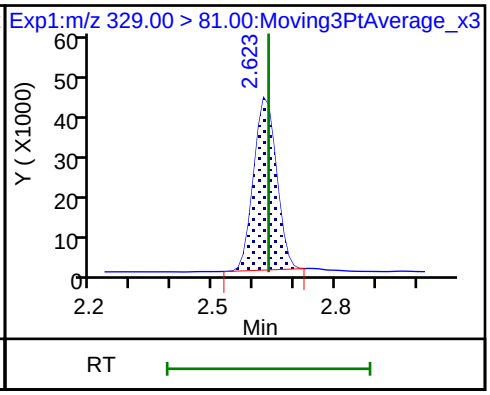
D 47 13C3 PFBS



61 1H,1H,2H,2H-perfluorohexanesulfon



D 60 M2-4:2 FTS



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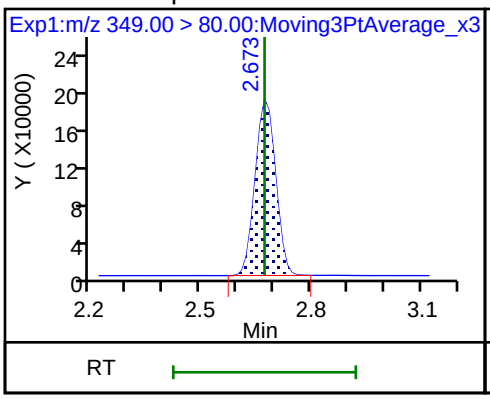

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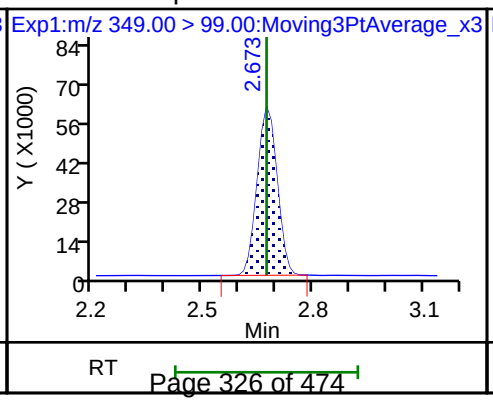
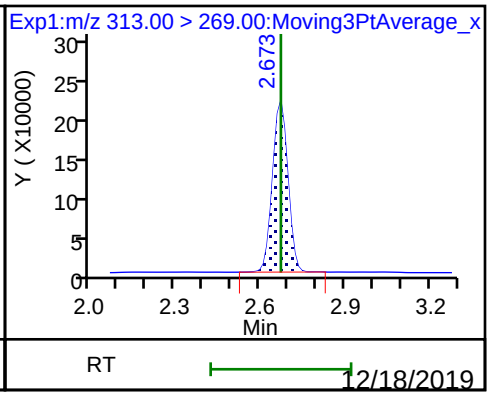
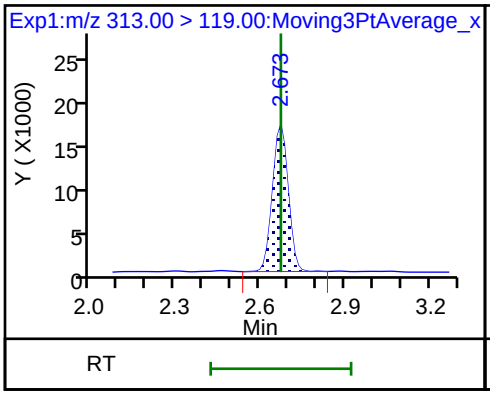


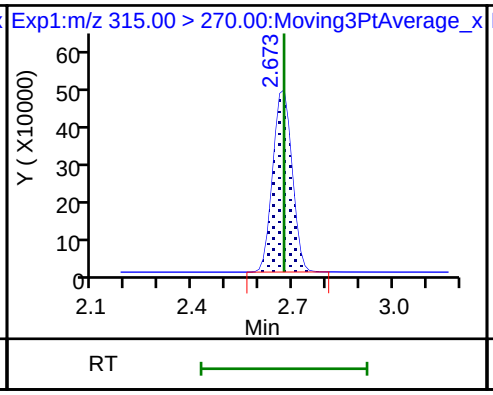
6 Perfluorohexanoic acid



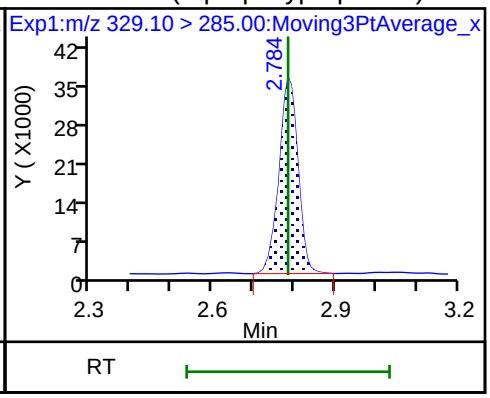
6 Perfluorohexanoic acid



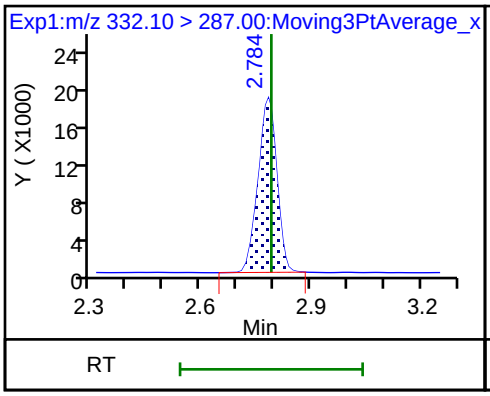
D 7 13C2 PFHxA



67 Perfluoro(2-propoxypropanoic) acid



D 64 13C3 HFPO-DA



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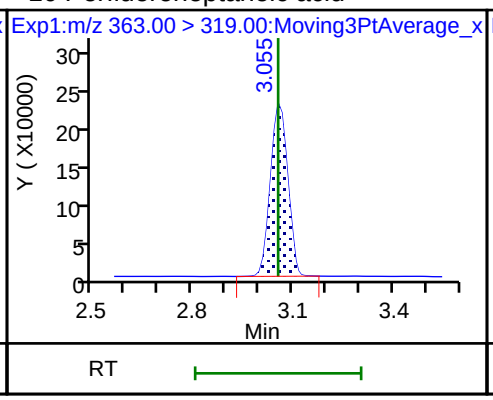

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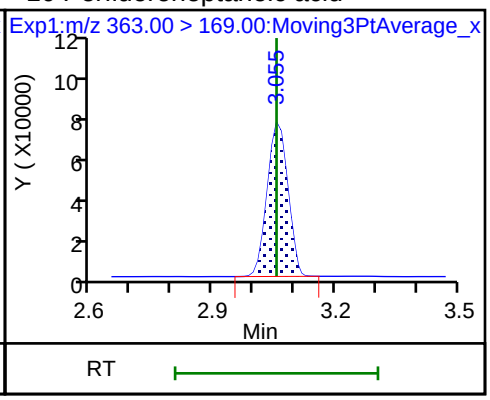
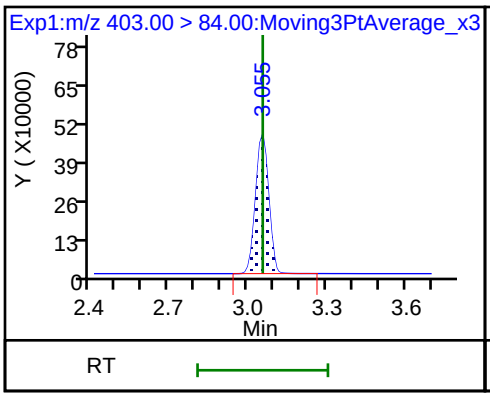


D 11 18O2 PFHxS



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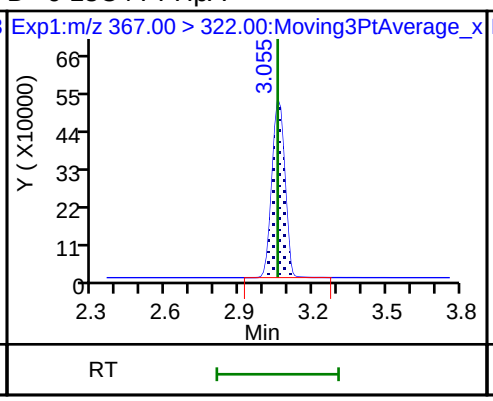
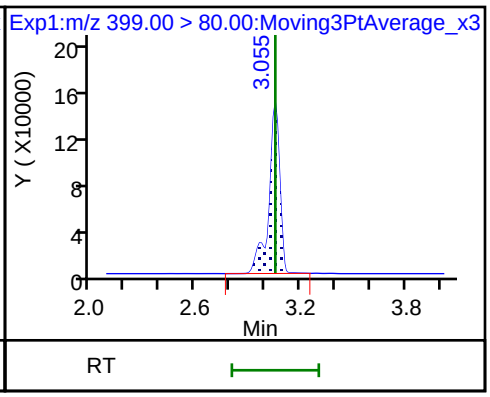


8 Perfluorohexanesulfonic acid



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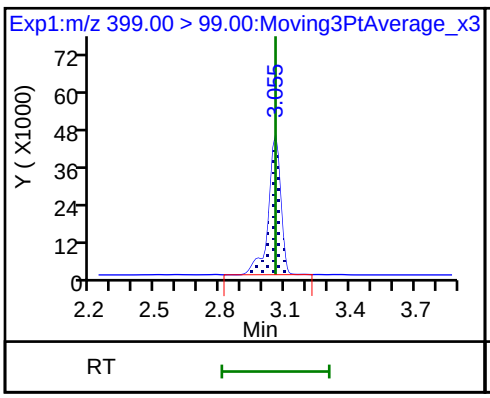
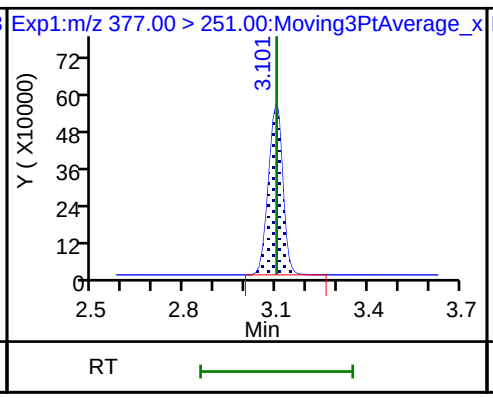
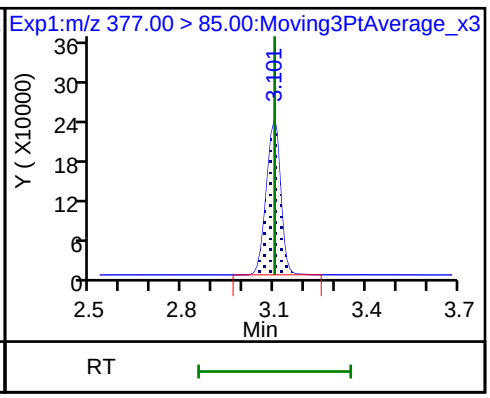


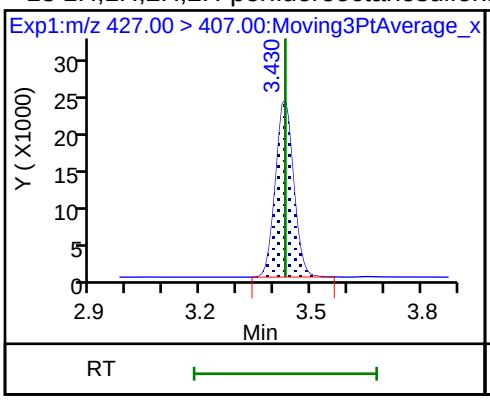
77 DONA



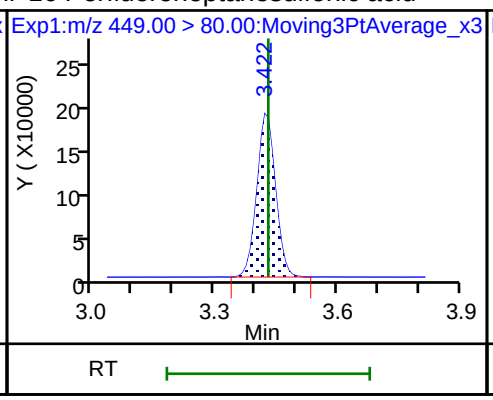
77 DONA



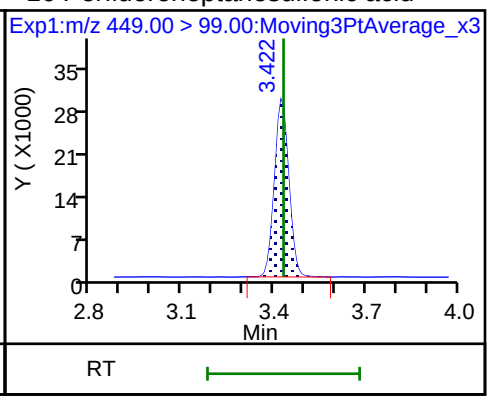
13 1H,1H,2H,2H-perfluorooctanesulfoni



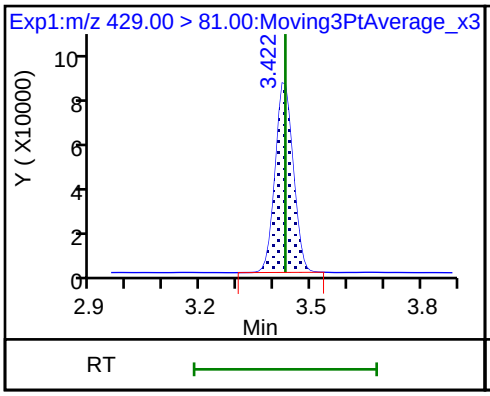
16 Perfluoroheptanesulfonic acid



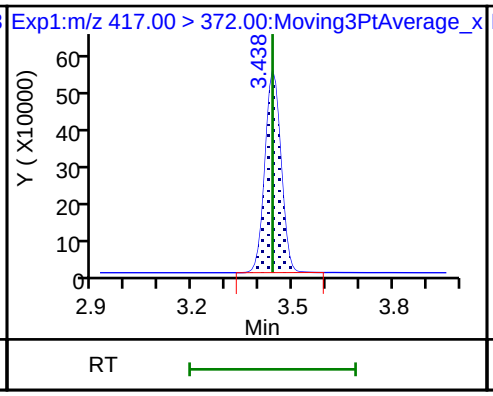
16 Perfluoroheptanesulfonic acid



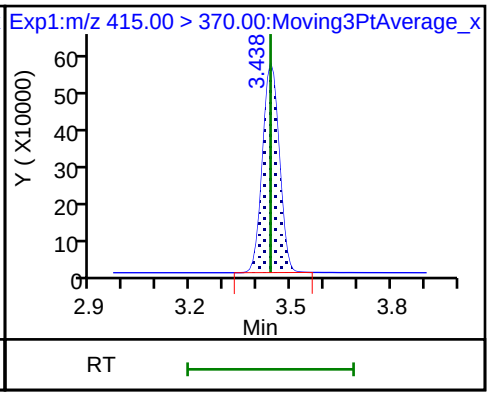
D 12 M2-6:2 FTS



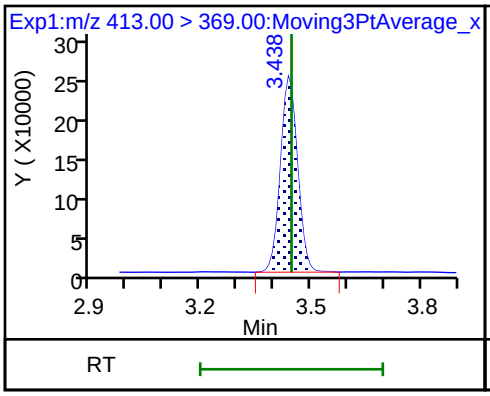
D 14 13C4 PFOA



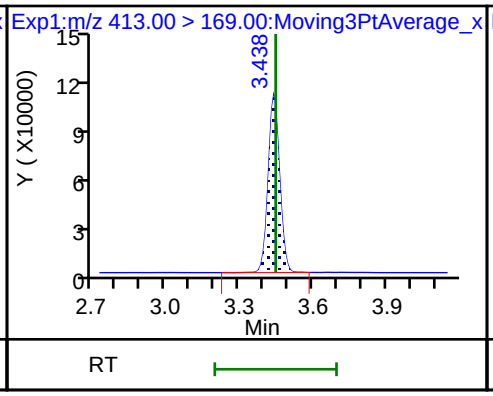
* 62 13C2 PFOA



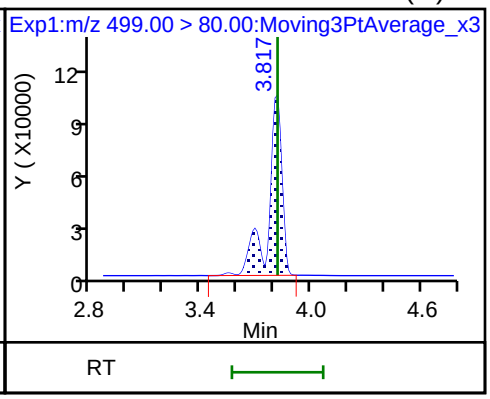
15 Perfluorooctanoic acid



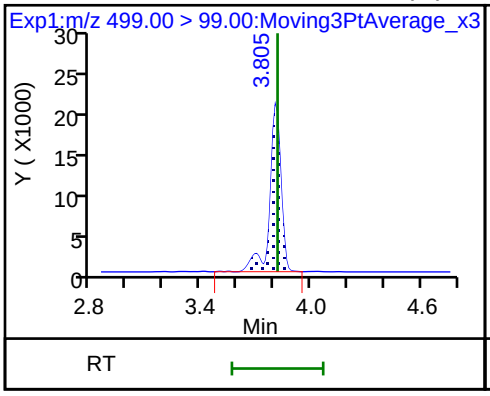
15 Perfluorooctanoic acid



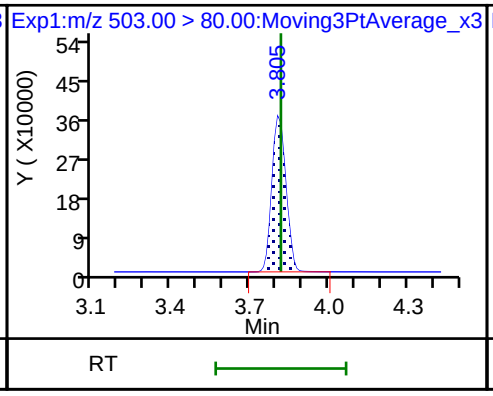
17 Perfluorooctanesulfonic acid (M)



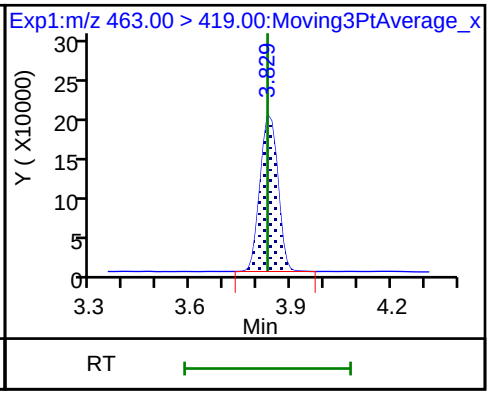
17 Perfluorooctanesulfonic acid (M)



D 18 13C4 PFOS



20 Perfluorononanoic acid



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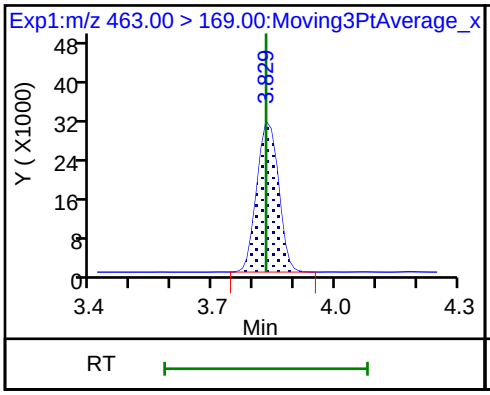
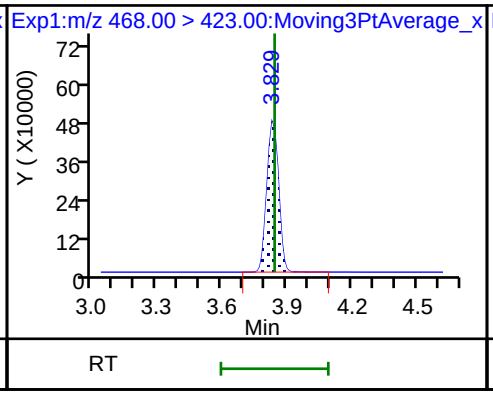
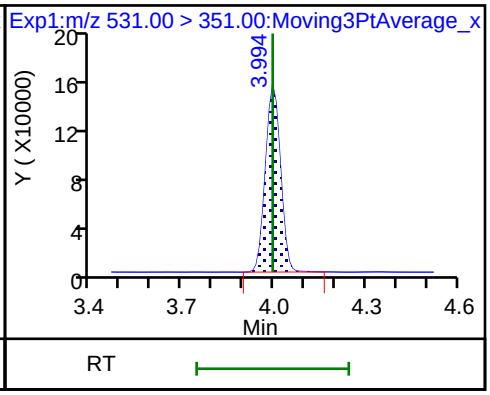


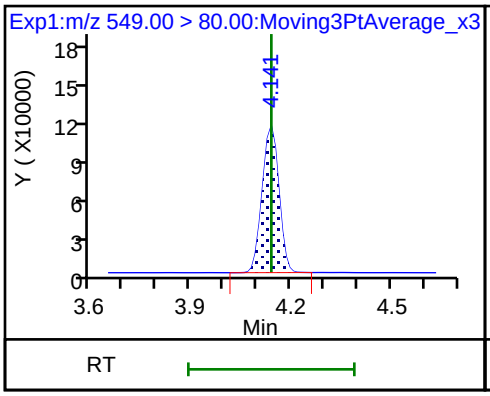
D 19 13C5 PFNA



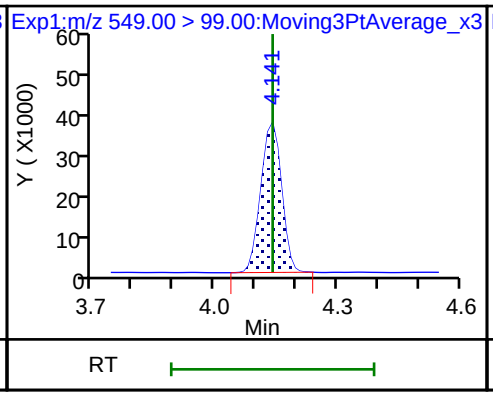
69 9-Chlorohexadecafluoro-3-oxanonane



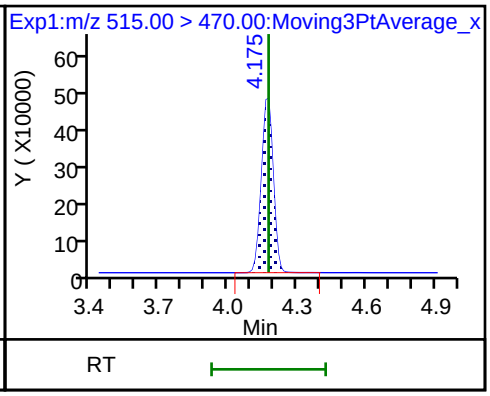
68 Perfluorononanesulfonic acid



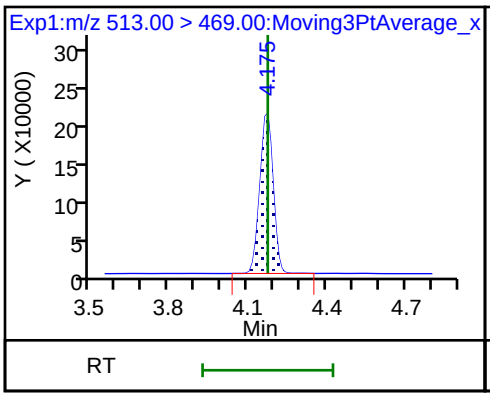
68 Perfluorononanesulfonic acid



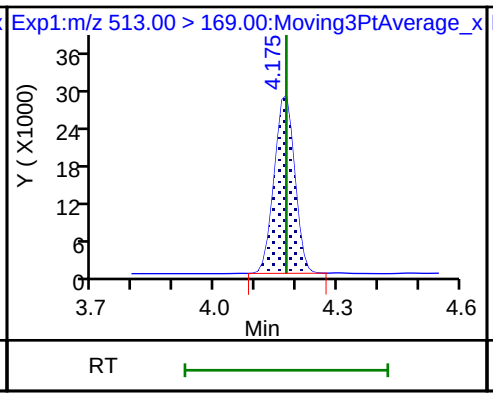
D 23 13C2 PFDA



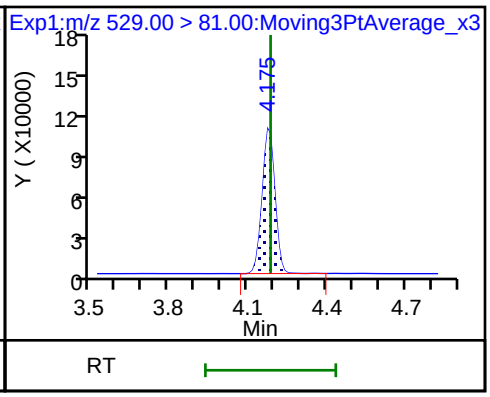
24 Perfluorodecanoic acid



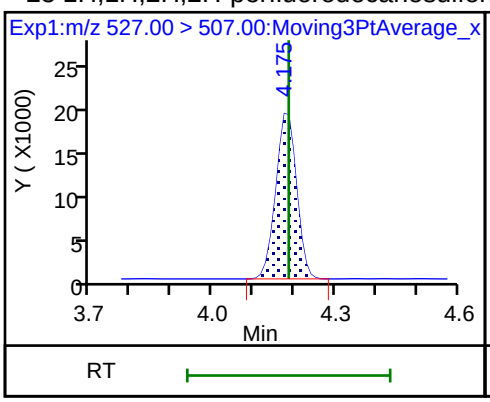
24 Perfluorodecanoic acid



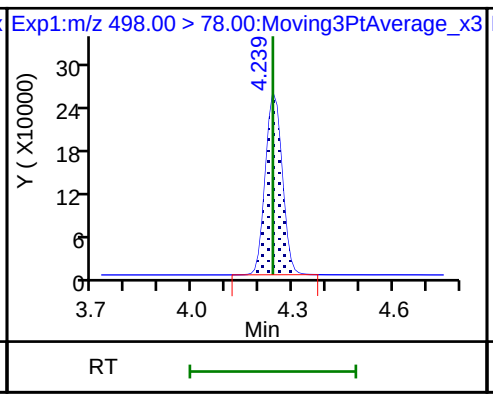
D 26 M2-8:2 FTS



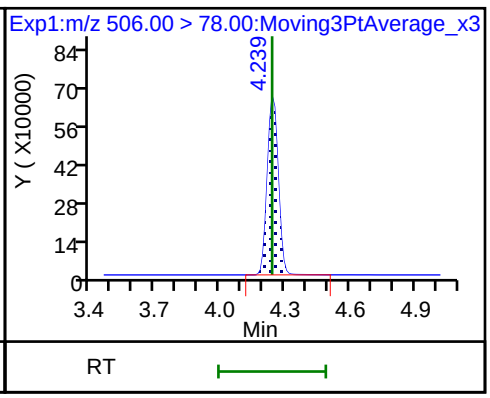
25 1H,1H,2H,2H-perfluorodecanesulfoni



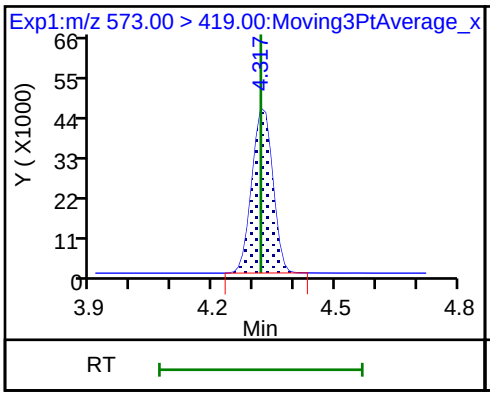
22 Perfluorooctanesulfonamide



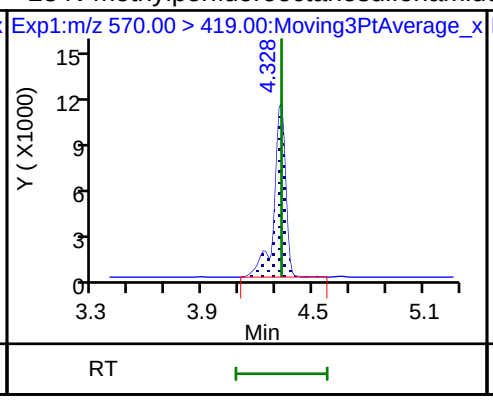
D 21 13C8 FOSA



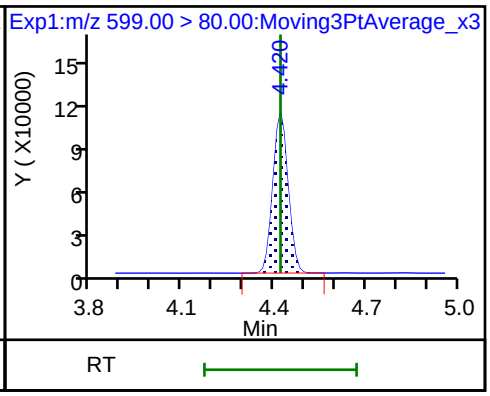
D 27 d3-NMeFOSAA



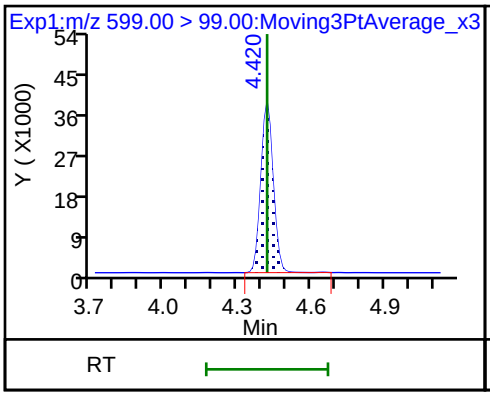
28 N-methylperfluorooctanesulfonamido



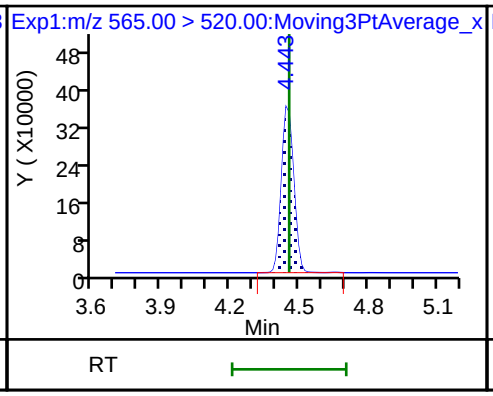
29 Perfluorodecanesulfonic acid



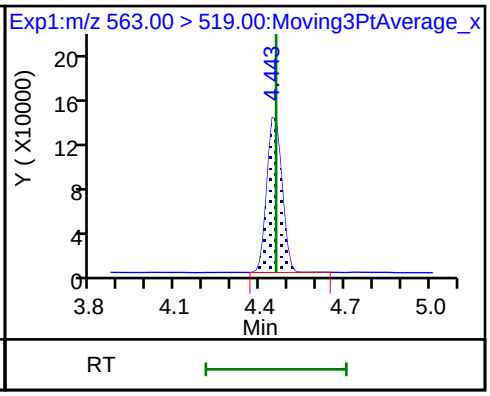
29 Perfluorodecanesulfonic acid



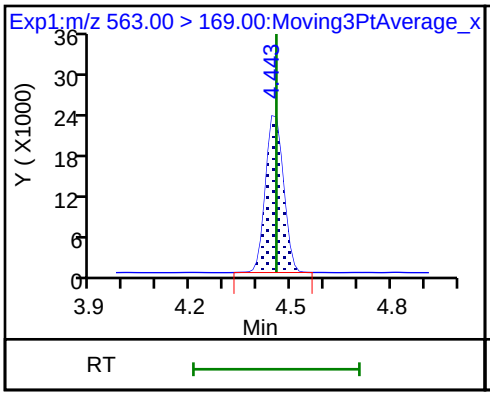
D 30 13C2 PFUnA



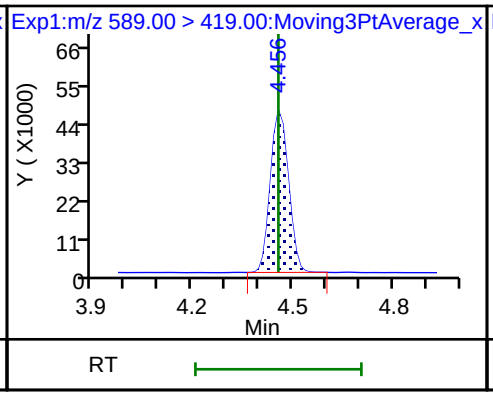
31 Perfluoroundecanoic acid



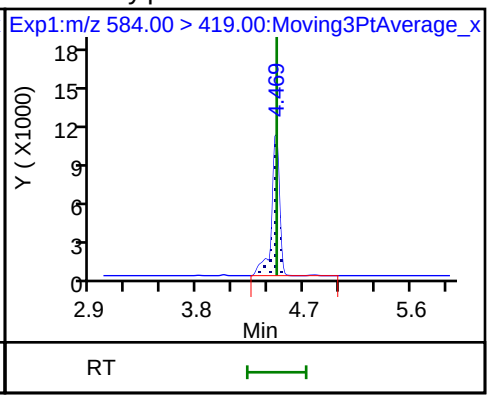
31 Perfluoroundecanoic acid



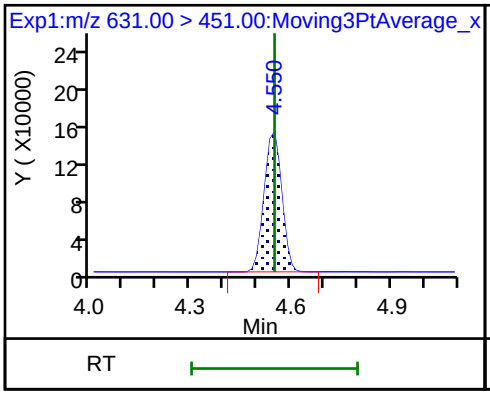
D 32 d5-NEtFOSAA



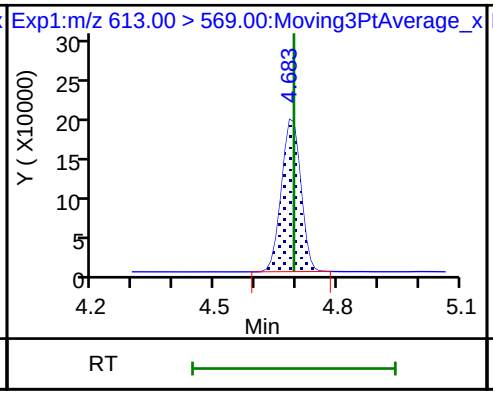
33 N-ethylperfluorooctanesulfonamidoa



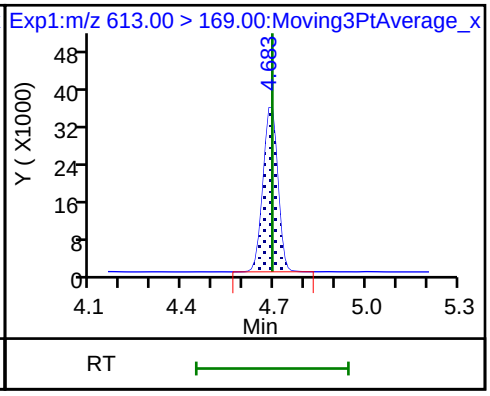
66 11-Chloroeicosafluoro-3-oxaundecan



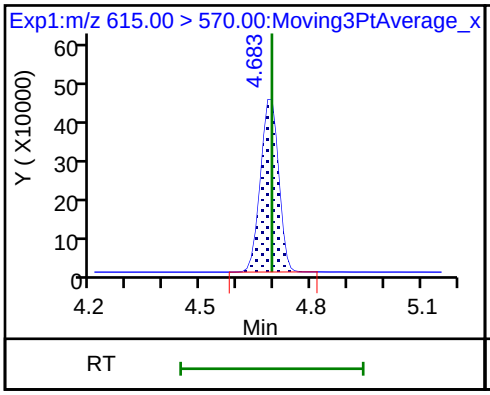
37 Perfluorododecanoic acid



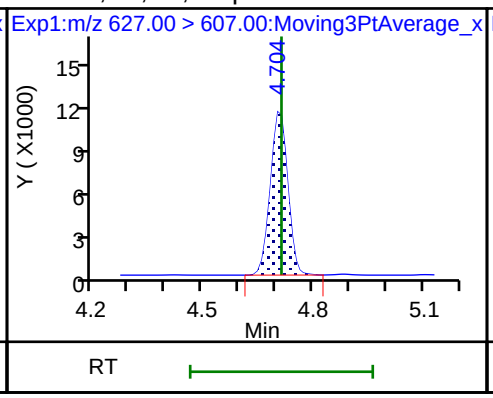
37 Perfluorododecanoic acid



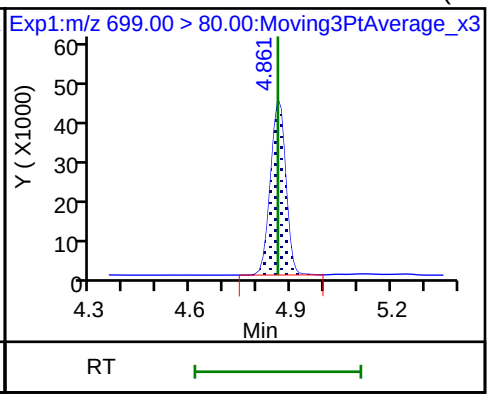
D 36 13C2 PFDoA



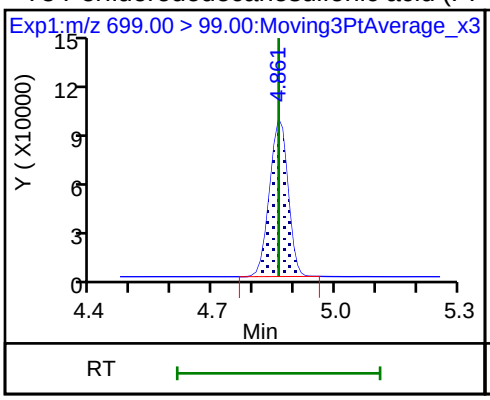
74 1H,1H,2H,2H-perfluorododecanesulfo



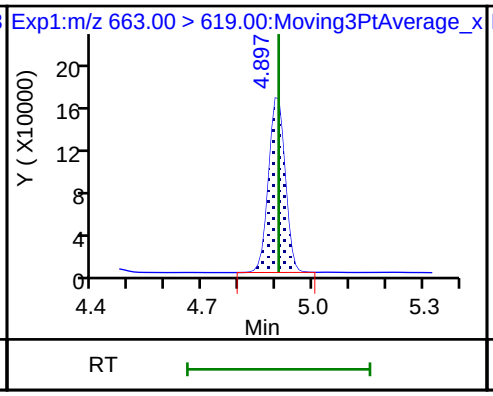
75 Perfluorododecanesulfonic acid (PF



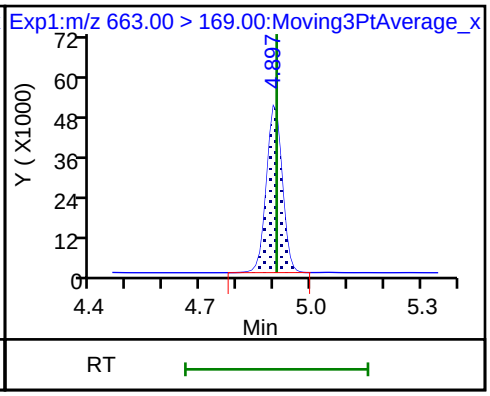
75 Perfluorododecanesulfonic acid (PF



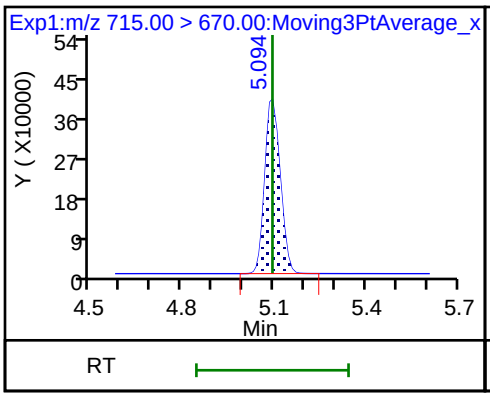
41 Perfluorotridecanoic acid



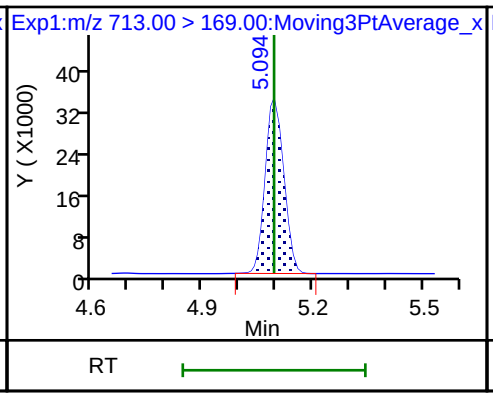
41 Perfluorotridecanoic acid



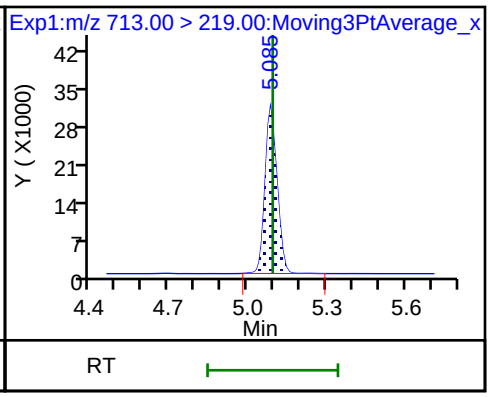
D 43 13C2 PFTeDA



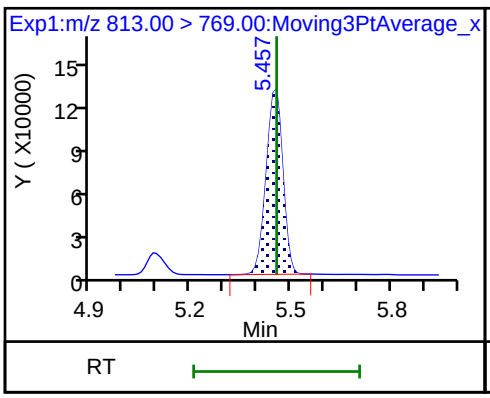
42 Perfluorotetradecanoic acid



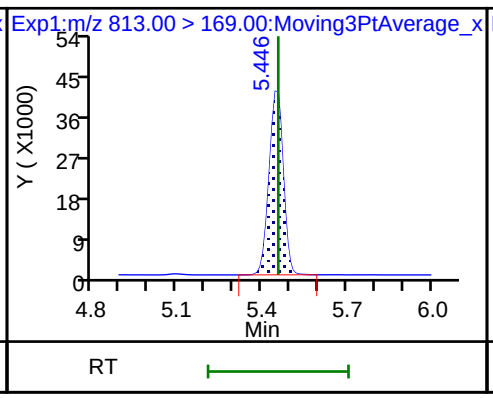
42 Perfluorotetradecanoic acid



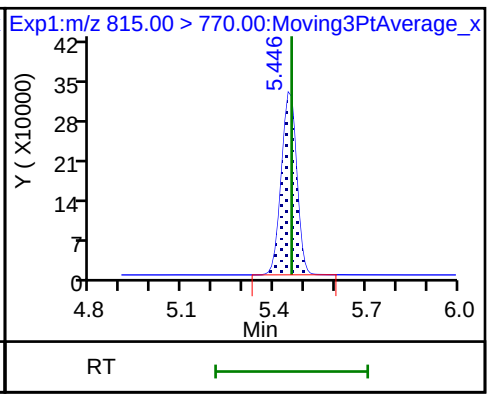
45 Perfluorohexadecanoic acid



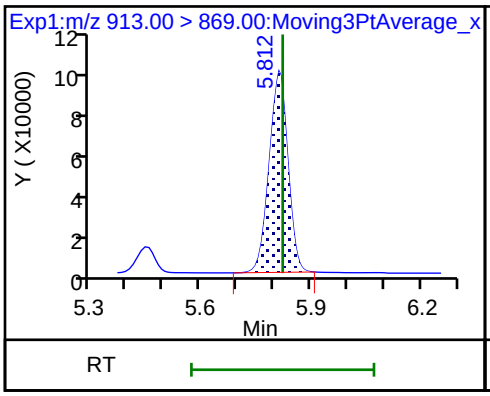
45 Perfluorohexadecanoic acid



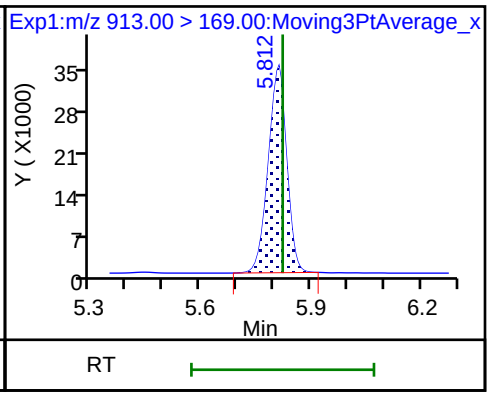
D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

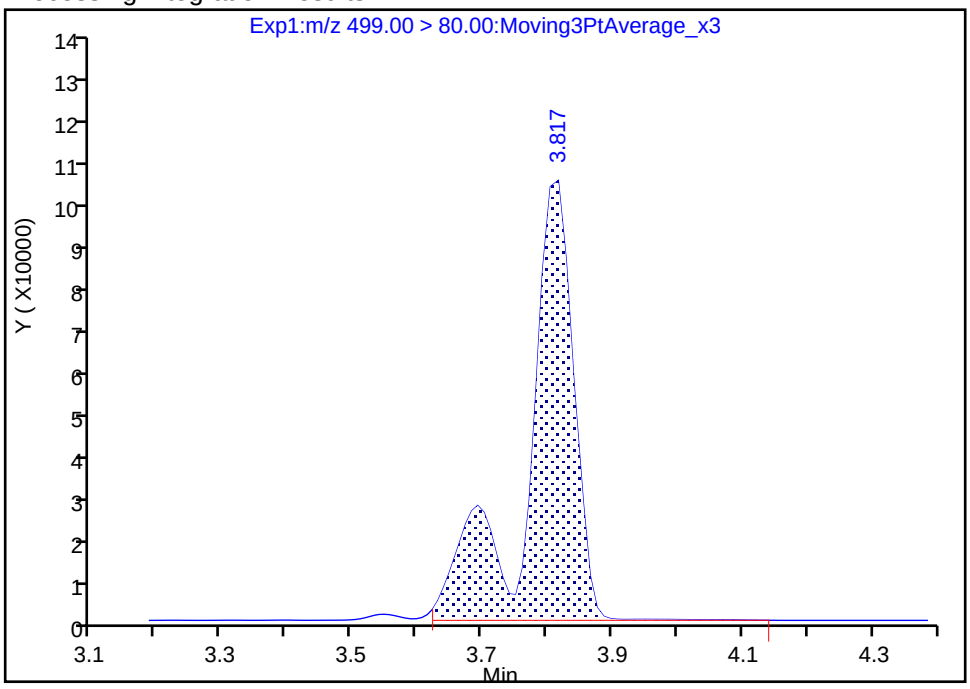
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F001.d
Injection Date: 07-Dec-2019 06:22:13 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

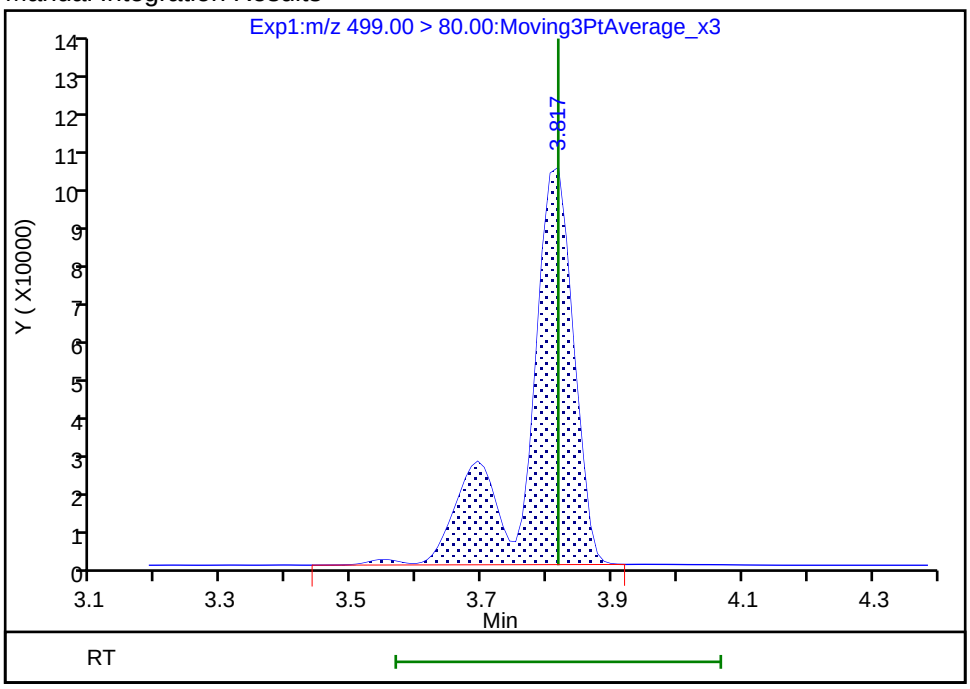
Processing Integration Results

RT: 3.82
Area: 525366
Amount: 0.872930
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 527398
Amount: 0.876306
Amount Units: ng/ml



Reviewer: chirgwinb, 07-Dec-2019 10:45:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

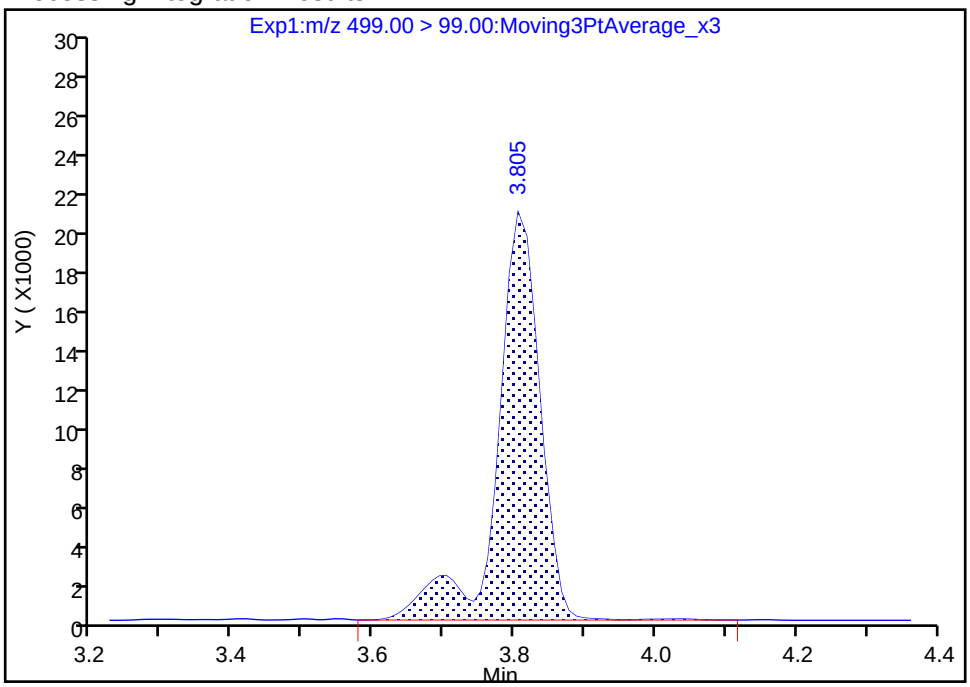
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F001.d
Injection Date: 07-Dec-2019 06:22:13 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

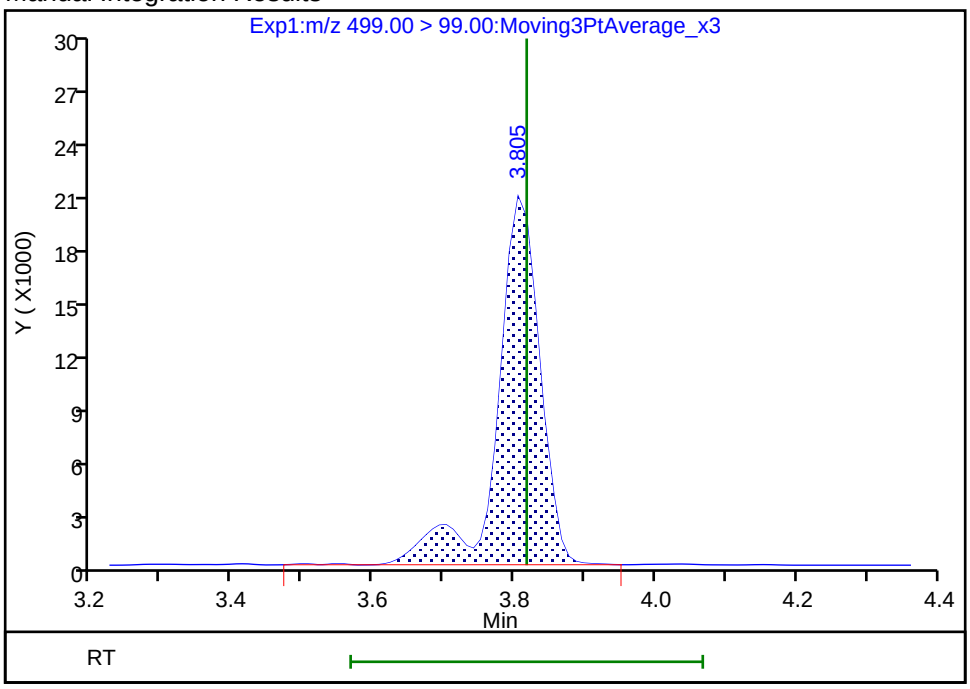
Processing Integration Results

RT: 3.81
Area: 88095
Amount: 0.872930
Amount Units: ng/ml



Manual Integration Results

RT: 3.81
Area: 87740
Amount: 0.876306
Amount Units: ng/ml



Reviewer: chirgwinb, 07-Dec-2019 10:45:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: CCV 200-150462/14 Calibration Date: 12/07/2019 08:08

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619F014.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9949	0.9010		2260	2500	-9.4	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.132	1.027		2270	2500	-9.3	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.087	1.080		2200	2210	-0.6	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.732	1.712		2310	2340	-1.2	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.021	0.9684		2370	2500	-5.1	40.0
Perfluoropentanesulfonic acid	AveID	1.161	1.118		2260	2350	-3.7	50.0
HFPO-DA	AveID	3.591	4.088		2850	2500	13.8	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.132	1.064		2140	2280	-6.0	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	0.9216		2180	2500	-12.8	40.0
DONA	AveID	3.533	3.821		2550	2360	8.2	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.9437	0.8503		2140	2370	-9.9	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.225	1.087		2110	2380	-11.2	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.110	0.9839		2220	2500	-11.3	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.080	1.053		2260	2320	-2.4	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9805	0.9930		2530	2500	1.3	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	1.233	1.172		2220	2330	-4.9	50.0
Perfluorononanesulfonic acid	AveID	0.8262	0.8285		2410	2400	0.3	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9675	1.052		2720	2500	8.7	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.4616	0.4440		2300	2400	-3.8	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.995	0.9494		2390	2500	-4.6	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8689	0.8812		2540	2500	1.4	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7196	0.7587		2540	2410	5.4	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8479	0.8980		2650	2500	5.9	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8277	0.8532		2580	2500	3.1	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	1.163	1.053		2130	2360	-9.4	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9240	1.004		2720	2500	8.6	40.0
10:2 FTS	AveID	0.2931	0.2835		2330	2410	-3.2	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2736	0.3066		2710	2420	12.1	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8778	0.8272		2360	2500	-5.8	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2009	0.2064		2570	2500	2.7	40.0

FORM VII 537 (modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: CCV 200-150462/14 Calibration Date: 12/07/2019 08:08

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619F014.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L1ID		0.9019		2520	2500	0.9	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7223	0.6875		2380	2500	-4.8	50.0
13C4 PFBA	Ave	1.059	1.289		3040	2500	21.7	50.0
13C5 PFPeA	Ave	0.8099	0.9121		2820	2500	12.6	50.0
13C3 PFBS	Ave	0.9661	0.9718		2340	2330	0.6	50.0
M2-4:2 FTS	Ave	0.0901	0.0942		2440	2340	4.6	50.0
13C2 PFHxA	Ave	0.9031	0.999		2770	2500	10.7	50.0
13C3 HFPO-DA	Ave	0.0394	0.0364		2310	2500	-7.6	50.0
18O2 PFHxS	Ave	0.7630	0.8461		2620	2370	10.9	50.0
13C4 PFHpA	Ave	0.8562	0.9291		2710	2500	8.5	50.0
M2-6:2 FTS	Ave	0.1311	0.1321		2390	2380	0.8	50.0
13C4 PFOA	Ave	0.9086	1.020		2810	2500	12.3	50.0
13C4 PFOS	Ave	0.6053	0.6565		2590	2390	8.4	50.0
13C5 PFNA	Ave	0.8355	0.8384		2510	2500	0.4	50.0
13C2 PFDA	Ave	0.8233	0.8925		2710	2500	8.4	50.0
M2-8:2 FTS	Ave	0.1562	0.1877		2880	2400	20.2	50.0
13C8 FOSA	Ave	1.077	1.183		2750	2500	9.9	50.0
d3-NMeFOSAA	Ave	0.0793	0.0846		2670	2500	6.7	50.0
13C2 PFUnA	Ave	0.6999	0.7384		2640	2500	5.5	50.0
d5-NEtFOSAA	Ave	0.0879	0.0922		2620	2500	4.9	50.0
13C2 PFDoA	Ave	0.7677	0.8184		2670	2500	6.6	50.0
13C2 PFTeDA	Ave	0.6433	0.7617		2960	2500	18.4	50.0
13C2 PFHxDA	Ave	0.5918	0.6423		2710	2500	8.5	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F014.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 07-Dec-2019 08:08:49 ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: 200-0039120-014 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: chirgwinb Date: 07-Dec-2019 10:48:01
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.926	1.917	0.009	0.559	2562879	3.04		122	31232	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.926	1.926	0.0	1.000	2309085	2.26		90.6	794	
D 3 13C5 PFPeA										
267.90 > 223.00	2.284	2.271	0.013	0.663	1812768	2.82		113	5648	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.284	2.285	-0.001	1.000	1861615	2.27		90.7	177	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	1844435	2.20	Target=2.03	99.4	3420	
298.90 > 99.00	2.298	2.298	0.0	1.000	994327		1.85(1.01-3.04)		1208	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.312	-0.014	0.667	1796215	2.34		101	645101	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.636	2.636	0.0	1.000	299523	2.31		98.8	2793	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.636	2.636	0.0	0.765	174944	2.44		105	231	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.673	0.0	0.875	1763070	2.26	Target=3.50	96.3	4208	
349.00 > 99.00	2.673	2.673	0.0	0.875	596364		2.96(1.75-5.25)		1800	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.673	2.673	0.0	1.000	1923545	2.37	Target=13.76	94.9	732	
313.00 > 119.00	2.673	2.673	0.0	1.000	153713		12.51(6.88-20.64)		386	
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.775	1986228	2.77		111	3891	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.791	2.784	0.007	1.000	295929	2.85		114	148	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.791	2.792	-0.001	0.810	72392	2.31		92.4	1081	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.066	3.055	0.011	1.000	1701799	2.18	Target=3.95	87.2	790	
363.00 > 169.00	3.066	3.055	0.011	1.000	513154		3.32(1.97-5.92)		1692	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.886	1590861	2.62		111	3557	
D 9 13C4 PFHpA										
367.00 > 322.00	3.066	3.055	0.011	0.890	1846660	2.71		109	6132	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.055	3.055	0.0	1.000	1628846	2.14	Target=3.90	94.0	3330	
399.00 > 99.00	3.055	3.055	0.0	1.000	406274		4.01(1.95-5.85)		1256	
77 DONA										
377.00 > 251.00	3.109	3.101	0.008	0.814	4696339	2.55	Target=2.49	108	7888	
377.00 > 85.00	3.109	3.101	0.008	0.814	1880345		2.50(1.24-3.73)		5045	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.430	3.430	0.0	1.000	211546	2.14		90.1	1264	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.430	3.430	0.0	0.899	1350292	2.11	Target=6.46	88.8	3090	
449.00 > 99.00	3.430	3.430	0.0	0.899	244354		5.53(3.23-9.69)		2209	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.995	249329	2.39		101	980	
D 14 13C4 PFOA										
417.00 > 372.00	3.447	3.438	0.009	1.000	2027651	2.81		112	3394	
* 62 13C2 PFOA										
415.00 > 370.00	3.447	3.438	0.009		1987567	2.50			4694	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.447	3.447	0.0	1.000	1994912	2.22	Target=2.40	88.7	686	
413.00 > 169.00	3.447	3.447	0.0	1.000	877423		2.27(1.20-3.60)		2719	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.000	1275365	2.26	Target=5.74	97.6	3137	M
499.00 > 99.00	3.817	3.817	0.0	1.000	217308		5.87(2.87-8.61)		1021	M
D 18 13C4 PFOS										
503.00 > 80.00	3.817	3.817	0.0	1.107	1247338	2.59		108	3666	
20 Perfluorononanoic acid										
463.00 > 419.00	3.841	3.829	0.012	1.000	1654621	2.53	Target=7.01	101	779	
463.00 > 169.00	3.841	3.829	0.012	1.000	247463		6.69(3.50-10.51)		2069	
D 19 13C5 PFNA										
468.00 > 423.00	3.841	3.842	-0.001	1.115	1666367	2.51		100	5898	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.994	3.994	0.0	1.046	1425704	2.22		95.1	6106	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.141	4.141	0.0	1.085	1037764	2.41	Target=3.14	100	6501	
549.00 > 99.00	4.141	4.141	0.0	1.085	390806		2.66(1.57-4.71)		2201	
D 23 13C2 PFDA										
515.00 > 470.00	4.174	4.175	-0.001	1.211	1773818	2.71		108	6197	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.174	4.175	-0.001	1.000	1866076	2.72	Target=7.28	109	2044	
513.00 > 169.00	4.174	4.175	-0.001	1.000	247613		7.54(3.64-10.91)		1746	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.185	4.185	0.0	1.214	357430	2.88		120	1575	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.185	4.185	0.0	1.000	158702	2.30		96.2	2161	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.251	4.239	0.012	1.003	2232395	2.39		95.4	3695	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.230	2351432	2.75		110	6806	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.328	4.317	0.011	1.256	168074	2.67		107	848	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.328	4.328	0.0	1.000	148113	2.54		101	968	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.420	4.420	0.0	1.158	954328	2.54	Target=2.76	105	2861	
599.00 > 99.00	4.420	4.420	0.0	1.158	332706		2.87(1.38-4.14)		3131	
D 30 13C2 PFUnA										
565.00 > 520.00	4.456	4.456	0.0	1.293	1467688	2.64		106	4547	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.456	4.456	0.0	1.000	1317922	2.65	Target=5.78	106	1472	
563.00 > 169.00	4.456	4.456	0.0	1.000	236192		5.58(2.89-8.67)		2286	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.293	183184	2.62		105	1100	
33 N-ethylperfluorooctanesulfonamidoa										
584.00 > 419.00	4.469	4.469	0.0	1.003	156286	2.58		103	775	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.550	4.550	0.0	1.192	1294359	2.13		90.6	4303	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.693	4.693	0.0	1.000	1633068	2.72	Target=5.13	109	293	
613.00 > 169.00	4.693	4.693	0.0	1.000	293506		5.56(2.56-7.69)		3158	
D 36 13C2 PFDoA										
615.00 > 570.00	4.693	4.693	0.0	1.362	1626670	2.67		107	6634	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.714	4.714	0.0	1.126	101981	2.33		96.8	1894	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.870	4.860	0.010	1.276	387238	2.71	Target=0.45	112	1204	
699.00 > 99.00	4.870	4.860	0.010	1.276	739594		0.52(0.22-0.67)		5668	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.906	4.906	0.0	1.045	1345651	2.36	Target=3.82	94.2	316	
663.00 > 169.00	4.906	4.906	0.0	1.045	413157		3.26(1.91-5.74)		2880	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.094	5.094	0.0	1.478	1513884	2.96		118	7383	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.094	5.094	0.0	1.000	312391	2.57	Target=1.05	103	3210	
713.00 > 219.00	5.085	5.094	-0.009	0.998	268133		1.17(0.52-1.57)		3064	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.457	5.457	0.0	1.000	1151271	2.52	Target=3.20	101	303	
813.00 > 169.00	5.457	5.457	0.0	1.000	384917		2.99(1.60-4.80)		2956	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.457	5.457	0.0	1.583	1276507	2.71		109	5348	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.818	5.823	-0.005	1.066	877546	2.38	Target=2.86	95.2	264	
913.00 > 169.00	5.818	5.823	-0.005	1.066	322893		2.72(1.43-4.29)		2945	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC5_00004 Amount Added: 100.00 Units: uL

Report Date: 12-Dec-2019 18:19:38 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F014.d

Injection Date: 07-Dec-2019 08:08:49 Instrument ID: LC812

Lims ID: CCV L5

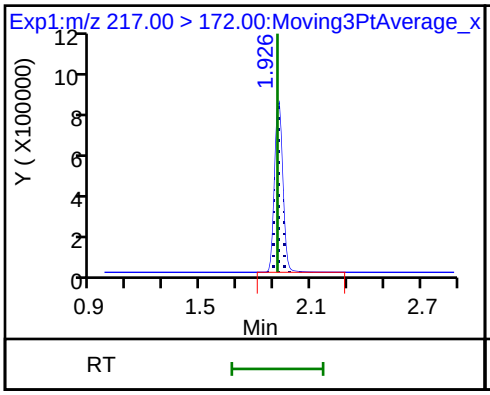
Client ID:

Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 14

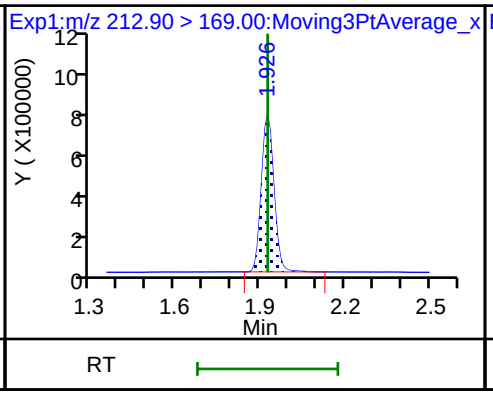
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

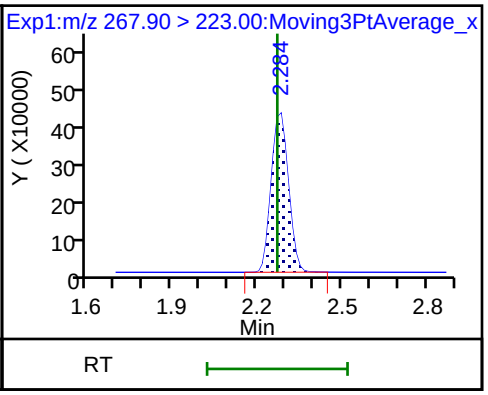
D 1 13C4 PFBA



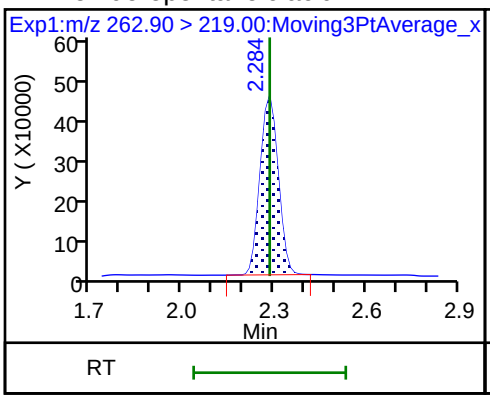
2 Perfluorobutanoic acid



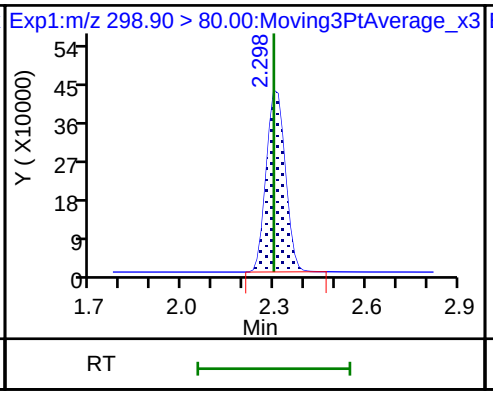
D 3 13C5 PFPeA



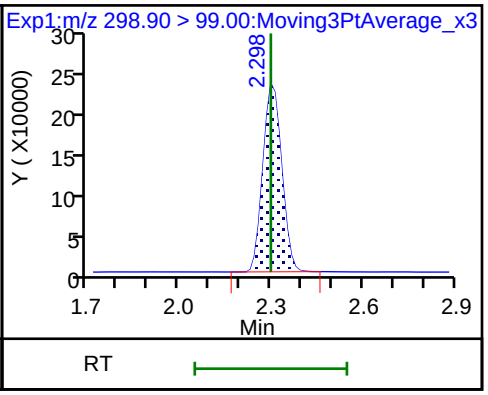
4 Perfluoropentanoic acid



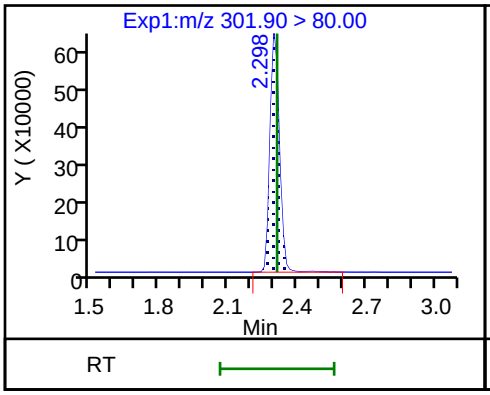
5 Perfluorobutanesulfonic acid



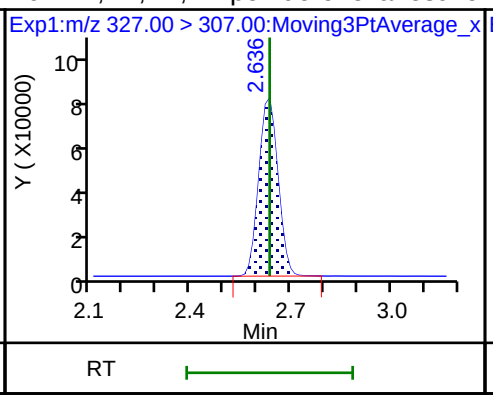
5 Perfluorobutanesulfonic acid



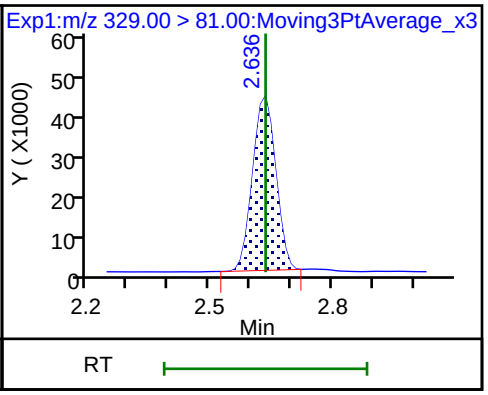
D 47 13C3 PFBS



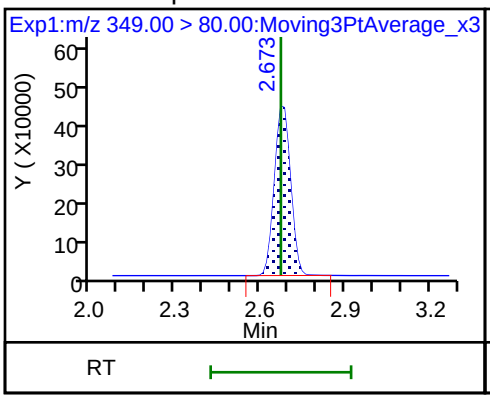
61 1H,1H,2H,2H-perfluorohexanesulfon



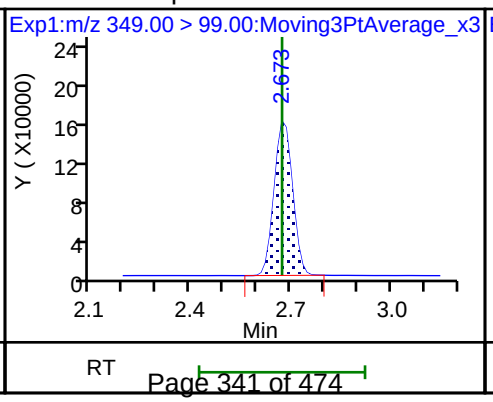
D 60 M2-4:2 FTS



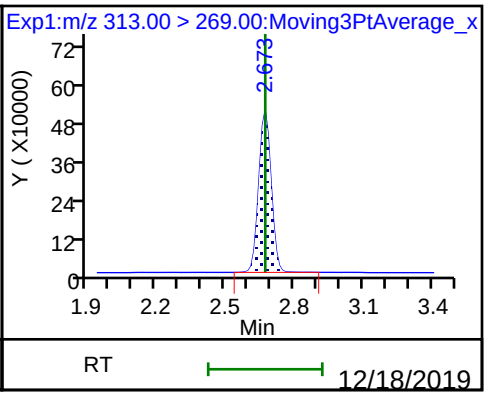
70 Perfluoropentanesulfonic acid



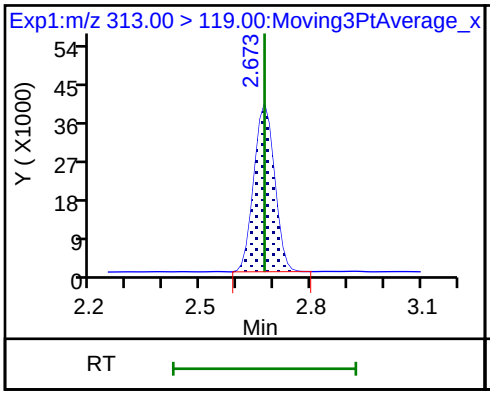
70 Perfluoropentanesulfonic acid



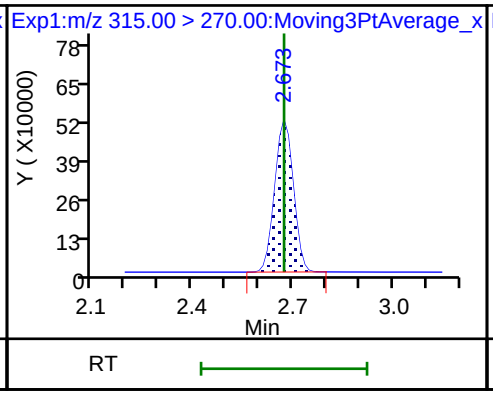
6 Perfluorohexanoic acid



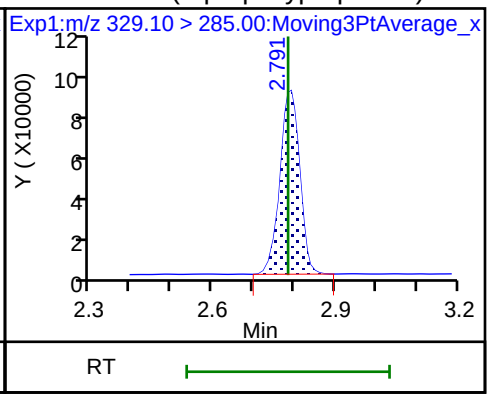
6 Perfluorohexanoic acid



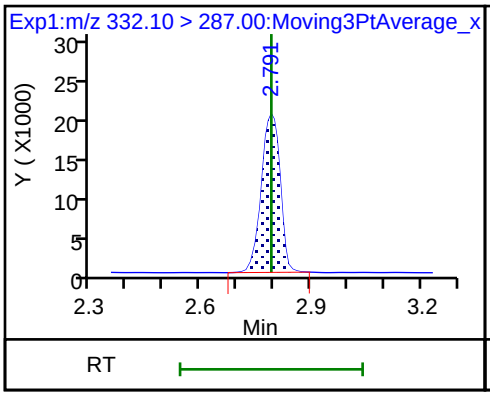
D 7 13C2 PFHxA



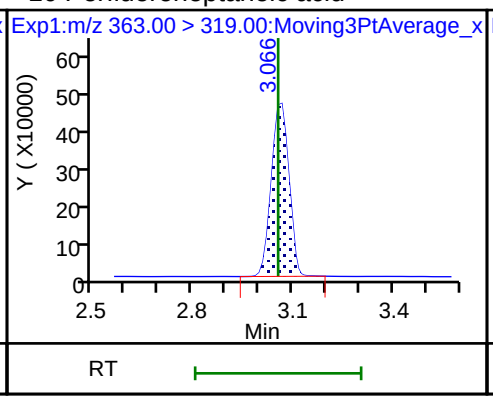
67 Perfluoro(2-propoxypropanoic) acid



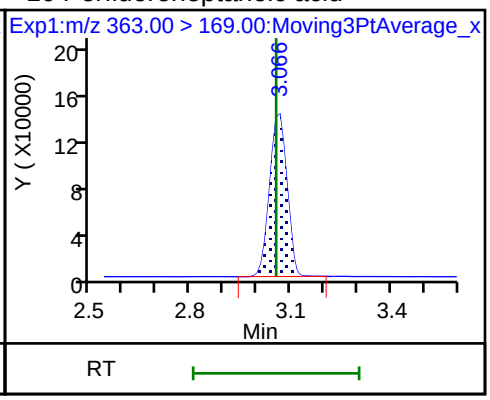
D 64 13C3 HFPO-DA



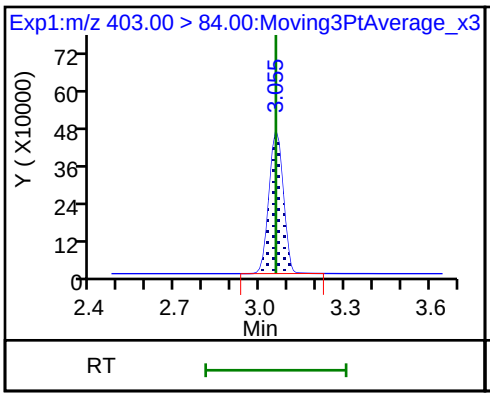
10 Perfluoroheptanoic acid



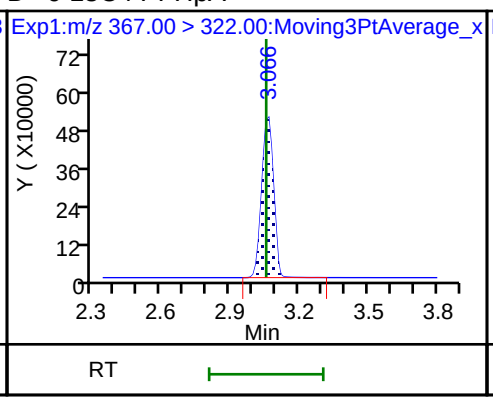
10 Perfluoroheptanoic acid



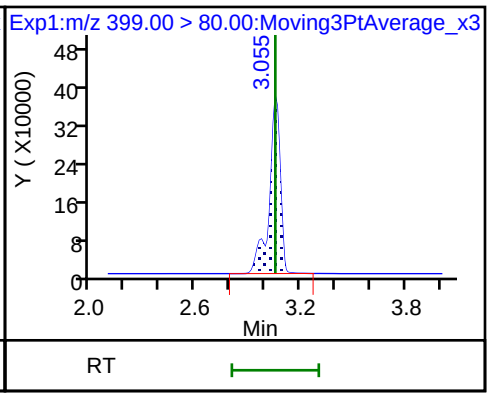
D 11 18O2 PFHxS



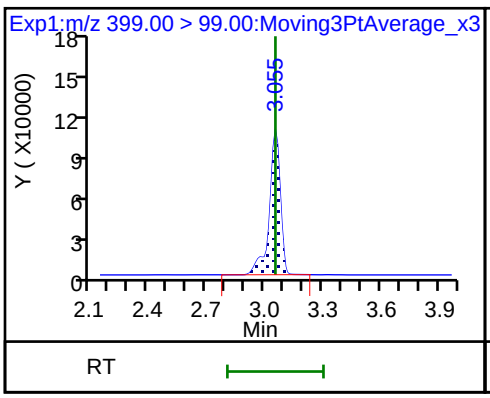
D 9 13C4 PFHpA



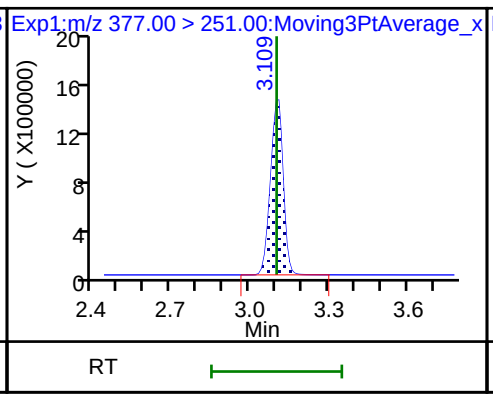
8 Perfluorohexanesulfonic acid



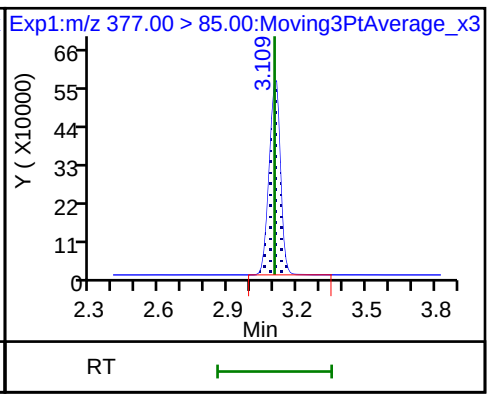
8 Perfluorohexanesulfonic acid



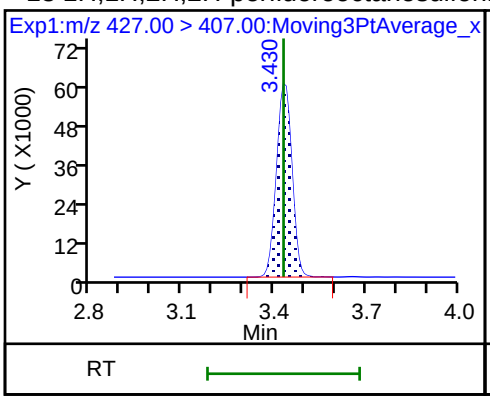
77 DONA



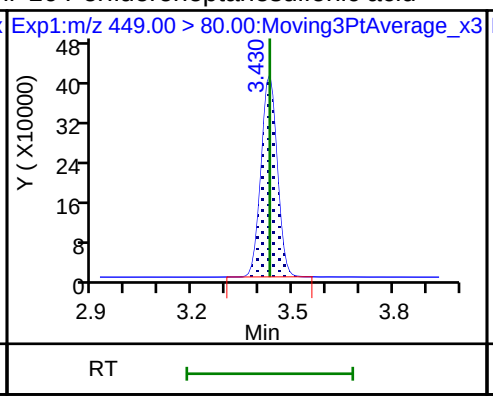
77 DONA



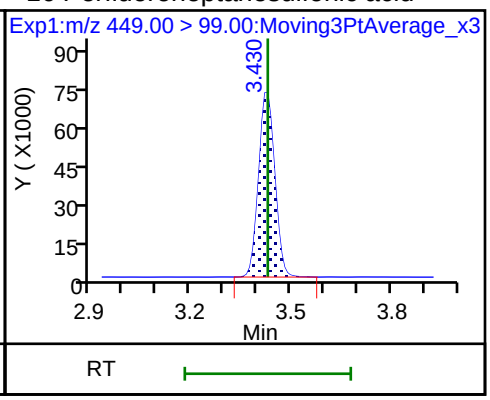
13 1H,1H,2H,2H-perfluorooctanesulfoni



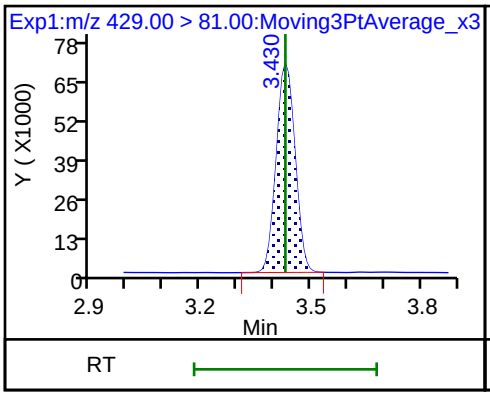
16 Perfluoroheptanesulfonic acid



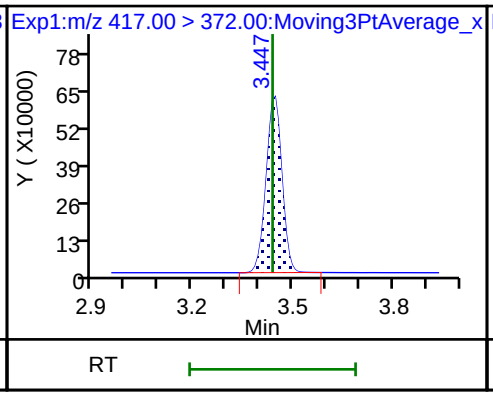
16 Perfluoroheptanesulfonic acid



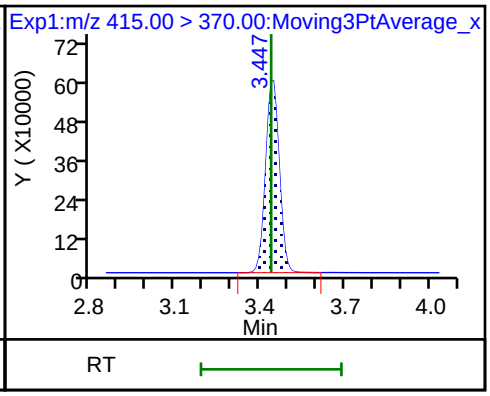
D 12 M2-6:2 FTS



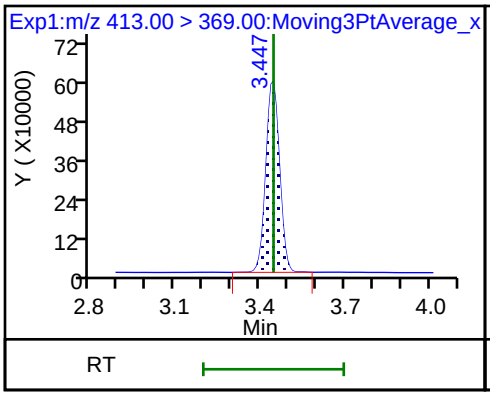
D 14 13C4 PFOA



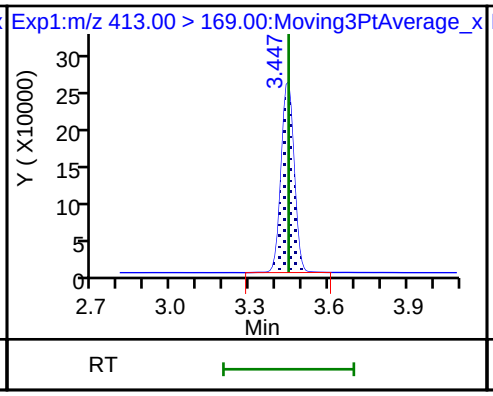
* 62 13C2 PFOA



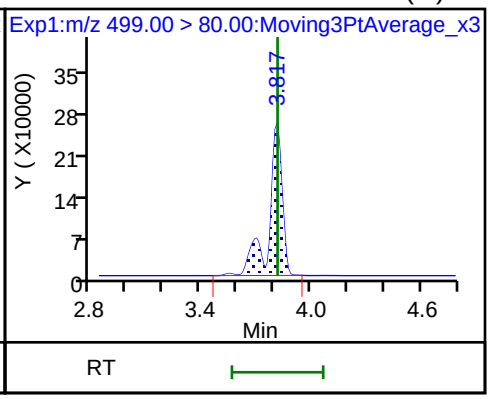
15 Perfluorooctanoic acid



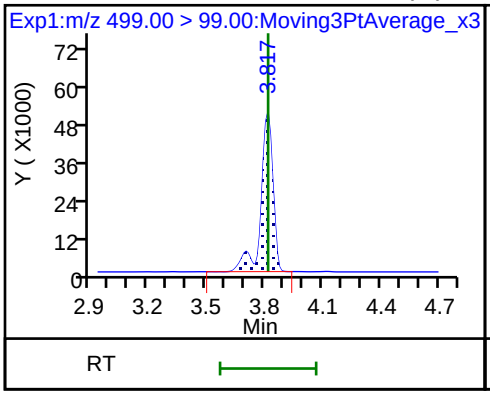
15 Perfluorooctanoic acid



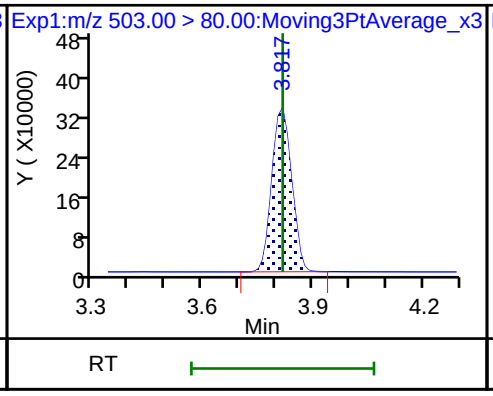
17 Perfluorooctanesulfonic acid (M)



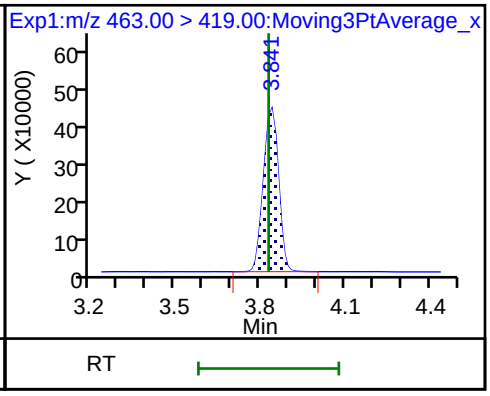
17 Perfluorooctanesulfonic acid (M)



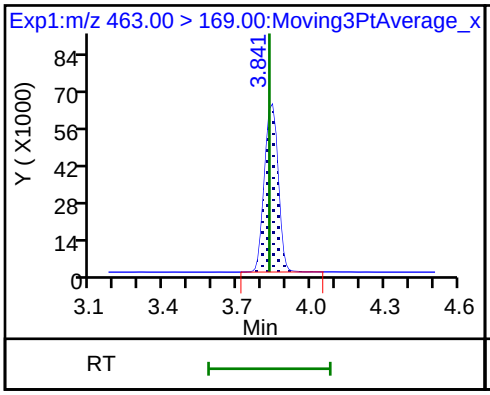
D 18 13C4 PFOS



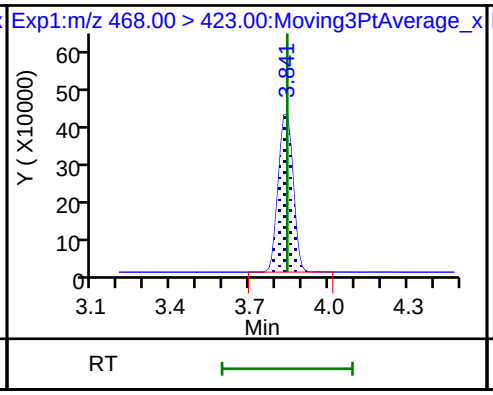
20 Perfluorononanoic acid



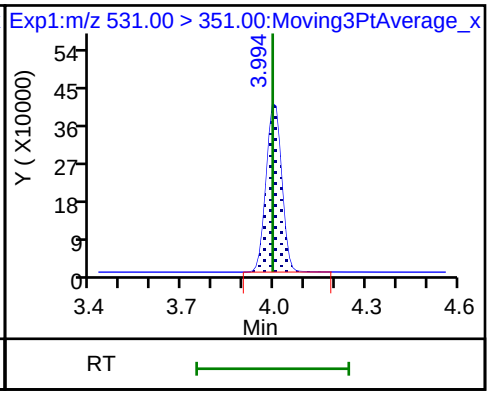
20 Perfluorononanoic acid



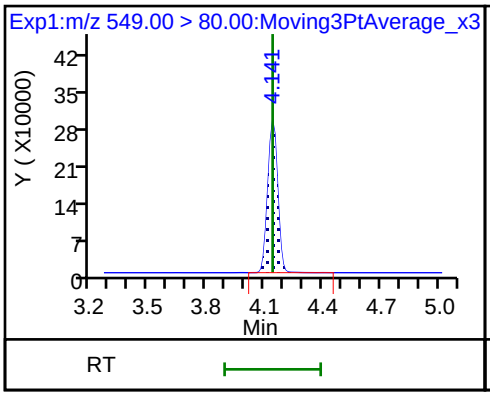
D 19 13C5 PFNA



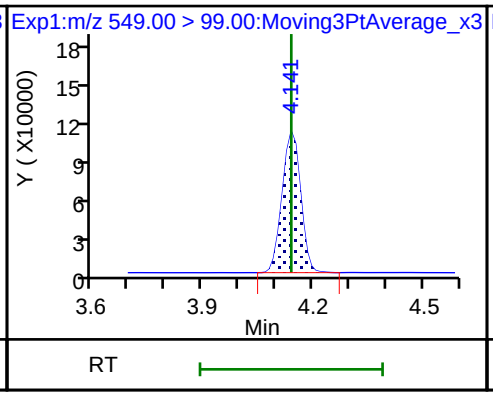
69 9-Chlorohexadecafluoro-3-oxanonane



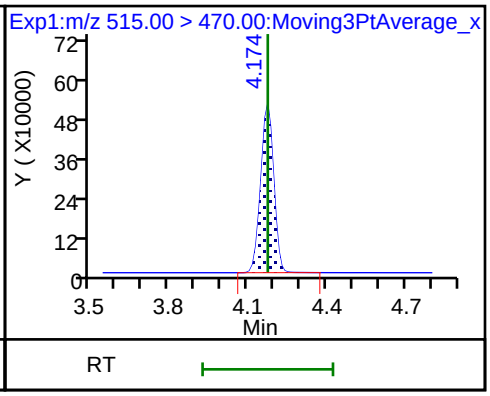
68 Perfluorononanesulfonic acid



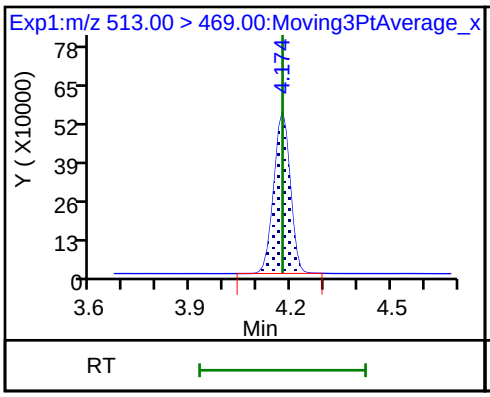
68 Perfluorononanesulfonic acid



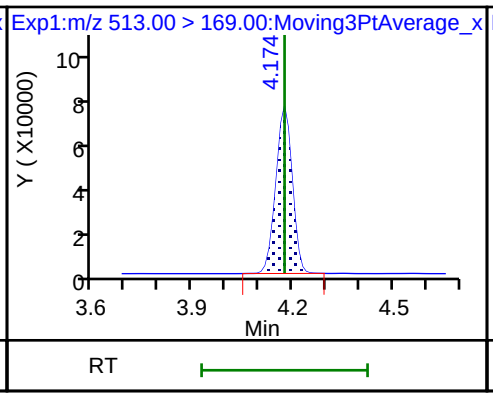
D 23 13C2 PFDA



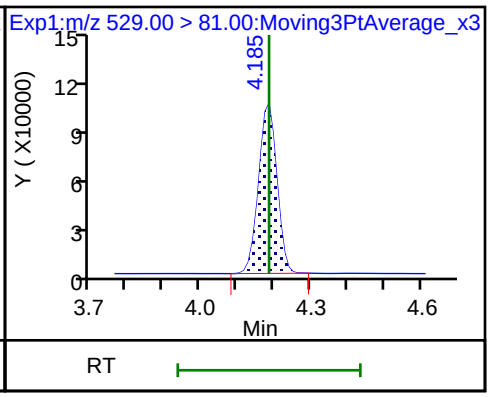
24 Perfluorodecanoic acid



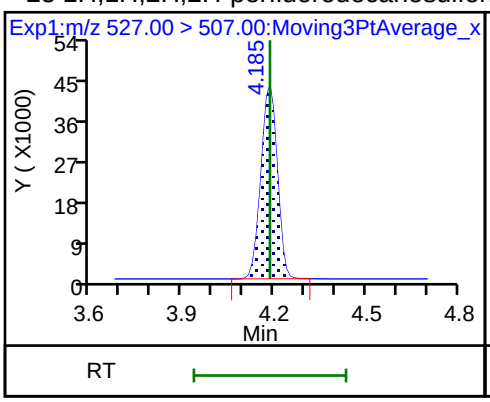
24 Perfluorodecanoic acid



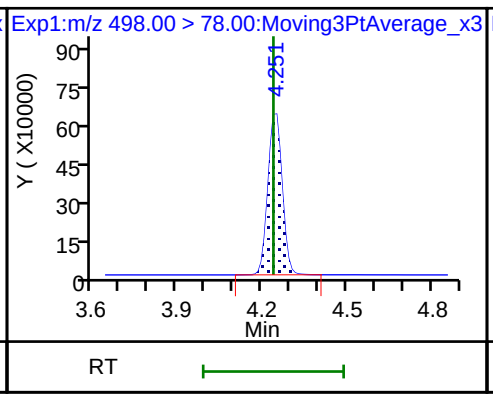
D 26 M2-8:2 FTS



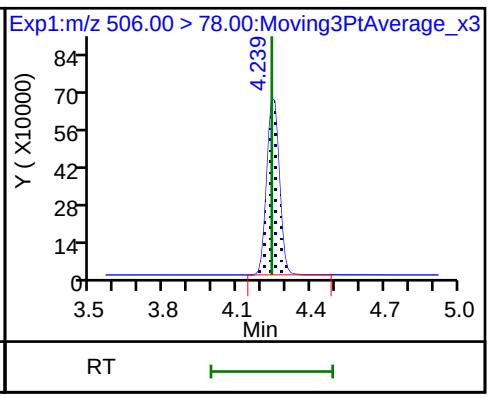
25 1H,1H,2H,2H-perfluorodecanesulfoni



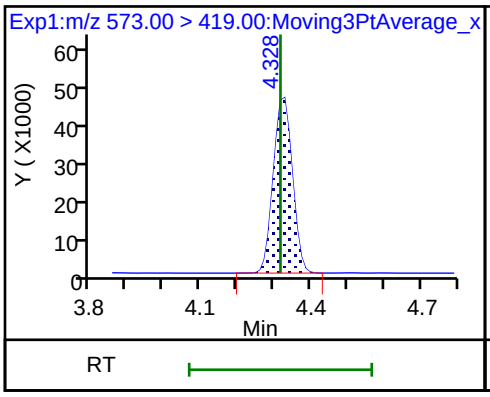
22 Perfluorooctanesulfonamide



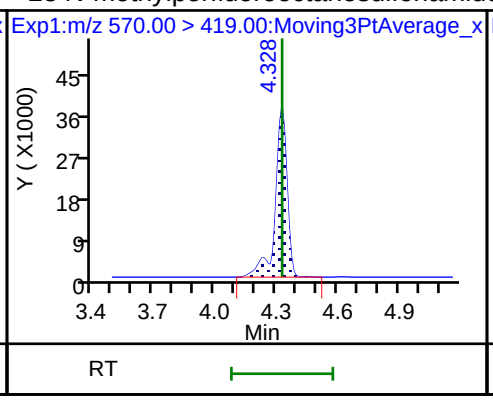
D 21 13C8 FOSA



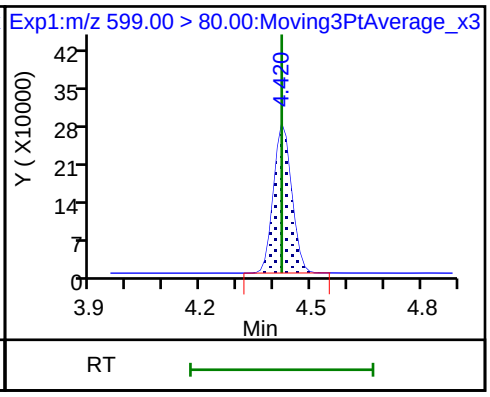
D 27 d3-NMeFOSAA



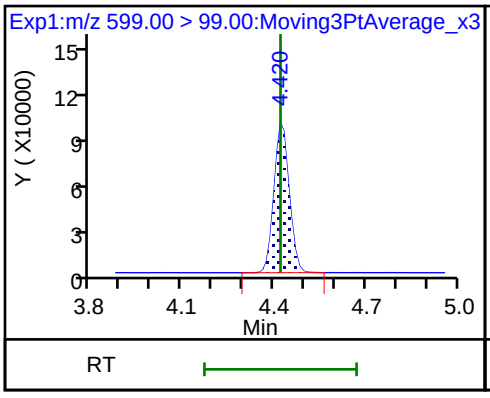
28 N-methylperfluorooctanesulfonamido



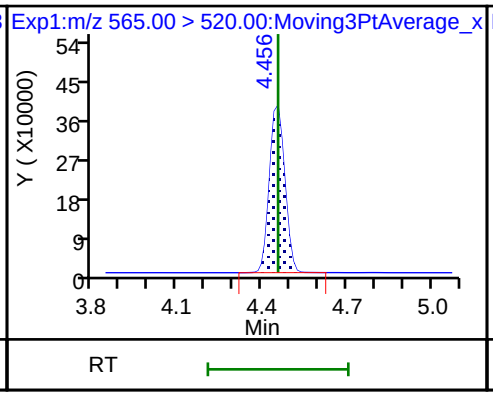
29 Perfluorodecanesulfonic acid



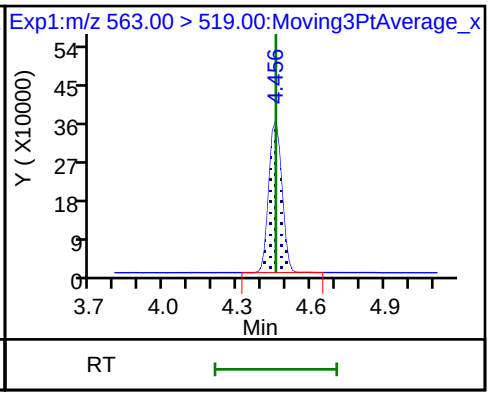
29 Perfluorodecanesulfonic acid



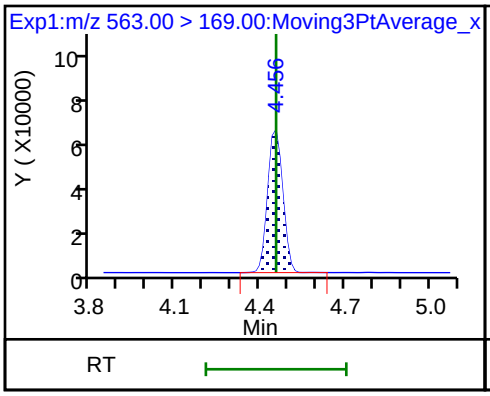
D 30 13C2 PFUnA



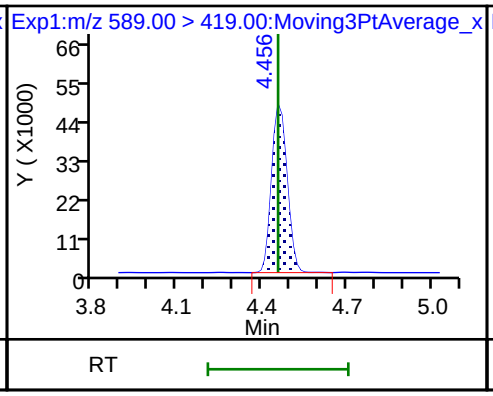
31 Perfluoroundecanoic acid



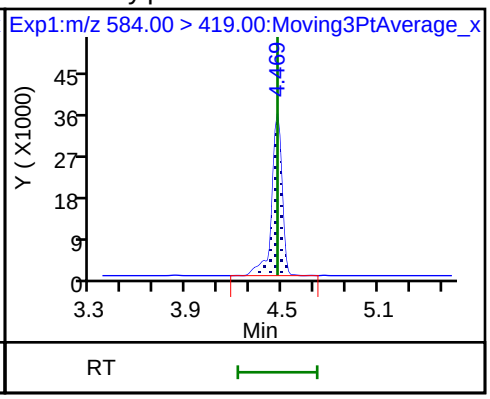
31 Perfluoroundecanoic acid



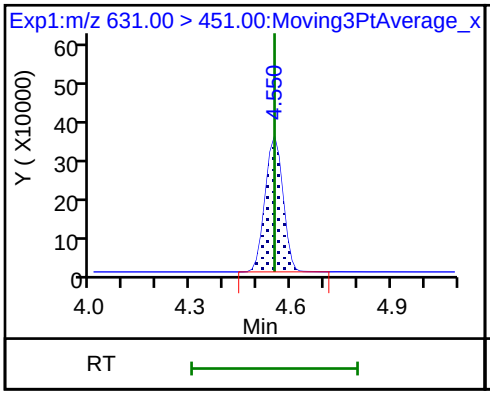
D 32 d5-NEtFOSAA



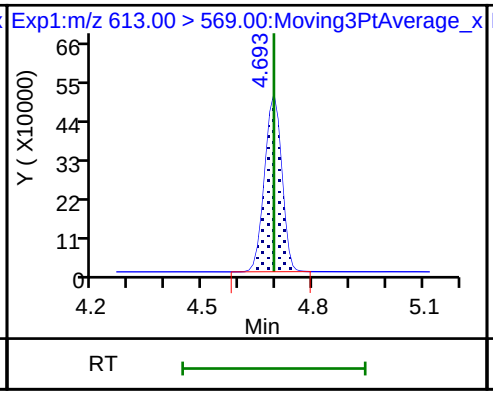
33 N-ethylperfluorooctanesulfonamidoa



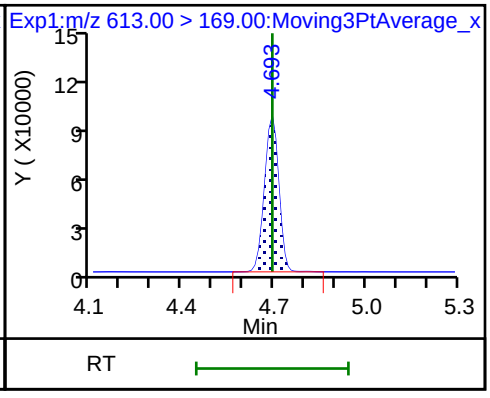
66 11-Chloroeicosafluoro-3-oxaundecan



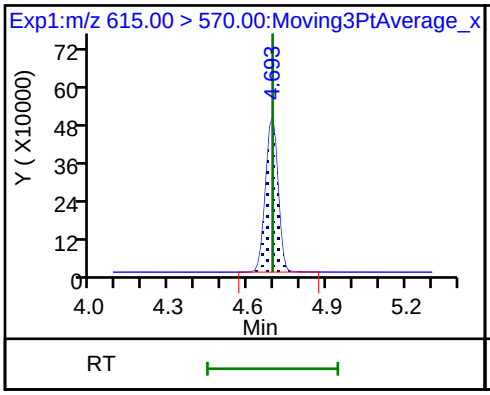
37 Perfluorododecanoic acid



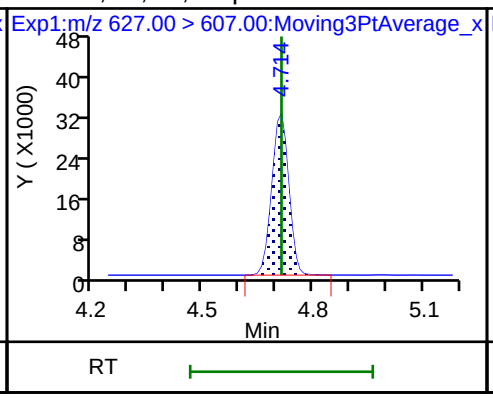
37 Perfluorododecanoic acid



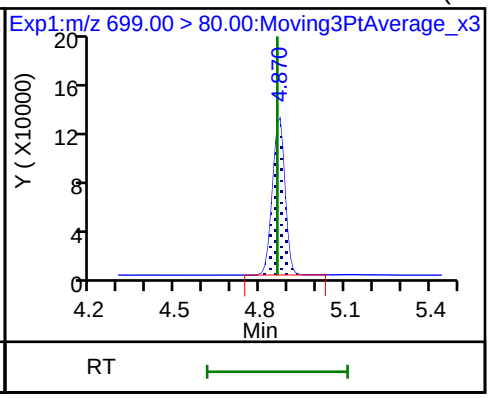
D 36 13C2 PFDoA



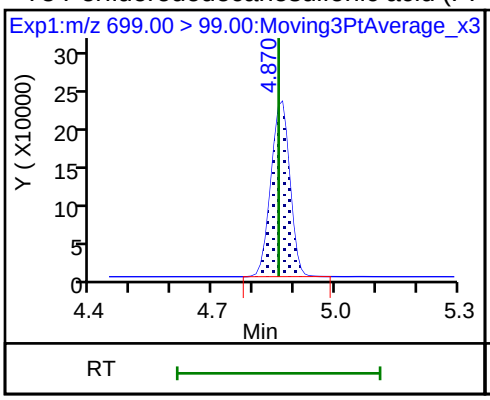
74 1H,1H,2H,2H-perfluorododecanesulfo



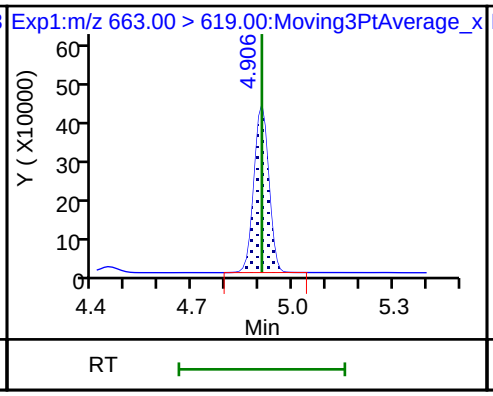
75 Perfluorododecanesulfonic acid (PF



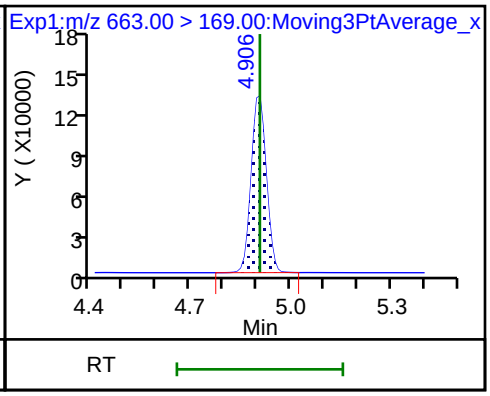
75 Perfluorododecanesulfonic acid (PF



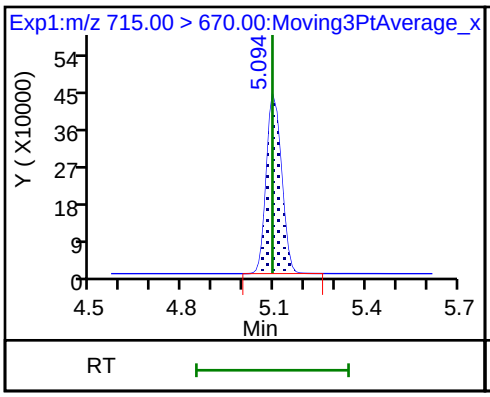
41 Perfluorotridecanoic acid



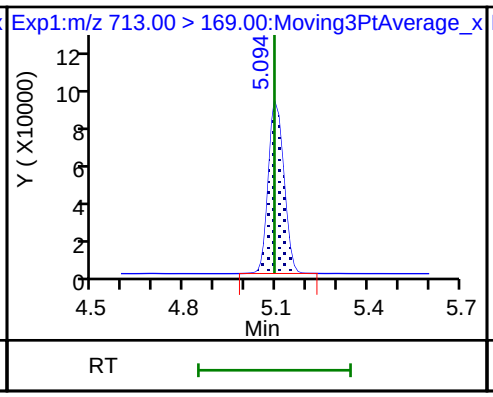
41 Perfluorotridecanoic acid



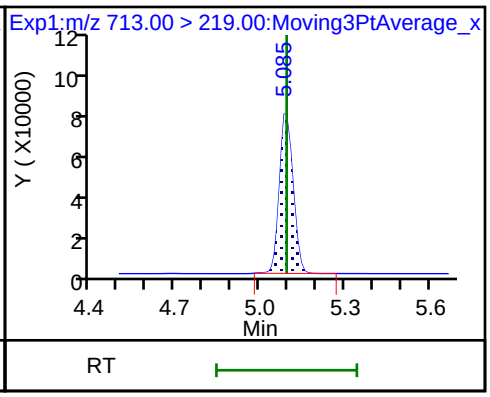
D 43 13C2 PFTeDA



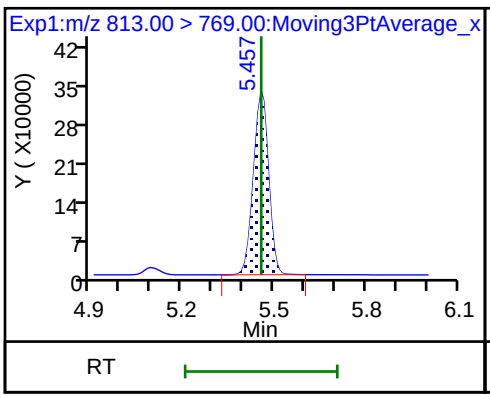
42 Perfluorotetradecanoic acid



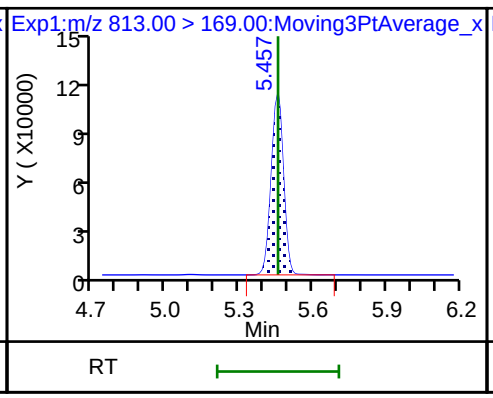
42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid



45 Perfluorohexadecanoic acid



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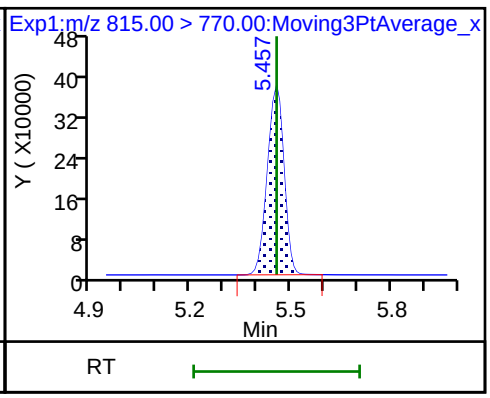
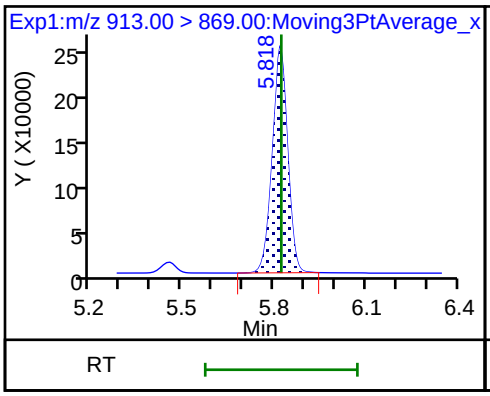
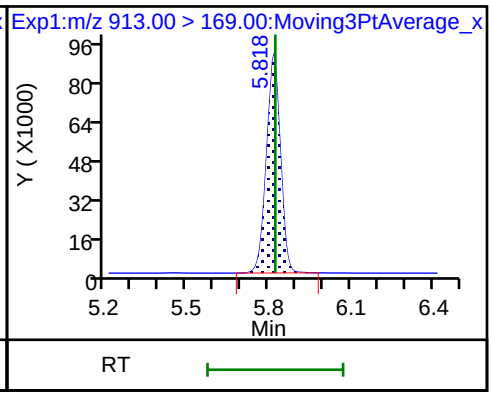


46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

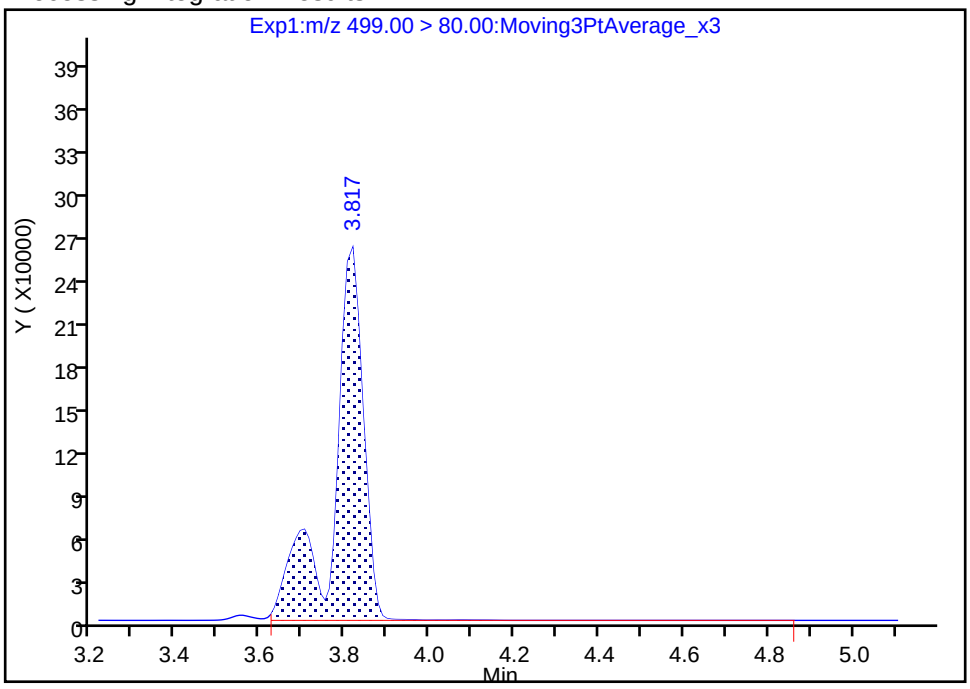
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F014.d
Injection Date: 07-Dec-2019 08:08:49 Instrument ID: LC812
Lims ID: CCV L5
Client ID:
Operator ID: lc812tech ALS Bottle#: 14 Worklist Smp#: 14
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

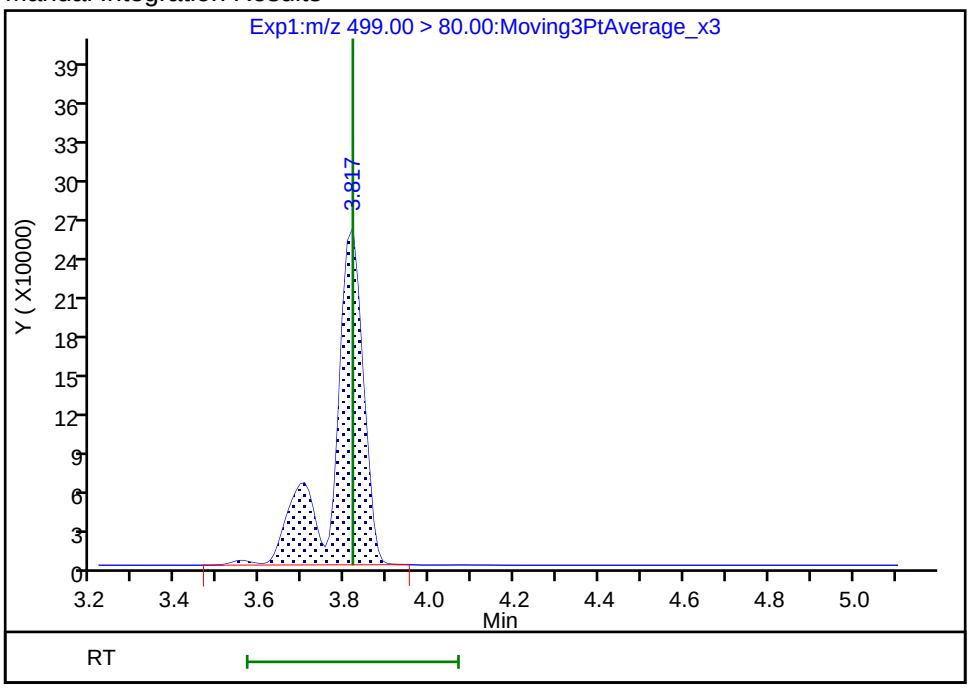
RT: 3.82
Area: 1269613
Amount: 2.253456
Amount Units: ng/ml

Processing Integration Results



RT: 3.82
Area: 1275365
Amount: 2.263666
Amount Units: ng/ml

Manual Integration Results



Reviewer: chirgwinb, 07-Dec-2019 10:46:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

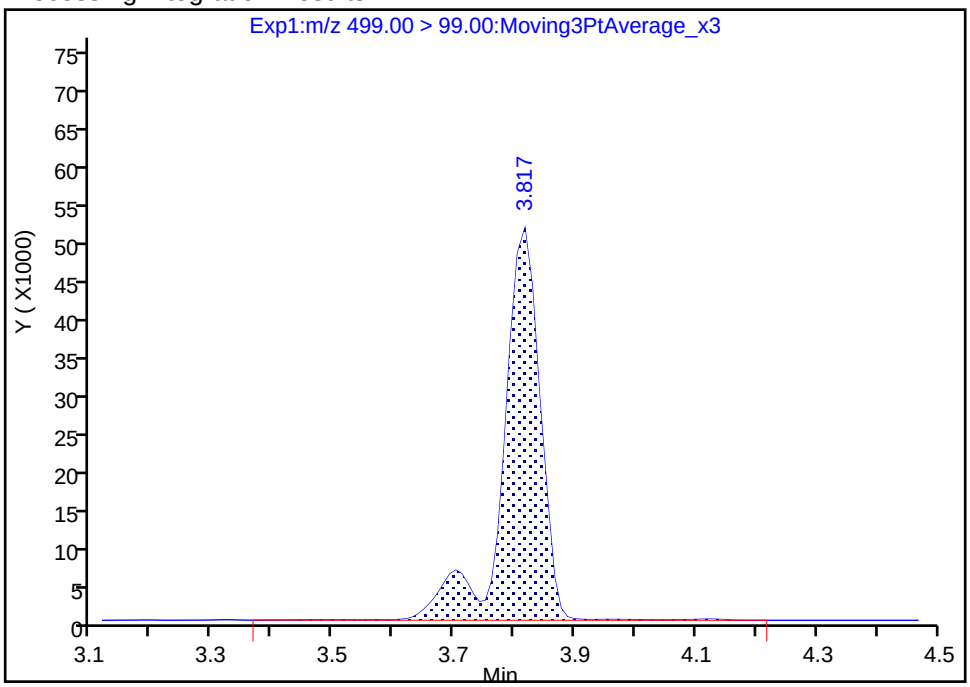
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F014.d				
Injection Date:	07-Dec-2019 08:08:49	Instrument ID:	LC812		
Lims ID:	CCV L5				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	14	Worklist Smp#:	14
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

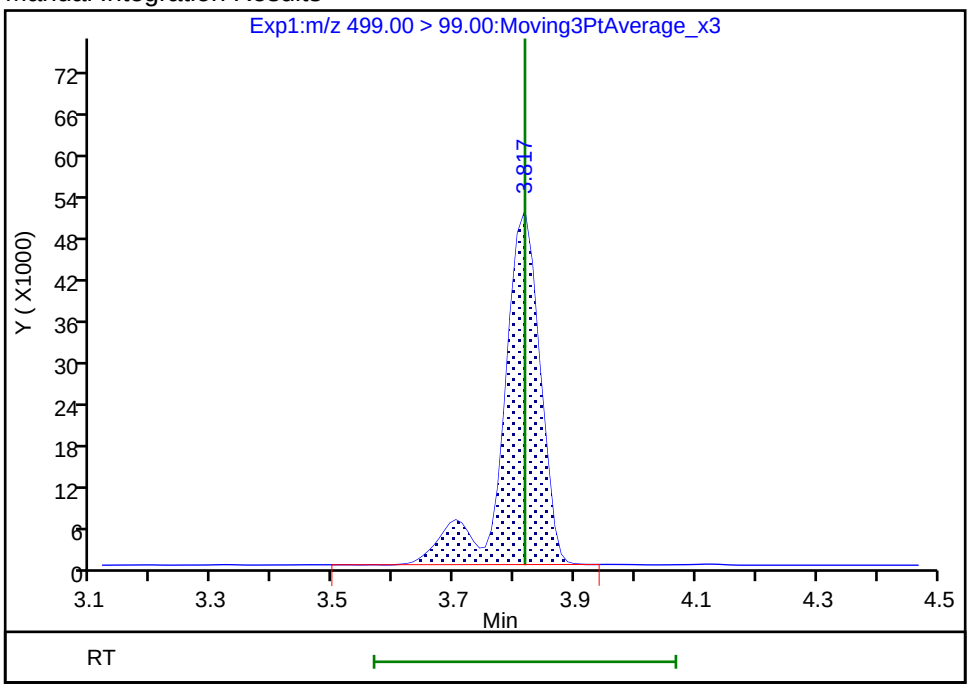
Processing Integration Results

RT: 3.82
Area: 220558
Amount: 2.253456
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 217308
Amount: 2.263666
Amount Units: ng/ml



Reviewer: chirgwinb, 07-Dec-2019 10:46:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: CCV 200-150462/27 Calibration Date: 12/07/2019 09:55

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619F027.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9949	0.9306		935	1000	-6.5	40.0
Perfluoropentanoic acid (PFPeA)	AveID	1.132	0.9694		856	1000	-14.4	40.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.087	0.9568		778	884	-12.0	40.0
1H,1H,2H,2H-perfluorohexanesulfonic acid (4:2)	AveID	1.732	1.841		992	934	6.3	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.021	0.9769		957	1000	-4.3	40.0
Perfluoropentanesulfonic acid	AveID	1.161	1.131		914	938	-2.6	50.0
HFPO-DA	AveID	3.591	3.438		958	1000	-4.2	40.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.057	1.050		993	1000	-0.7	40.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.132	1.064		855	910	-6.0	40.0
DONA	AveID	3.533	3.901		1040	942	10.4	50.0
1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	AveID	0.9437	0.8271		831	948	-12.4	40.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.225	1.209		940	952	-1.3	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.110	1.004		905	1000	-9.5	40.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.080	1.016		874	928	-5.9	40.0
Perfluorononanoic acid (PFNA)	AveID	0.9805	0.9546		974	1000	-2.6	40.0
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	AveID	1.233	1.187		897	932	-3.8	50.0
Perfluorononanesulfonic acid	AveID	0.8262	0.8290		963	960	0.3	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9675	1.027		1060	1000	6.1	40.0
1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	AveID	0.4616	0.4408		915	958	-4.5	40.0
Perfluorooctanesulfonamide (PFOSA)	AveID	0.995	0.9525		957	1000	-4.3	40.0
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	AveID	0.8689	0.8724		1000	1000	0.4	40.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.7196	0.8335		1120	964	15.8	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	0.8479	0.9024		1060	1000	6.4	40.0
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	AveID	0.8277	0.8469		1020	1000	2.3	40.0
11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	AveID	1.163	1.092		884	942	-6.1	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9240	0.9056		980	1000	-2.0	40.0
10:2 FTS	AveID	0.2931	0.3081		1010	964	5.1	50.0
Perfluorododecanesulfonic acid (PFDoS)	AveID	0.2736	0.2863		1010	968	4.6	50.0
Perfluorotridecanoic acid (PFTriA)	AveID	0.8778	0.7757		884	1000	-11.6	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	0.2009	0.2068		1030	1000	2.9	40.0

FORM VII 537 (modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Lab Sample ID: CCV 200-150462/27 Calibration Date: 12/07/2019 09:55

Instrument ID: LC812 Calib Start Date: 12/06/2019 14:32

GC Column: C-18 ID: 4.60(mm) Calib End Date: 12/06/2019 15:13

Lab File ID: SC120619F027.d Conc. Units: ng/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluoro-n-hexadecanoic acid (PFHxDA)	L1ID		0.9030		993	1000	-0.7	40.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	0.7223	0.6420		889	1000	-11.1	50.0
13C4 PFBA	Ave	1.059	1.213		2860	2500	14.5	50.0
13C5 PFPeA	Ave	0.8099	0.9749		3010	2500	20.4	50.0
13C3 PFBS	Ave	0.9661	1.058		2550	2330	9.5	50.0
M2-4:2 FTS	Ave	0.0901	0.0882		2290	2340	-2.1	50.0
13C2 PFHxA	Ave	0.9031	0.9770		2700	2500	8.2	50.0
13C3 HFPO-DA	Ave	0.0394	0.0382		2420	2500	-3.2	50.0
13C4 PFHpA	Ave	0.8562	0.9381		2740	2500	9.6	50.0
18O2 PFHxS	Ave	0.7630	0.8761		2720	2370	14.8	50.0
M2-6:2 FTS	Ave	0.1311	0.1448		2620	2380	10.5	50.0
13C4 PFOA	Ave	0.9086	0.9901		2720	2500	9.0	50.0
13C4 PFOS	Ave	0.6053	0.6349		2510	2390	4.9	50.0
13C5 PFNA	Ave	0.8355	0.8911		2670	2500	6.7	50.0
13C2 PFDA	Ave	0.8233	0.8724		2650	2500	6.0	50.0
M2-8:2 FTS	Ave	0.1562	0.1702		2610	2400	9.0	50.0
13C8 FOSA	Ave	1.077	1.191		2770	2500	10.6	50.0
d3-NMeFOSAA	Ave	0.0793	0.0810		2550	2500	2.2	50.0
13C2 PFUnA	Ave	0.6999	0.7334		2620	2500	4.8	50.0
d5-NEtFOSAA	Ave	0.0879	0.0870		2470	2500	-1.1	50.0
13C2 PFDoA	Ave	0.7677	0.8026		2610	2500	4.6	50.0
13C2 PFTeDA	Ave	0.6433	0.6641		2580	2500	3.2	50.0
13C2 PFHxDA	Ave	0.5918	0.6237		2630	2500	5.4	50.0

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F027.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 07-Dec-2019 09:55:19 ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: 200-0039120-027 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812
Sublist: chrom-PFC_LC812*sub3

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:20:11 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: chirgwinb Date: 07-Dec-2019 10:49:06
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.557	2143683	2.86		115	28684	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.926	1.926	0.0	1.005	797977	0.9354		93.5	282	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.660	1722859	3.01		120	5907	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.285	2.285	0.0	1.006	668042	0.8561		85.6	69.1	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	0.994	632573	0.7782	Target=2.03	88.0	1447	
298.90 > 99.00	2.298	2.298	0.0	0.994	356711		1.77(1.01-3.04)		700	
D 47 13C3 PFBS										
301.90 > 80.00	2.312	2.312	0.0	0.672	1738790	2.55		110	180611	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.636	2.636	0.0	1.000	107196	0.99		106	1841	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.636	2.636	0.0	0.767	145598	2.29		97.9	224	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.673	0.0	0.875	657099	0.9137	Target=3.50	97.4	2941	
349.00 > 99.00	2.673	2.673	0.0	0.875	205078		3.20(1.75-5.25)		1455	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.673	2.673	0.0	1.000	674686	0.9568	Target=13.76	95.7	279	
313.00 > 119.00	2.673	2.673	0.0	1.000	58413		11.55(6.88-20.64)		166	
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.777	1726579	2.70		108	7264	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.784	2.784	0.0	0.997	92781	0.9575		95.8	50.1	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.792	2.792	0.0	0.812	67462	2.42		96.8	1345	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.000	696336	0.99	Target=3.95	99.3	394	
363.00 > 169.00	3.055	3.055	0.0	1.000	197226		3.53(1.97-5.92)		929	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.889	1464675	2.72		115	7138	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.889	1657776	2.74		110	3758	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.055	3.055	0.0	1.000	599424	0.8552	Target=3.90	94.0	1268	
399.00 > 99.00	3.055	3.055	0.0	1.000	142545		4.21(1.95-5.85)		580	
77 DONA										
377.00 > 251.00	3.101	3.101	0.0	0.812	1649412	1.04	Target=2.49	110	3916	
377.00 > 85.00	3.101	3.101	0.0	0.812	652605		2.53(1.24-3.73)		1814	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.430	3.430	0.0	1.000	80255	0.8308		87.6	597	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.430	3.430	0.0	0.899	516681	0.9399	Target=6.46	98.7	2824	
449.00 > 99.00	3.430	3.430	0.0	0.899	82734		6.25(3.23-9.69)		935	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.998	243105	2.62		110	1050	
D 14 13C4 PFOA										
417.00 > 372.00	3.438	3.438	0.0	1.000	1749692	2.72		109	5021	
* 62 13C2 PFOA										
415.00 > 370.00	3.438	3.438	0.0		1767189	2.50			2706	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.447	3.447	0.0	1.002	702527	0.9047	Target=2.40	90.5	265	
413.00 > 169.00	3.438	3.447	-0.009	1.000	304651		2.31(1.20-3.60)		1405	
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.000	423249	0.8736	Target=5.74	94.1	1402	M
499.00 > 99.00	3.805	3.817	-0.012	0.997	70799		5.98(2.87-8.61)		551	M
D 18 13C4 PFOS										
503.00 > 80.00	3.817	3.817	0.0	1.110	1072661	2.51		105	4298	
20 Perfluorononanoic acid										
463.00 > 419.00	3.829	3.829	0.0	0.997	601294	0.9736	Target=7.01	97.4	290	
463.00 > 169.00	3.842	3.829	0.013	1.000	87049		6.91(3.50-10.51)		1586	
D 19 13C5 PFNA										
468.00 > 423.00	3.842	3.842	0.0	1.117	1574658	2.67		107	10904	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.994	3.994	0.0	1.046	496424	0.8970		96.2	3437	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.141	4.141	0.0	1.085	357172	0.9633	Target=3.14	100	2301	
549.00 > 99.00	4.141	4.141	0.0	1.085	127758		2.80(1.57-4.71)		783	
D 23 13C2 PFDA										
515.00 > 470.00	4.175	4.175	0.0	1.214	1541763	2.65		106	1653	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.175	4.175	0.0	1.000	633129	1.06	Target=7.28	106	790	
513.00 > 169.00	4.175	4.175	0.0	1.000	88507		7.15(3.64-10.91)		855	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.185	4.185	0.0	1.217	288109	2.61		109	1159	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.185	4.185	0.0	1.000	50800	0.9148		95.5	1034	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	801868	0.9571		95.7	1783	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.233	2104721	2.77		111	5932	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.317	4.317	0.0	1.255	143174	2.55		102	882	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.328	4.328	0.0	1.003	49963	1.00		100	508	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.420	4.420	0.0	1.158	360619	1.12	Target=2.76	116	2307	
599.00 > 99.00	4.420	4.420	0.0	1.158	120080		3.00(1.38-4.14)		1249	
D 30 13C2 PFUnA										
565.00 > 520.00	4.456	4.456	0.0	1.296	1295967	2.62		105	4073	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.456	4.456	0.0	1.000	467812	1.06	Target=5.78	106	546	
563.00 > 169.00	4.456	4.456	0.0	1.000	77199		6.06(2.89-8.67)		1101	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.296	153652	2.47		98.9	1405	
33 N-ethylperfluorooctanesulfonamidoa										
584.00 > 419.00	4.469	4.469	0.0	1.003	52048	1.02		102	571	
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.550	4.550	0.0	1.192	461573	0.8844		93.9	2882	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.693	4.693	0.0	1.000	513790	0.9800	Target=5.13	98.0	95.3	
613.00 > 169.00	4.693	4.693	0.0	1.000	108886		4.72(2.56-7.69)		1311	
D 36 13C2 PFDoA										
615.00 > 570.00	4.693	4.693	0.0	1.365	1418381	2.61		105	4086	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.714	4.714	0.0	1.126	35733	1.01		105	1130	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.860	4.860	0.0	1.273	124369	1.01	Target=0.45	105	303	
699.00 > 99.00	4.860	4.860	0.0	1.273	253575		0.49(0.22-0.67)		2851	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.906	4.906	0.0	1.045	440100	0.8837	Target=3.82	88.4	120	
663.00 > 169.00	4.906	4.906	0.0	1.045	133609		3.29(1.91-5.74)		1626	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.094	5.094	0.0	1.481	1173598	2.58		103	7762	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.094	5.094	0.0	1.000	97077	1.03	Target=1.05	103	1550	
713.00 > 219.00	5.085	5.094	-0.009	0.998	89383		1.09(0.52-1.57)		1608	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.457	5.457	0.0	1.000	398094	0.99	Target=3.20	99.3	122	
813.00 > 169.00	5.457	5.457	0.0	1.000	135843		2.93(1.60-4.80)		1836	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.457	5.457	0.0	1.587	1102181	2.63		105	6674	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.823	5.823	0.0	1.067	283023	0.8888	Target=2.86	88.9	109	
913.00 > 169.00	5.818	5.823	-0.005	1.066	106380		2.66(1.43-4.29)		1689	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

PFAS32NCIC4_00004 Amount Added: 100.00 Units: uL

Report Date: 12-Dec-2019 18:20:12 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F027.d

Injection Date: 07-Dec-2019 09:55:19 Instrument ID: LC812

Lims ID: CCV L4

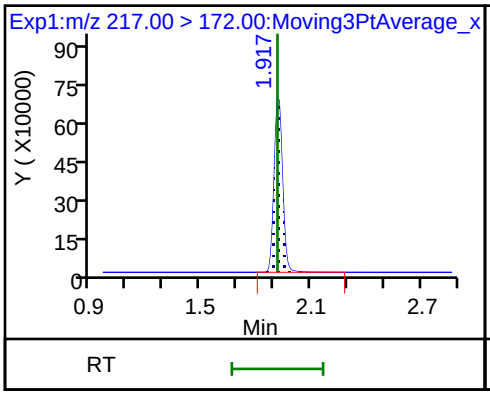
Client ID:

Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 27

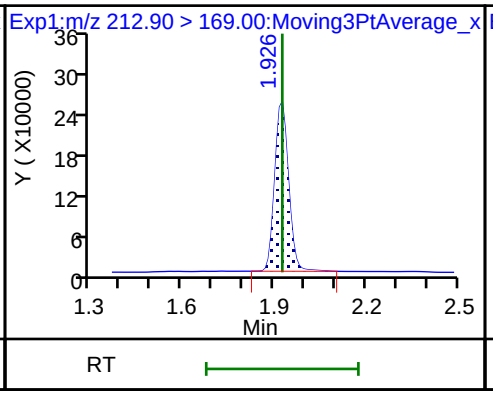
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

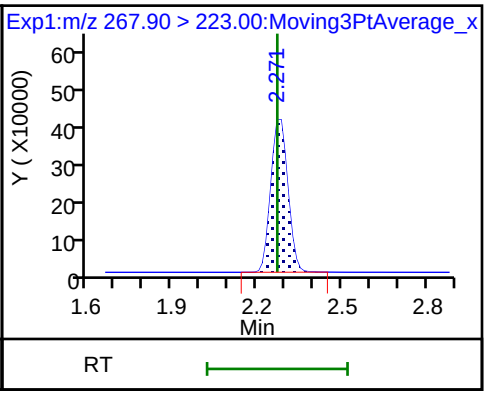
D 1 13C4 PFBA



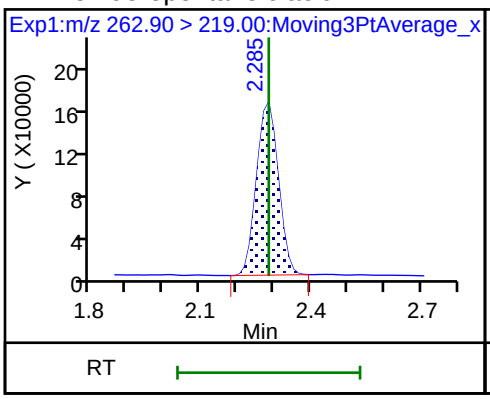
2 Perfluorobutanoic acid



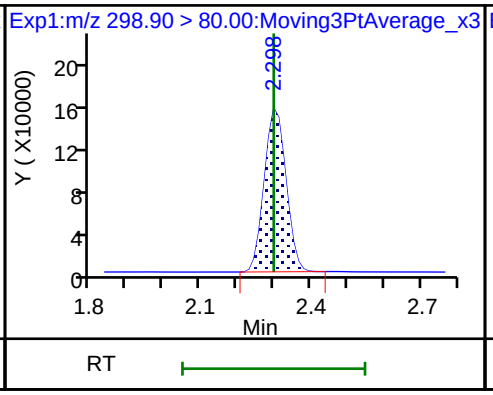
D 3 13C5 PFPeA



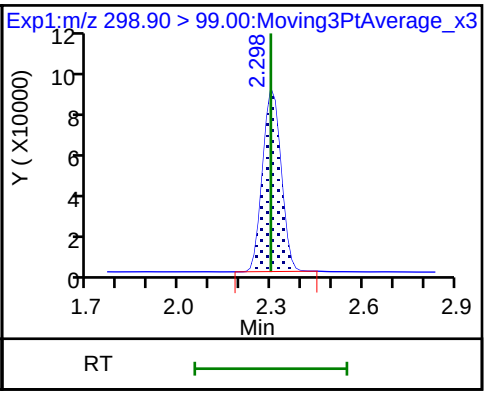
4 Perfluoropentanoic acid



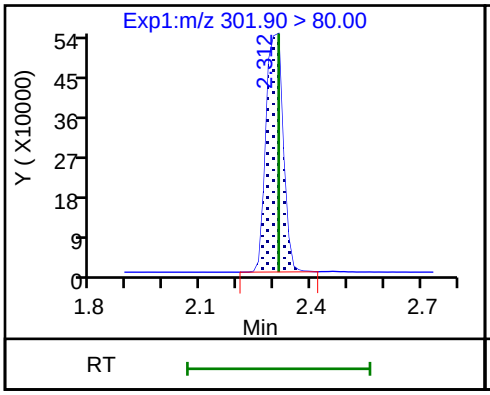
5 Perfluorobutanesulfonic acid



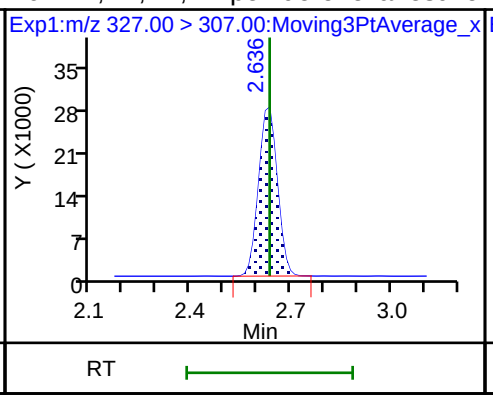
5 Perfluorobutanesulfonic acid



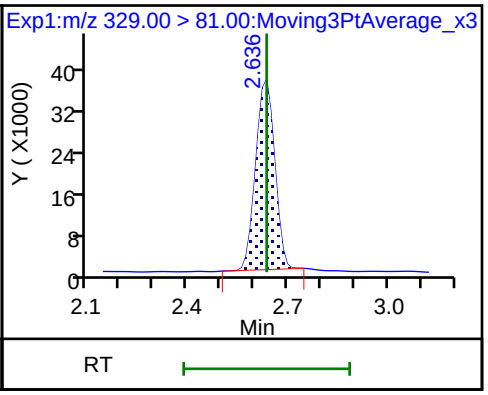
D 47 13C3 PFBS



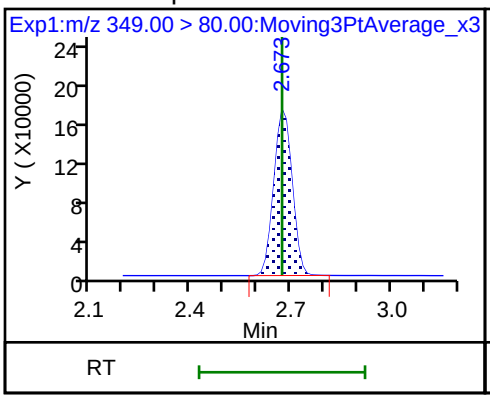
61 1H,1H,2H,2H-perfluorohexanesulfon



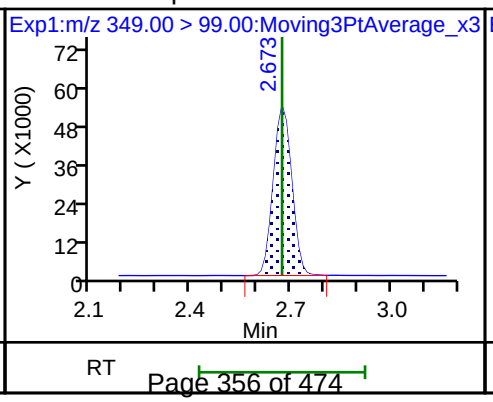
D 60 M2-4:2 FTS



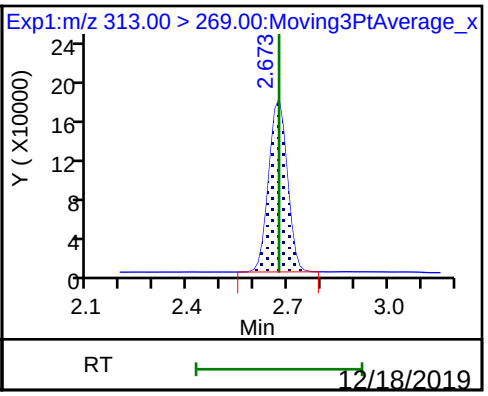
70 Perfluoropentanesulfonic acid



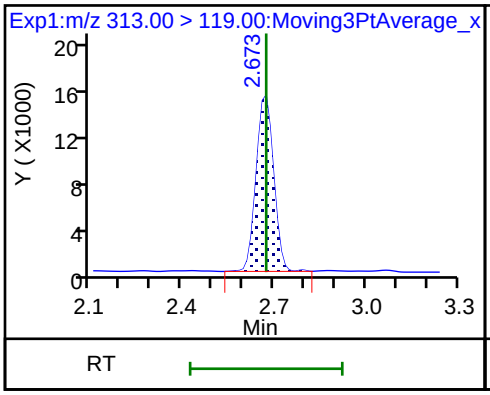
70 Perfluoropentanesulfonic acid



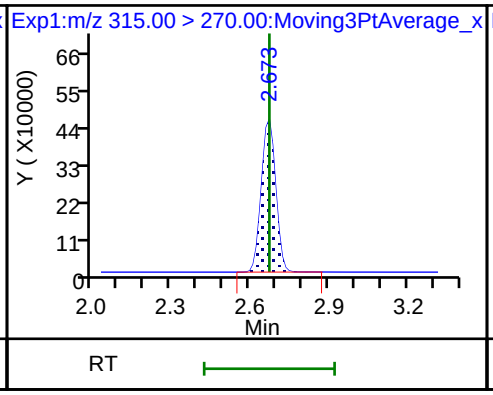
6 Perfluorohexanoic acid



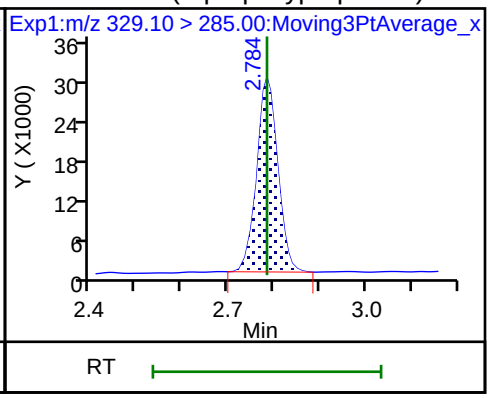
6 Perfluorohexanoic acid



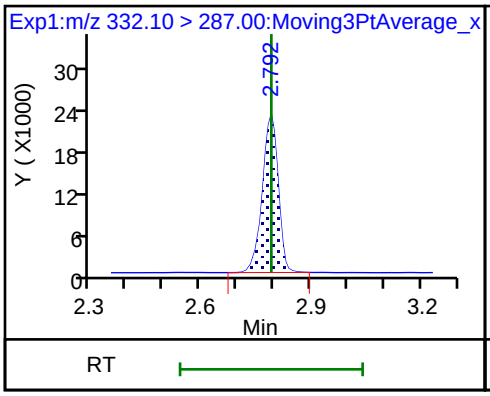
D 7 13C2 PFHxA



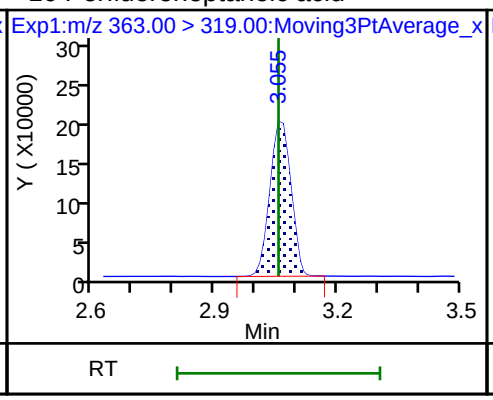
67 Perfluoro(2-propoxypropanoic) acid



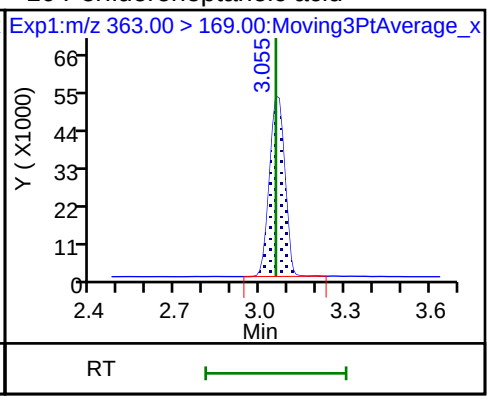
D 64 13C3 HFPO-DA



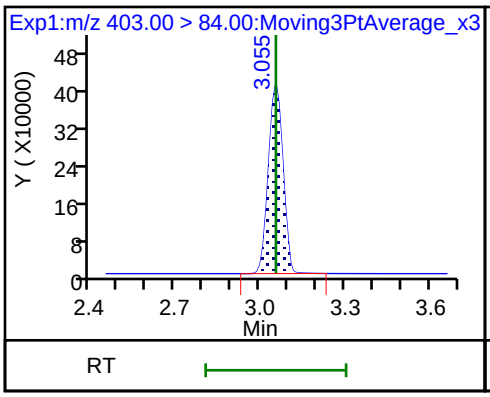
10 Perfluoroheptanoic acid



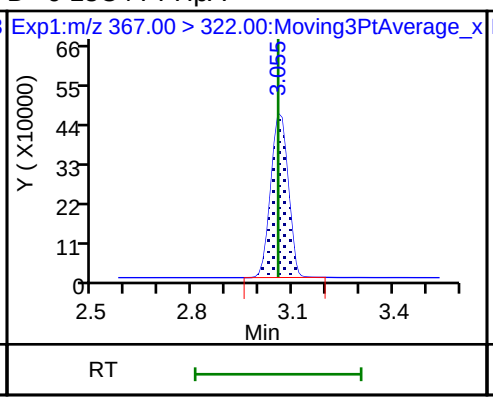
10 Perfluoroheptanoic acid



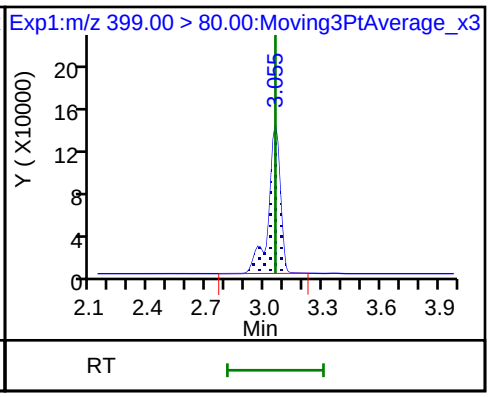
D 11 18O2 PFHxS



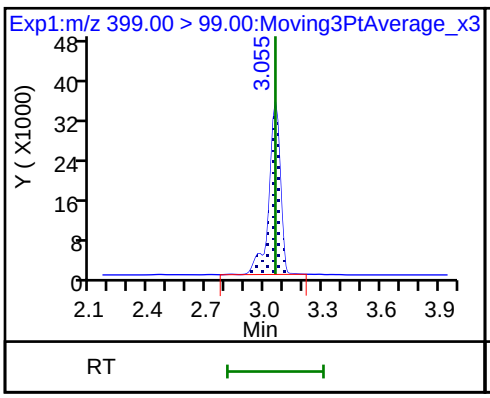
D 9 13C4 PFHpA



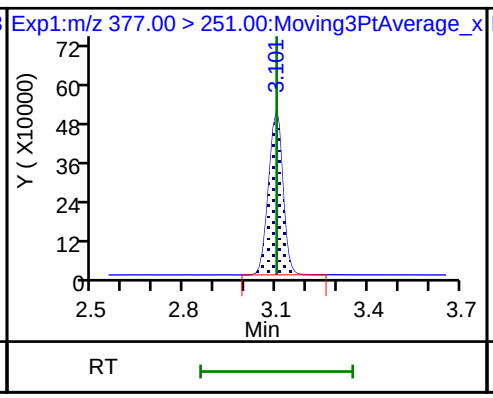
8 Perfluorohexanesulfonic acid



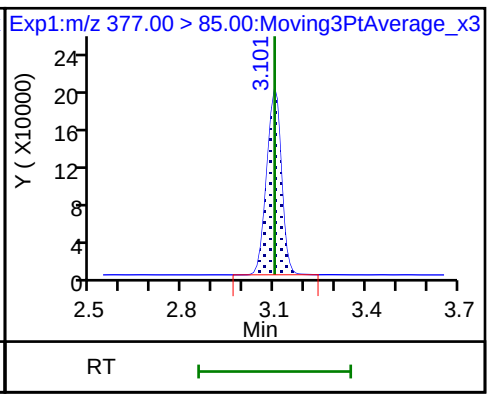
8 Perfluorohexanesulfonic acid



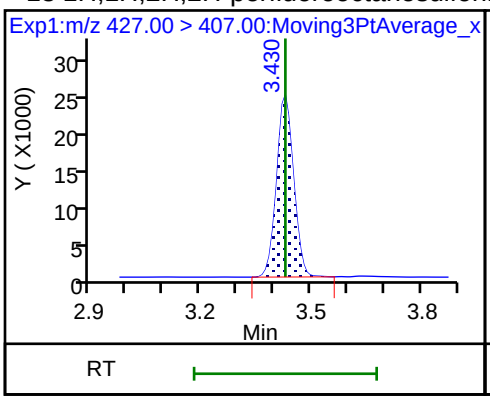
77 DONA



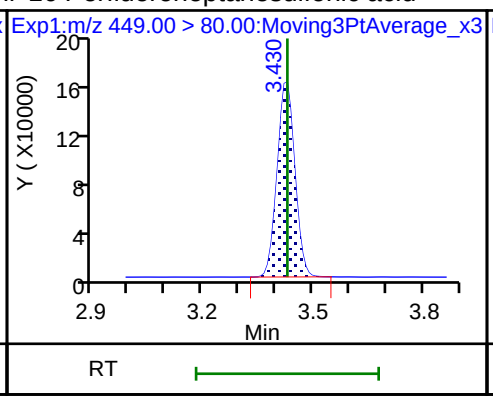
77 DONA



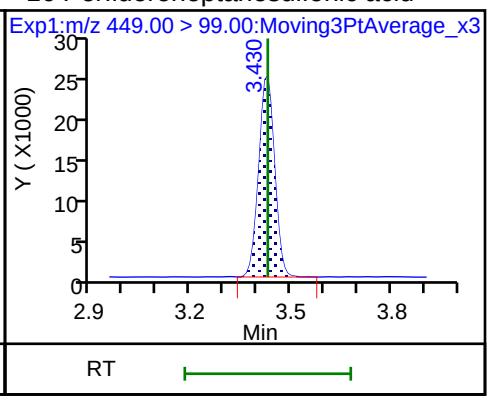
13 1H,1H,2H,2H-perfluorooctanesulfoni



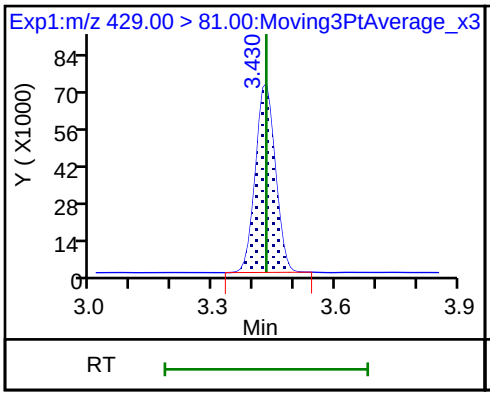
16 Perfluoroheptanesulfonic acid



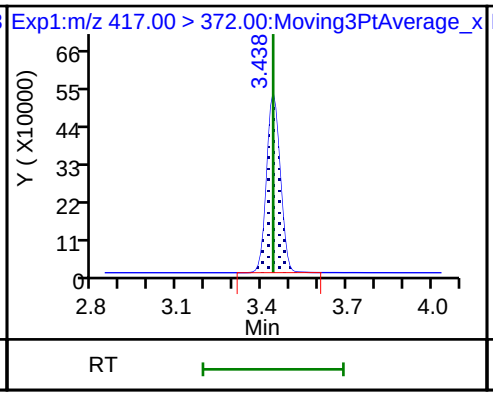
16 Perfluoroheptanesulfonic acid



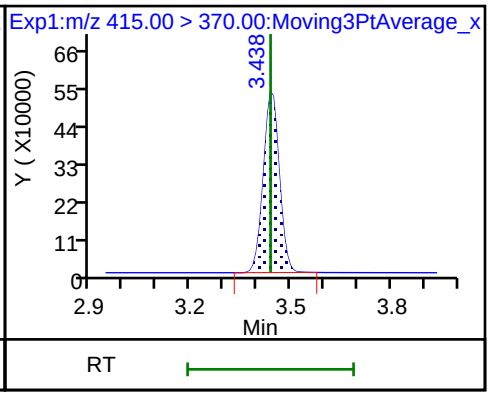
D 12 M2-6:2 FTS



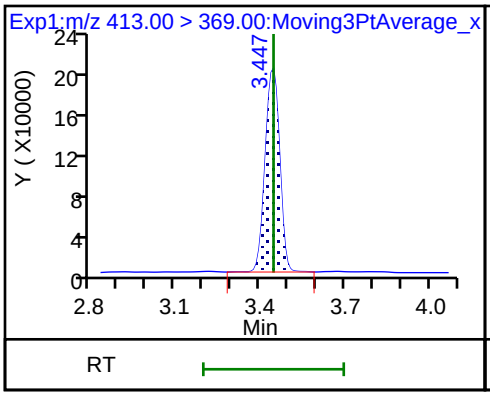
D 14 13C4 PFOA



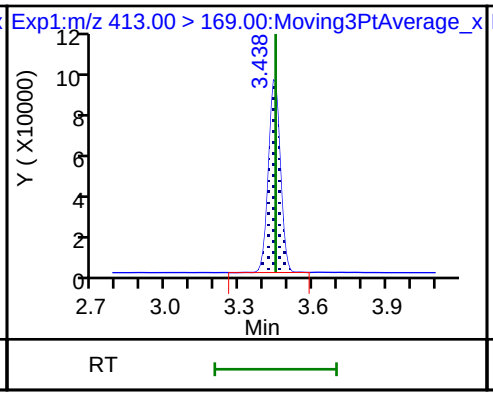
* 62 13C2 PFOA



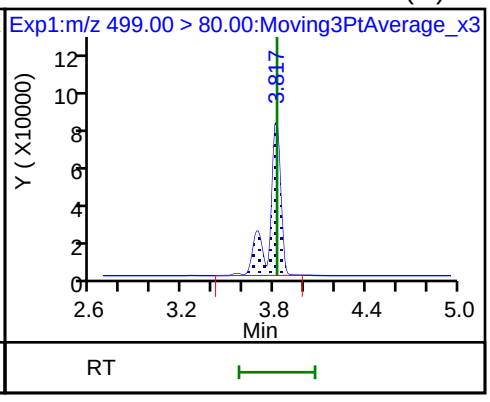
15 Perfluorooctanoic acid



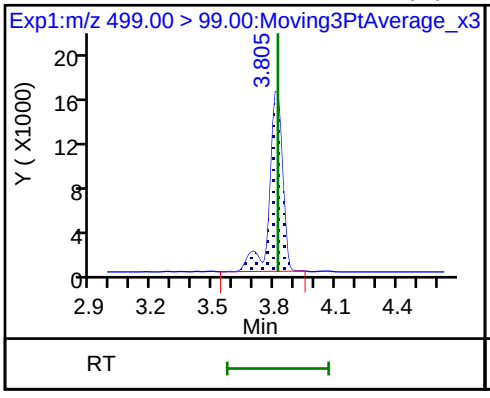
15 Perfluorooctanoic acid



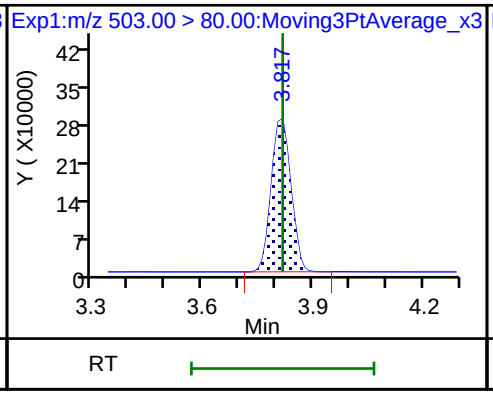
17 Perfluorooctanesulfonic acid (M)



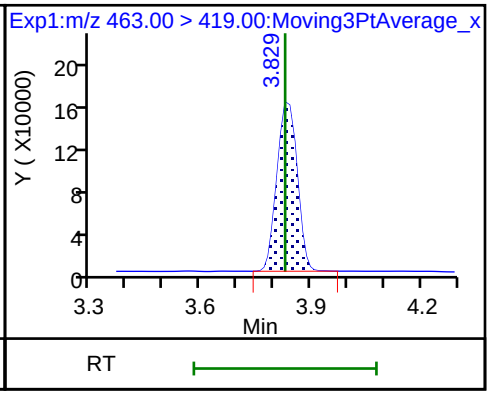
17 Perfluorooctanesulfonic acid (M)



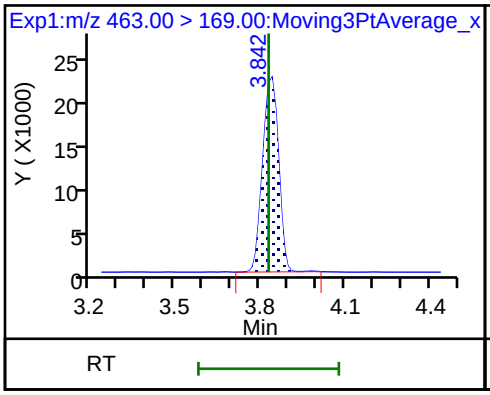
D 18 13C4 PFOS



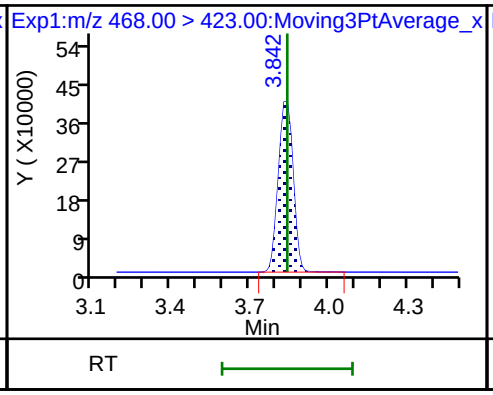
20 Perfluorononanoic acid



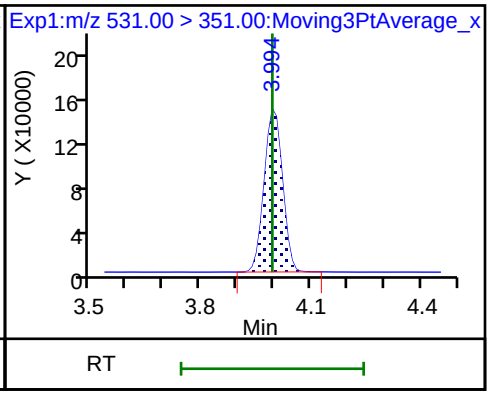
20 Perfluorononanoic acid



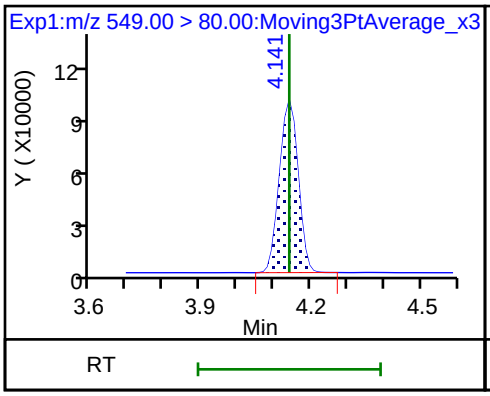
D 19 13C5 PFNA



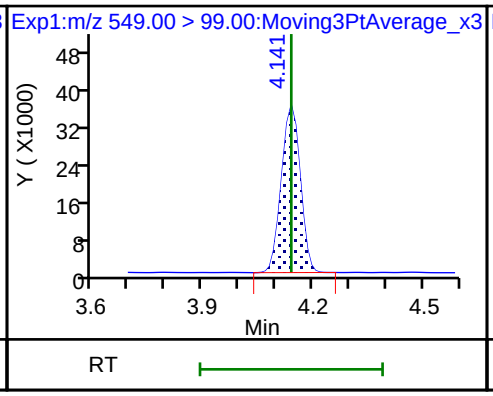
69 9-Chlorohexadecafluoro-3-oxanonane



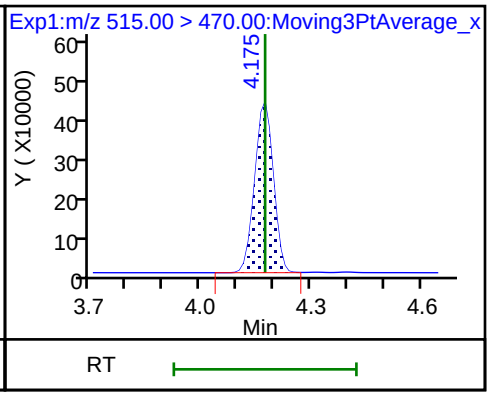
68 Perfluorononanesulfonic acid



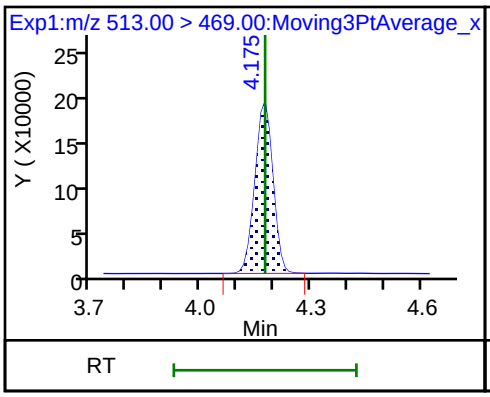
68 Perfluorononanesulfonic acid



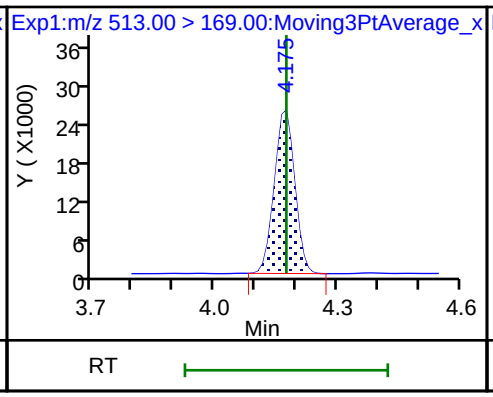
D 23 13C2 PFDA



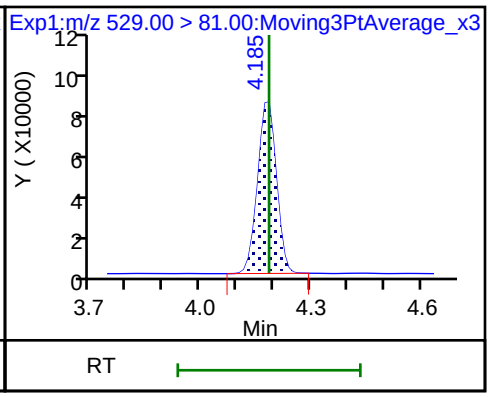
24 Perfluorodecanoic acid



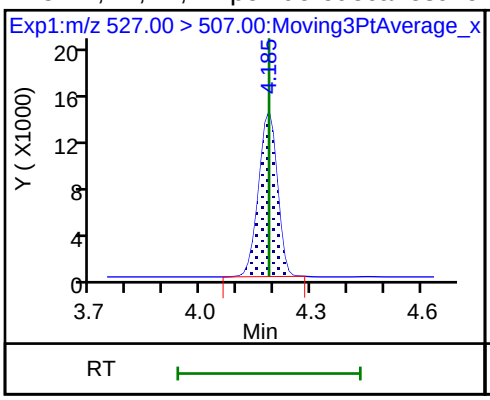
24 Perfluorodecanoic acid



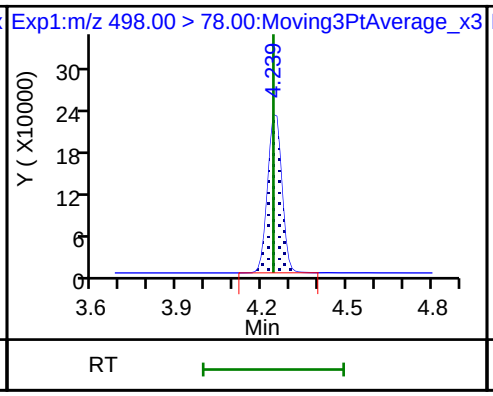
D 26 M2-8:2 FTS



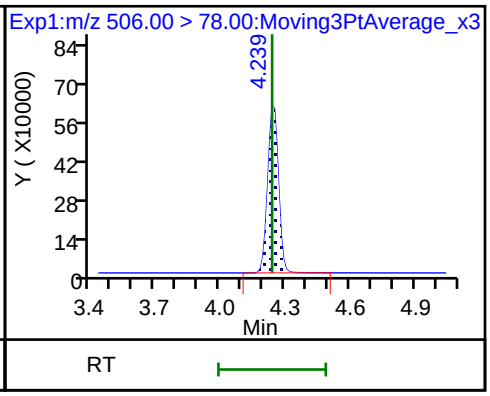
25 1H,1H,2H,2H-perfluorodecanesulfoni



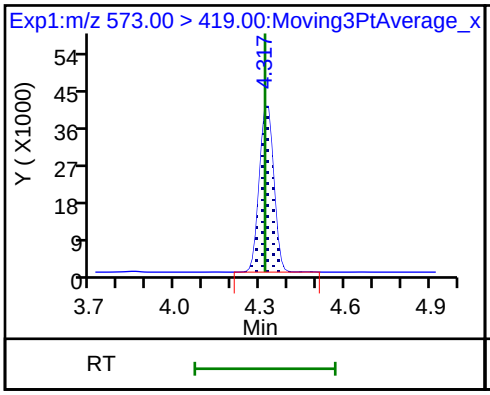
22 Perfluorooctanesulfonamide



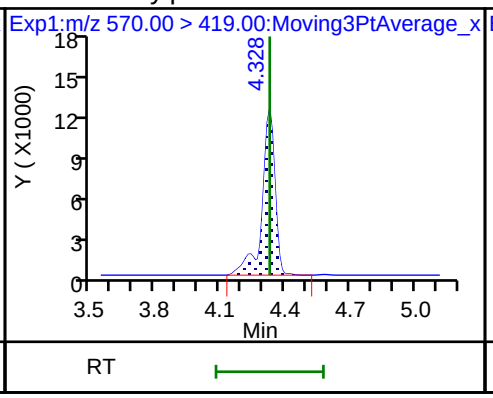
D 21 13C8 FOSA



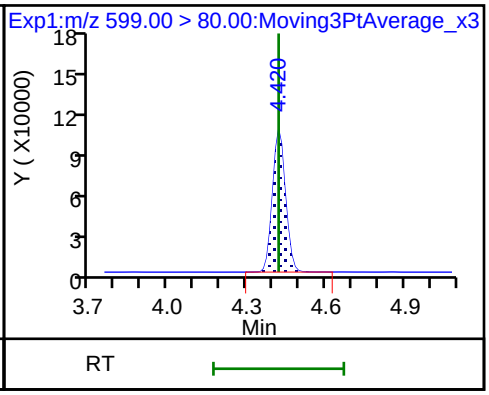
D 27 d3-NMeFOSAA



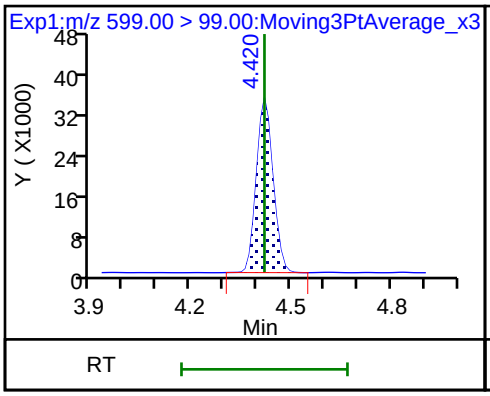
28 N-methylperfluorooctanesulfonamido



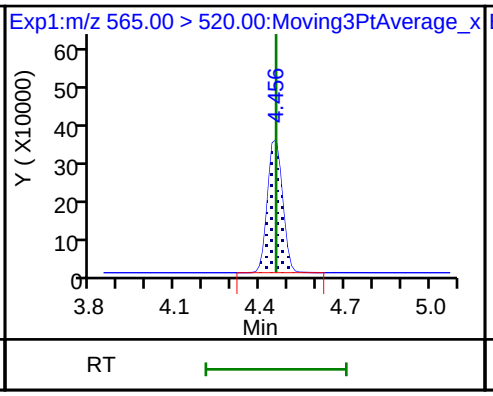
29 Perfluorodecanesulfonic acid



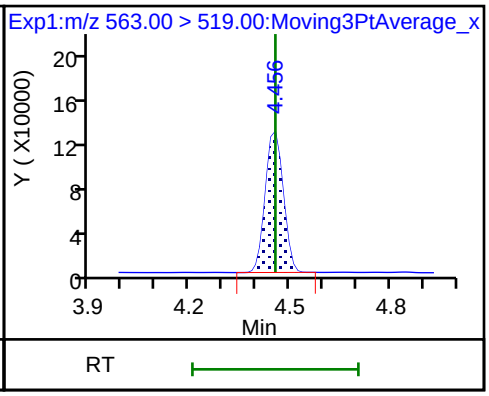
29 Perfluorodecanesulfonic acid



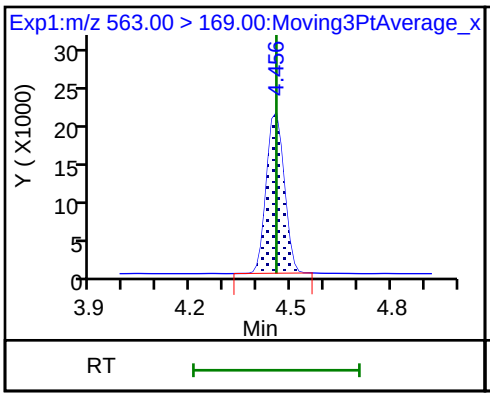
D 30 13C2 PFUnA



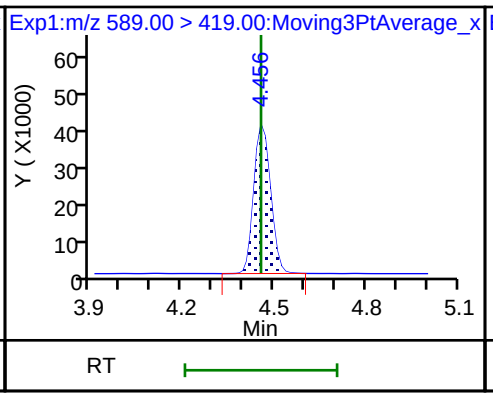
31 Perfluoroundecanoic acid



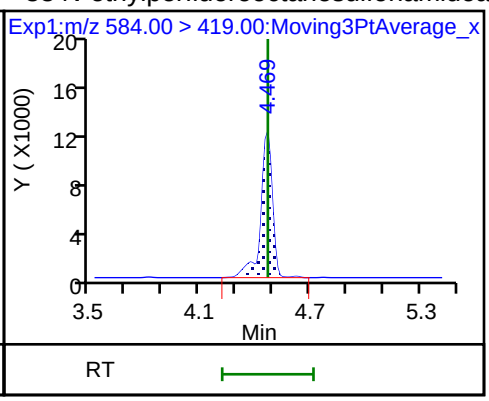
31 Perfluoroundecanoic acid



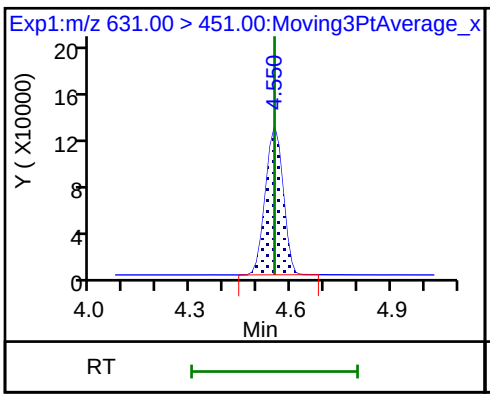
D 32 d5-NEtFOSAA



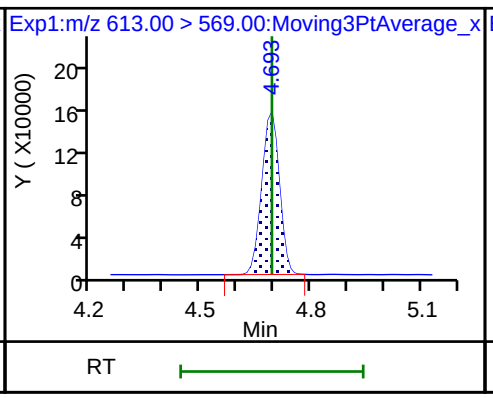
33 N-ethylperfluorooctanesulfonamidoa



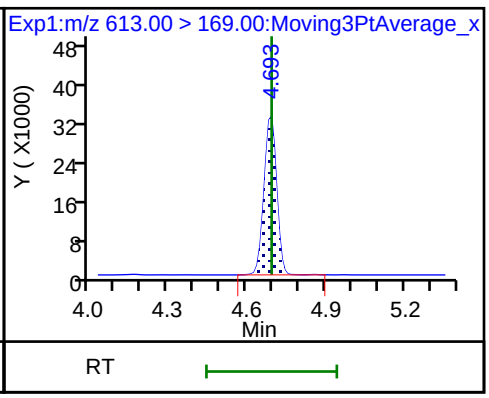
66 11-Chloroeicosafluoro-3-oxaundecan



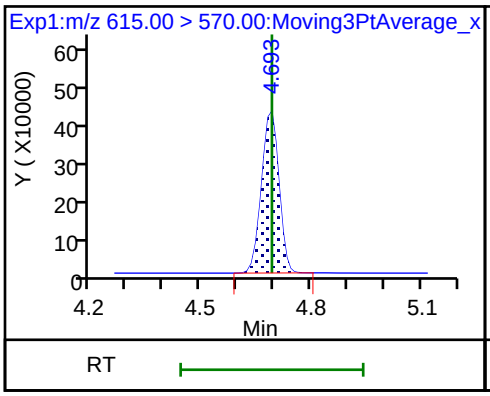
37 Perfluorododecanoic acid



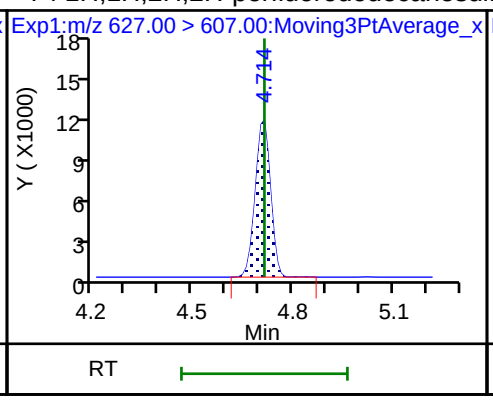
37 Perfluorododecanoic acid



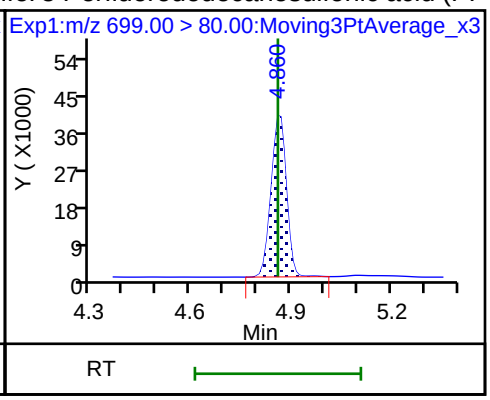
D 36 13C2 PFDoA



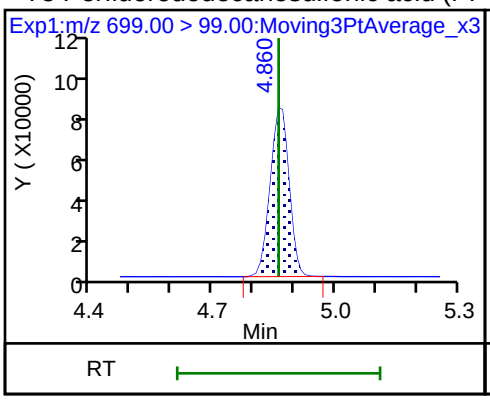
74 1H,1H,2H,2H-perfluorododecanesulfo



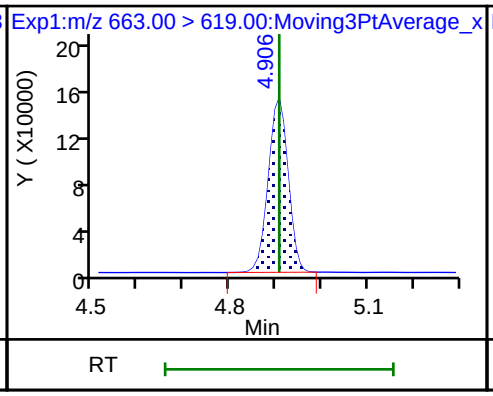
75 Perfluorododecanesulfonic acid (PF



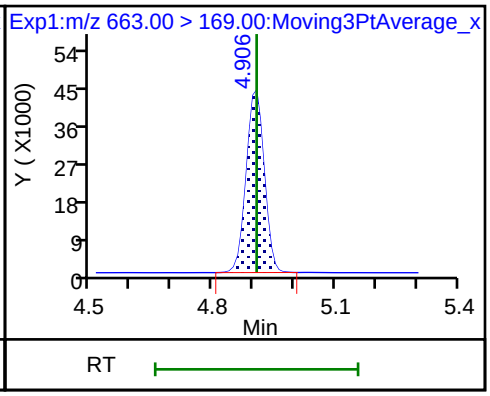
75 Perfluorododecanesulfonic acid (PF



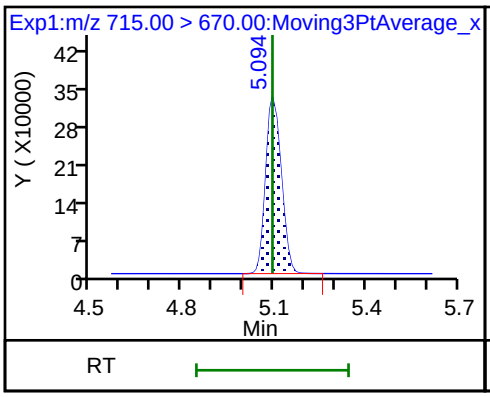
41 Perfluorotridecanoic acid



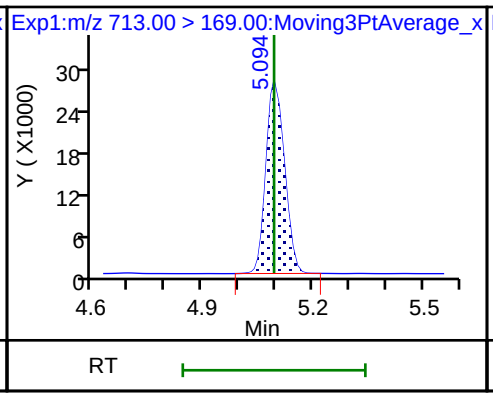
41 Perfluorotridecanoic acid



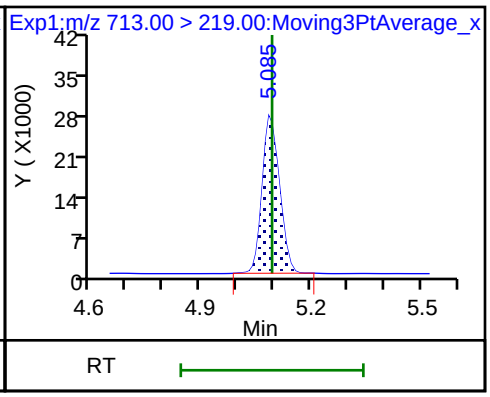
D 43 13C2 PFTeDA



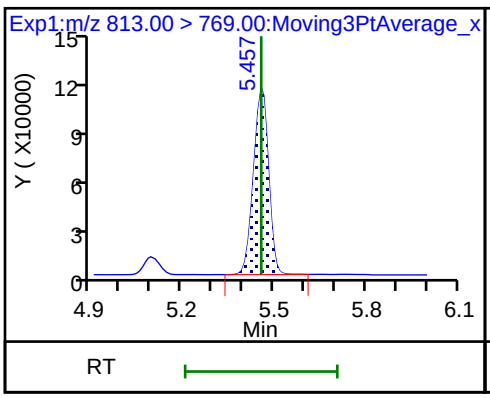
42 Perfluorotetradecanoic acid



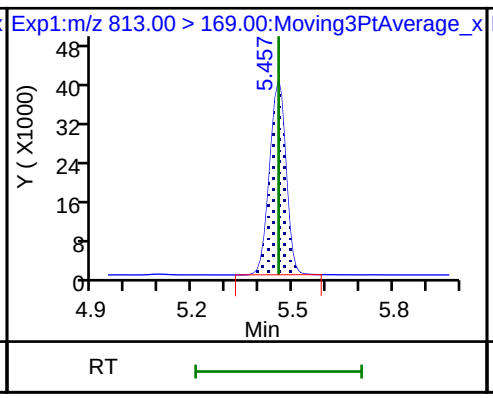
42 Perfluorotetradecanoic acid



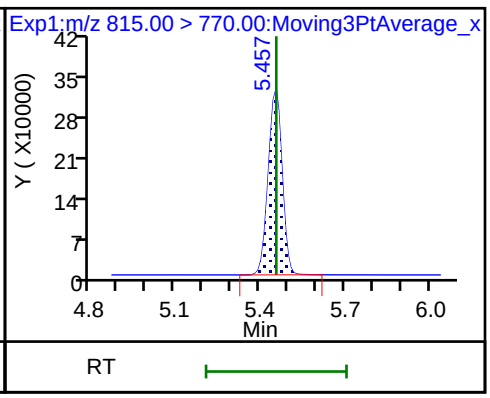
45 Perfluorohexadecanoic acid



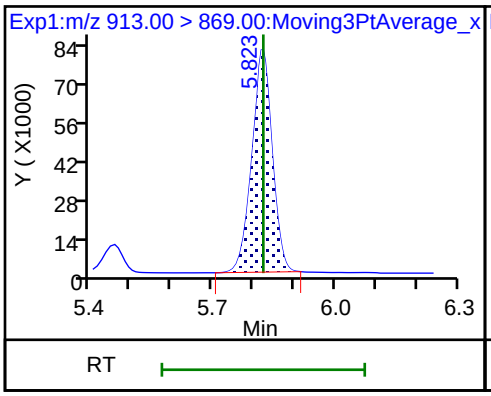
45 Perfluorohexadecanoic acid



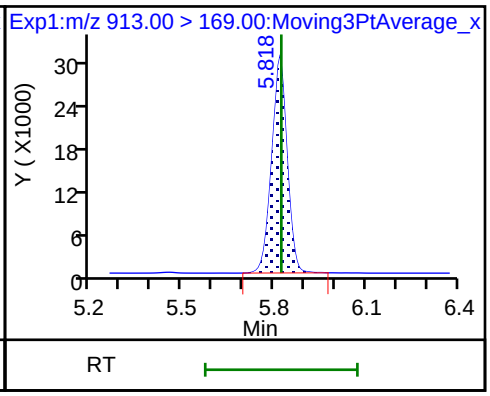
D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

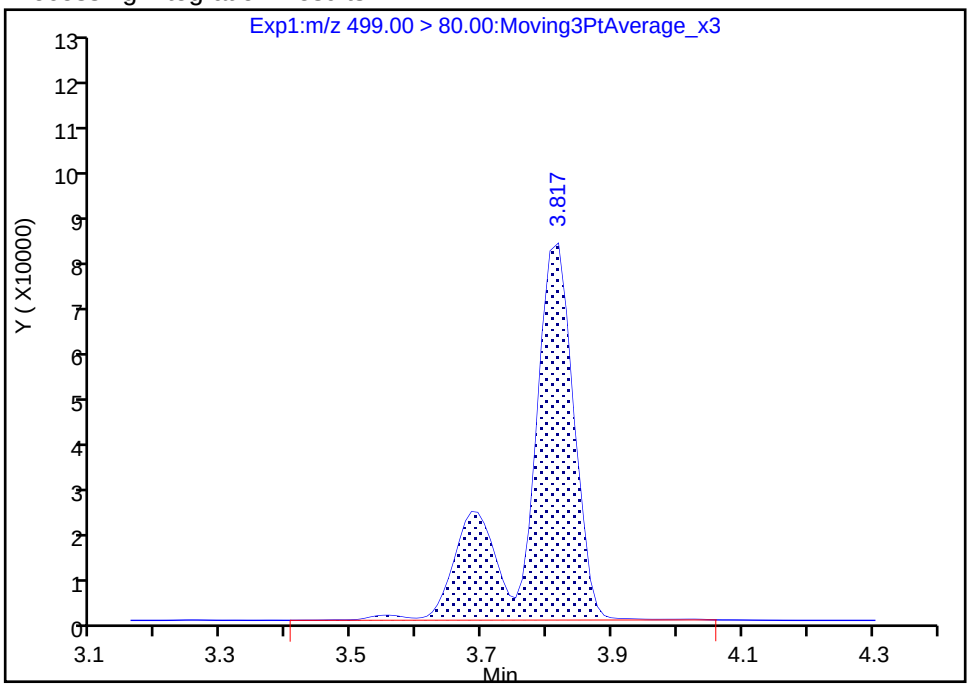
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F027.d				
Injection Date:	07-Dec-2019 09:55:19	Instrument ID:	LC812		
Lims ID:	CCV L4				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	27	Worklist Smp#:	27
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

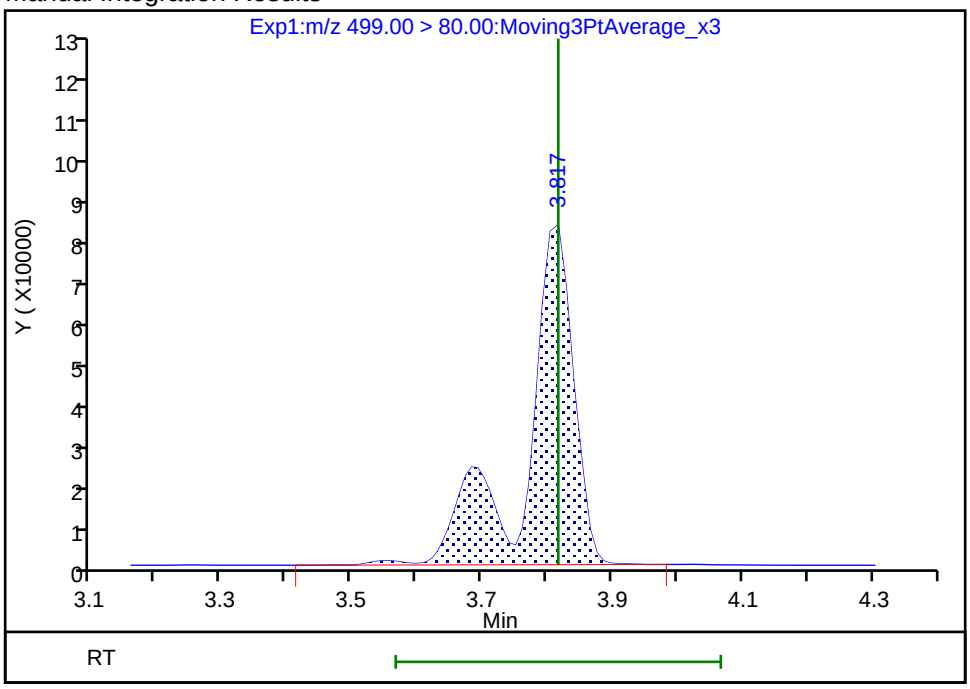
Processing Integration Results

RT: 3.82
Area: 425369
Amount: 0.877941
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 423249
Amount: 0.873565
Amount Units: ng/ml



Reviewer: chirgwinb, 07-Dec-2019 10:48:38
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

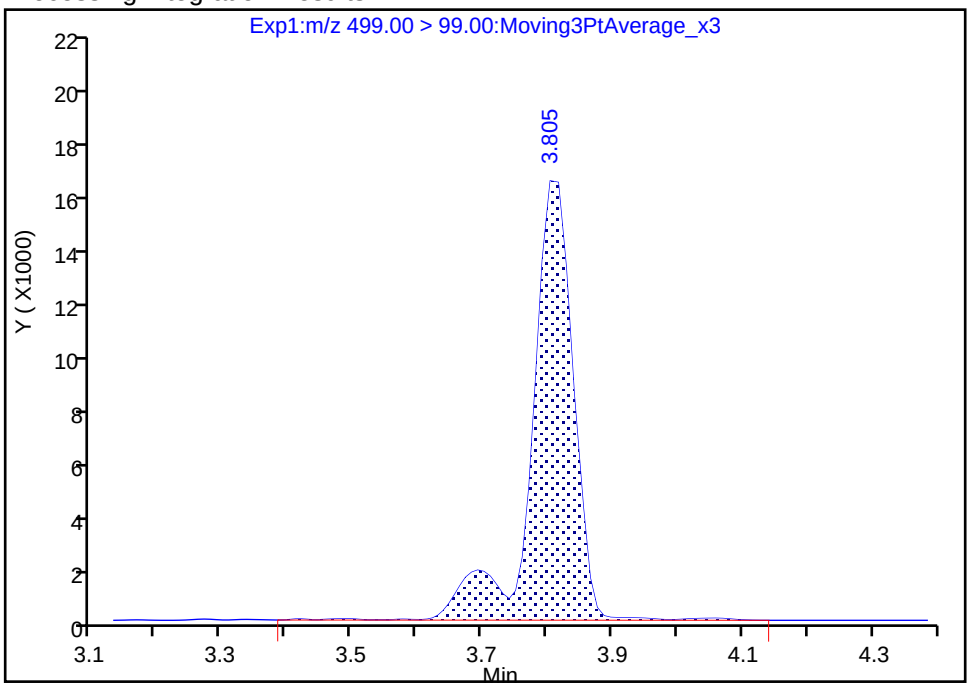
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F027.d
Injection Date: 07-Dec-2019 09:55:19 Instrument ID: LC812
Lims ID: CCV L4
Client ID:
Operator ID: lc812tech ALS Bottle#: 27 Worklist Smp#: 27
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

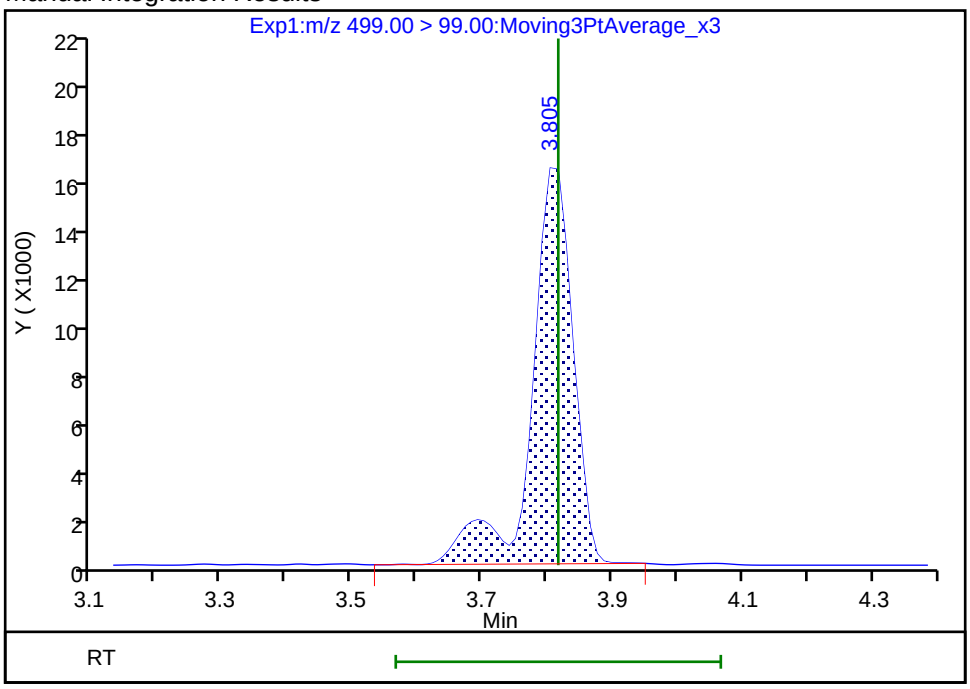
Processing Integration Results

RT: 3.80
Area: 72427
Amount: 0.877941
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 70799
Amount: 0.873565
Amount Units: ng/ml



Reviewer: chirgwinb, 07-Dec-2019 10:48:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: Lab Sample ID: MB 200-150277/1-A

Matrix: Water Lab File ID: SC120619F002.d

Analysis Method: 537 (modified) Date Collected:

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 250(mL) Date Analyzed: 12/07/2019 06:30

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	ND		2.0	1.0
2706-90-3	Perfluoropentanoic acid (PFPeA)	ND		2.0	0.63
307-24-4	Perfluorohexanoic acid (PFHxA)	ND		2.0	0.76
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.0	0.91
335-67-1	Perfluorooctanoic acid (PFOA)	ND		2.0	0.81
375-95-1	Perfluorononanoic acid (PFNA)	ND		2.0	0.27
335-76-2	Perfluorodecanoic acid (PFDA)	ND		2.0	0.77
2058-94-8	Perfluoroundecanoic acid (PFUnA)	ND		2.0	0.78
307-55-1	Perfluorododecanoic acid (PFDoA)	ND		2.0	0.59
72629-94-8	Perfluorotridecanoic acid (PFTriA)	ND		2.0	0.60
376-06-7	Perfluorotetradecanoic acid (PFTeA)	ND		2.0	0.92
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		2.0	0.49
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	ND		2.0	0.80
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	ND		2.0	0.95
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	ND		2.0	0.61
335-77-3	Perfluorodecanesulfonic acid (PFDS)	ND		2.0	0.90
754-91-6	Perfluorooctanesulfonamide (PFOSA)	ND		10	10
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	ND		20	1.7
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	ND		20	1.5
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	ND		20	5.5
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	ND		20	2.9

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: Lab Sample ID: MB 200-150277/1-A

Matrix: Water Lab File ID: SC120619F002.d

Analysis Method: 537 (modified) Date Collected:

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 250(mL) Date Analyzed: 12/07/2019 06:30

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	113		50-150
STL01892	13C4 PFHpA	105		50-150
STL00990	13C4 PFOA	113		50-150
STL00991	13C4 PFOS	114		50-150
STL00995	13C5 PFNA	109		50-150
STL00992	13C4 PFBA	115		25-150
STL00993	13C2 PFHxA	110		50-150
STL00996	13C2 PFDA	107		50-150
STL00997	13C2 PFUnA	93		50-150
STL00998	13C2 PFDoA	90		50-150
STL01056	13C8 FOSA	79		25-150
STL01893	13C5 PFPeA	116		25-150
STL02116	13C2 PFTeDA	81		50-150
STL02118	d3-NMeFOSAA	96		50-150
STL02117	d5-NEtFOSAA	102		50-150
STL02279	M2-6:2 FTS	116		25-150
STL02280	M2-8:2 FTS	118		25-150
STL02337	13C3 PFBS	118		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Lims ID: MB 200-150277/1-A
Client ID:
Sample Type: MB
Inject. Date: 07-Dec-2019 06:30:25 ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: MB 200-150277/1-A
Misc. Info.: 200-0039120-002 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:18:46 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 13:38:29
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.557	2882716	2.88		115	34954	
2 Perfluorobutanoic acid										M
212.90 > 169.00	1.917	1.926	-0.009	1.000	7134	0.006219			2.2	M
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.660	2220219	2.91		116	7128	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.271	2.285	-0.014	1.000	15126	0.0150			1.3	M
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.006	7174	0.006133	Target=2.03		19.9	
298.90 > 99.00	2.298	2.298	0.0	1.006	3531		2.03(1.01-3.04)		3.8	
D 47 13C3 PFBS										
301.90 > 80.00	2.285	2.312	-0.027	0.664	2502367	2.75		118	870193	
61 1H,1H,2H,2H-perfluorohexanesulfoni										M
327.00 > 307.00	2.661	2.636	0.025	1.014	213	0.001221			3.3	M
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.636	-0.013	0.763	235126	2.77		118	372	
70 Perfluoropentanesulfonic acid										M
349.00 > 80.00	2.673	2.673	0.0	0.875	1071	0.001130	Target=3.50		6.8	M
349.00 > 99.00	2.673	2.673	0.0	0.875	362		2.96(1.75-5.25)		2.7	M
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.661	2.673	-0.012	1.000	6419	0.006705	Target=13.76		1.9	M
313.00 > 119.00	2.673	2.673	0.0	1.005	726		8.84(6.88-20.64)		2.1	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.661	2.673	-0.012	0.774	2344257	2.75		110	4821	
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.784	2.792	-0.008	0.810	97797	2.63		105	1516	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
10 Perfluoroheptanoic acid										M
363.00 > 319.00	3.055	3.055	0.0	1.000	3546	0.003966	Target=3.95		1.6	M
363.00 > 169.00	3.067	3.055	0.012	1.004	770		4.61(1.97-5.92)		3.8	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.889	1929670	2.68		113	7785	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.889	2114279	2.62		105	6420	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	7822	0.008471	Target=3.90		20.9	M
399.00 > 99.00	3.055	3.055	0.0	1.000	1706		4.58(1.95-5.85)		5.2	M
77 DONA										M
377.00 > 251.00	3.101	3.101	0.0	0.815	2987	0.001303	Target=2.49		6.6	M
377.00 > 85.00	3.101	3.101	0.0	0.815	1456		2.05(1.24-3.73)		6.5	M
13 1H,1H,2H,2H-perfluorooctanesulfoni										M
427.00 > 407.00	3.422	3.430	-0.008	0.998	205	0.001515			4.5	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.998	340453	2.75		116	1058	
D 14 13C4 PFOA										
417.00 > 372.00	3.439	3.438	0.0	1.000	2424707	2.83		113	4643	
* 62 13C2 PFOA										
415.00 > 370.00	3.439	3.438	0.0		2358715	2.50			4686	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.439	3.447	-0.009	1.000	11868	0.0110	Target=2.40		2.3	M
413.00 > 169.00	3.439	3.447	-0.009	1.000	3536		3.36(1.20-3.60)		20.6	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.003	2740	0.003910	Target=5.74		13.9	M
499.00 > 99.00	3.793	3.817	-0.024	0.997	598		4.58(2.87-8.61)		2.9	M
D 18 13C4 PFOS										
503.00 > 80.00	3.805	3.817	-0.012	1.107	1551303	2.72		114	6932	
20 Perfluorononanoic acid										RM
463.00 > 419.00	3.842	3.829	0.013	1.003	2188	0.002600	Target=7.01		1.1	RM
463.00 > 169.00	3.842	3.829	0.013	1.003	149		14.68(3.50-10.51)		2.3	M
D 19 13C5 PFNA										
468.00 > 423.00	3.830	3.842	-0.012	1.114	2145562	2.72		109	4480	
69 9-Chlorohexadecafluoro-3-oxanonane										M
531.00 > 351.00	3.995	3.994	0.0	1.050	1403	0.001753			8.3	M
68 Perfluorononanesulfonic acid										M
549.00 > 80.00	4.153	4.141	0.012	1.091	425	0.000793	Target=3.14		7.0	M
549.00 > 99.00	4.153	4.141	0.012	1.091	279		1.52(1.57-4.71)		2.5	M
D 23 13C2 PFDA										
515.00 > 470.00	4.164	4.175	-0.011	1.211	2071479	2.67		107	7462	
24 Perfluorodecanoic acid										M
513.00 > 469.00	4.175	4.175	0.0	1.003	3084	0.003847	Target=7.28		3.2	M
513.00 > 169.00	4.175	4.175	0.0	1.003	601		5.13(3.64-10.91)		5.3	M
D 26 M2-8:2 FTS										
529.00 > 81.00	4.186	4.185	0.001	1.217	416518	2.83		118	1381	
25 1H,1H,2H,2H-perfluorodecanesulfoni										M
527.00 > 507.00	4.186	4.185	0.001	1.000	185	0.002305			5.4	M

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
22 Perfluorooctanesulfonamide										M
498.00 > 78.00	4.239	4.239	0.0	1.000	2640	0.003310			31.4	M
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.233	2003632	1.97		78.9	6933	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.317	4.317	0.0	1.255	179372	2.40		95.9	1457	
28 N-methylperfluorooctanesulfonamido										M
570.00 > 419.00	4.328	4.328	0.0	1.003	460	0.007378			5.1	M
29 Perfluorodecanesulfonic acid										M
599.00 > 80.00	4.420	4.420	0.0	1.162	783	0.001676	Target=2.76		5.2	M
599.00 > 99.00	4.420	4.420	0.0	1.162	277		2.83(1.38-4.14)		2.2	M
D 30 13C2 PFUnA										
565.00 > 520.00	4.443	4.456	-0.013	1.292	1535252	2.32		93.0	4018	
31 Perfluoroundecanoic acid										M
563.00 > 519.00	4.443	4.456	-0.013	1.000	4292	0.008243	Target=5.78		6.6	
563.00 > 169.00	4.443	4.456	-0.013	1.000	898		4.78(2.89-8.67)		10.3	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.296	210847	2.54		102	1321	
66 11-Chloroeicosafluoro-3-oxaundecan										M
631.00 > 451.00	4.551	4.550	0.001	1.196	600	0.000795			10.4	M
37 Perfluorododecanoic acid										RM
613.00 > 569.00	4.693	4.693	0.0	1.002	2682	0.004440	Target=5.13		0.3	RM
613.00 > 169.00	4.704	4.693	0.011	1.005	258		10.40(2.56-7.69)		4.1	M
D 36 13C2 PFDoA										
615.00 > 570.00	4.683	4.693	-0.010	1.362	1634364	2.26		90.3	7116	
74 1H,1H,2H,2H-perfluorododecanesulfo										M
627.00 > 607.00	4.724	4.714	0.010	1.129	122	0.002394			3.3	M
75 Perfluorododecanesulfonic acid (PF										RM
699.00 > 80.00	4.870	4.860	0.010	1.280	901	0.005074	Target=0.45		2.1	RM
699.00 > 99.00	4.870	4.860	0.010	1.280	554		1.63(0.22-0.67)		8.8	M
41 Perfluorotridecanoic acid										M
663.00 > 619.00	4.897	4.906	-0.009	1.046	1737	0.003027	Target=3.82		0.4	M
663.00 > 169.00	4.897	4.906	-0.009	1.046	464		3.74(1.91-5.74)		4.0	M
D 43 13C2 PFTeDA										
715.00 > 670.00	5.094	5.094	0.0	1.481	1236594	2.04		81.5	8444	
42 Perfluorotetradecanoic acid										M
713.00 > 169.00	5.085	5.094	-0.009	0.998	474	0.004770	Target=1.05		6.9	M
713.00 > 219.00	5.076	5.094	-0.018	0.997	620		0.76(0.52-1.57)		11.1	M
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.457	5.457	0.0	1.002	11568	-0.001698	Target=3.20		3.4	
813.00 > 169.00	5.446	5.457	-0.011	1.000	3723		3.11(1.60-4.80)		44.4	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.446	5.457	-0.011	1.584	1179988	2.11		84.5	5306	
46 Perfluorooctadecanoic acid										M
913.00 > 869.00	5.813	5.823	-0.010	1.067	1140	0.003344	Target=2.86		0.5	M
913.00 > 169.00	5.813	5.823	-0.010	1.067	312		3.65(1.43-4.29)		7.1	M

QC Flag Legend

Processing Flags

R - Failed Signal Ratio Test

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:18:51 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d

Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812

Lims ID: MB 200-150277/1-A

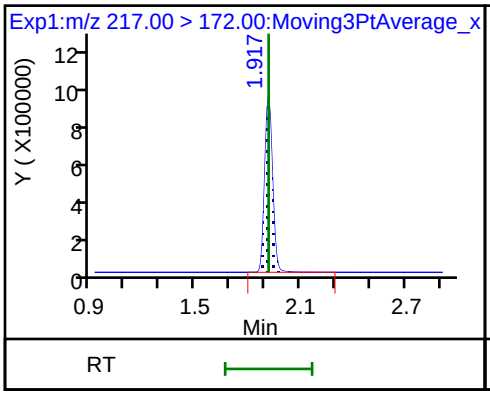
Client ID:

Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2

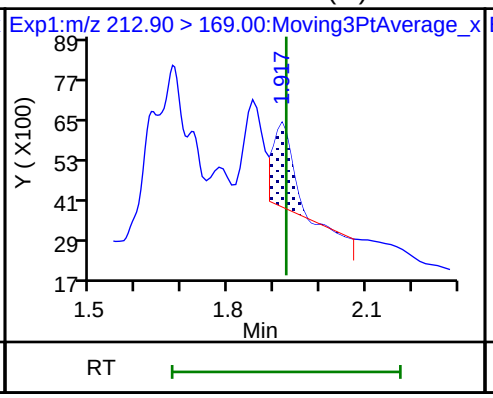
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

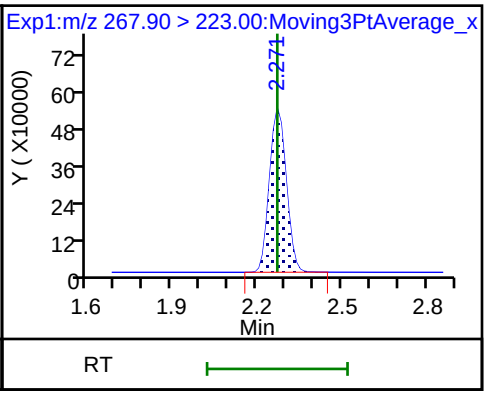
D 1 13C4 PFBA



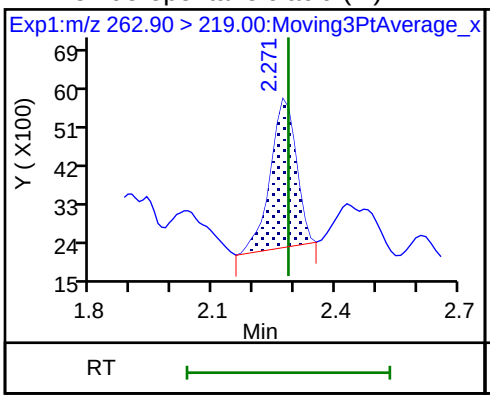
2 Perfluorobutanoic acid (M)



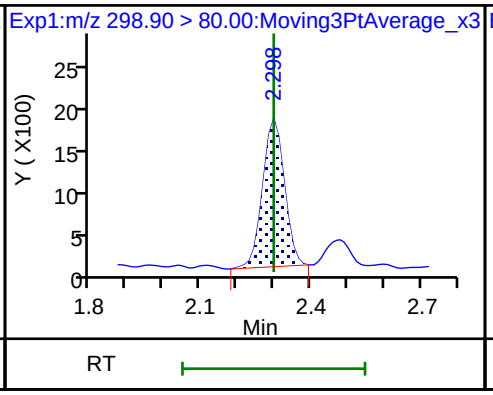
D 3 13C5 PFPeA



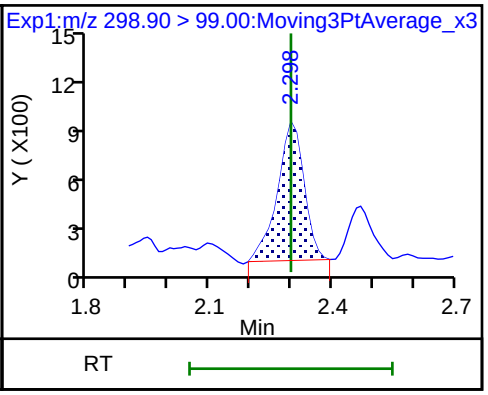
4 Perfluoropentanoic acid (M)



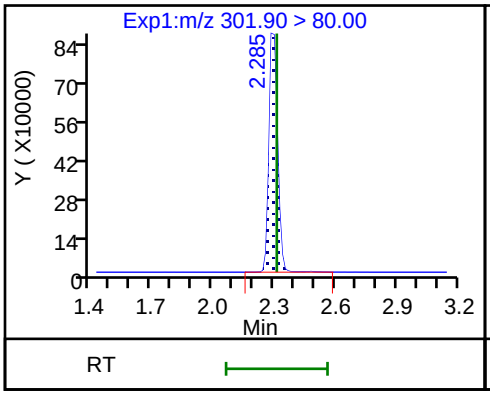
5 Perfluorobutanesulfonic acid



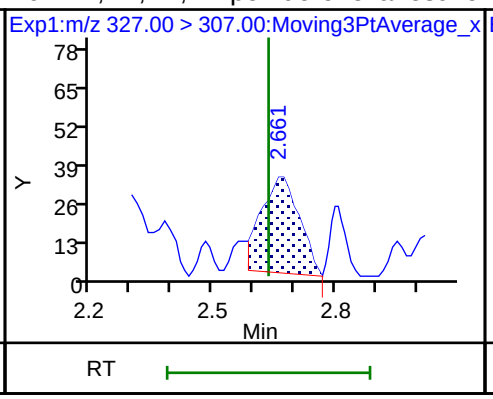
5 Perfluorobutanesulfonic acid



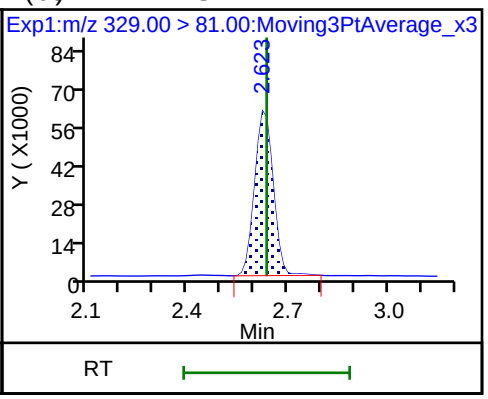
D 47 13C3 PFBS



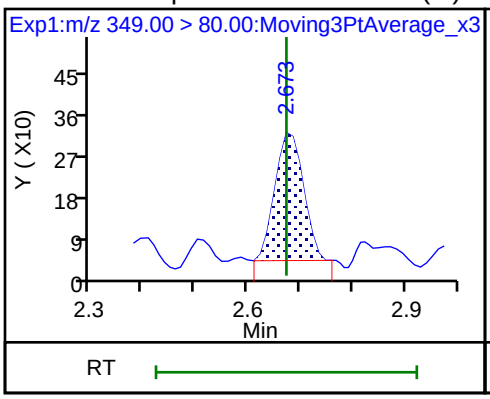
61 1H,1H,2H,2H-perfluorohexanesulfonic (M)



D 60 M2-4:2 FTS



70 Perfluoropentanesulfonic acid (M)



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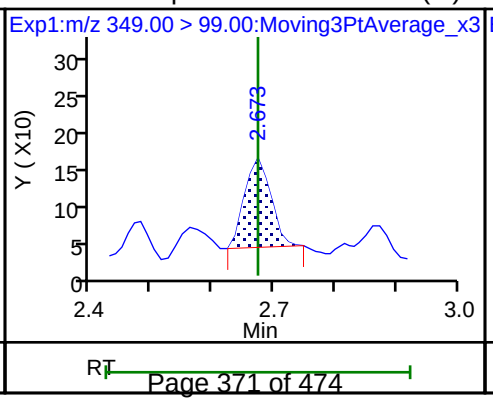
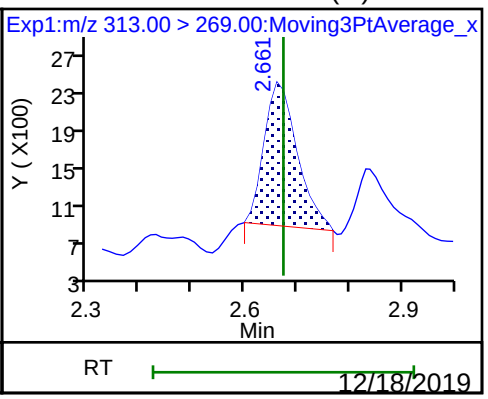
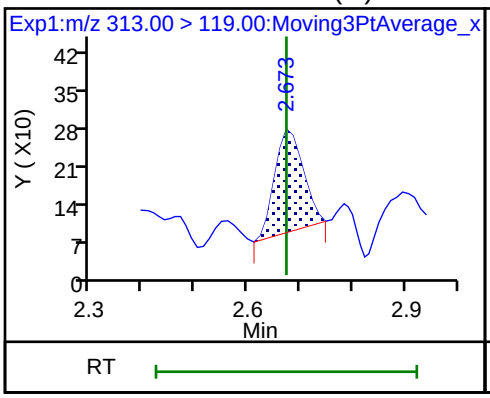


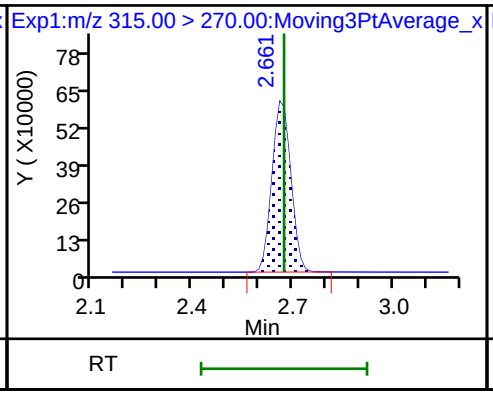
6 Perfluorohexanoic acid (M)



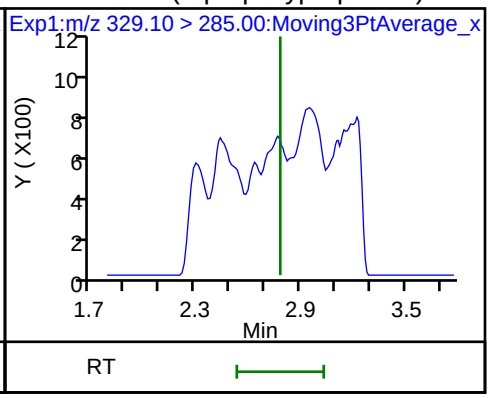
6 Perfluorohexanoic acid (M)



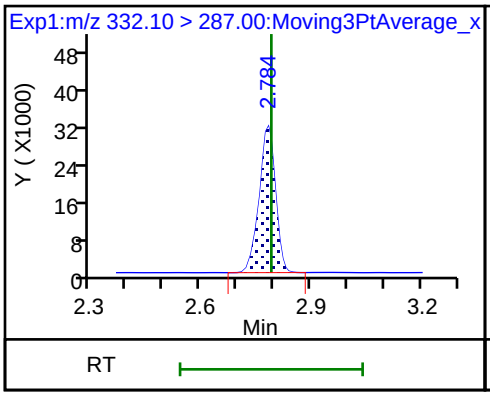
D 7 13C2 PFHxA



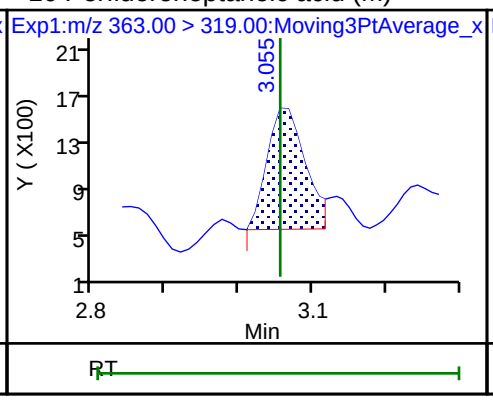
67 Perfluoro(2-propoxypropanoic) acid (ND)



D 64 13C3 HFPO-DA



10 Perfluoroheptanoic acid (M)



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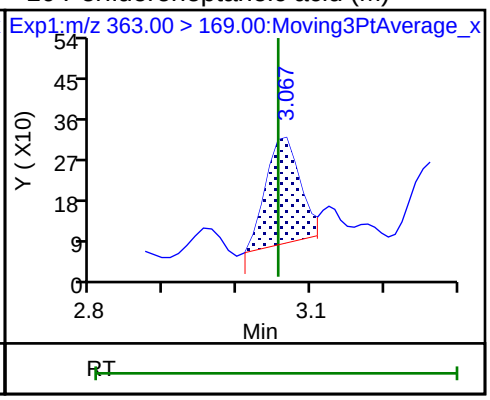
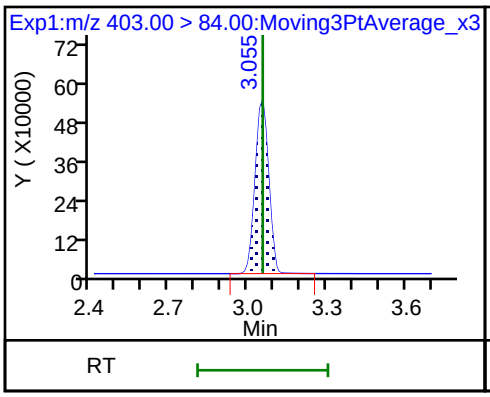
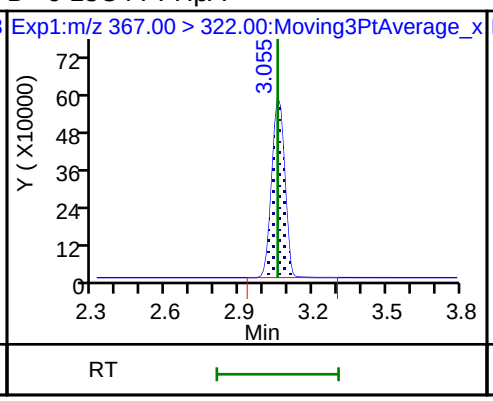


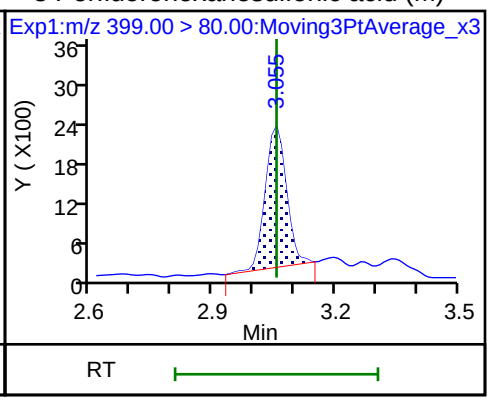
D 11 18O2 PFHxS



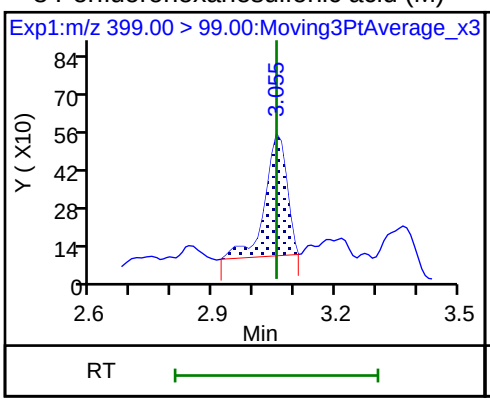
D 9 13C4 PFHpA



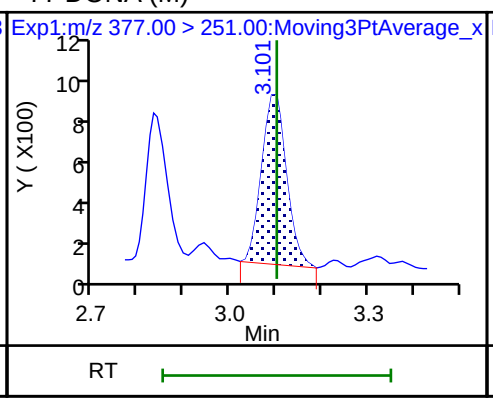
8 Perfluorohexanesulfonic acid (M)



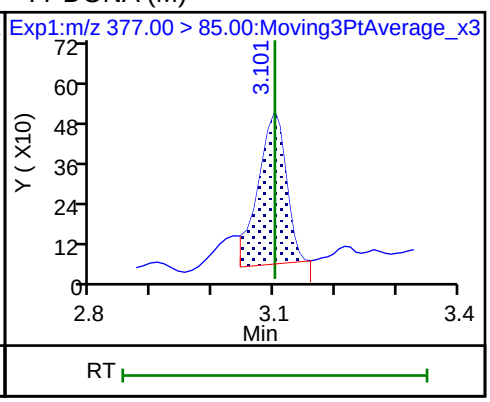
8 Perfluorohexanesulfonic acid (M)



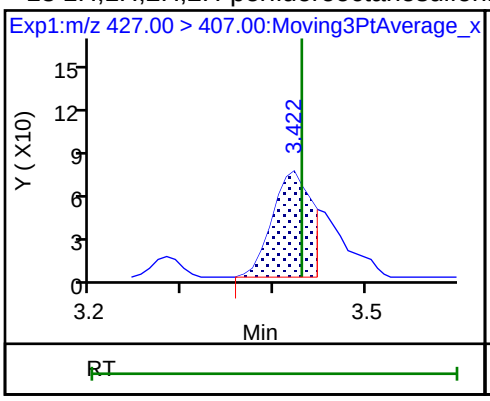
77 DONA (M)



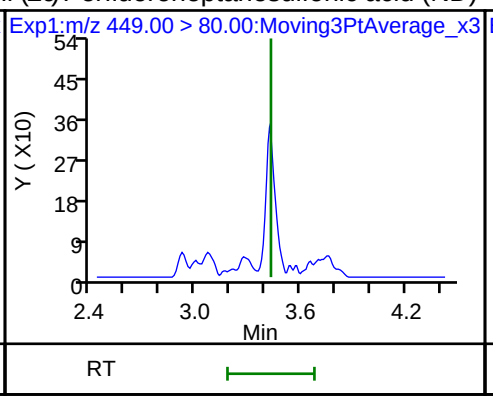
77 DONA (M)



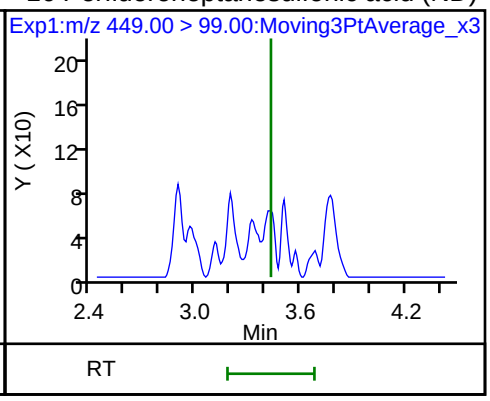
13 1H,1H,2H,2H-perfluorooctanesulfoni (M)



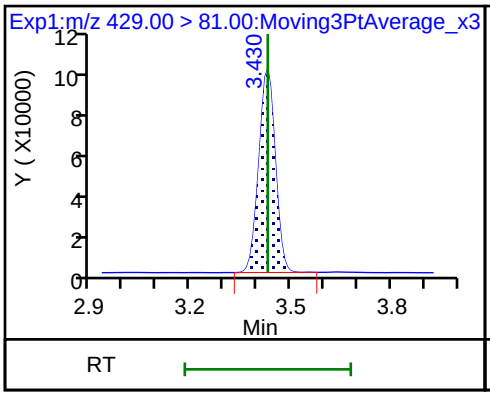
16 Perfluoroheptanesulfonic acid (ND)



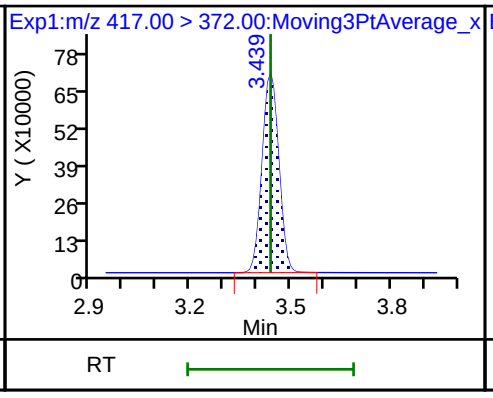
16 Perfluoroheptanesulfonic acid (ND)



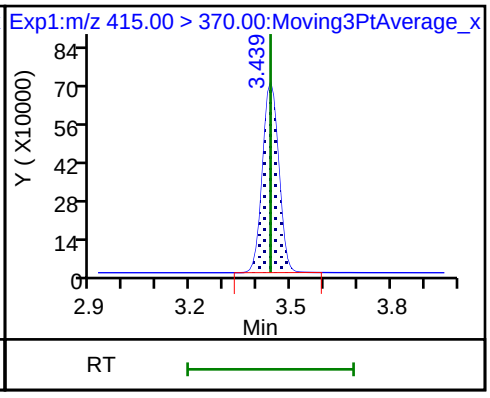
D 12 M2-6:2 FTS



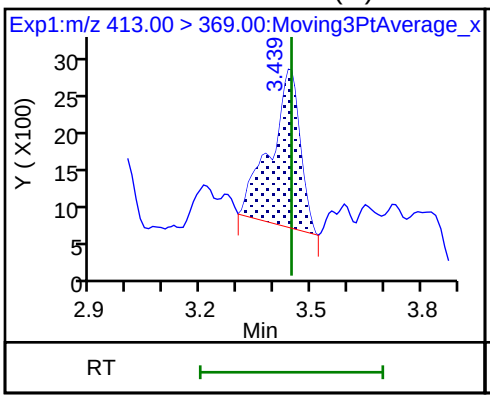
D 14 13C4 PFOA



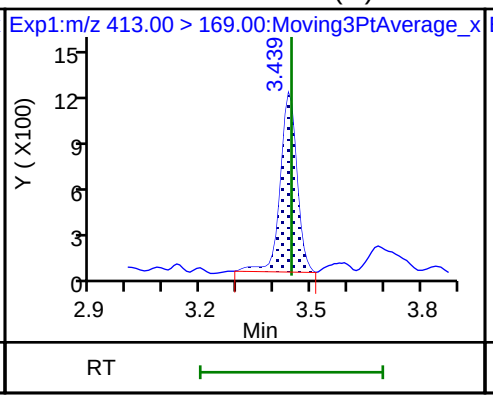
* 62 13C2 PFOA



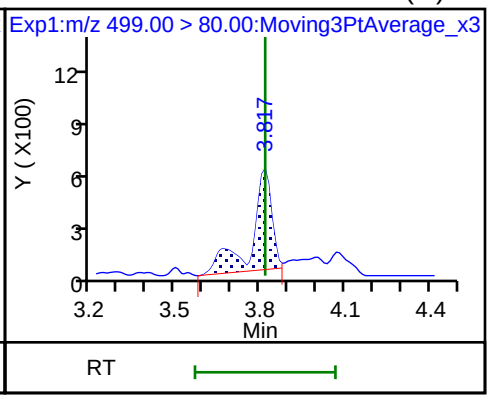
15 Perfluorooctanoic acid (M)



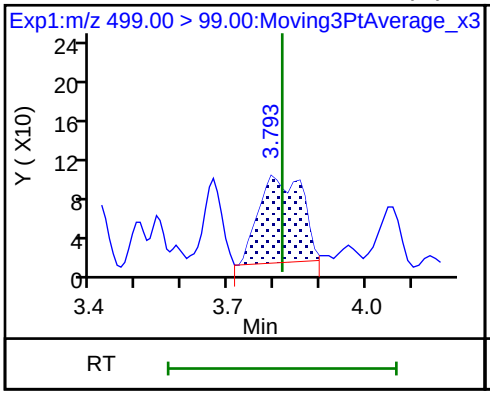
15 Perfluorooctanoic acid (M)



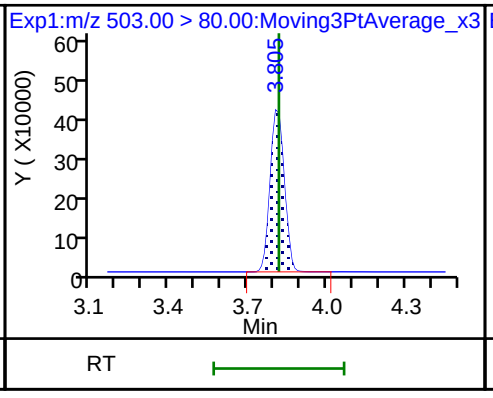
17 Perfluorooctanesulfonic acid (M)



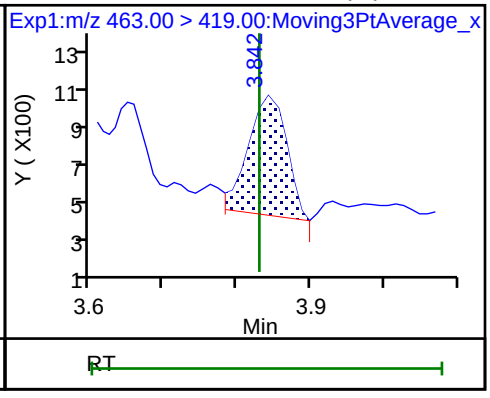
17 Perfluorooctanesulfonic acid (M)



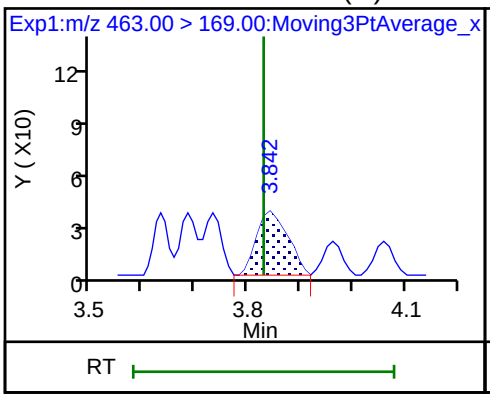
D 18 13C4 PFOS



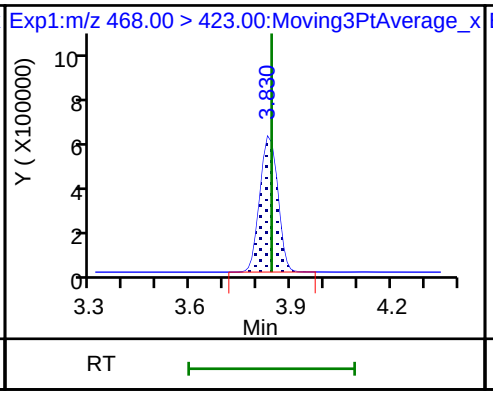
20 Perfluorononanoic acid (M)



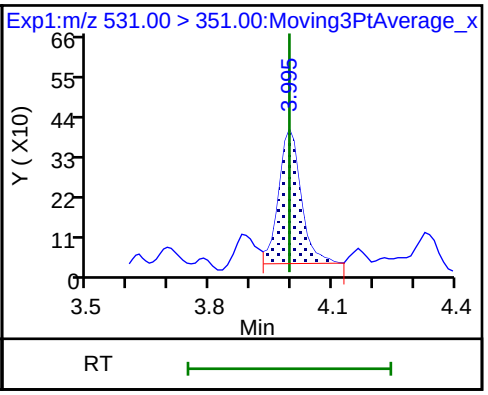
20 Perfluorononanoic acid (M)



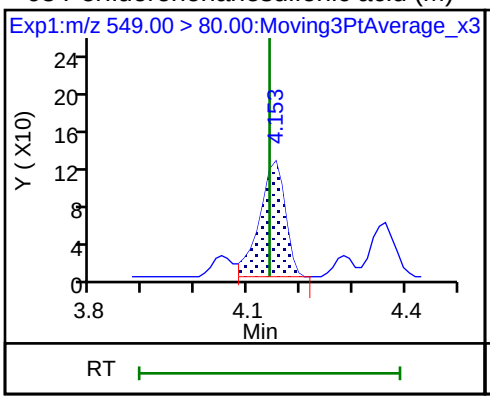
D 19 13C5 PFNA



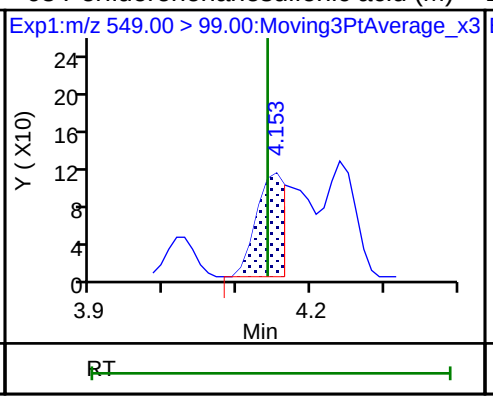
69 9-Chlorohexadecafluoro-3-oxanonane (M)



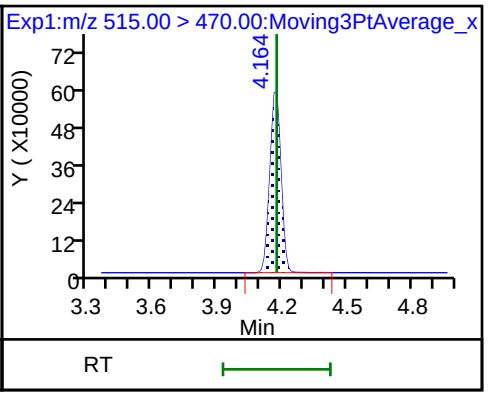
68 Perfluorononanesulfonic acid (M)



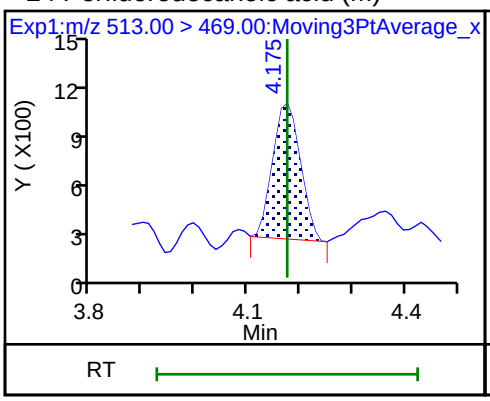
68 Perfluorononanesulfonic acid (M)



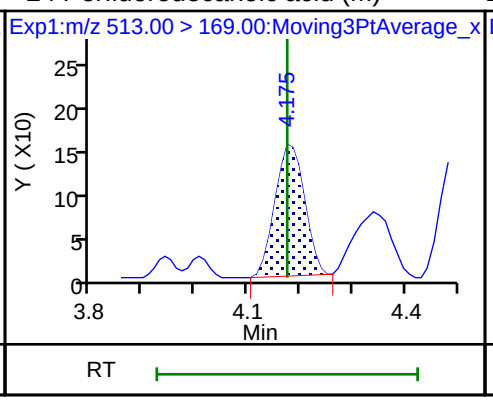
D 23 13C2 PFDA



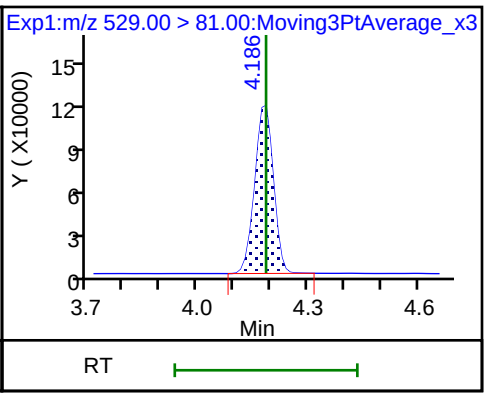
24 Perfluorodecanoic acid (M)



24 Perfluorodecanoic acid (M)



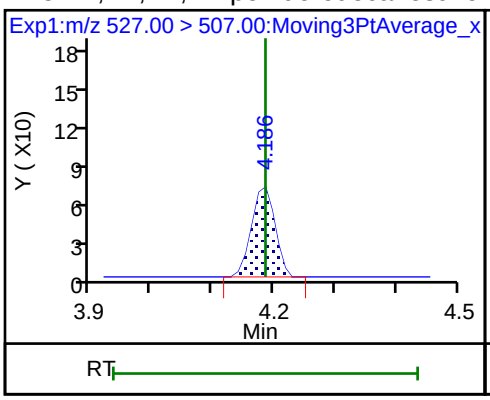
D 26 M2-8:2 FTS

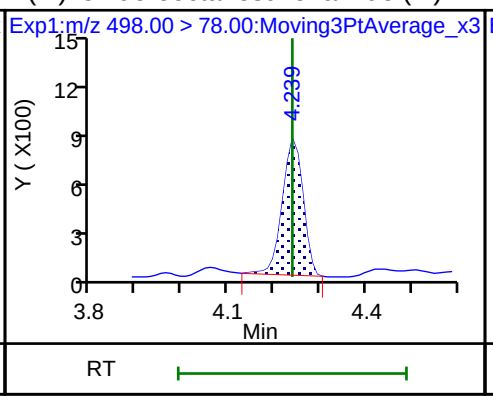


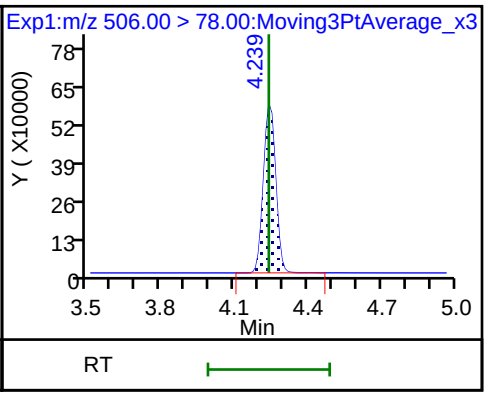
25 1H,1H,2H,2H-perfluorodecanesulfoni

22 Perfluorooctanesulfonamide (M)

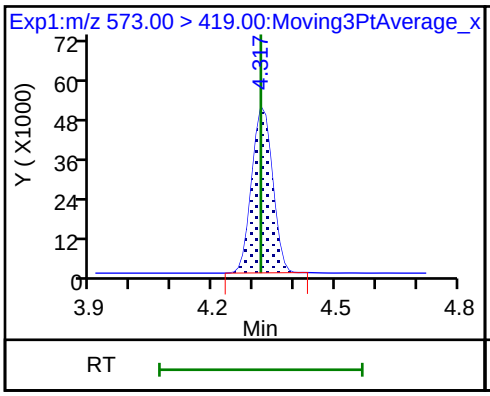
D 21 13C8 FOSA



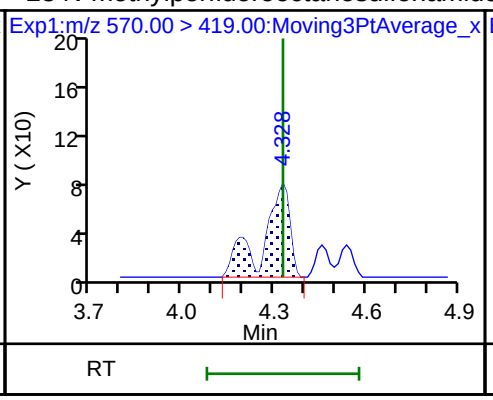




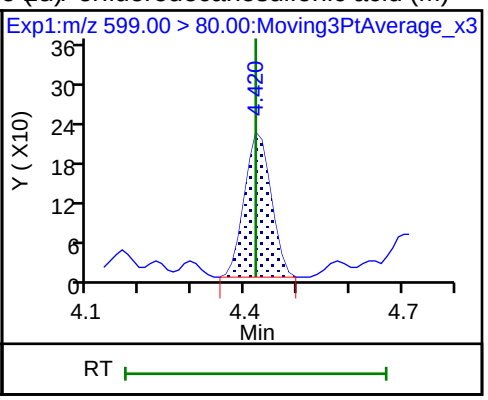
D 27 d3-NMeFOSAA



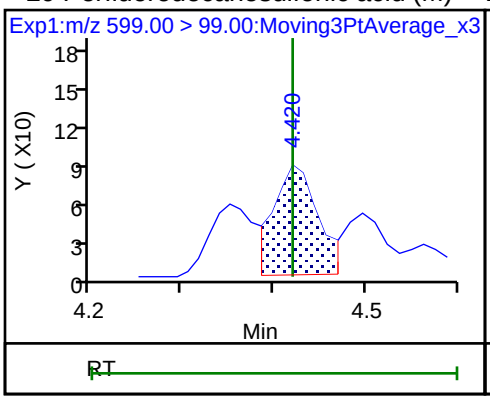
28 N-methylperfluorooctanesulfonamido (M)



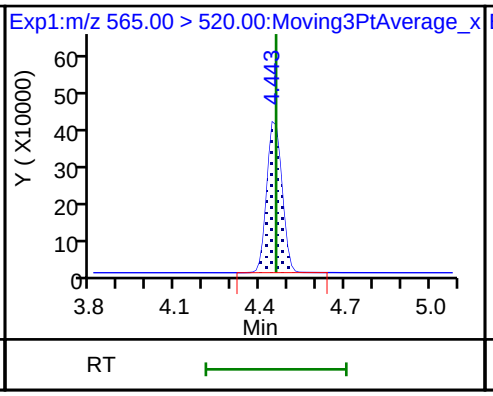
29 Perfluorodecanesulfonic acid (M)



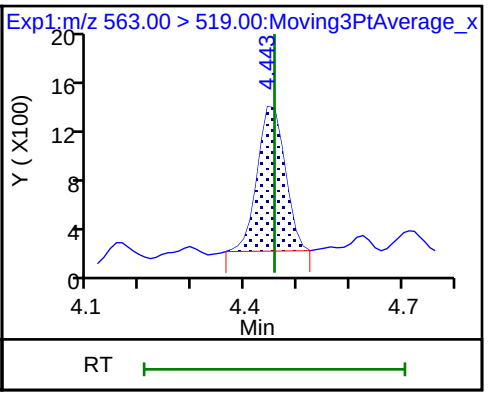
29 Perfluorodecanesulfonic acid (M)



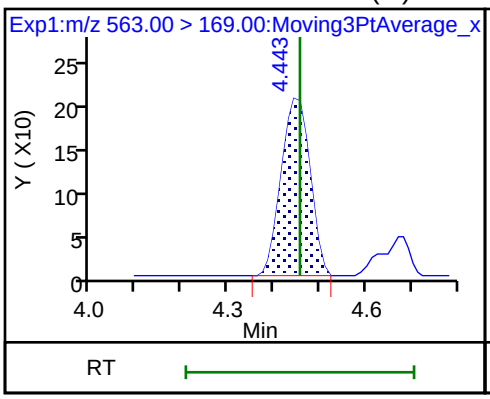
D 30 13C2 PFUnA



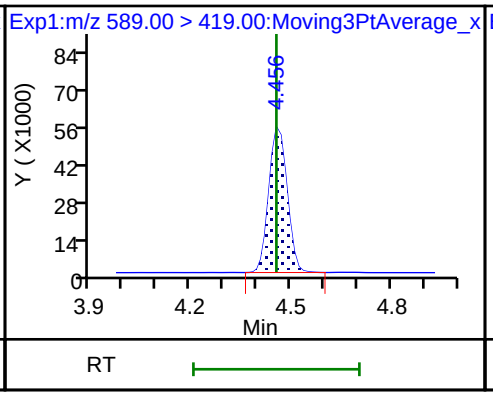
31 Perfluoroundecanoic acid



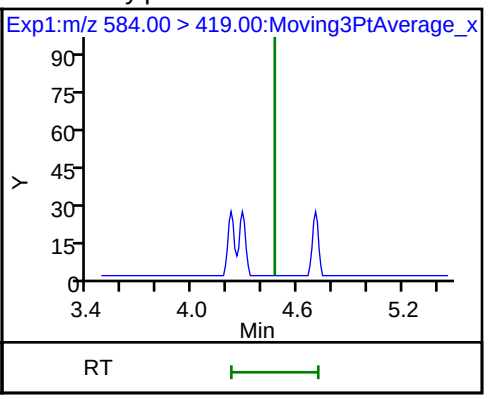
31 Perfluoroundecanoic acid (M)



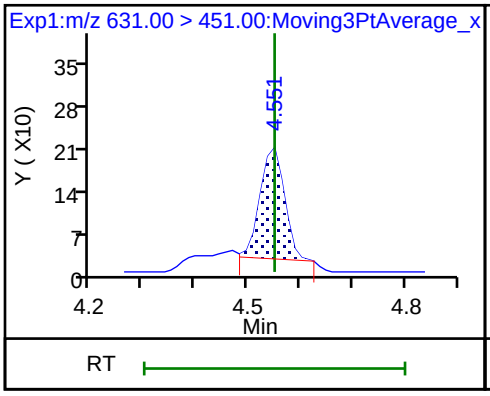
D 32 d5-NEtFOSAA



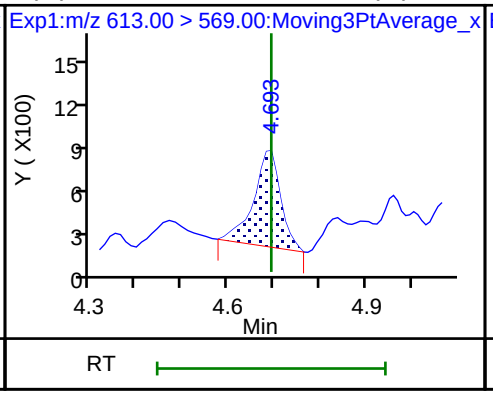
33 N-ethylperfluorooctanesulfonamidoa (ND)



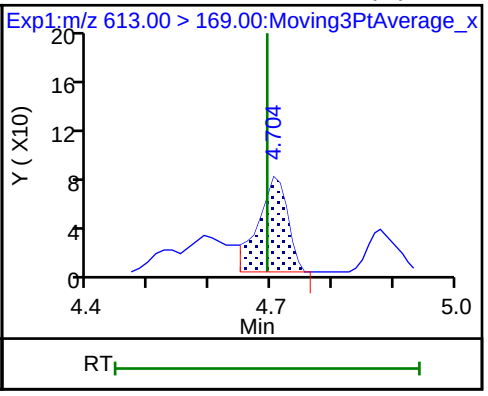
66 11-Chloroeicosafluoro-3-oxaundecan (M)



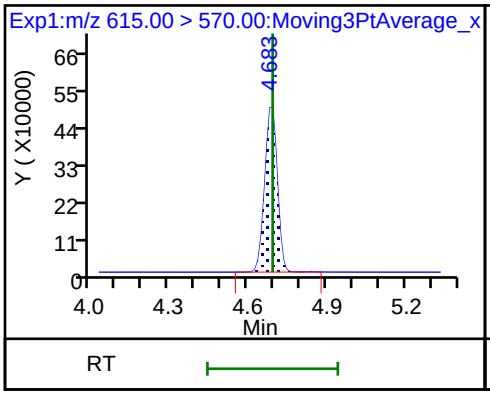
36 Perfluorododecanoic acid (M)



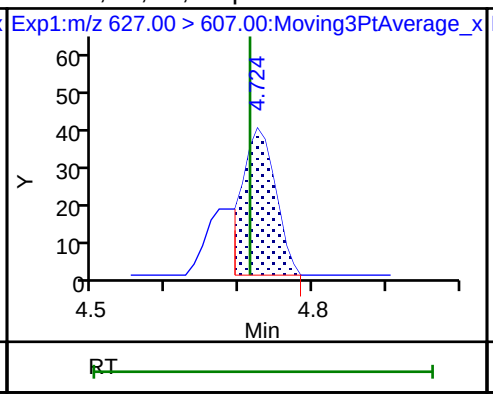
37 Perfluorododecanoic acid (M)



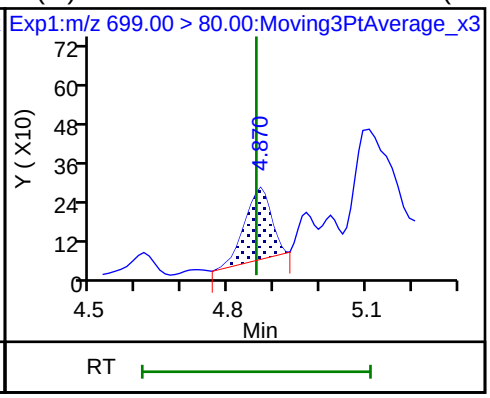
D 36 13C2 PFDoA



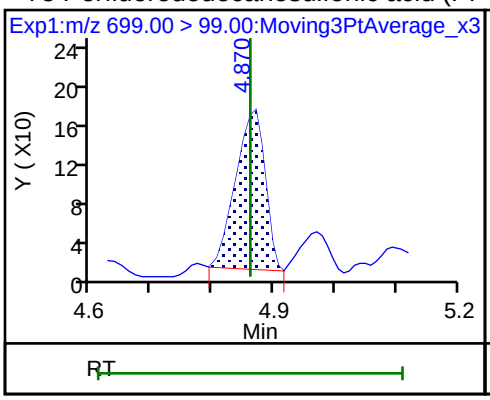
74 1H,1H,2H,2H-perfluorododecanesulfonic acid (M)



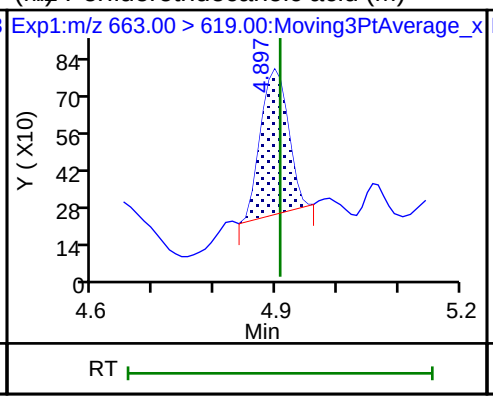
75 Perfluorododecanesulfonic acid (PF (M)



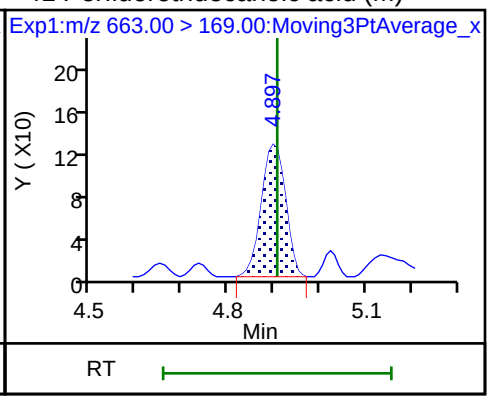
75 Perfluorododecanesulfonic acid (PF (M)



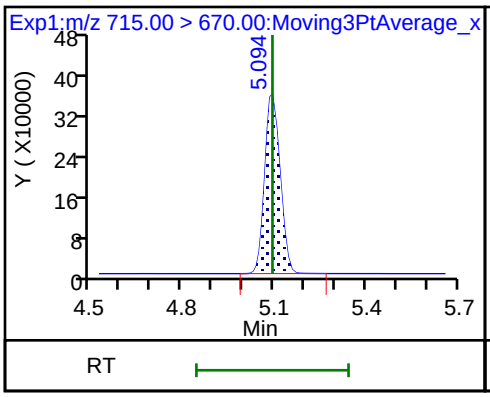
41 Perfluorotridecanoic acid (M)



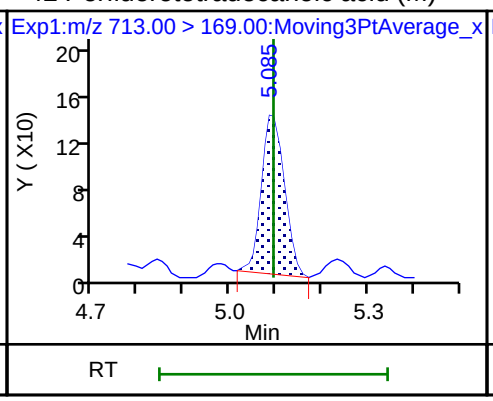
41 Perfluorotridecanoic acid (M)



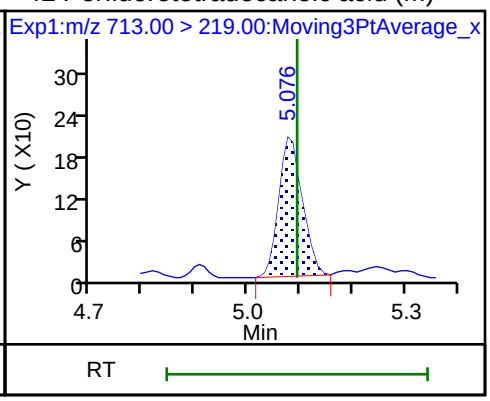
D 43 13C2 PFTeDA



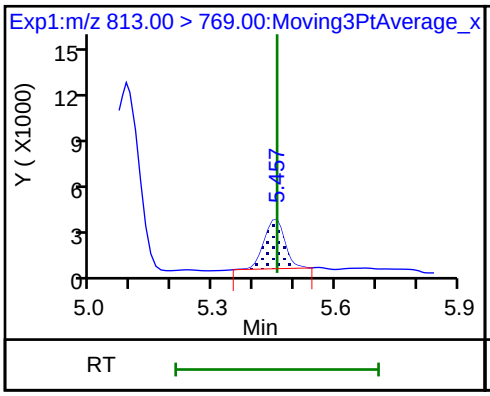
42 Perfluorotetradecanoic acid (M)



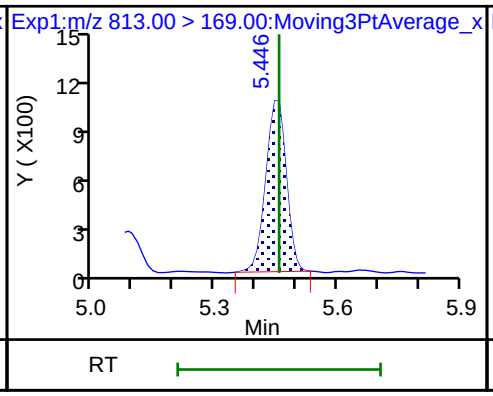
42 Perfluorotetradecanoic acid (M)



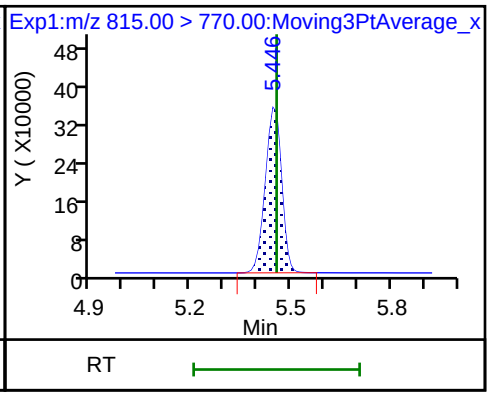
45 Perfluorohexadecanoic acid



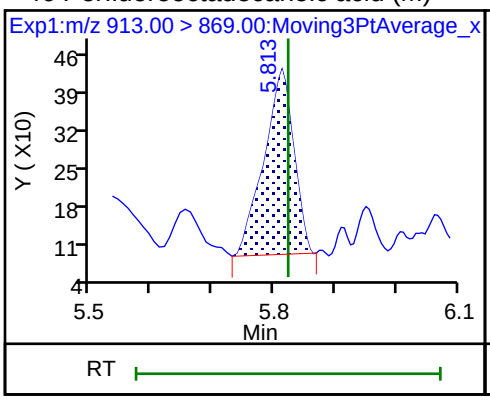
45 Perfluorohexadecanoic acid



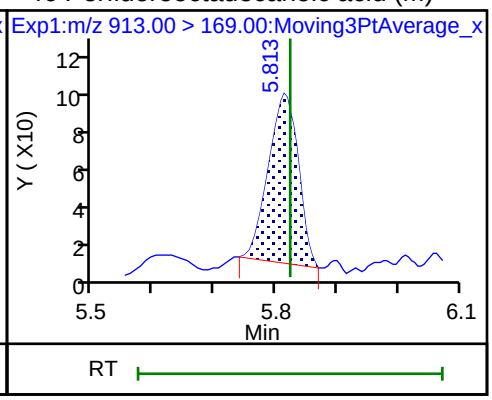
D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid (M)



46 Perfluorooctadecanoic acid (M)



Eurofins TestAmerica, Burlington

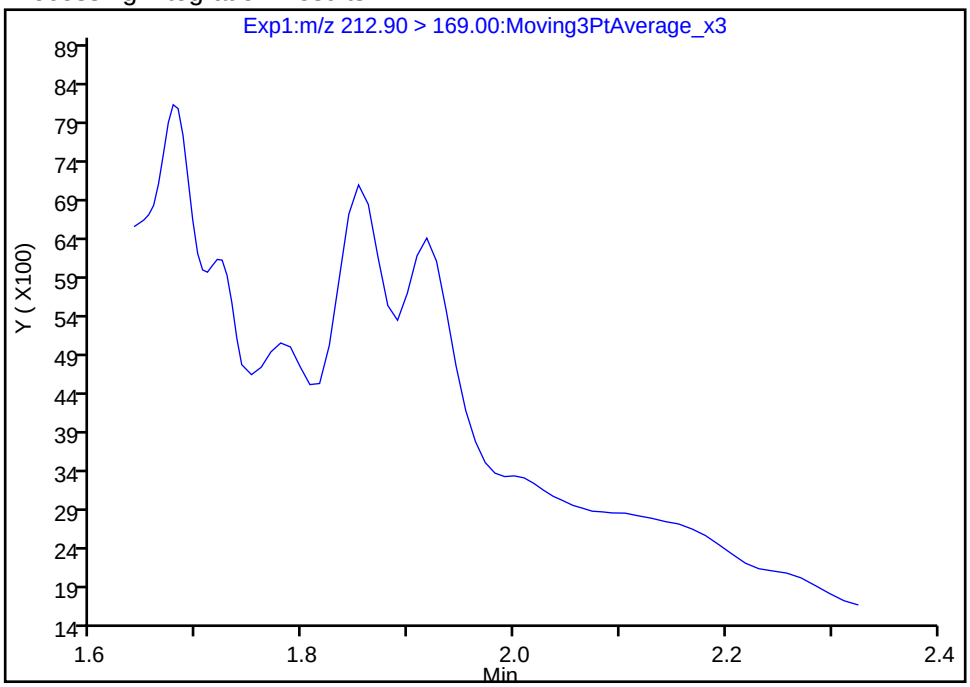
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

2 Perfluorobutanoic acid, CAS: 375-22-4

Signal: 1

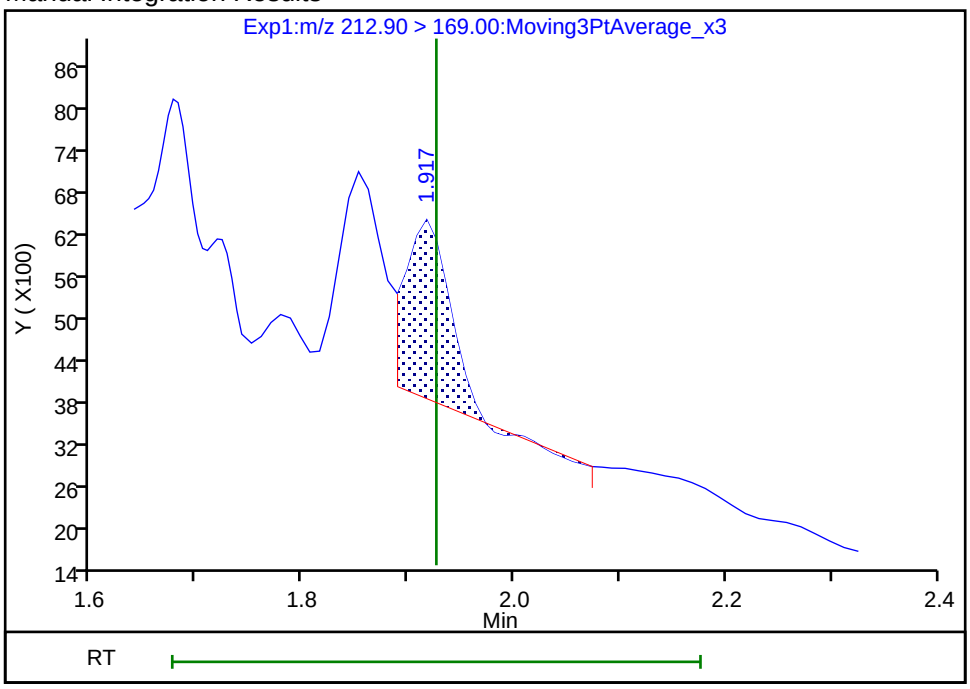
Not Detected
Expected RT: 1.93

Processing Integration Results



Manual Integration Results

RT: 1.92
Area: 7134
Amount: 0.006219
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:27:04
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

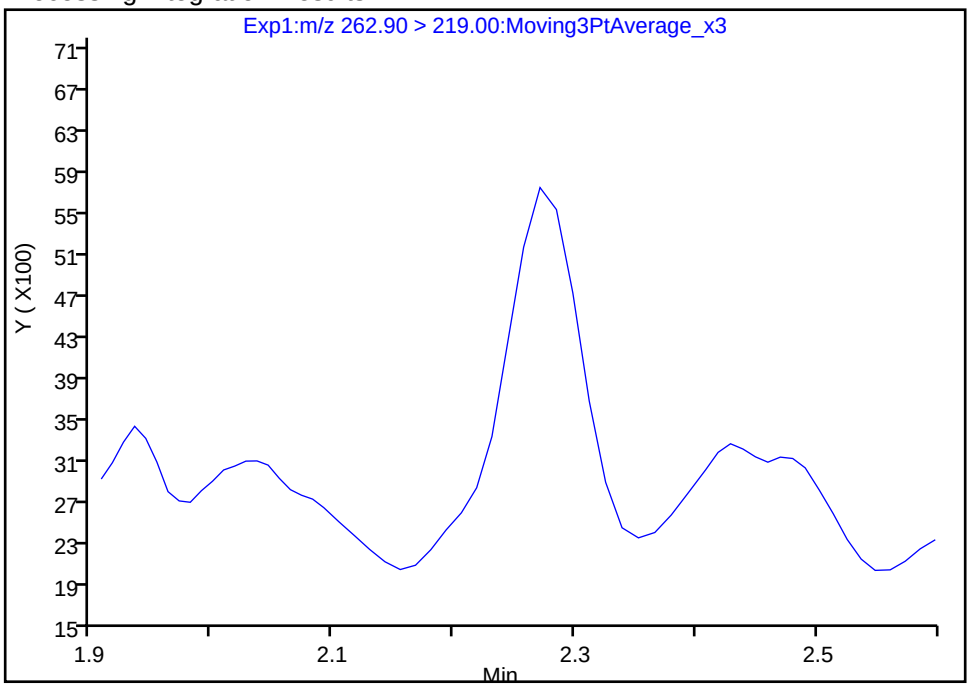
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

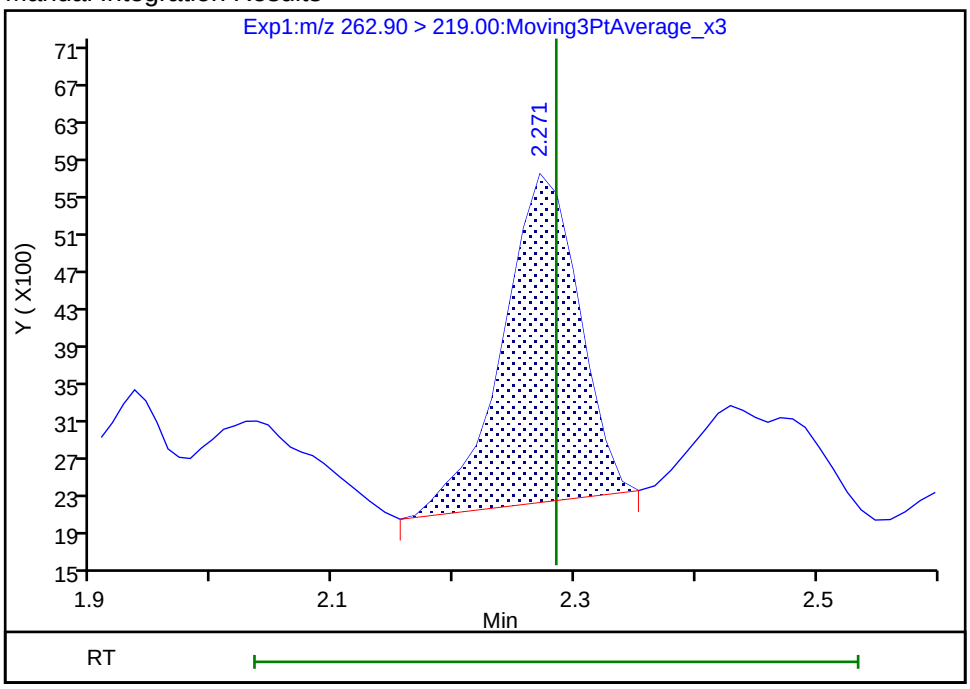
Not Detected
Expected RT: 2.28

Processing Integration Results



Manual Integration Results

RT: 2.27
Area: 15126
Amount: 0.015041
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:33:17
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

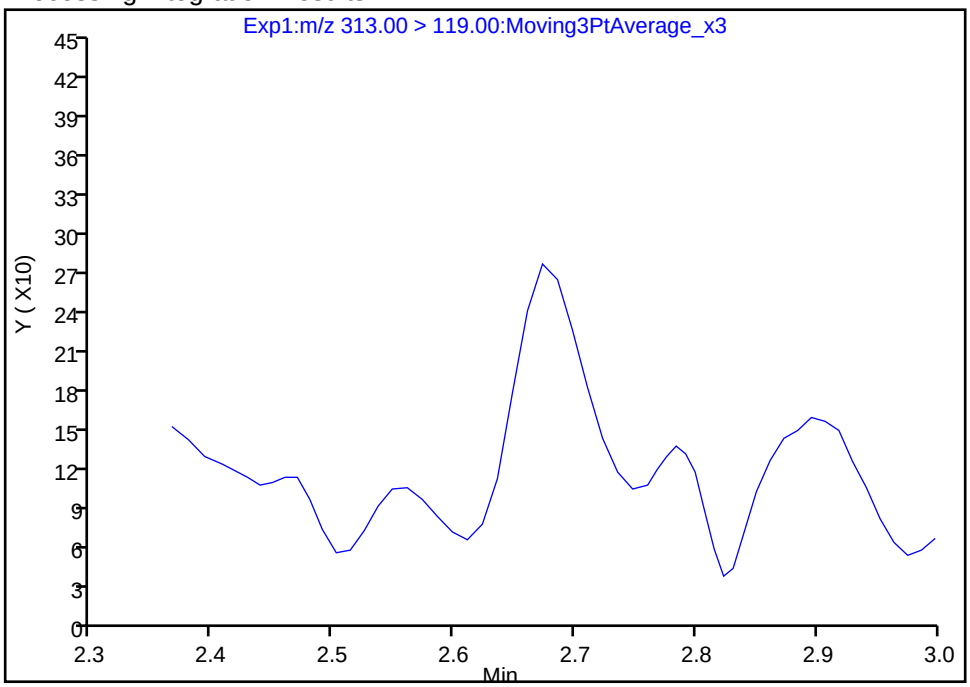
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 2

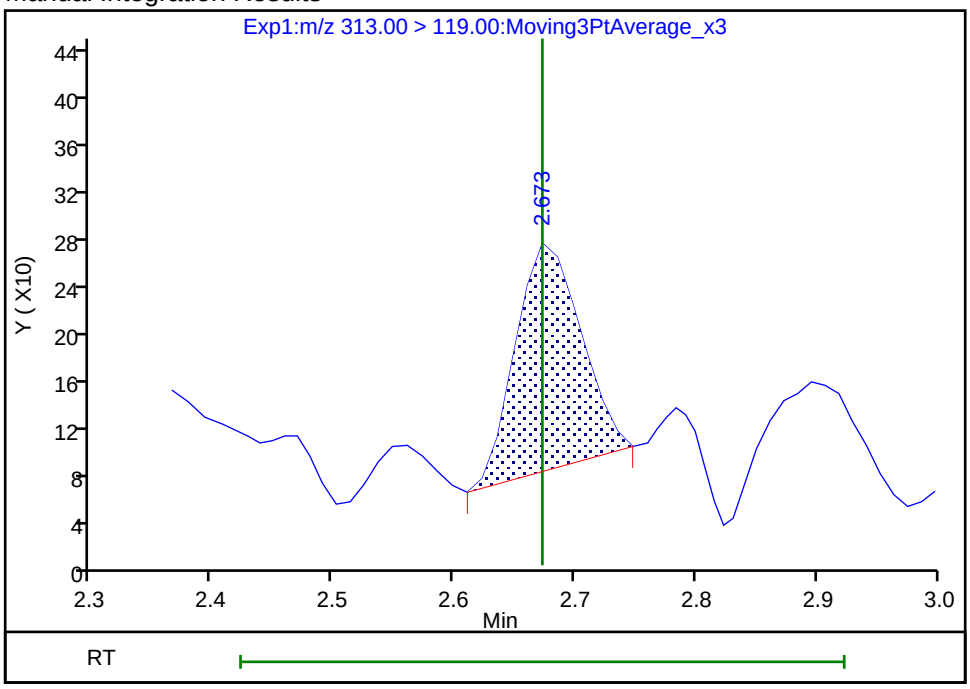
Not Detected
Expected RT: 2.67

Processing Integration Results



Manual Integration Results

RT: 2.67
Area: 726
Amount: 0.006705
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:33:53
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

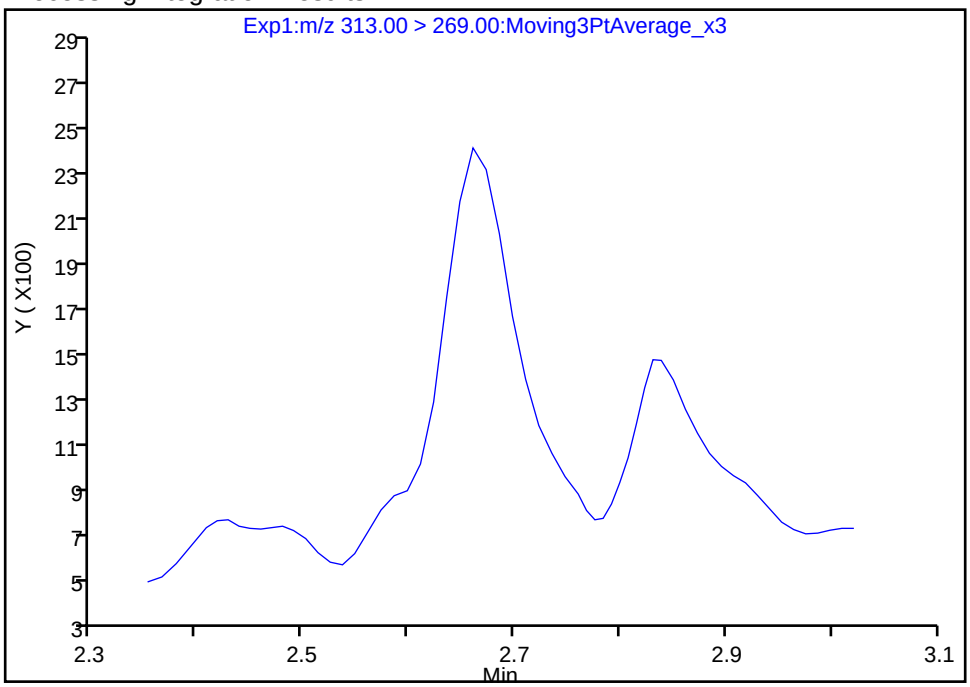
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

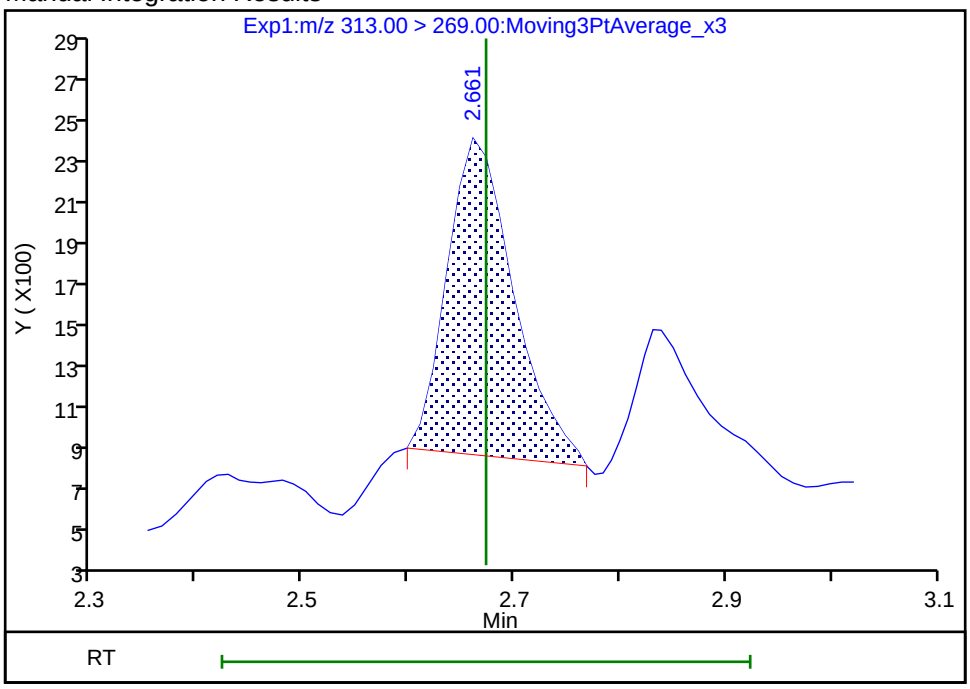
Not Detected
Expected RT: 2.67

Processing Integration Results



Manual Integration Results

RT: 2.66
Area: 6419
Amount: 0.006705
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:33:57
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

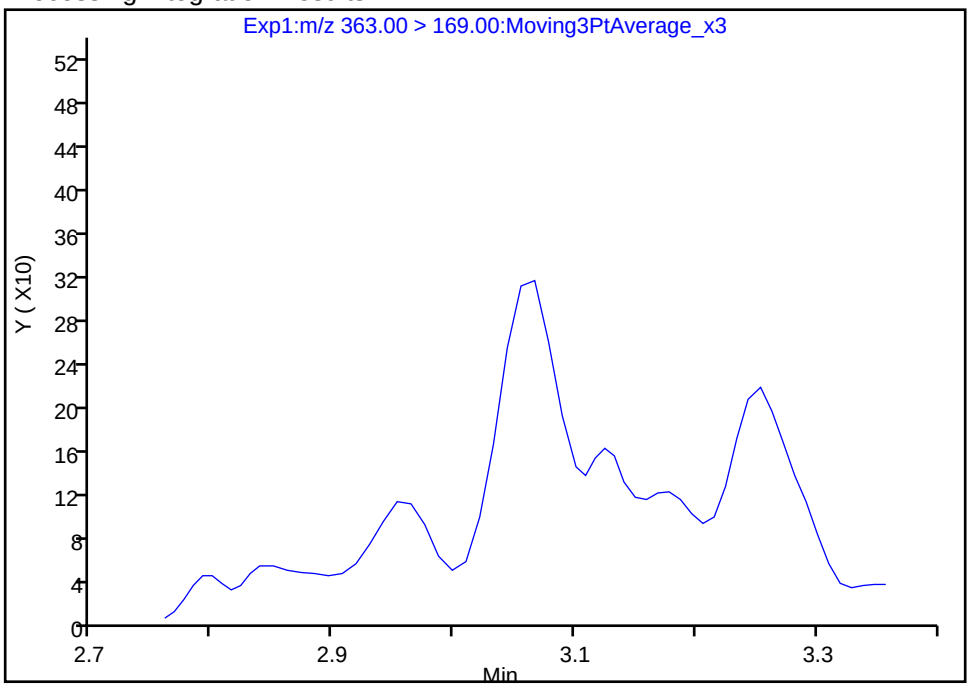
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 2

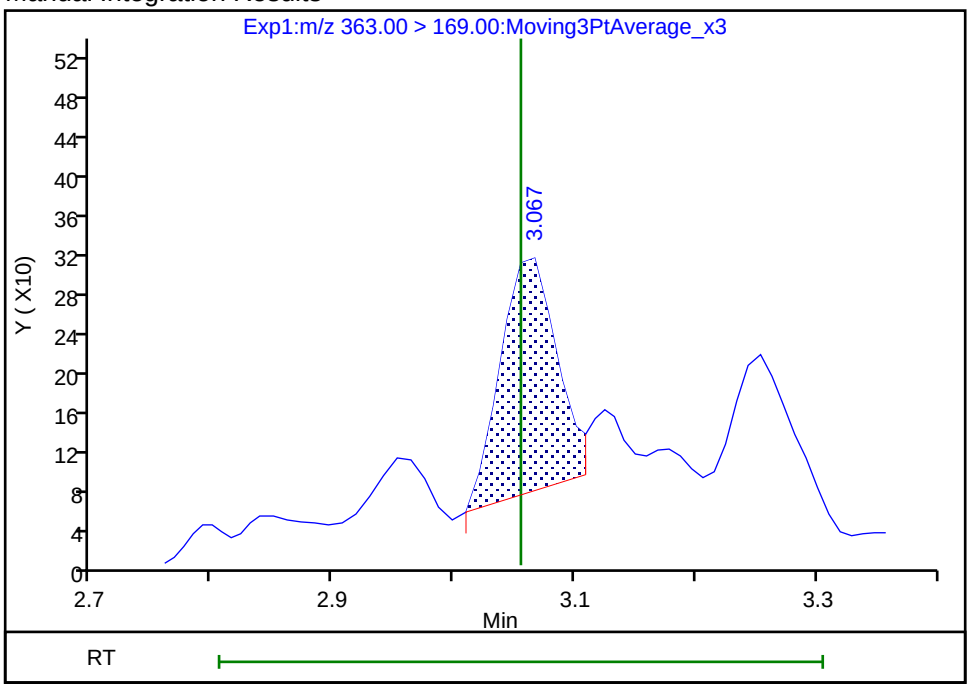
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.07
Area: 770
Amount: 0.003966
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:34:34
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

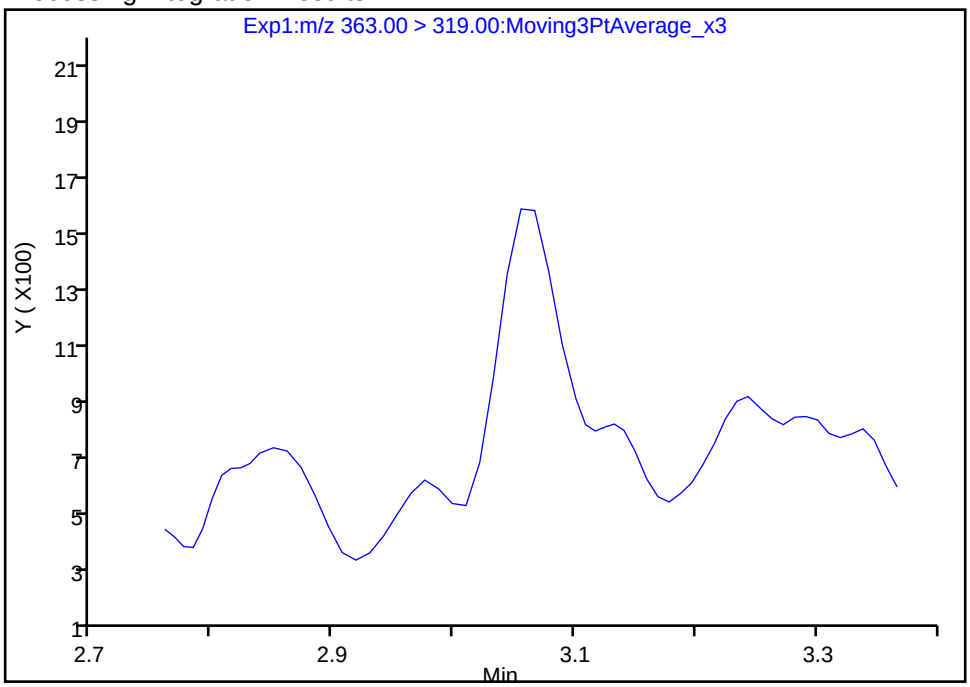
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

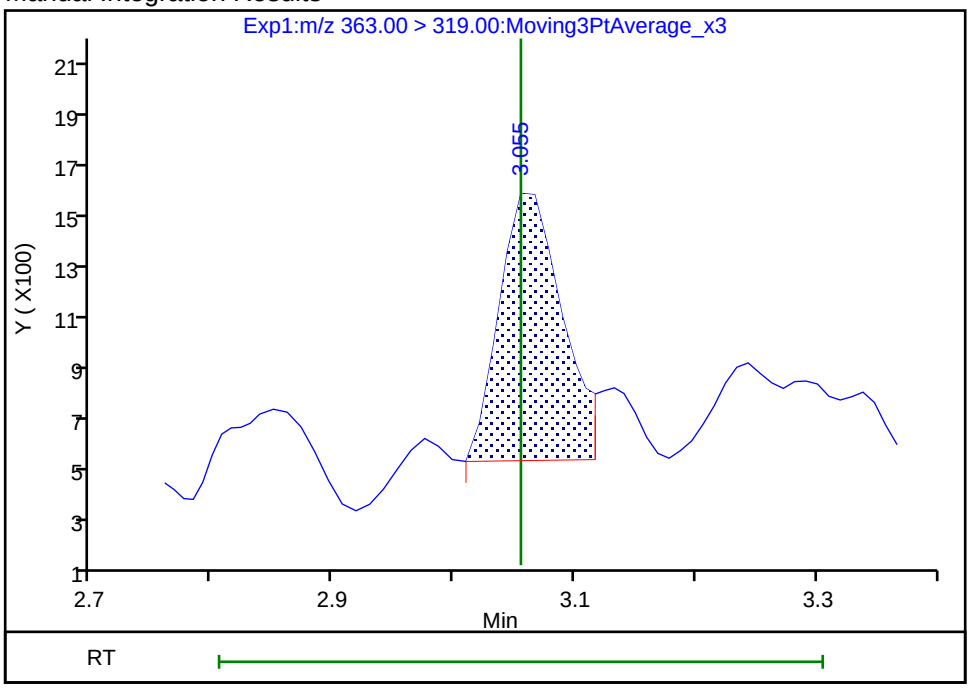
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 3546
Amount: 0.003966
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:34:36
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

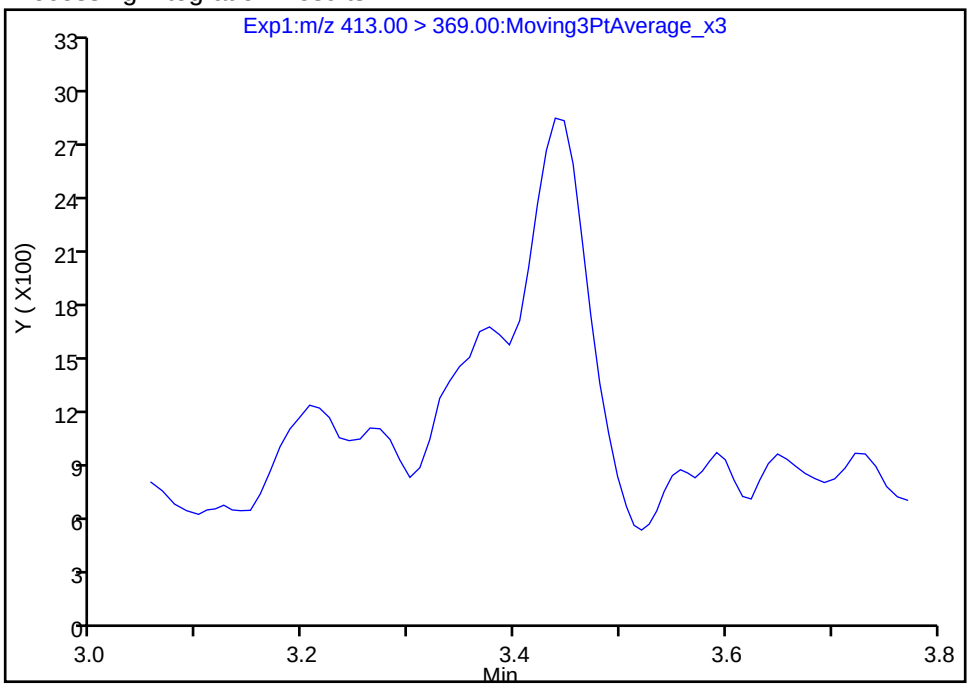
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

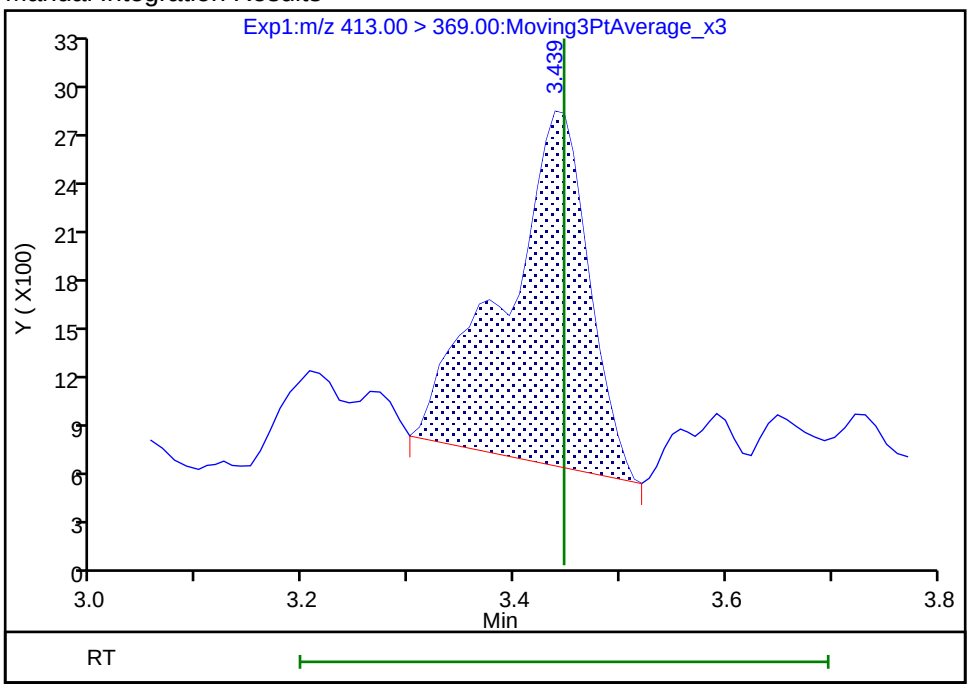
Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results

RT: 3.44
Area: 11868
Amount: 0.011029
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:36:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

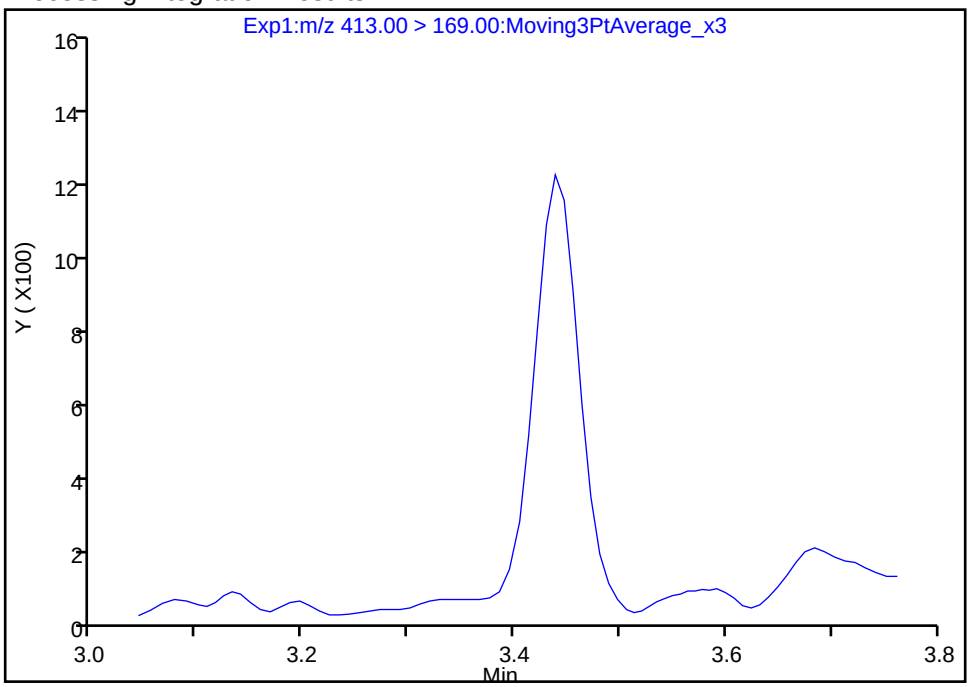
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

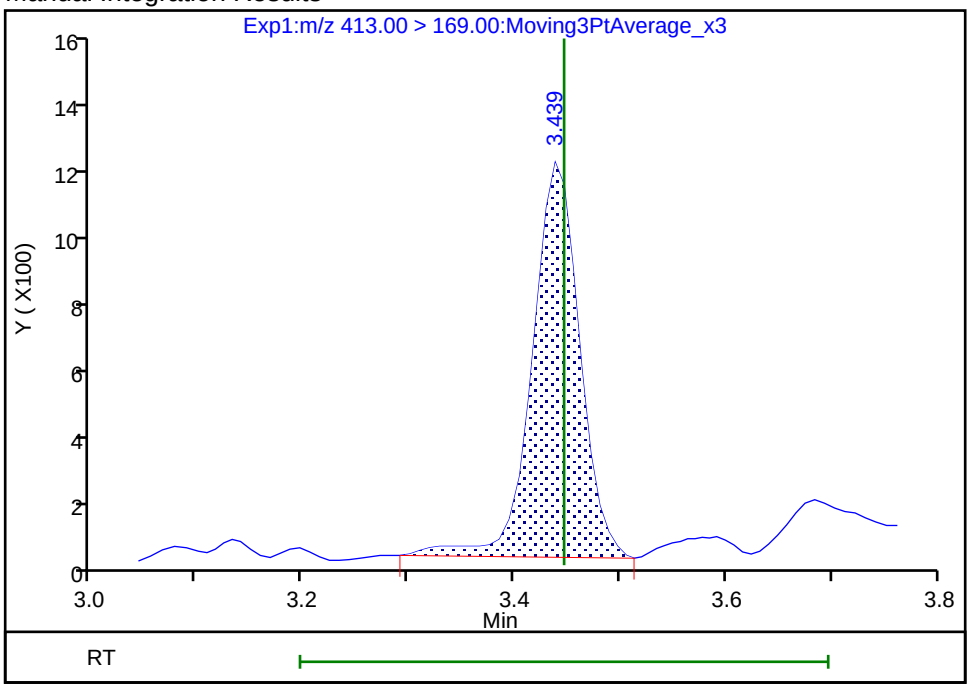
Not Detected
Expected RT: 3.45

Processing Integration Results



Manual Integration Results

RT: 3.44
Area: 3536
Amount: 0.011029
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:36:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

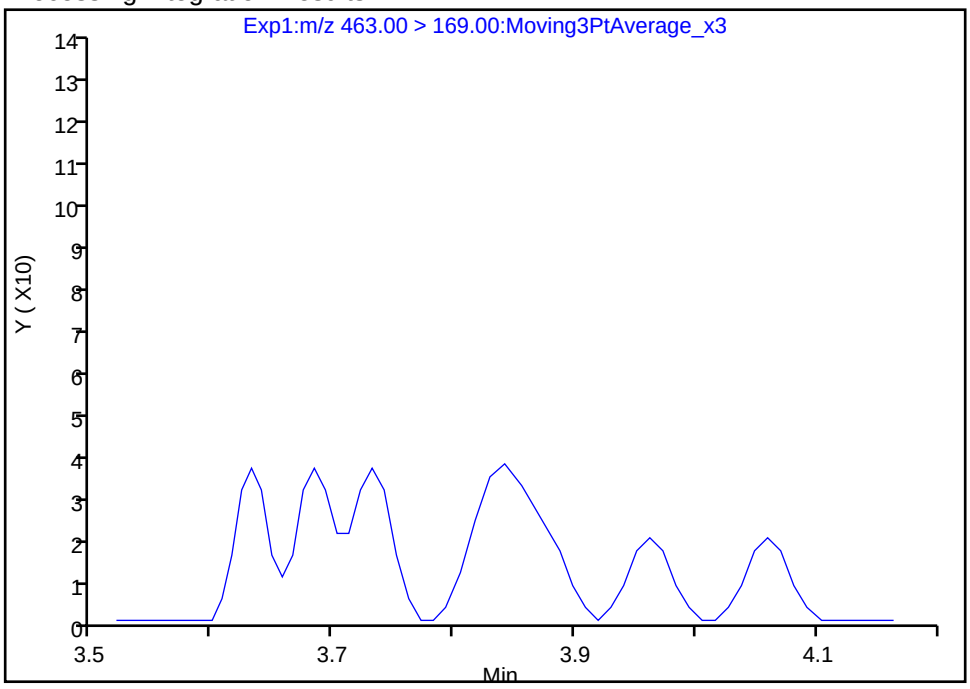
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 2

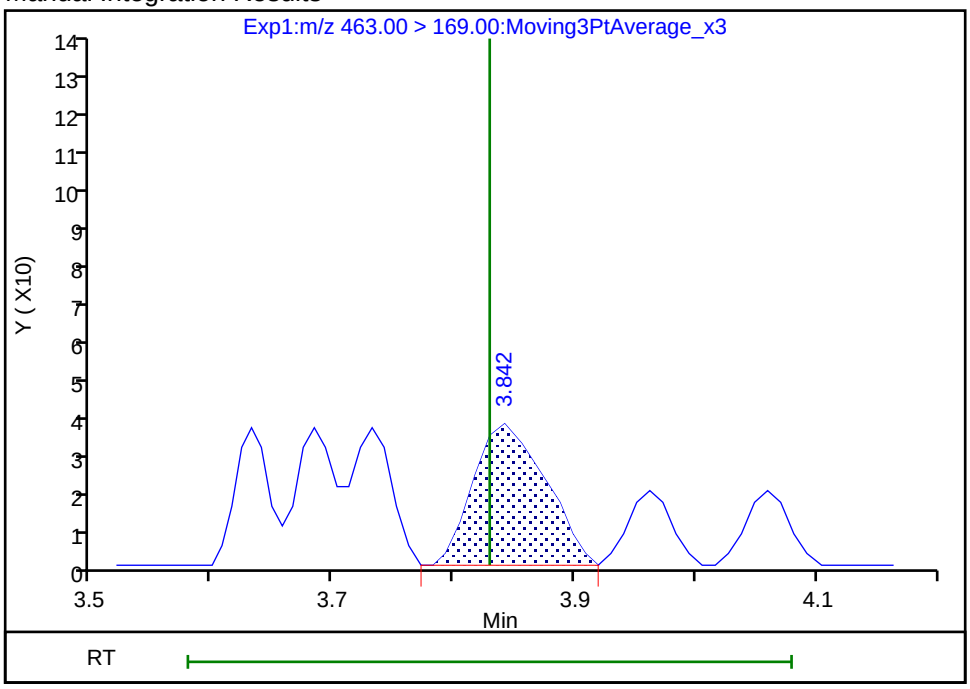
Not Detected
Expected RT: 3.83

Processing Integration Results



Manual Integration Results

RT: 3.84
Area: 149
Amount: 0.002600
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:21:57
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

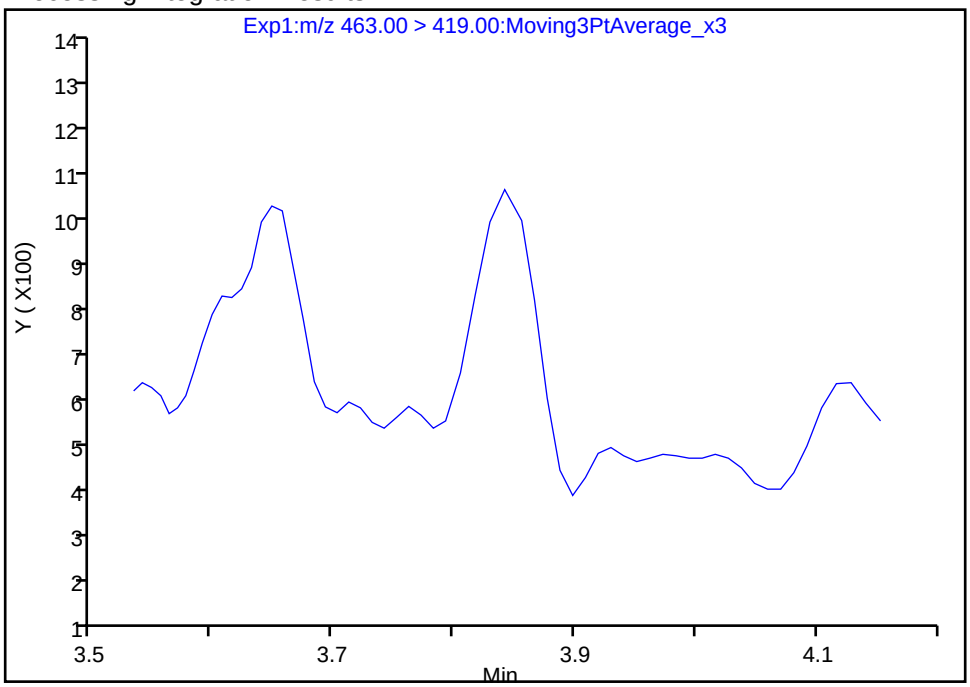
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

20 Perfluorononanoic acid, CAS: 375-95-1

Signal: 1

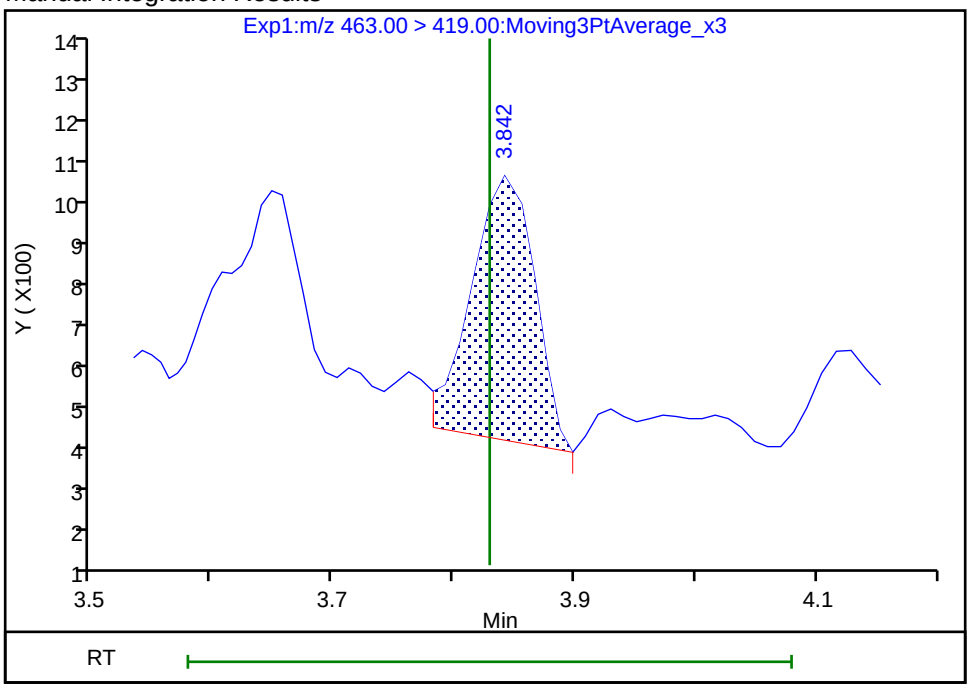
Not Detected
Expected RT: 3.83

Processing Integration Results



Manual Integration Results

RT: 3.84
Area: 2188
Amount: 0.002600
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:22:33
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

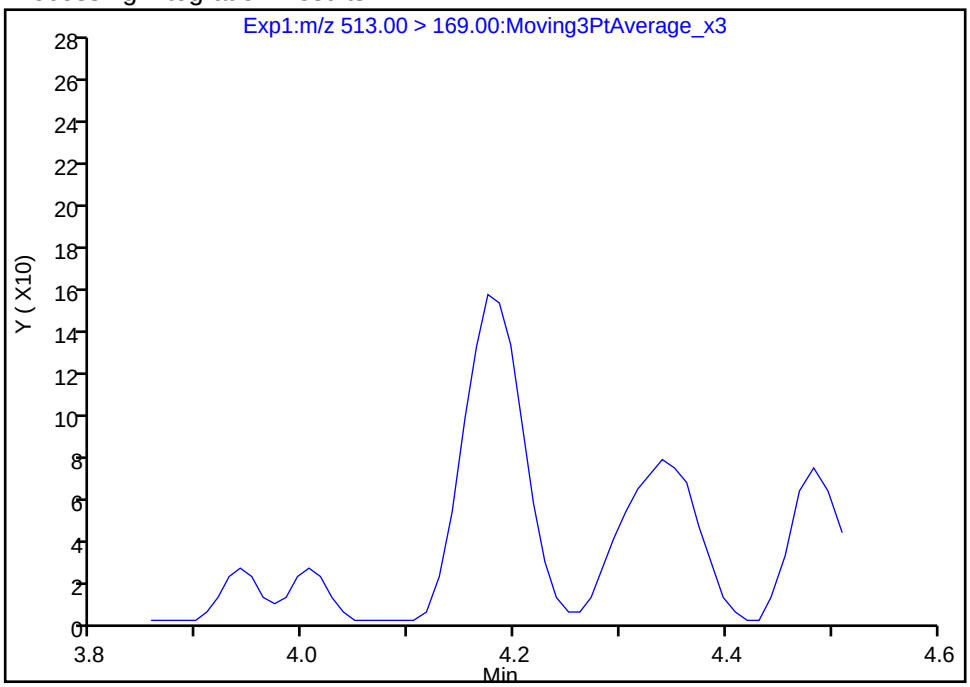
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 2

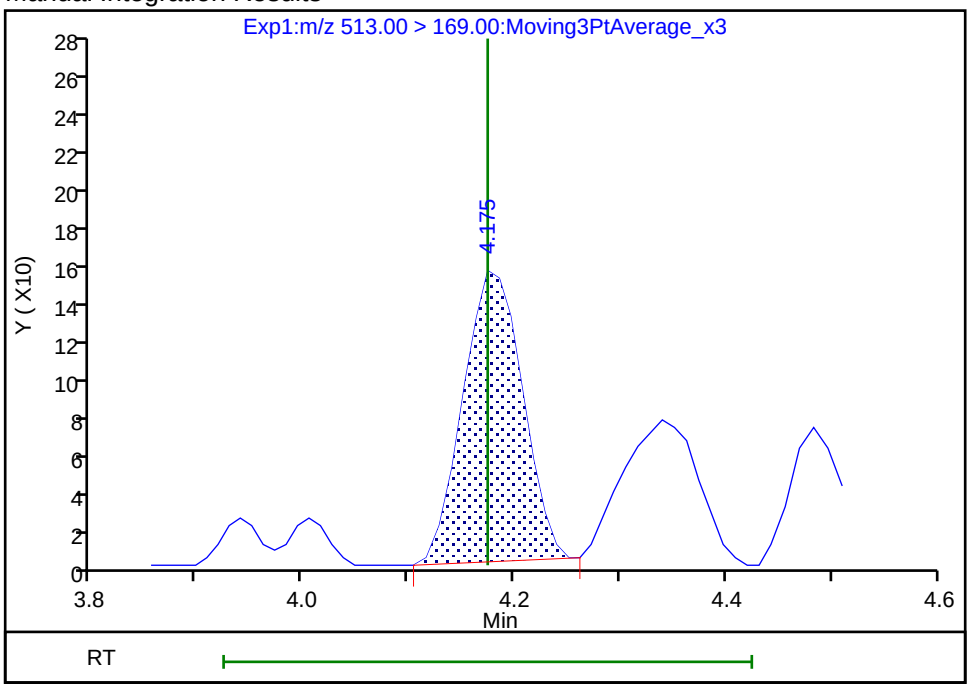
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.17
Area: 601
Amount: 0.003847
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:42:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

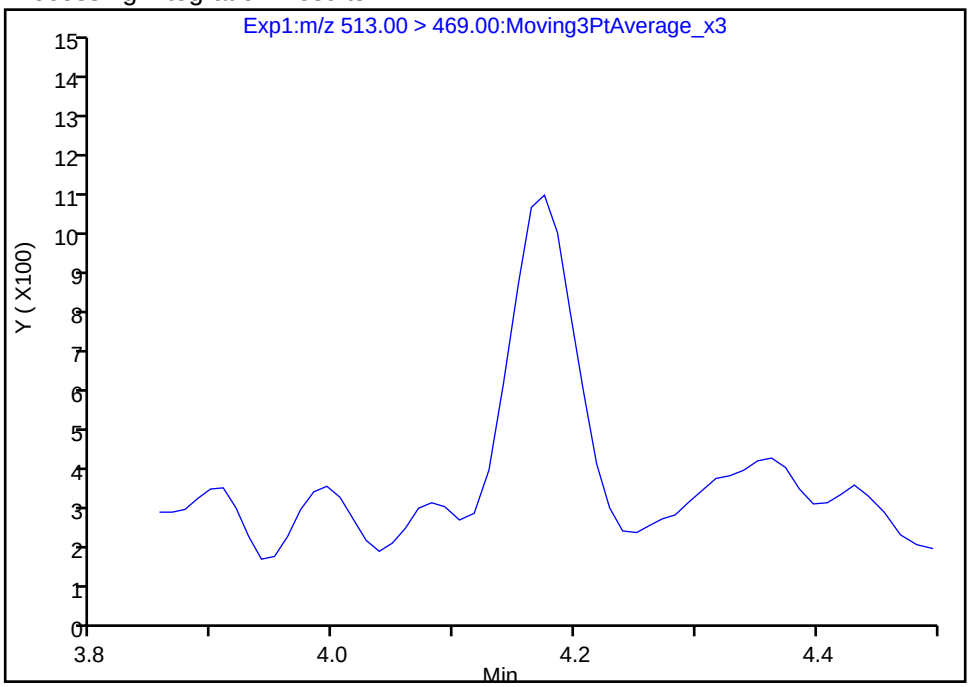
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

24 Perfluorodecanoic acid, CAS: 335-76-2

Signal: 1

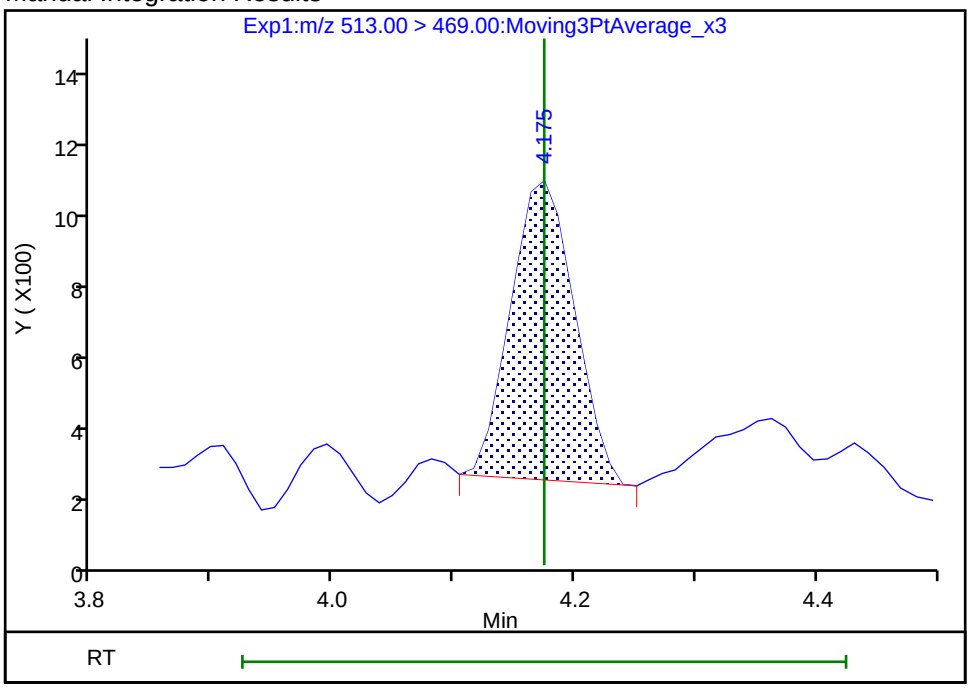
Not Detected
Expected RT: 4.17

Processing Integration Results



Manual Integration Results

RT: 4.17
Area: 3084
Amount: 0.003847
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:42:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

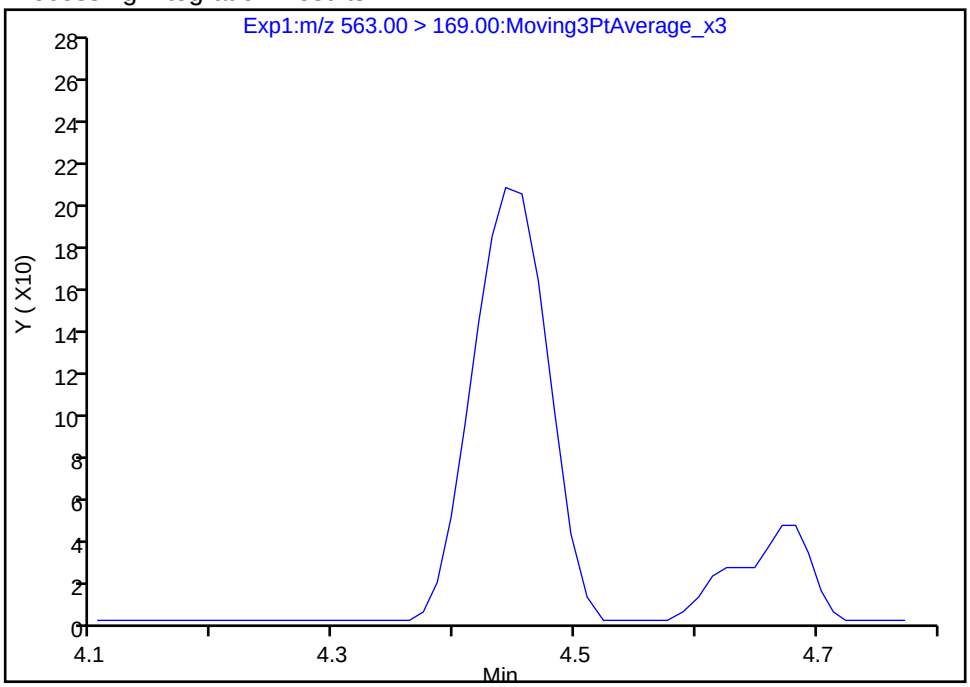
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

31 Perfluoroundecanoic acid, CAS: 2058-94-8

Signal: 2

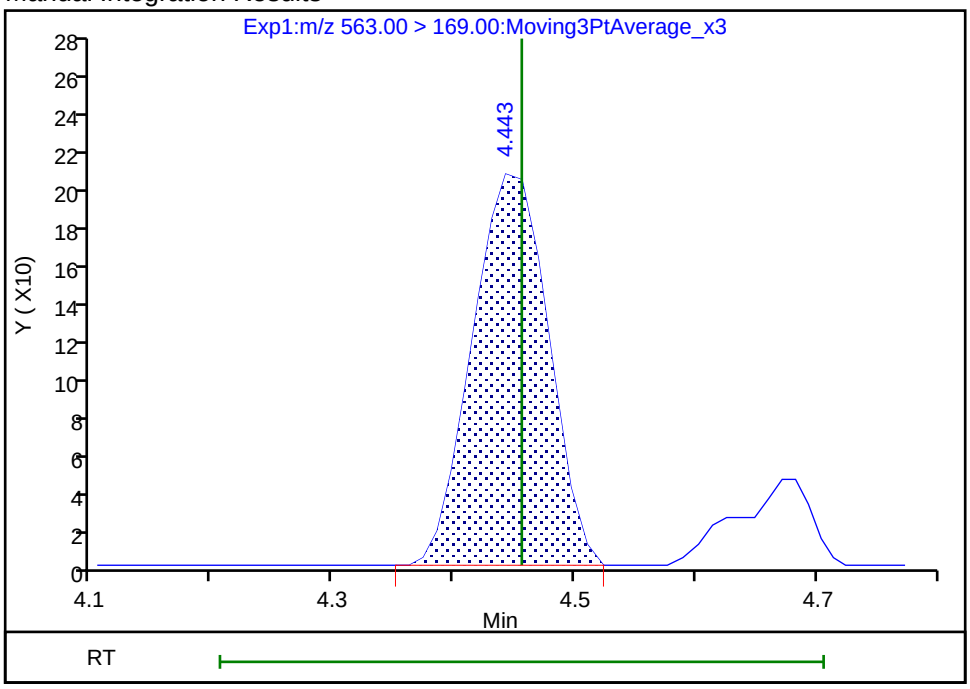
Not Detected
Expected RT: 4.46

Processing Integration Results



Manual Integration Results

RT: 4.44
Area: 898
Amount: 0.008243
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:52:36
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

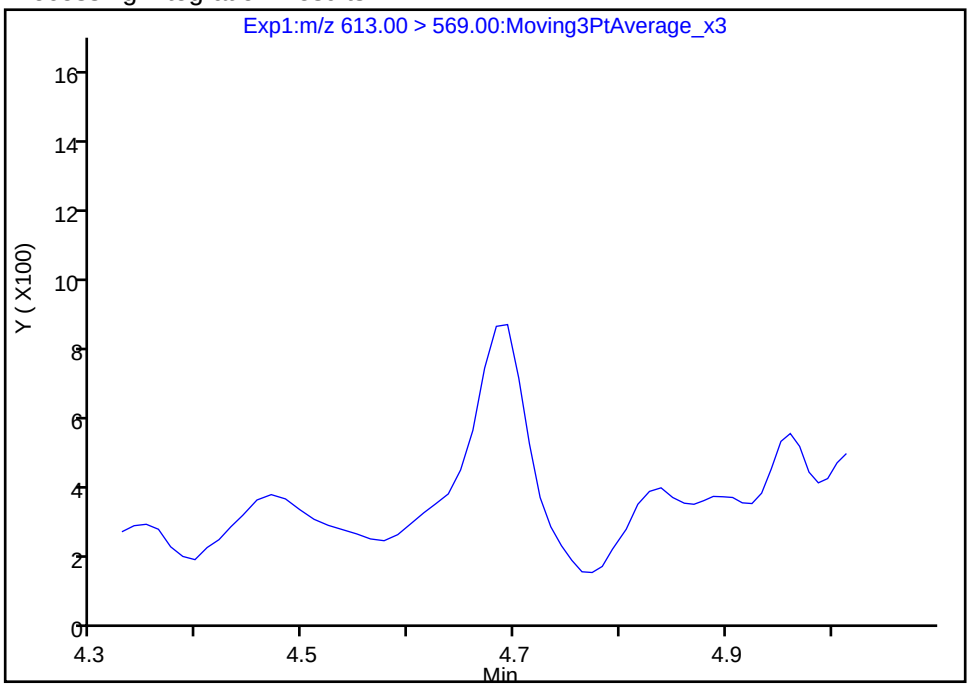
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 1

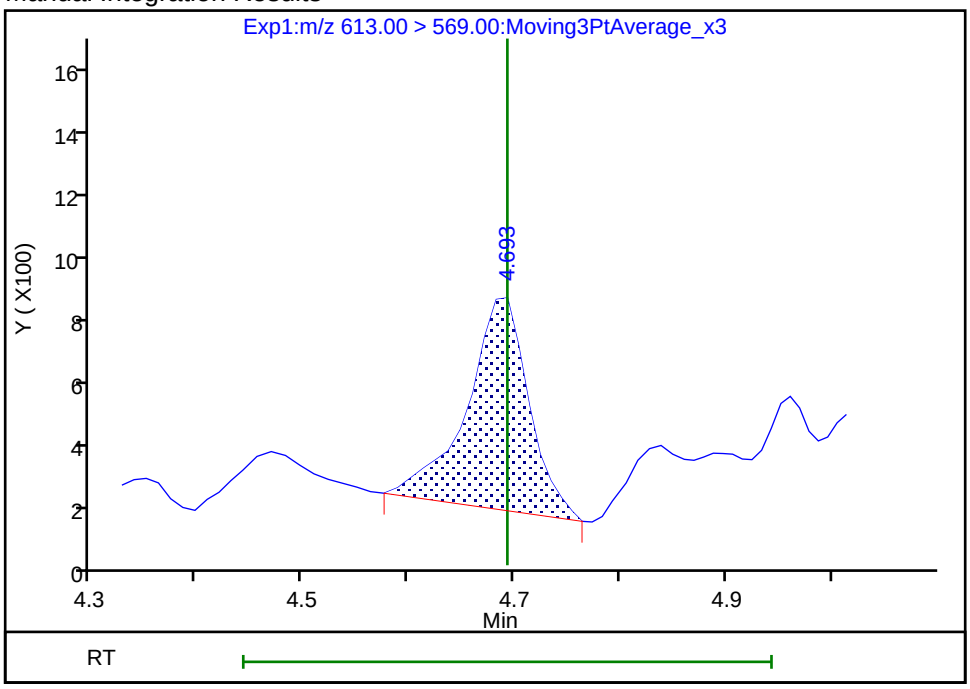
Not Detected
Expected RT: 4.69

Processing Integration Results



Manual Integration Results

RT: 4.69
Area: 2682
Amount: 0.004440
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:53:16
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

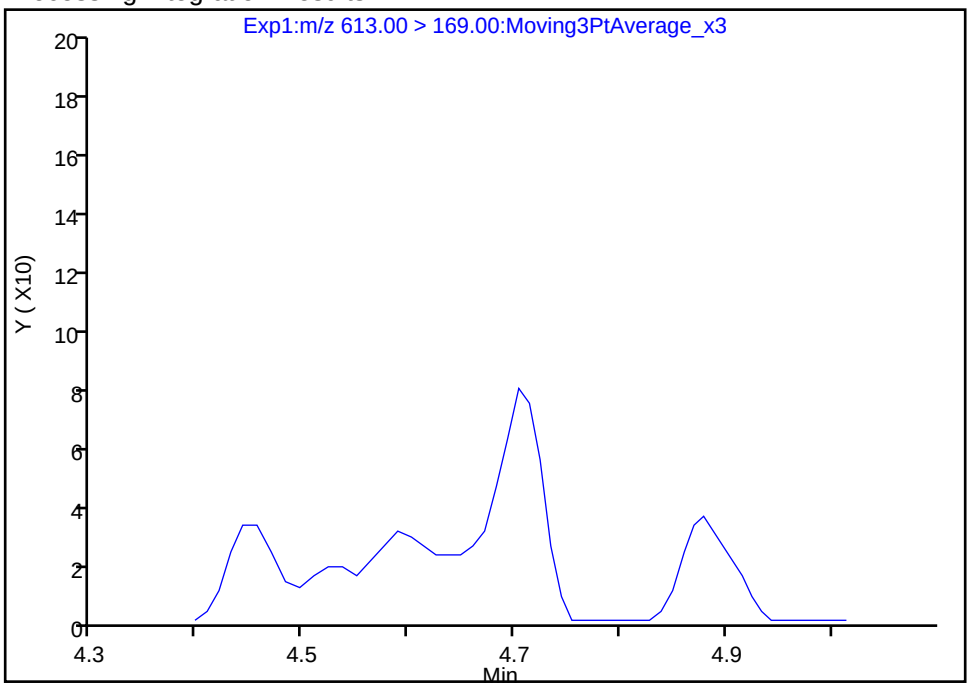
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

37 Perfluorododecanoic acid, CAS: 307-55-1

Signal: 2

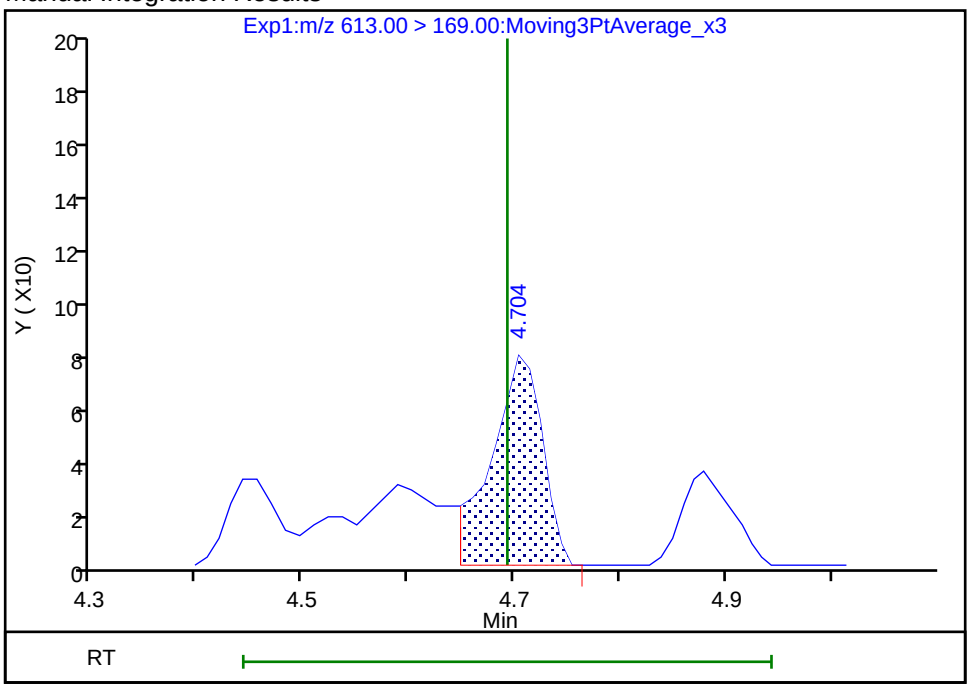
Not Detected
Expected RT: 4.69

Processing Integration Results



Manual Integration Results

RT: 4.70
Area: 258
Amount: 0.004440
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:19:27
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

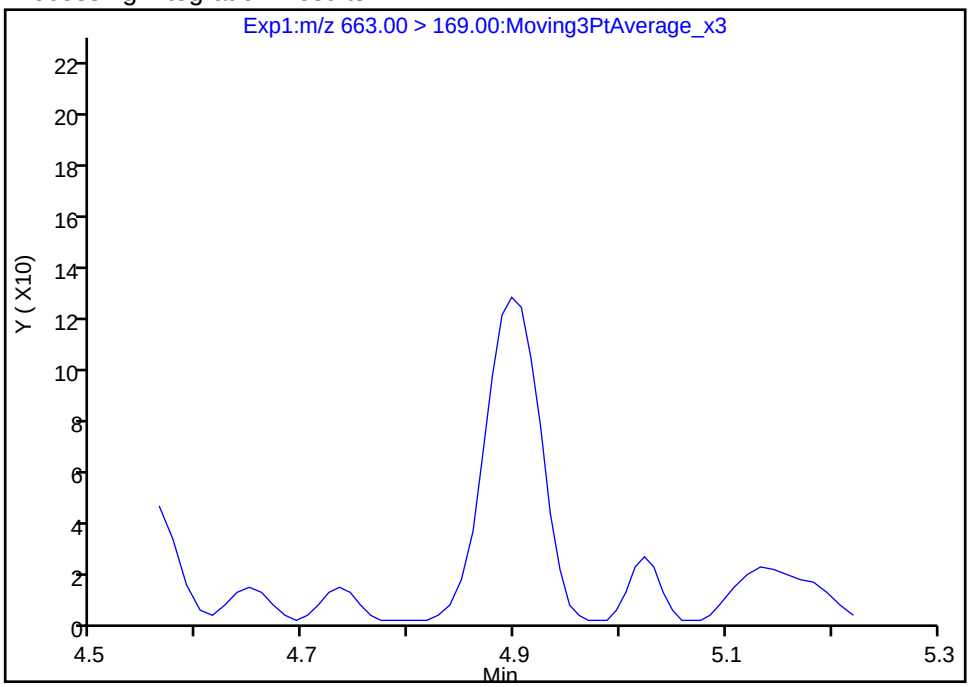
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 2

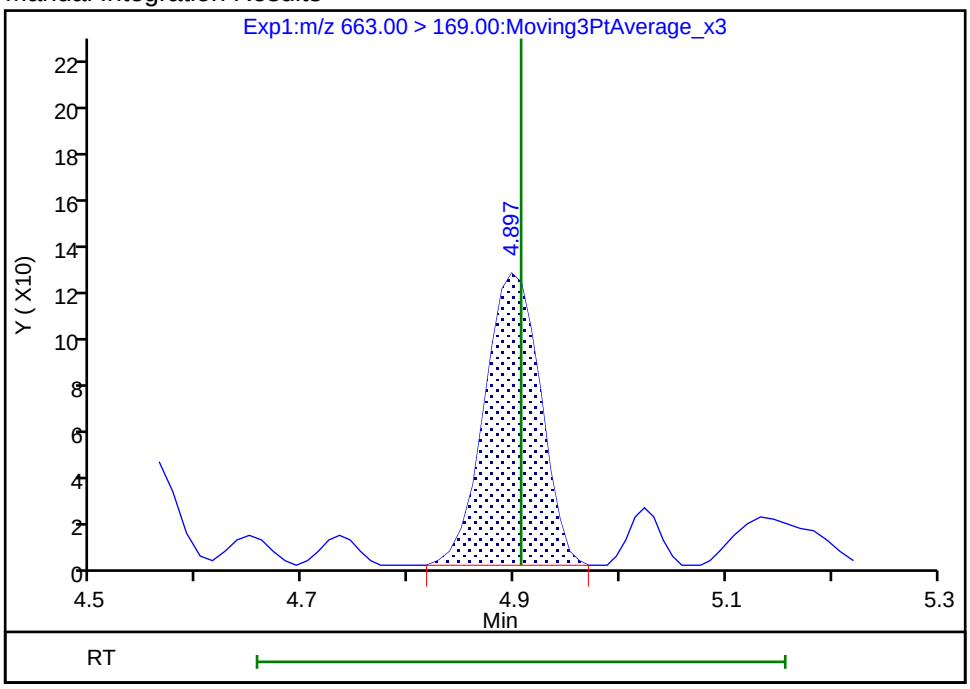
Not Detected
Expected RT: 4.91

Processing Integration Results



Manual Integration Results

RT: 4.90
Area: 464
Amount: 0.003027
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:50:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

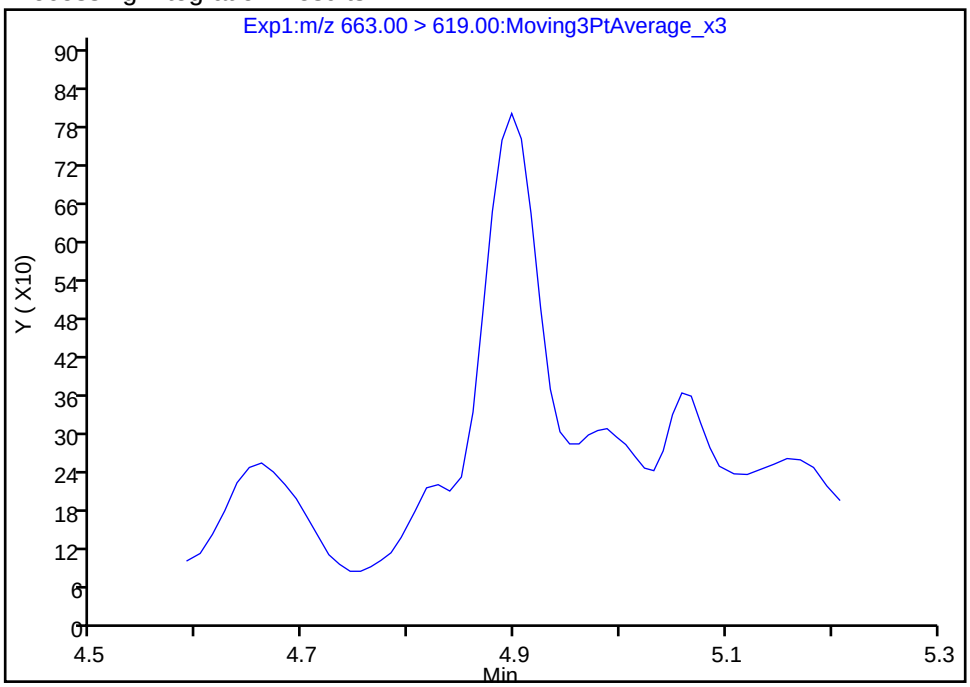
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

41 Perfluorotridecanoic acid, CAS: 72629-94-8

Signal: 1

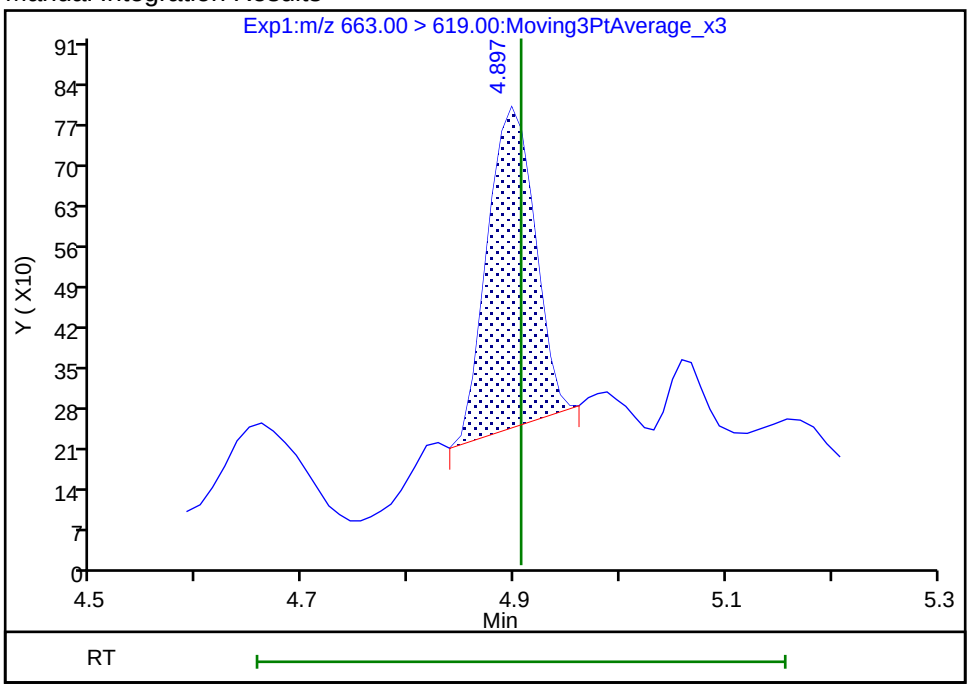
Not Detected
Expected RT: 4.91

Processing Integration Results



Manual Integration Results

RT: 4.90
Area: 1737
Amount: 0.003027
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:50:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

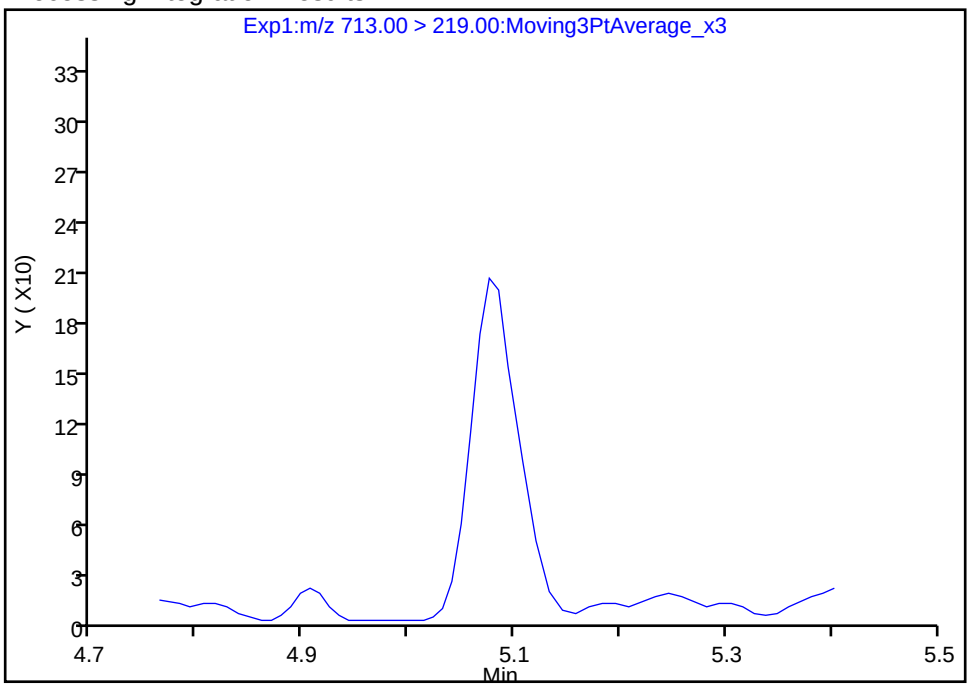
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 2

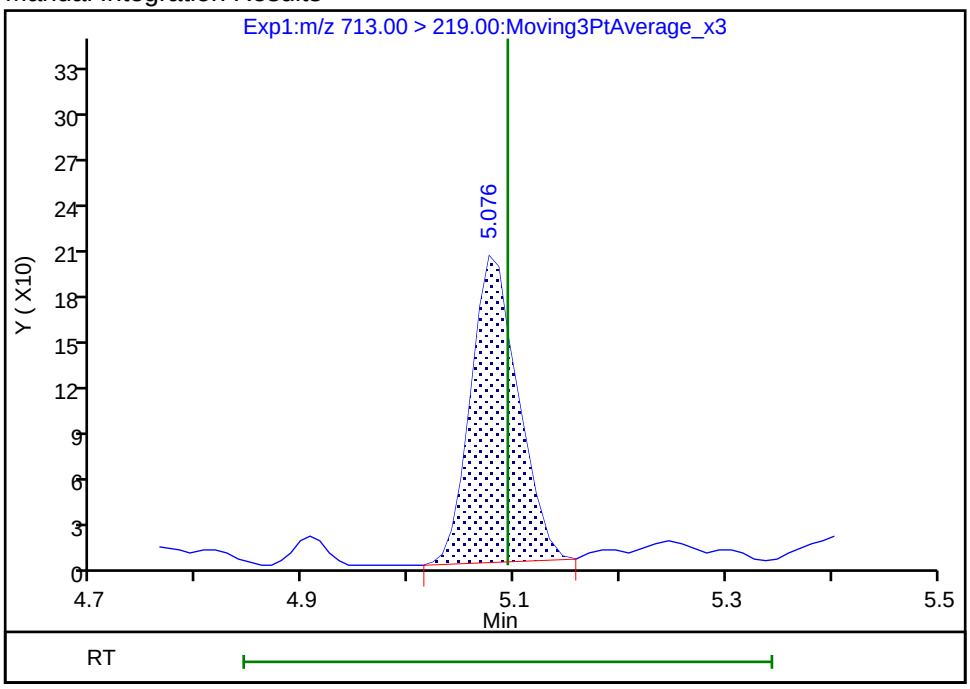
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.08
Area: 620
Amount: 0.004770
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:50:26
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

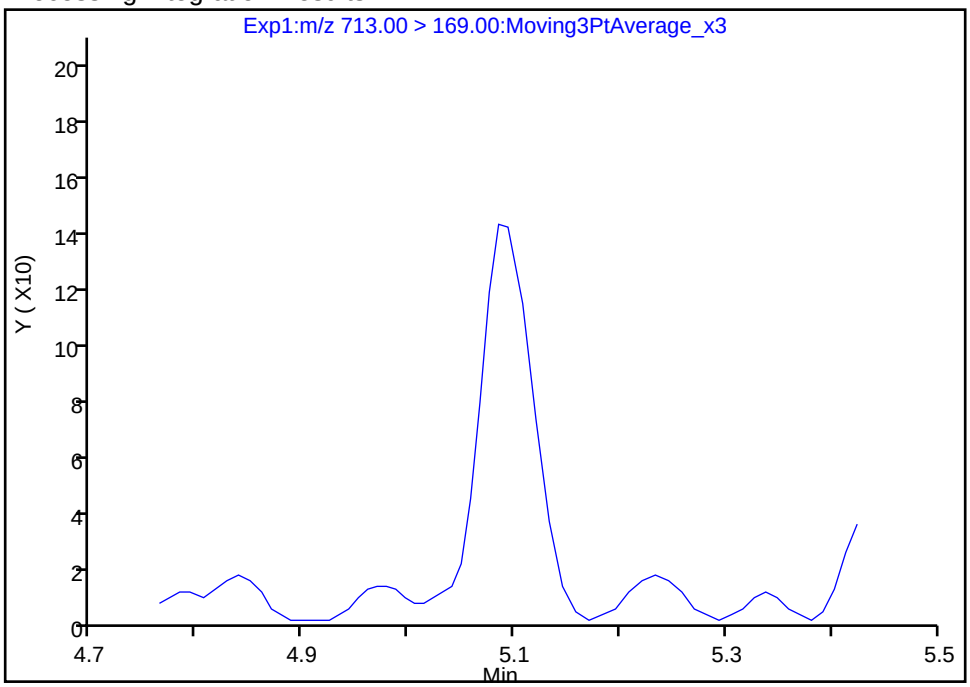
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

42 Perfluorotetradecanoic acid, CAS: 376-06-7

Signal: 1

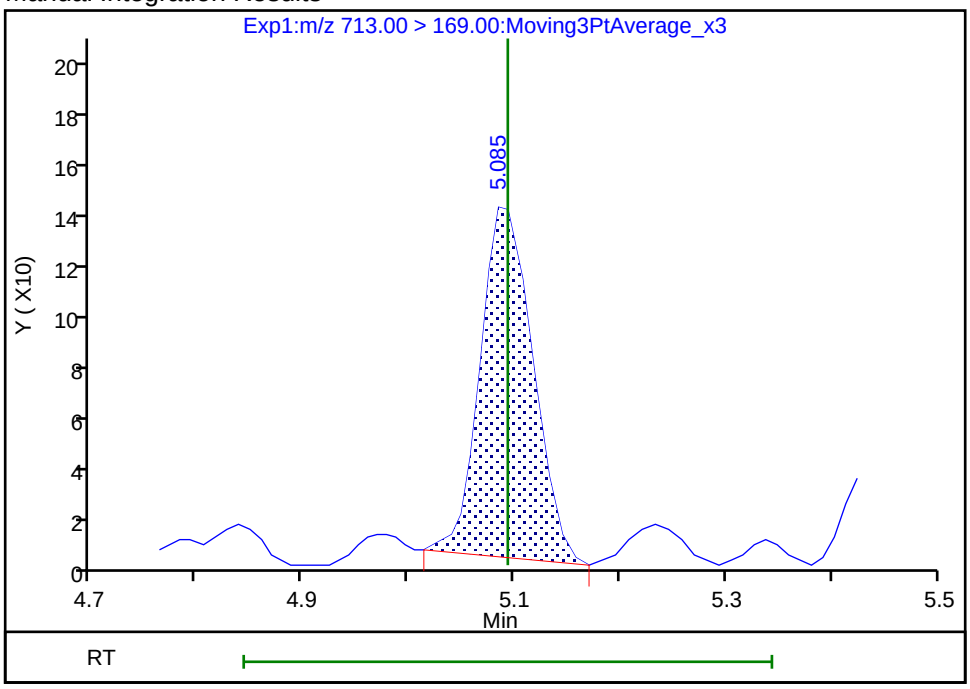
Not Detected
Expected RT: 5.09

Processing Integration Results



Manual Integration Results

RT: 5.08
Area: 474
Amount: 0.004770
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:50:31
Audit Action: Manually Integrated Audit Reason: Missed Peak

Eurofins TestAmerica, Burlington

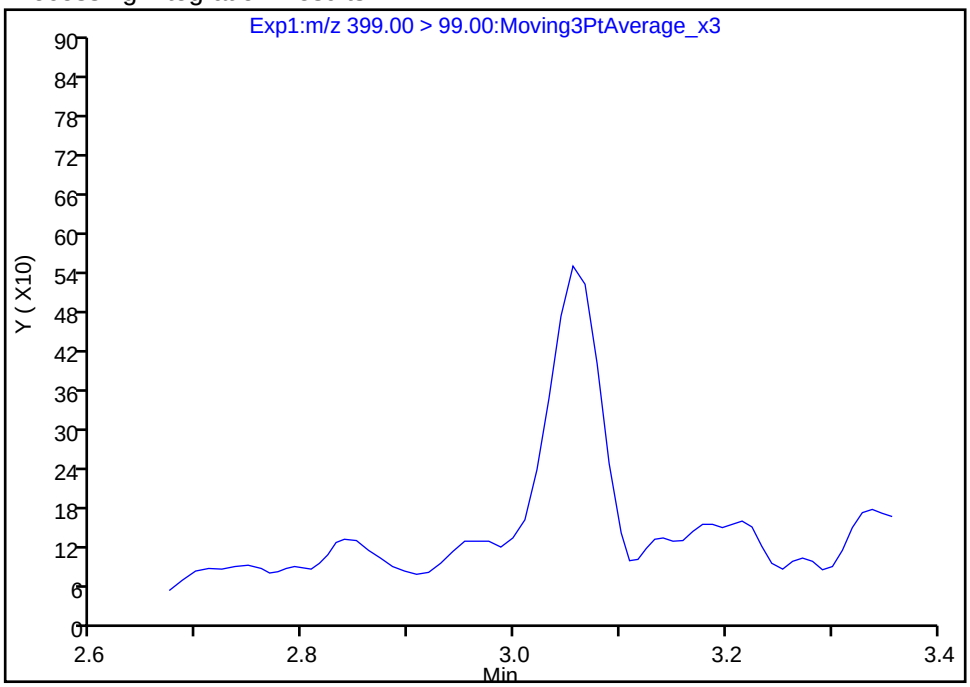
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

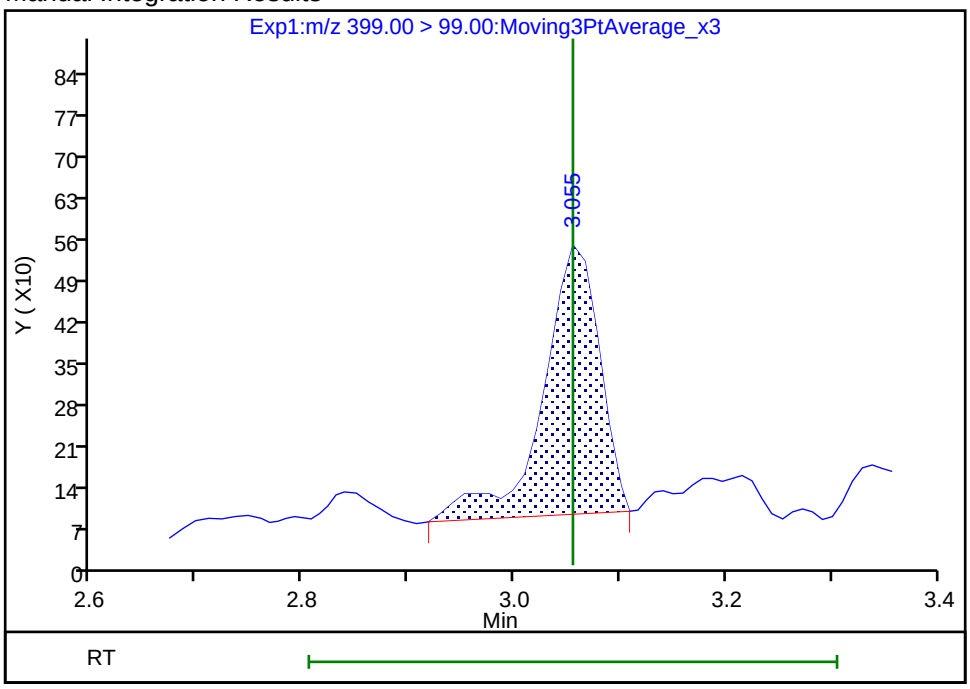
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 1706
Amount: 0.008471
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:34:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

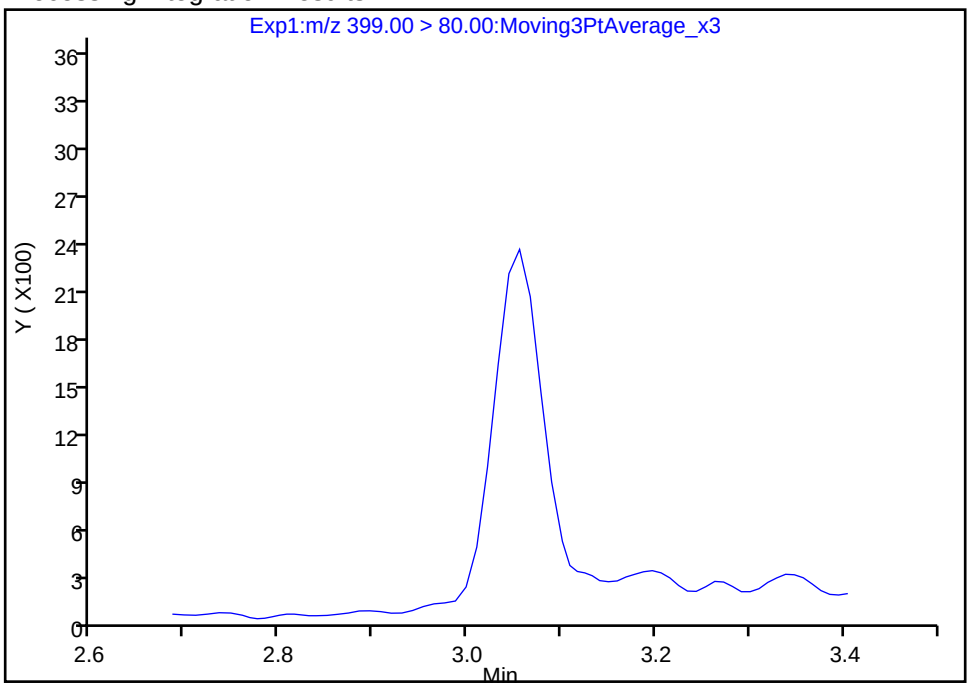
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

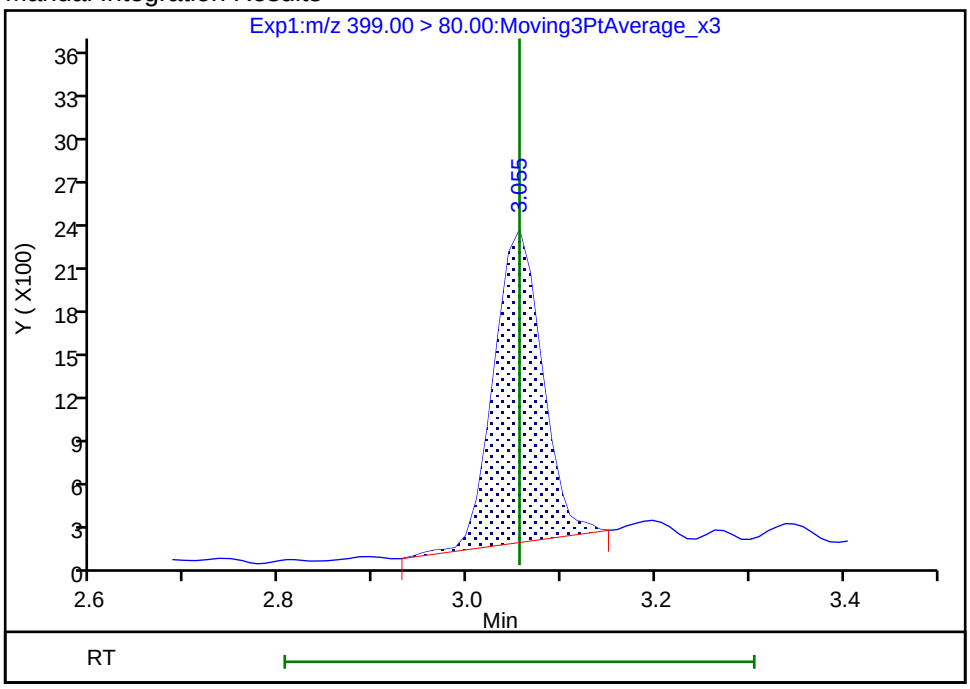
Not Detected
Expected RT: 3.06

Processing Integration Results



Manual Integration Results

RT: 3.06
Area: 7822
Amount: 0.008471
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:34:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

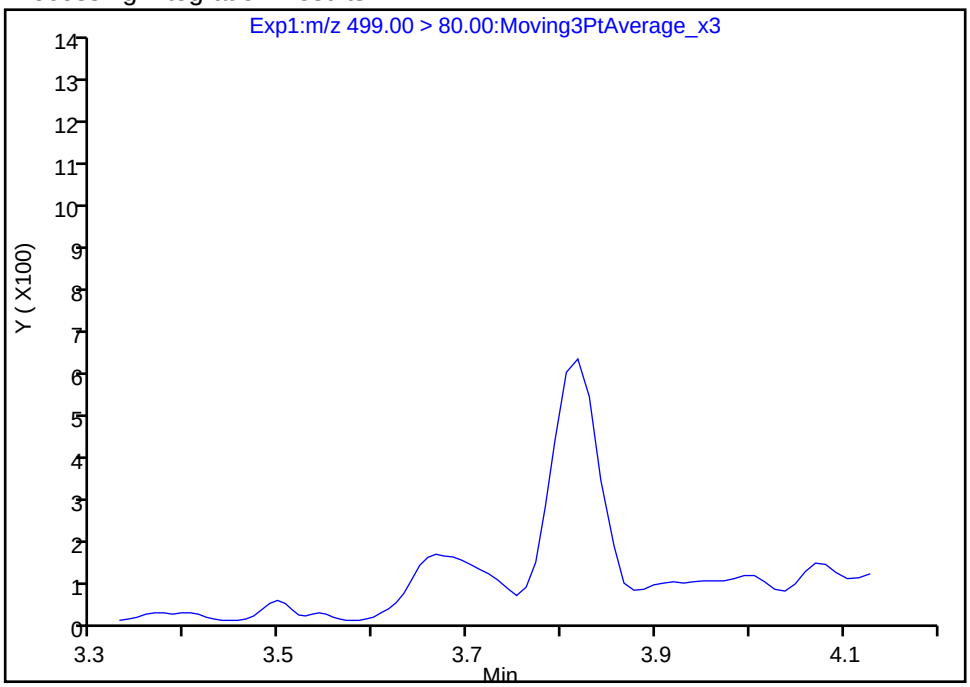
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

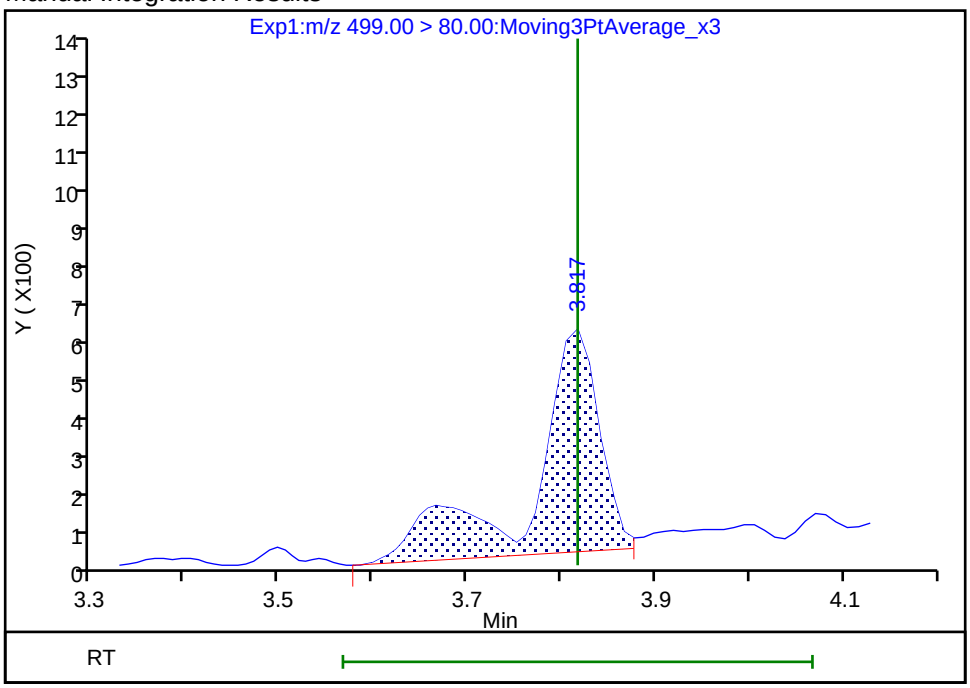
Not Detected
Expected RT: 3.82

Processing Integration Results



Manual Integration Results

RT: 3.82
Area: 2740
Amount: 0.003910
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:23:42
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

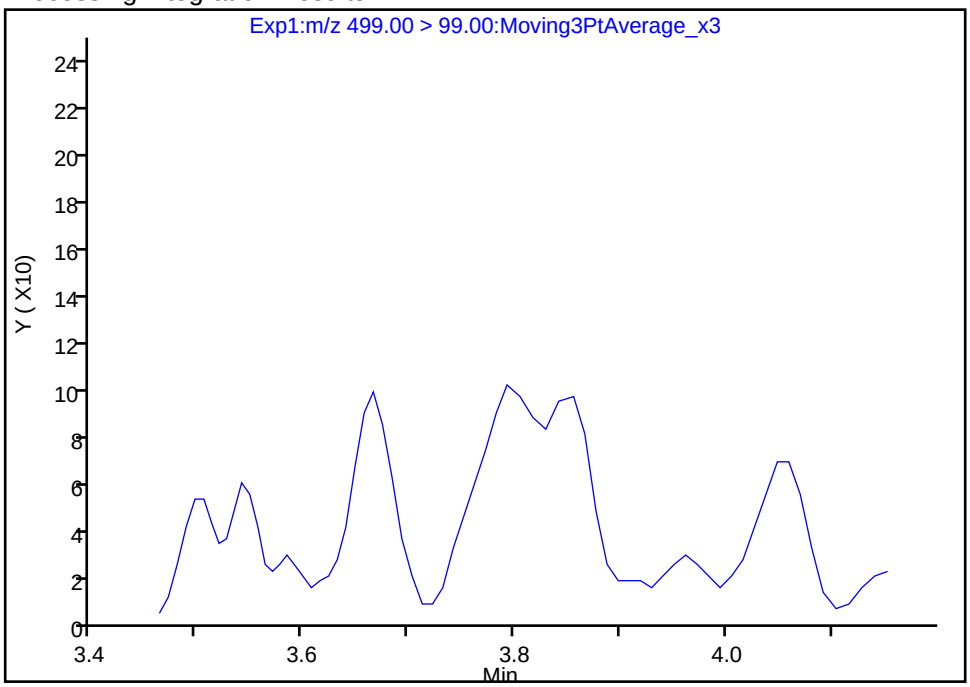
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

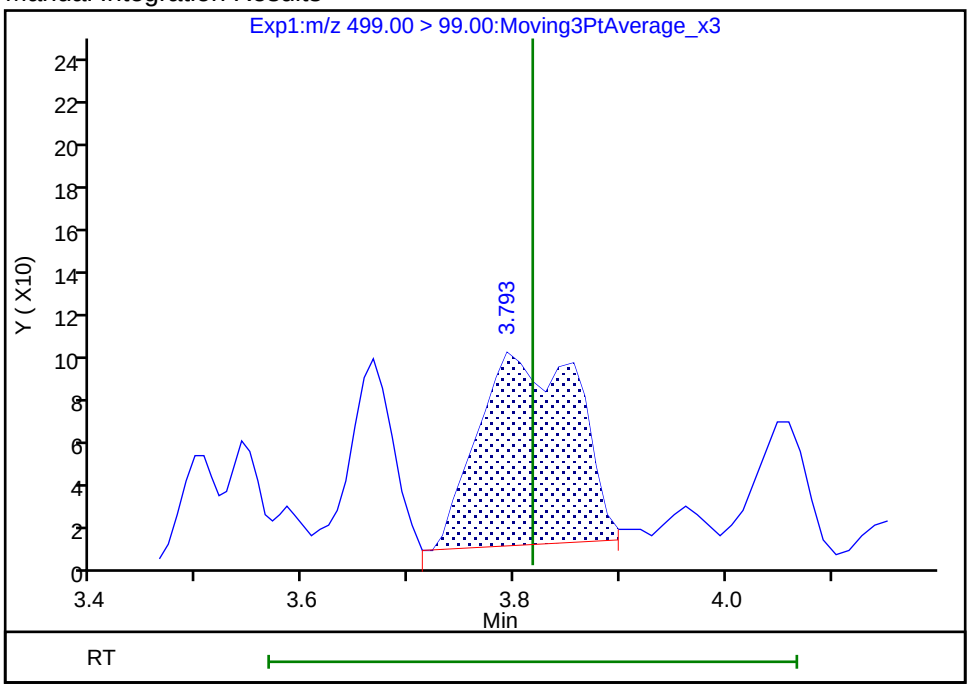
Not Detected
Expected RT: 3.82

Processing Integration Results



Manual Integration Results

RT: 3.79
Area: 598
Amount: 0.003910
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:23:46
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

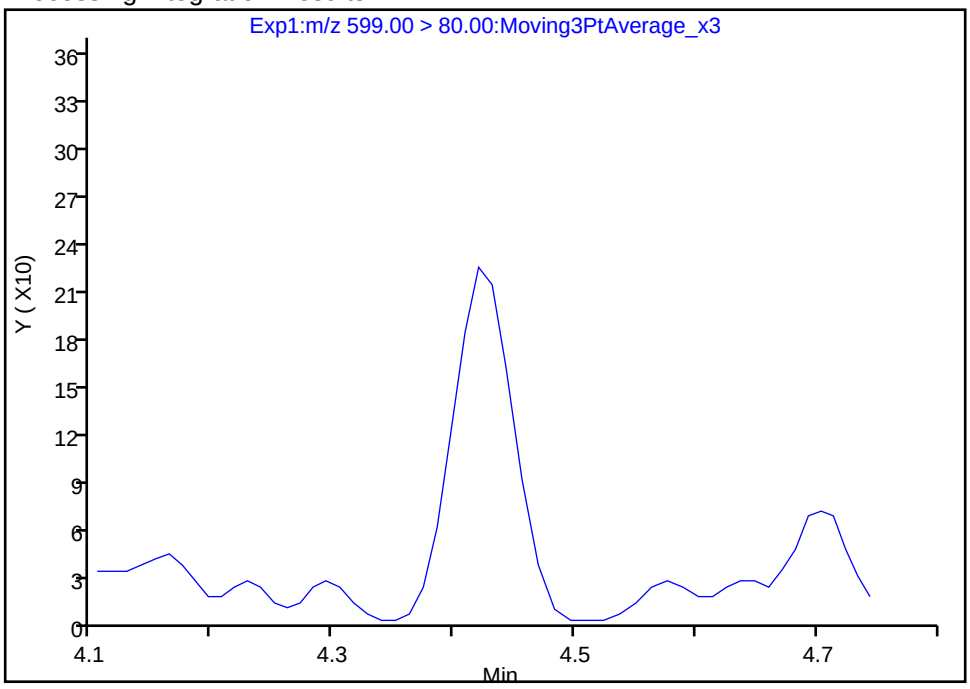
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 1

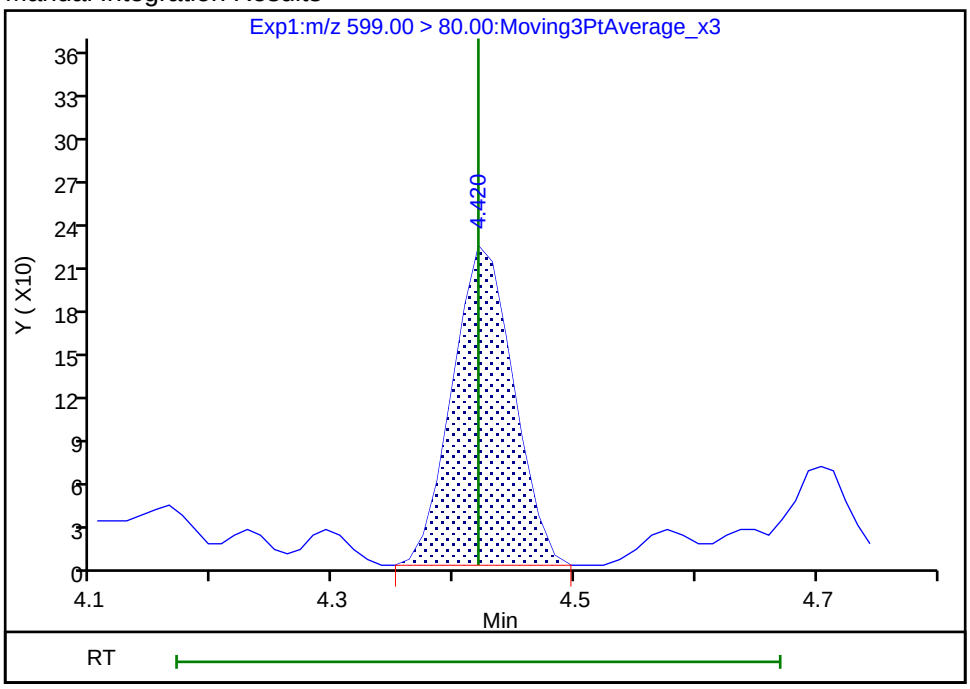
Not Detected
Expected RT: 4.42

Processing Integration Results



Manual Integration Results

RT: 4.42
Area: 783
Amount: 0.001676
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:52:25
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

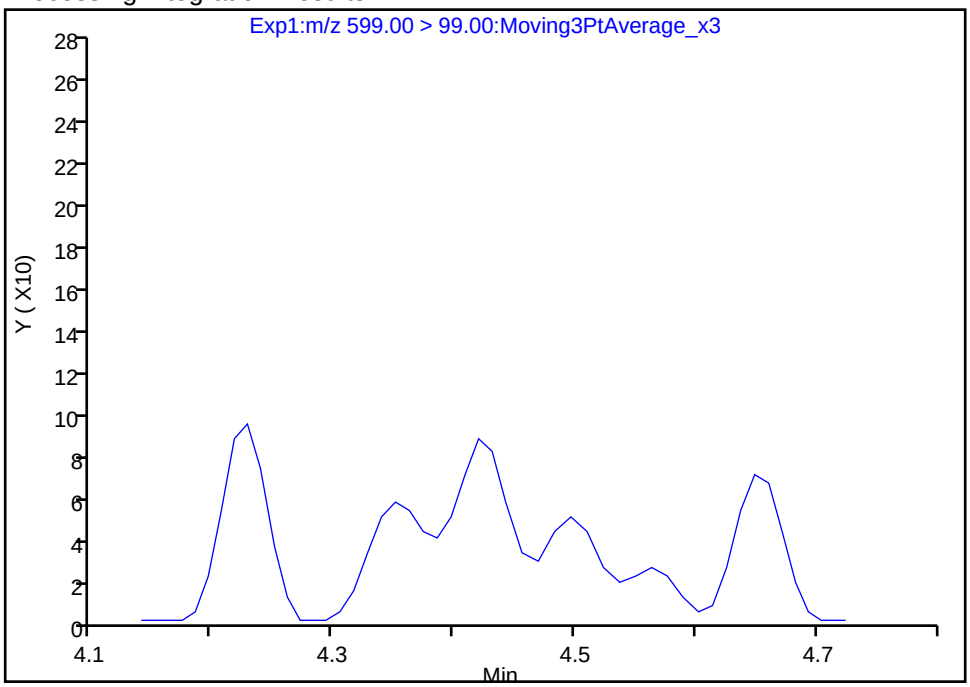
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d				
Injection Date:	07-Dec-2019 06:30:25	Instrument ID:	LC812		
Lims ID:	MB 200-150277/1-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	2	Worklist Smp#:	2
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

29 Perfluorodecanesulfonic acid, CAS: 335-77-3

Signal: 2

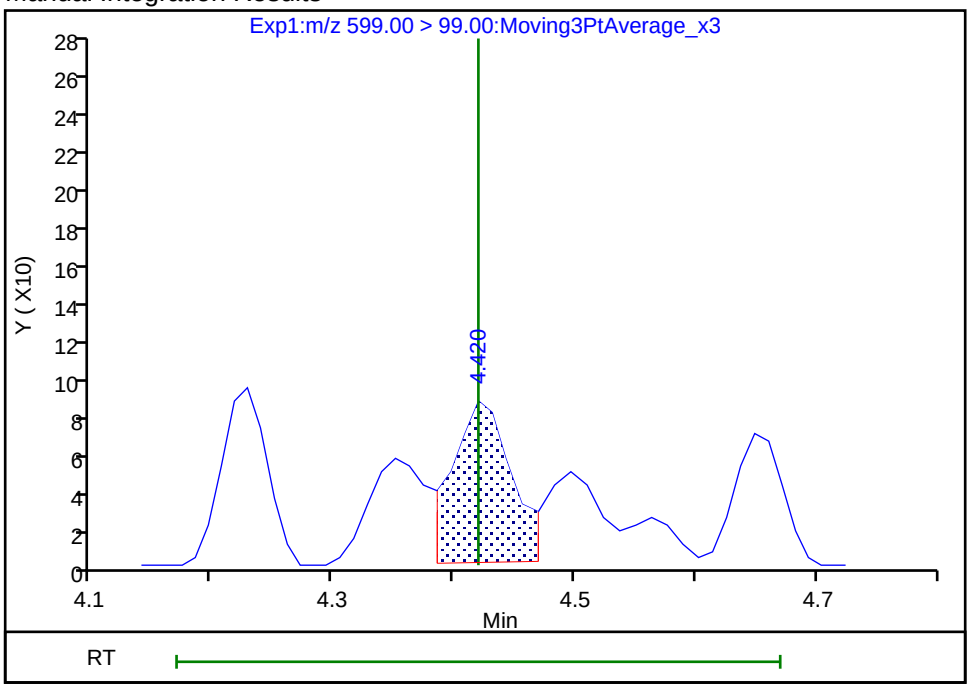
Not Detected
Expected RT: 4.42

Processing Integration Results



Manual Integration Results

RT: 4.42
Area: 277
Amount: 0.001676
Amount Units: ng/ml



Reviewer: kirkm, 12-Dec-2019 17:20:07
Audit Action: Manually Integrated Audit Reason: Baseline

Eurofins TestAmerica, Burlington

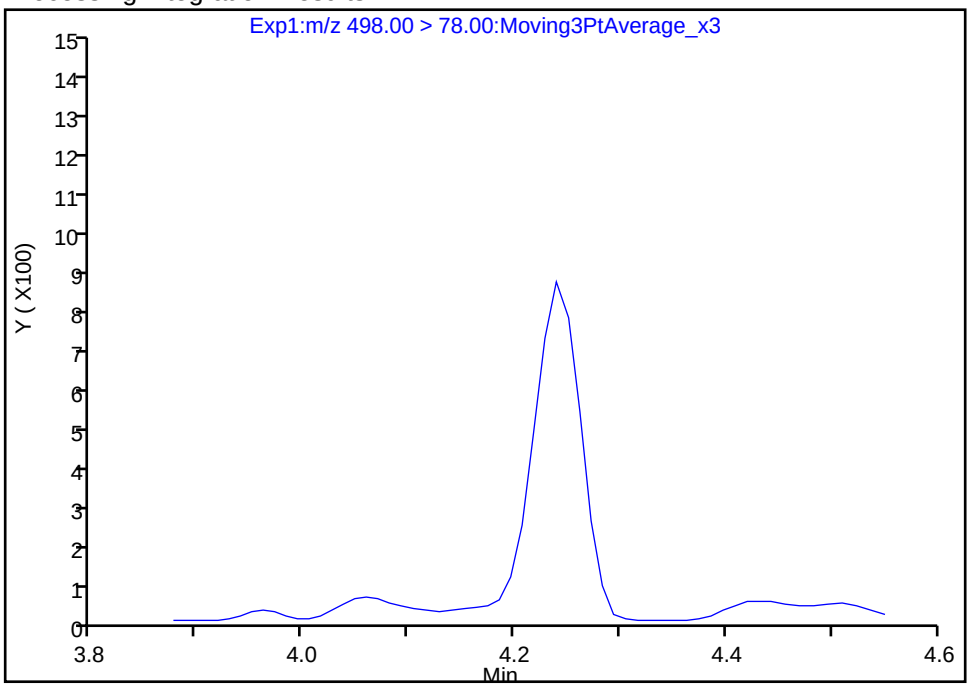
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

22 Perfluorooctanesulfonamide, CAS: 754-91-6

Signal: 1

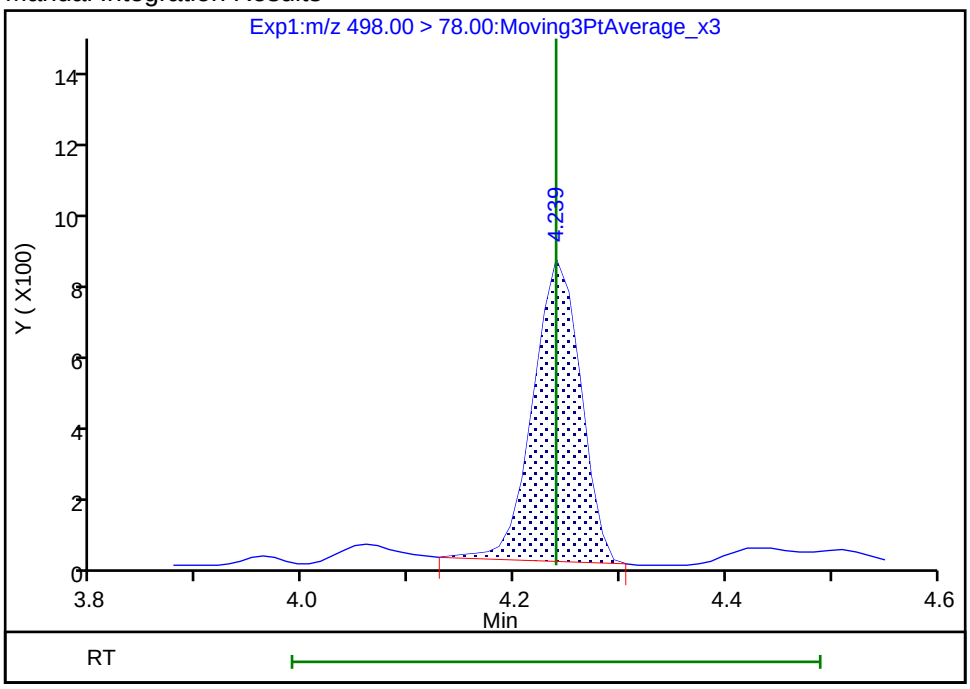
Not Detected
Expected RT: 4.24

Processing Integration Results



Manual Integration Results

RT: 4.24
Area: 2640
Amount: 0.003310
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:43:12
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

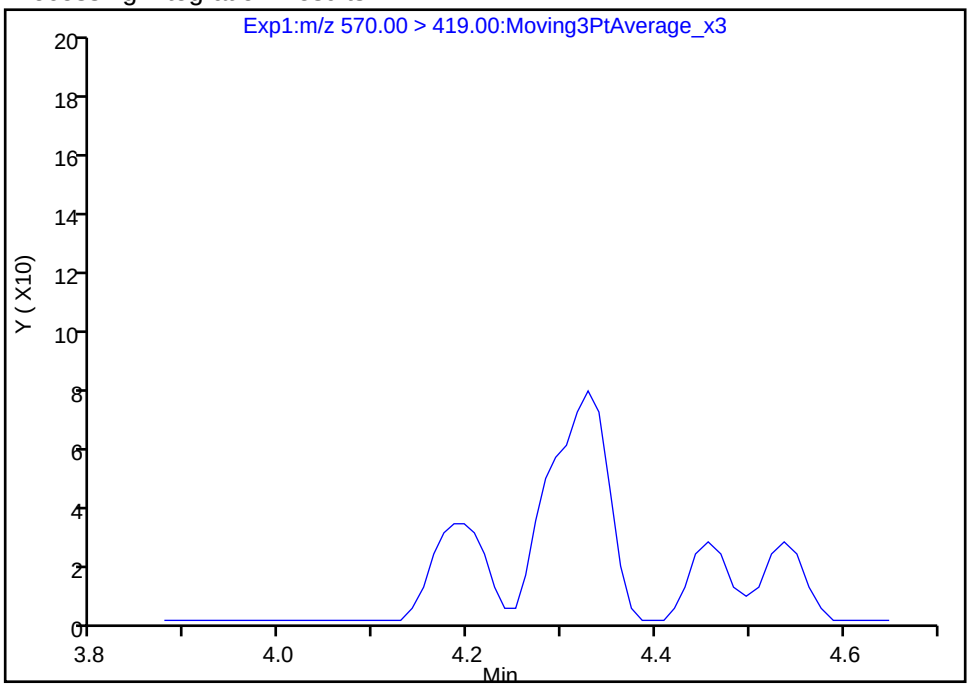
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

28 N-methylperfluorooctanesulfonamidoacetic aci, CAS: 2355-31-9

Signal: 1

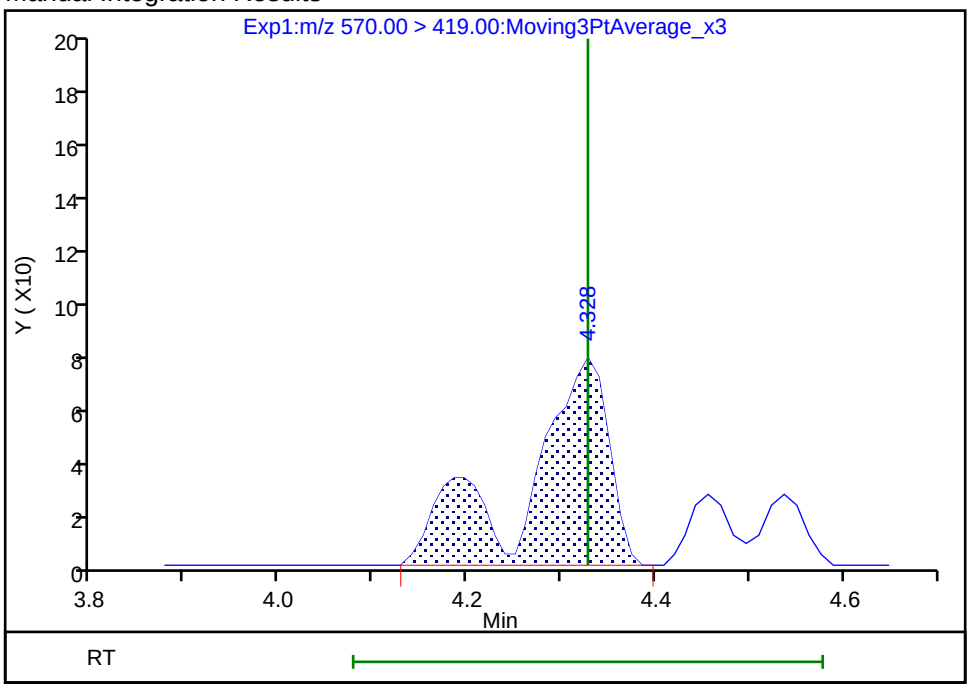
Not Detected
Expected RT: 4.33

Processing Integration Results



Manual Integration Results

RT: 4.33
Area: 460
Amount: 0.007378
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:43:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

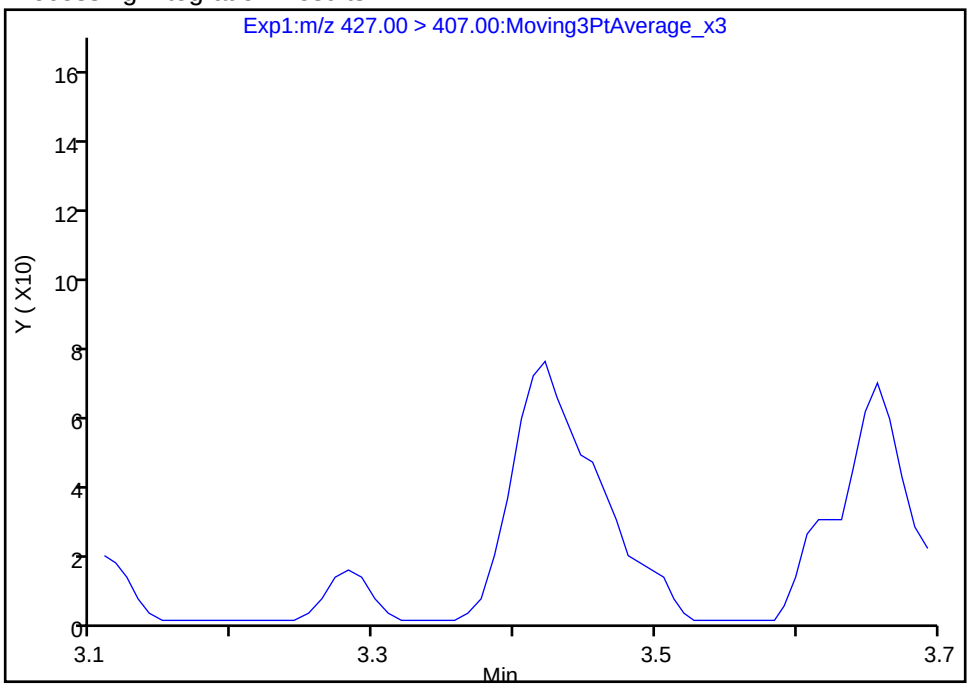
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

13 1H,1H,2H,2H-perfluorooctanesulfonic acid (6:, CAS: 27619-97-2

Signal: 1

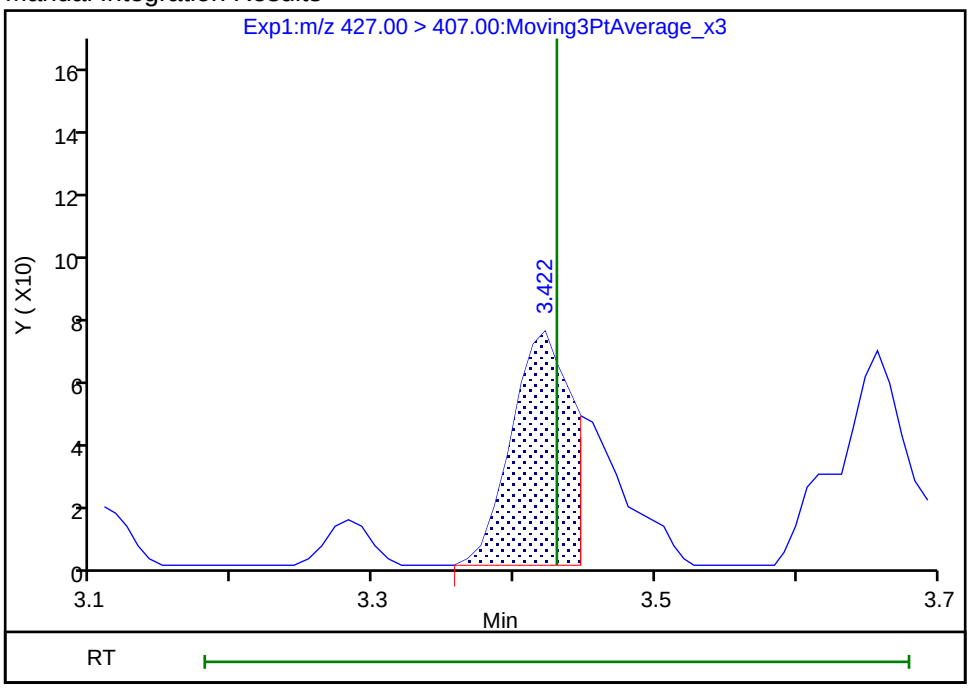
Not Detected
Expected RT: 3.43

Processing Integration Results



Manual Integration Results

RT: 3.42
Area: 205
Amount: 0.001515
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:42:01
Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

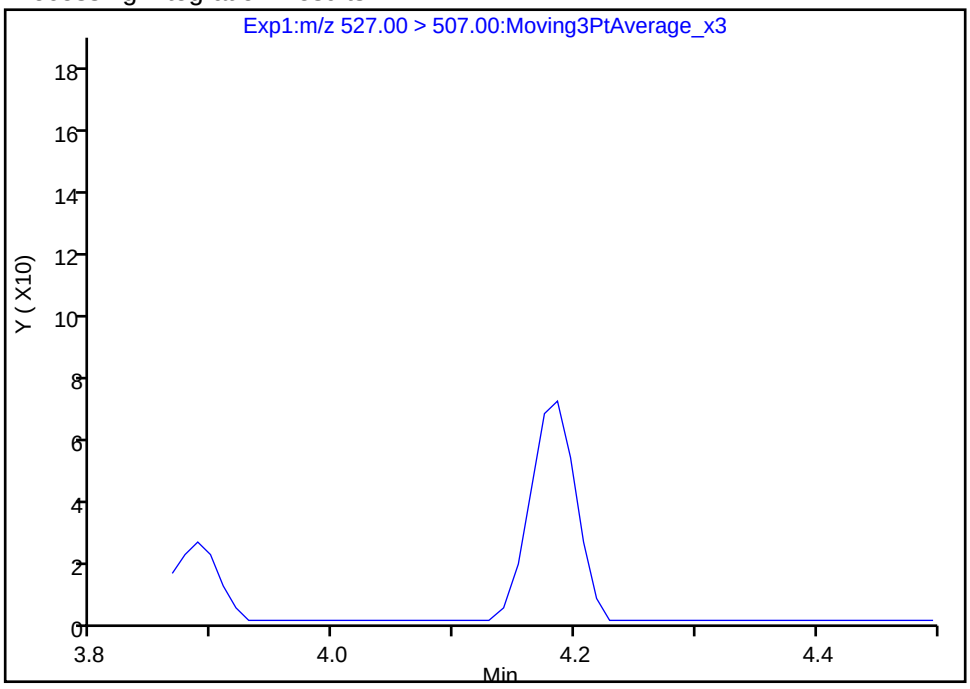
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F002.d
Injection Date: 07-Dec-2019 06:30:25 Instrument ID: LC812
Lims ID: MB 200-150277/1-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 2 Worklist Smp#: 2
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

25 1H,1H,2H,2H-perfluorodecanesulfonic acid (8:, CAS: 39108-34-4

Signal: 1

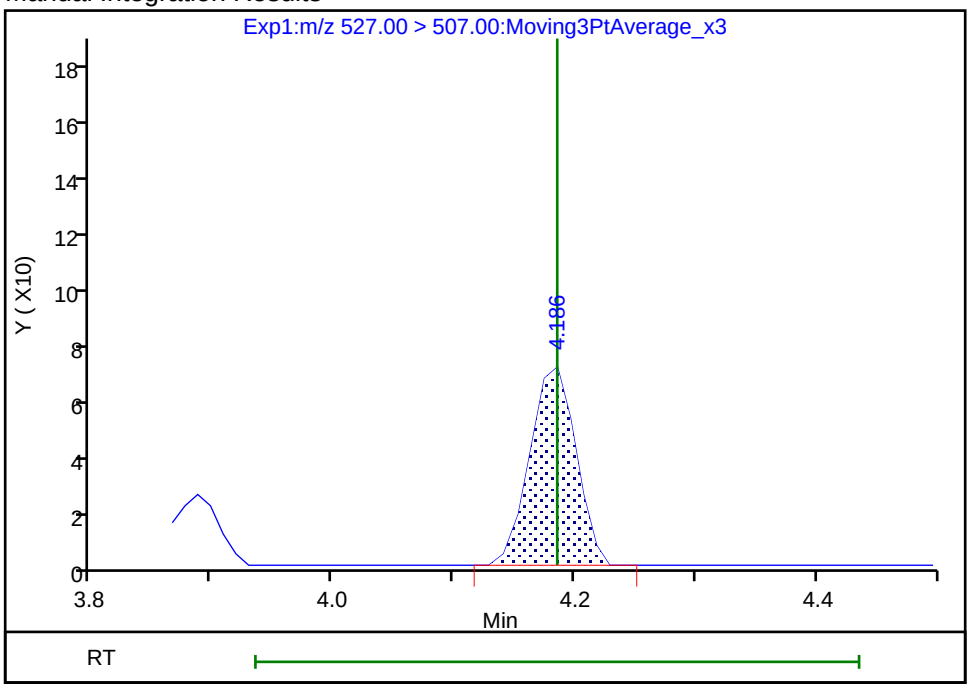
Not Detected
Expected RT: 4.19

Processing Integration Results



Manual Integration Results

RT: 4.19
Area: 185
Amount: 0.002305
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:42:55
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: Lab Sample ID: LCS 200-150277/2-A

Matrix: Water Lab File ID: SC120619F003.d

Analysis Method: 537 (modified) Date Collected:

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 250(mL) Date Analyzed: 12/07/2019 06:38

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	38.2		2.0	1.0
2706-90-3	Perfluoropentanoic acid (PFPeA)	34.5		2.0	0.63
307-24-4	Perfluorohexanoic acid (PFHxA)	38.6		2.0	0.76
375-85-9	Perfluoroheptanoic acid (PFHpA)	36.8		2.0	0.91
335-67-1	Perfluorooctanoic acid (PFOA)	33.9		2.0	0.81
375-95-1	Perfluorononanoic acid (PFNA)	43.4		2.0	0.27
335-76-2	Perfluorodecanoic acid (PFDA)	40.4		2.0	0.77
2058-94-8	Perfluoroundecanoic acid (PFUnA)	37.7		2.0	0.78
307-55-1	Perfluorododecanoic acid (PFDoA)	36.0		2.0	0.59
72629-94-8	Perfluorotridecanoic acid (PFTriA)	34.5		2.0	0.60
376-06-7	Perfluorotetradecanoic acid (PFTeA)	41.5		2.0	0.92
375-73-5	Perfluorobutanesulfonic acid (PFBS)	32.9		2.0	0.49
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	36.1		2.0	0.80
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	34.4		2.0	0.95
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	36.1		2.0	0.61
335-77-3	Perfluorodecanesulfonic acid (PFDS)	35.7		2.0	0.90
754-91-6	Perfluorooctanesulfonamide (PFOSA)	33.8		10	10
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	36.0		20	1.7
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	38.3		20	1.5
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	35.0		20	5.5
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	38.7		20	2.9

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: Lab Sample ID: LCS 200-150277/2-A

Matrix: Water Lab File ID: SC120619F003.d

Analysis Method: 537 (modified) Date Collected:

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 250(mL) Date Analyzed: 12/07/2019 06:38

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	108		50-150
STL01892	13C4 PFHpA	107		50-150
STL00990	13C4 PFOA	111		50-150
STL00991	13C4 PFOS	106		50-150
STL00995	13C5 PFNA	101		50-150
STL00992	13C4 PFBA	108		25-150
STL00993	13C2 PFHxA	97		50-150
STL00996	13C2 PFDA	101		50-150
STL00997	13C2 PFUnA	107		50-150
STL00998	13C2 PFDoA	91		50-150
STL01056	13C8 FOSA	87		25-150
STL01893	13C5 PFPeA	118		25-150
STL02116	13C2 PFTeDA	88		50-150
STL02118	d3-NMeFOSAA	99		50-150
STL02117	d5-NEtFOSAA	82		50-150
STL02279	M2-6:2 FTS	104		25-150
STL02280	M2-8:2 FTS	123		25-150
STL02337	13C3 PFBS	113		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d
Lims ID: LCS 200-150277/2-A
Client ID:
Sample Type: LCS
Inject. Date: 07-Dec-2019 06:38:38 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: LCS 200-150277/2-A
Misc. Info.: 200-0039120-003 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:18:46 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 13:16:35
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.557	2849854	2.71		108	32202	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.917	1.926	-0.009	1.000	1084428	0.9562		95.6	301	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.660	2368707	2.94		118	6682	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.271	2.285	-0.014	1.000	924184	0.8614		86.1	78.3	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	965799	0.8229	Target=2.03	93.1	3352	
298.90 > 99.00	2.298	2.298	0.0	1.000	504741		1.91(1.01-3.04)		691	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.312	-0.014	0.668	2510593	2.62		113	842904	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.636	2.636	0.0	1.005	152018	0.7761		83.1	2583	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.623	2.636	-0.013	0.763	264020	2.95		126	422	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.673	0.0	0.875	844565	0.8893	Target=3.50	94.8	2592	
349.00 > 99.00	2.673	2.673	0.0	0.875	288934		2.92(1.75-5.25)		1026	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.673	2.673	0.0	1.000	859541	0.9638	Target=13.76	96.4	276	
313.00 > 119.00	2.673	2.673	0.0	1.000	74475		11.54(6.88-20.64)		226	
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.777	2183781	2.43		97.4	5814	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.784	2.784	0.0	1.000	118899	0.8841		88.4	64.9	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.784	2.792	-0.008	0.810	93633	2.39		95.6	1983	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.055	3.055	0.0	1.000	882110	0.9194	Target=3.95	91.9	381	
363.00 > 169.00	3.055	3.055	0.0	1.000	259106		3.40(1.97-5.92)		884	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.889	1934256	2.55		108	5515	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.889	2268726	2.67		107	10687	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	835605	0.9027	Target=3.90	99.2	2414	M
399.00 > 99.00	3.055	3.055	0.0	1.000	197634		4.23(1.95-5.85)		451	M
77 DONA										
377.00 > 251.00	3.101	3.101	0.0	0.812	2078727	0.9231	Target=2.49	98.0	2953	
377.00 > 85.00	3.101	3.101	0.0	0.812	905949		2.29(1.24-3.73)		2527	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.430	3.430	0.0	1.000	111794	0.8758		92.4	585	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.430	3.430	0.0	0.899	671684	0.8603	Target=6.46	90.4	3178	
449.00 > 99.00	3.430	3.430	0.0	0.899	116268		5.78(3.23-9.69)		1453	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.998	321258	2.47		104	992	
D 14 13C4 PFOA										
417.00 > 372.00	3.438	3.438	0.0	1.000	2505867	2.78		111	3792	
* 62 13C2 PFOA										
415.00 > 370.00	3.438	3.438	0.0		2483356	2.50			4212	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.438	3.447	-0.009	1.000	942330	0.8473	Target=2.40	84.7	295	
413.00 > 169.00	3.438	3.447	-0.009	1.000	447643		2.11(1.20-3.60)		2233	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.000	621644	0.9033	Target=5.74	97.3	2222	M
499.00 > 99.00	3.805	3.817	-0.012	0.997	102645		6.06(2.87-8.61)		699	M
D 18 13C4 PFOS										
503.00 > 80.00	3.817	3.817	0.0	1.110	1523523	2.53		106	5255	
20 Perfluorononanoic acid										
463.00 > 419.00	3.842	3.829	0.013	1.003	896373	1.09	Target=7.01	109	423	
463.00 > 169.00	3.829	3.829	0.0	1.000	119137		7.52(3.50-10.51)		1399	
D 19 13C5 PFNA										
468.00 > 423.00	3.829	3.842	-0.013	1.114	2105630	2.54		101	5993	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.994	3.994	0.0	1.046	639429	0.8134		87.3	3435	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.141	4.141	0.0	1.085	463612	0.8803	Target=3.14	91.7	1905	
549.00 > 99.00	4.141	4.141	0.0	1.085	171179		2.71(1.57-4.71)		828	
D 23 13C2 PFDA										
515.00 > 470.00	4.164	4.175	-0.011	1.211	2056896	2.52		101	5515	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.175	4.175	0.0	1.003	803758	1.01	Target=7.28	101	867	
513.00 > 169.00	4.175	4.175	0.0	1.003	115056		6.99(3.64-10.91)		520	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.175	4.185	-0.010	1.214	458097	2.95		123	1759	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.175	4.185	-0.010	1.000	85509	0.9685		101	1517	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.251	4.239	0.012	1.003	783454	0.8439		84.4	3761	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.233	2332249	2.18		87.2	4913	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.317	4.317	0.0	1.255	194213	2.47		98.6	1514	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.328	4.328	0.0	1.003	60740	0.8998		90.0	3719	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.420	4.420	0.0	1.158	409293	0.8923	Target=2.76	92.6	2032	
599.00 > 99.00	4.420	4.420	0.0	1.158	162935		2.51(1.38-4.14)		1192	
D 30 13C2 PFUnA										
565.00 > 520.00	4.443	4.456	-0.013	1.292	1859572	2.67		107	8291	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.443	4.456	-0.013	1.000	595176	0.9437	Target=5.78	94.4	659	
563.00 > 169.00	4.443	4.456	-0.013	1.000	105580		5.64(2.89-8.67)		2369	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.296	178634	2.05		81.8	798	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.470	4.469	0.001	1.003	56582	0.9567		95.7	730	M
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.550	4.550	0.0	1.192	551618	0.7442		79.0	3325	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.693	4.693	0.0	1.000	575864	0.8991	Target=5.13	89.9	94.0	
613.00 > 169.00	4.693	4.693	0.0	1.000	115689		4.98(2.56-7.69)		1695	
D 36 13C2 PFDoA										
615.00 > 570.00	4.693	4.693	0.0	1.365	1732763	2.27		90.9	9222	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.714	4.714	0.0	1.129	42717	0.7621		79.1	754	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.861	4.860	0.001	1.273	145428	0.8340	Target=0.45	86.2	397	
699.00 > 99.00	4.861	4.860	0.001	1.273	288767		0.50(0.22-0.67)		2976	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.906	4.906	0.0	1.045	524675	0.8623	Target=3.82	86.2	95.5	
663.00 > 169.00	4.897	4.906	-0.009	1.043	144591		3.63(1.91-5.74)		1252	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.094	5.094	0.0	1.481	1404756	2.20		87.9	8811	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.094	5.094	0.0	1.000	117159	1.04	Target=1.05	104	1241	
713.00 > 219.00	5.085	5.094	-0.009	0.998	101032		1.16(0.52-1.57)		1232	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.446	5.457	-0.011	1.000	455714	0.9718	Target=3.20	97.2	123	
813.00 > 169.00	5.446	5.457	-0.011	1.000	150292		3.03(1.60-4.80)		1468	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.446	5.457	-0.011	1.584	1287894	2.19		87.6	5690	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.812	5.823	-0.011	1.067	327234	0.8795	Target=2.86	87.9	107	
913.00 > 169.00	5.807	5.823	-0.016	1.066	123101		2.66(1.43-4.29)		1457	

QC Flag Legend

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:18:58 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d

Injection Date: 07-Dec-2019 06:38:38 Instrument ID: LC812

Lims ID: LCS 200-150277/2-A

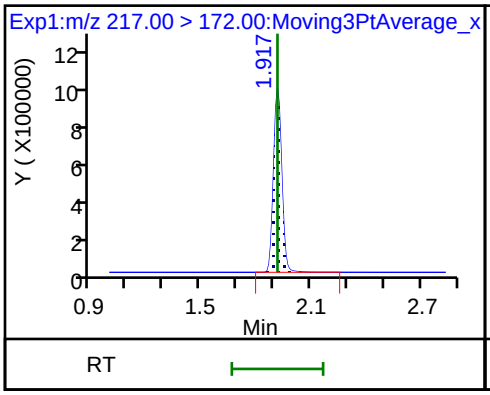
Client ID:

Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3

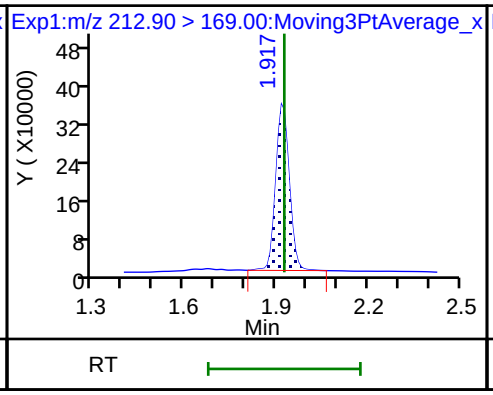
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

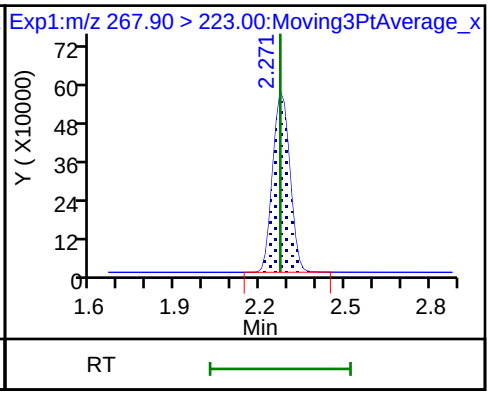
D 1 13C4 PFBA



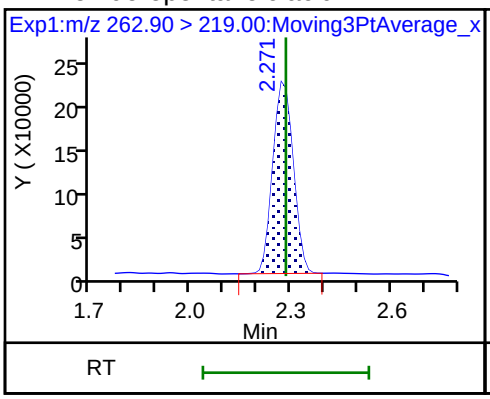
2 Perfluorobutanoic acid



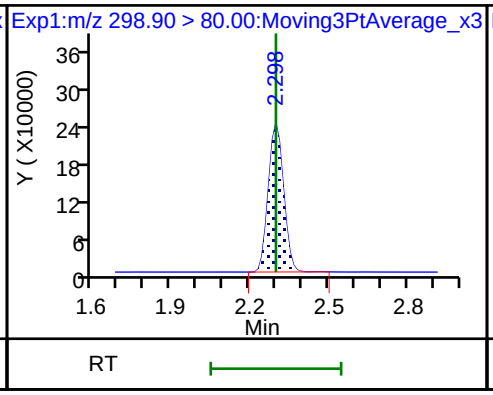
D 3 13C5 PFPeA



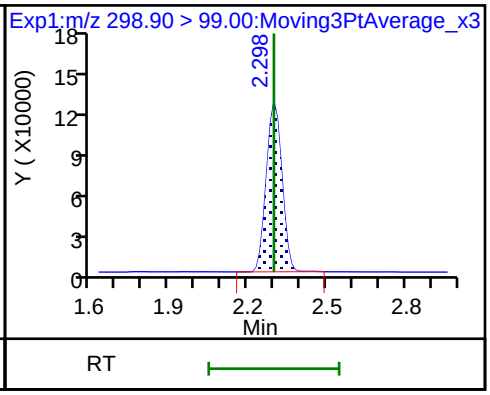
4 Perfluoropentanoic acid



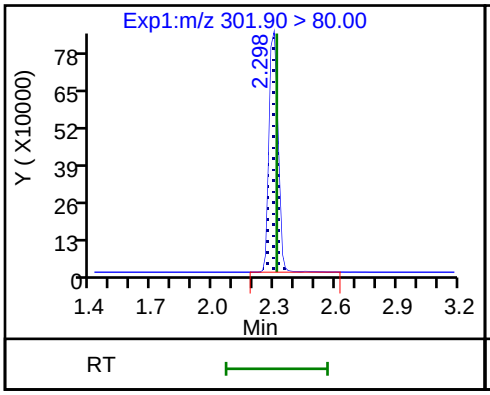
5 Perfluorobutanesulfonic acid



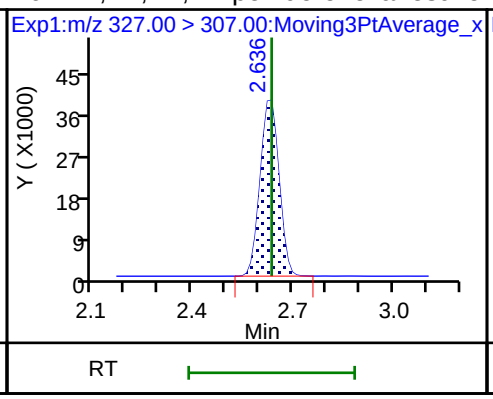
5 Perfluorobutanesulfonic acid



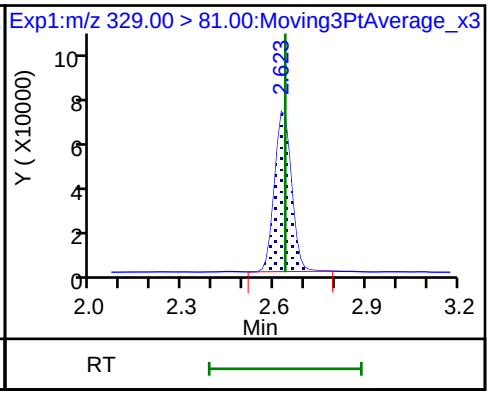
D 47 13C3 PFBS



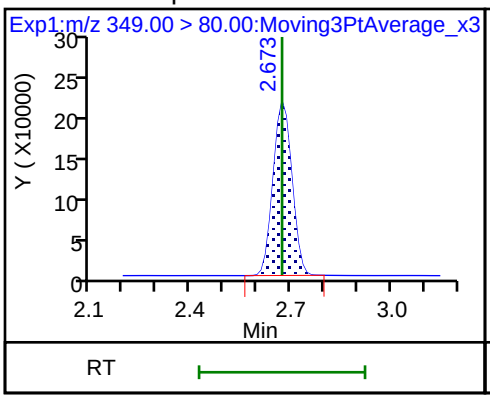
61 1H,1H,2H,2H-perfluorohexanesulfon



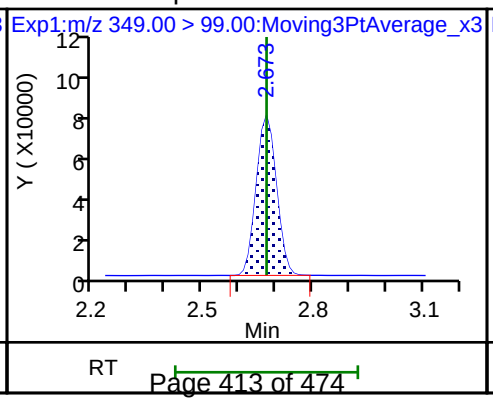
D 60 M2-4:2 FTS



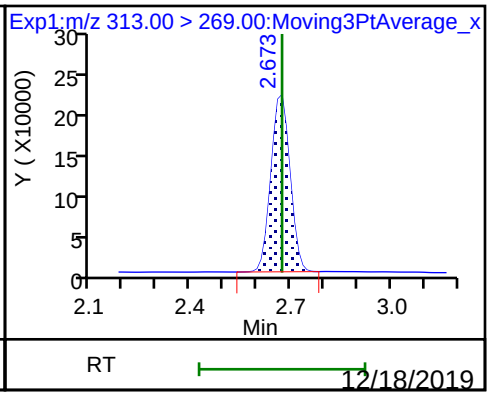
70 Perfluoropentanesulfonic acid



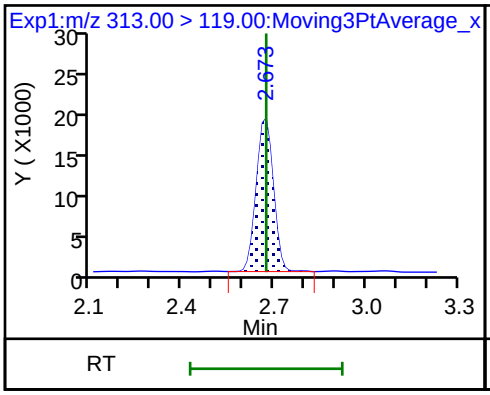
70 Perfluoropentanesulfonic acid



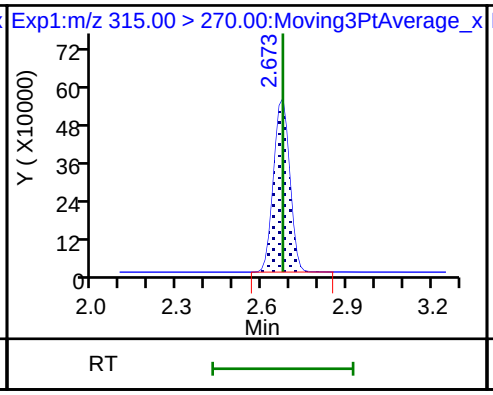
6 Perfluorohexanoic acid



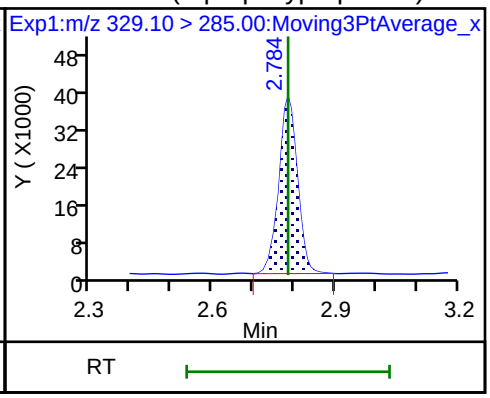
6 Perfluorohexanoic acid



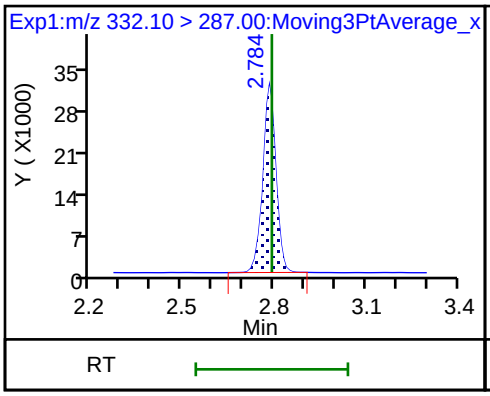
D 7 13C2 PFHxA



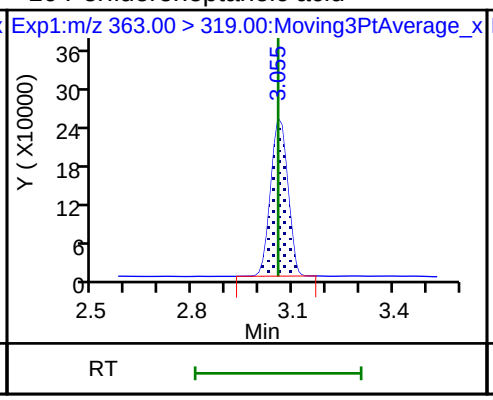
67 Perfluoro(2-propoxypropanoic) acid



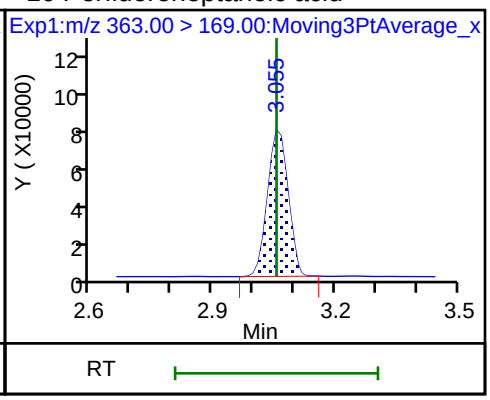
D 64 13C3 HFPO-DA



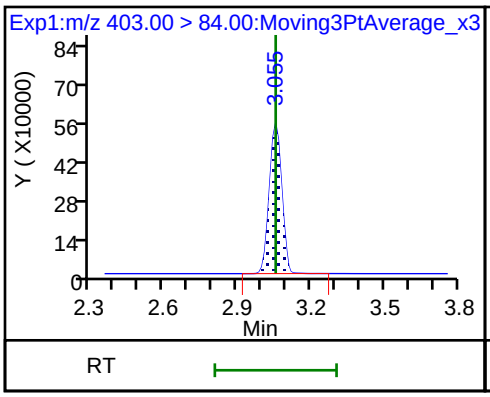
10 Perfluoroheptanoic acid



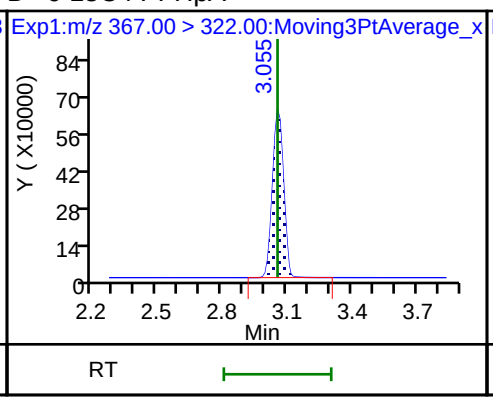
10 Perfluoroheptanoic acid



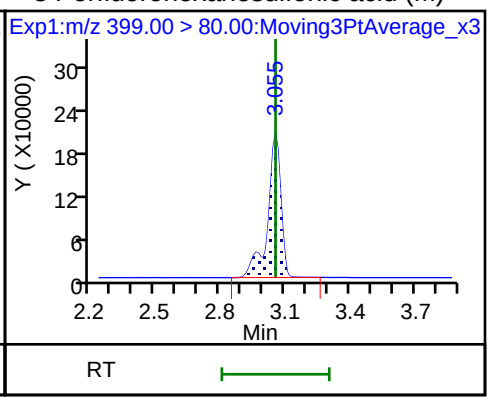
D 11 18O2 PFHxS



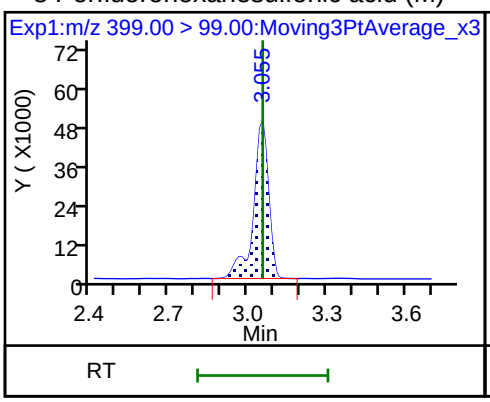
D 9 13C4 PFHpA



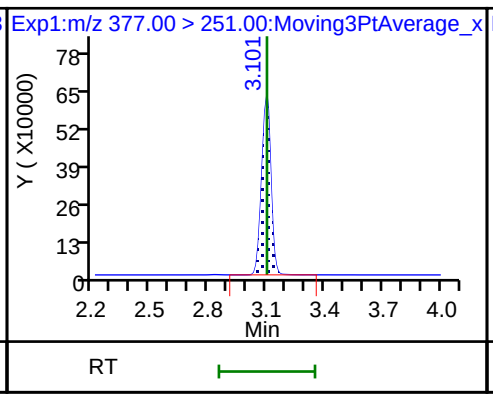
8 Perfluorohexanesulfonic acid (M)



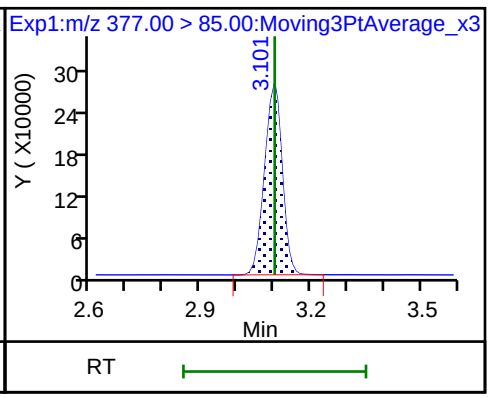
8 Perfluorohexanesulfonic acid (M)



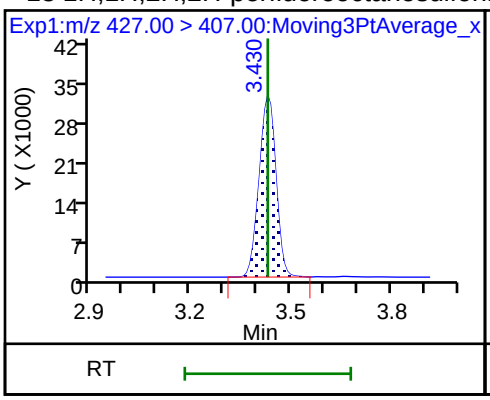
77 DONA



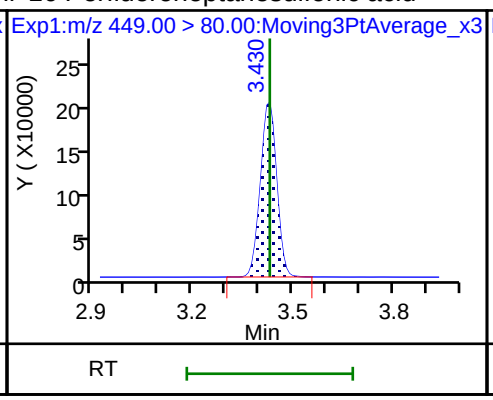
77 DONA



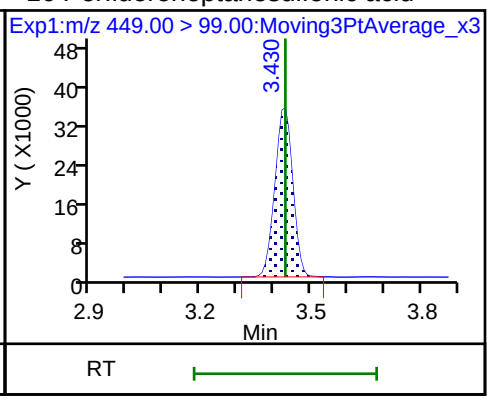
13 1H,1H,2H,2H-perfluorooctanesulfoni



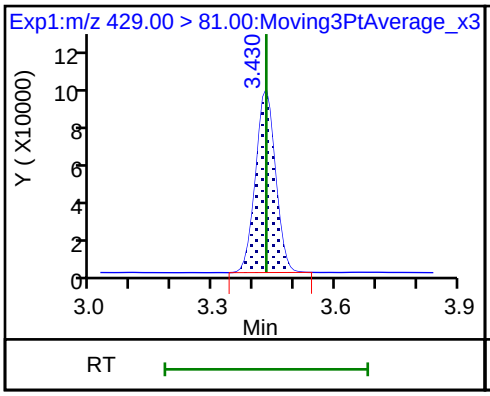
16 Perfluoroheptanesulfonic acid



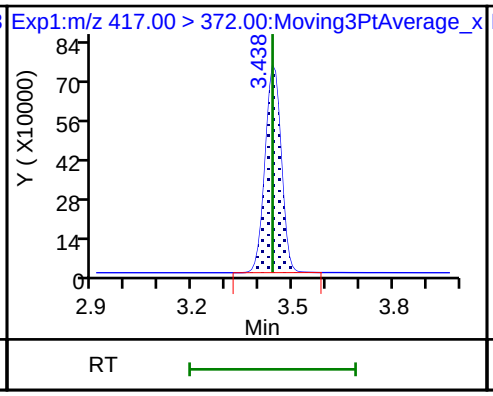
16 Perfluoroheptanesulfonic acid



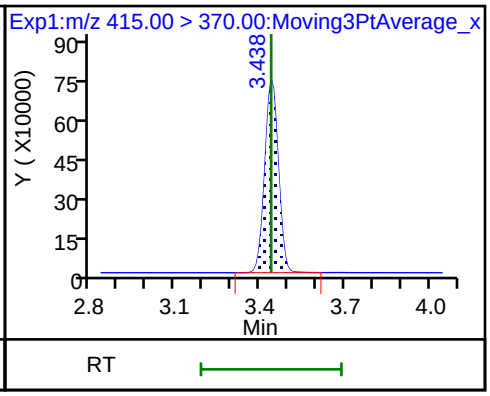
D 12 M2-6:2 FTS



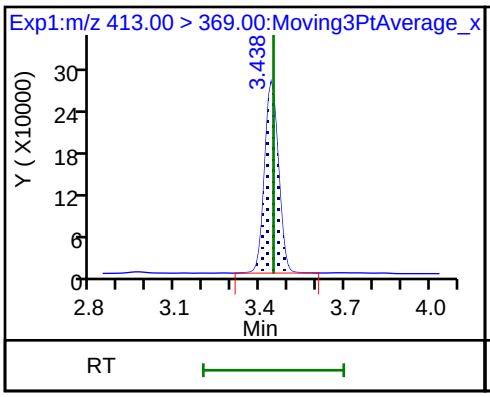
D 14 13C4 PFOA



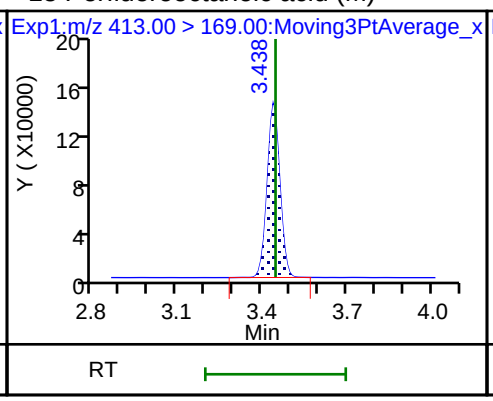
* 62 13C2 PFOA



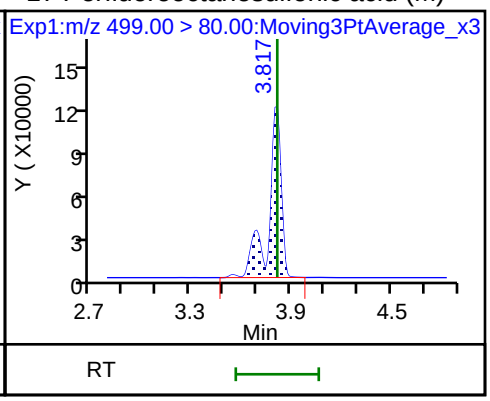
15 Perfluorooctanoic acid



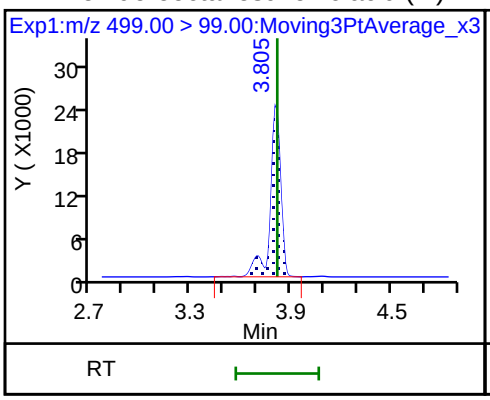
15 Perfluorooctanoic acid (M)



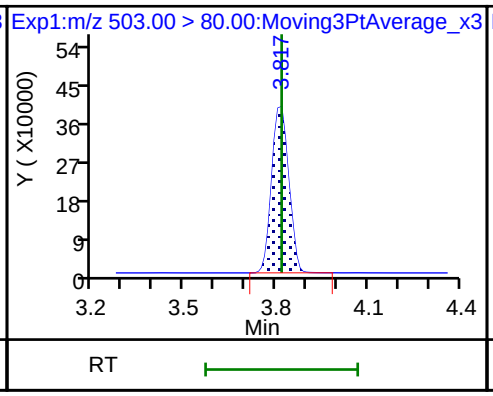
17 Perfluorooctanesulfonic acid (M)



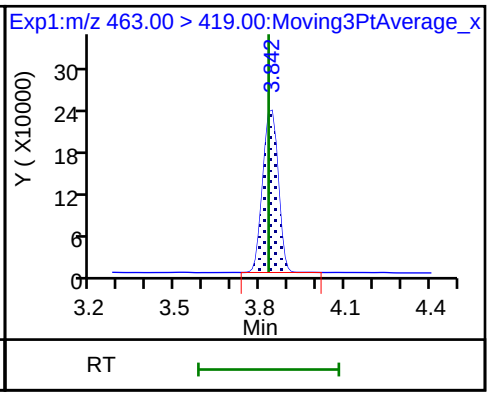
17 Perfluorooctanesulfonic acid (M)



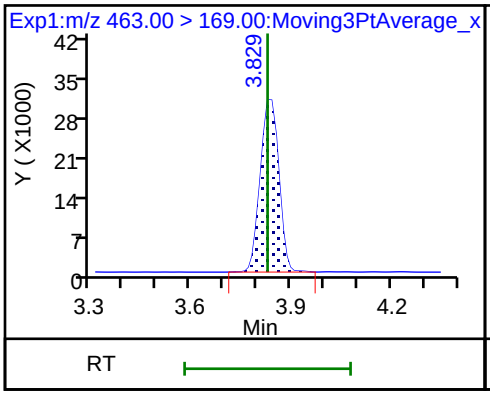
D 18 13C4 PFOS



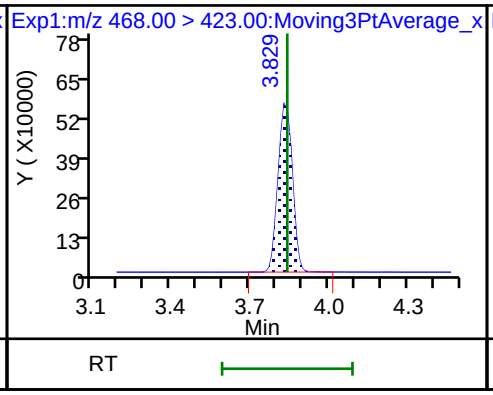
20 Perfluorononanoic acid



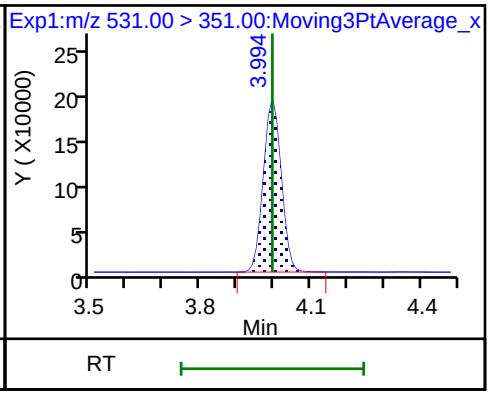
20 Perfluorononanoic acid



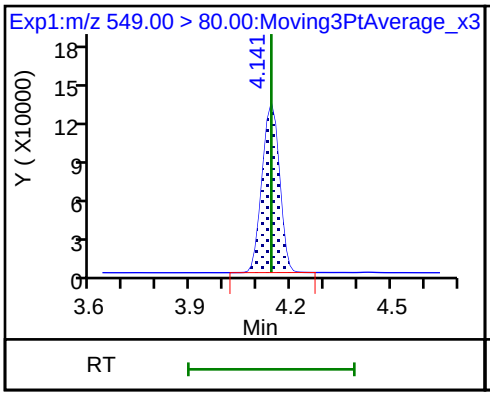
D 19 13C5 PFNA



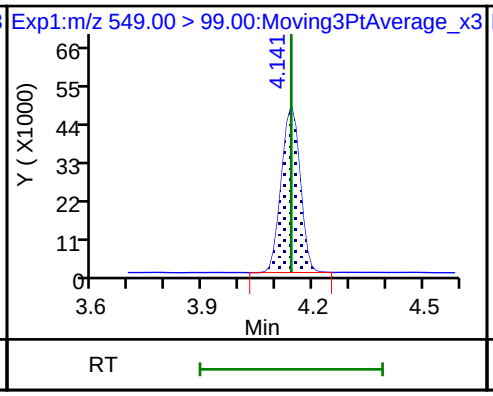
69 9-Chlorohexadecafluoro-3-oxanonane



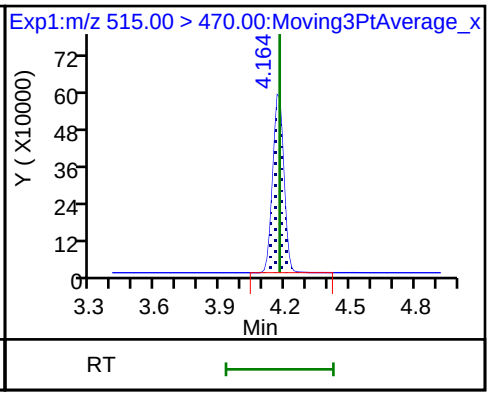
68 Perfluorononanesulfonic acid



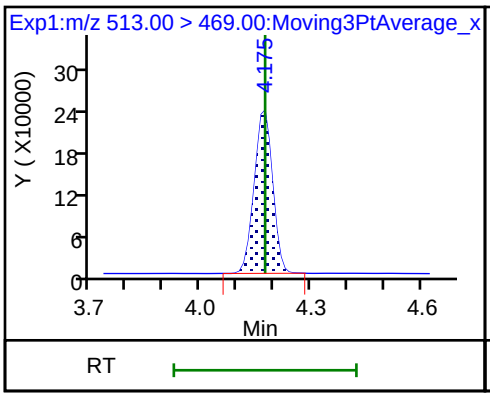
68 Perfluorononanesulfonic acid



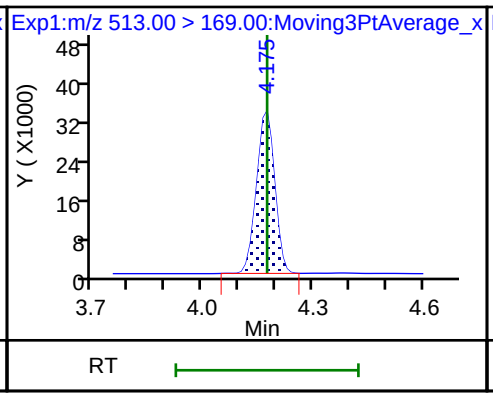
D 23 13C2 PFDA



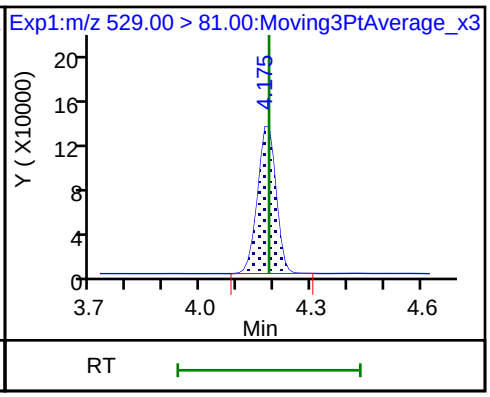
24 Perfluorodecanoic acid



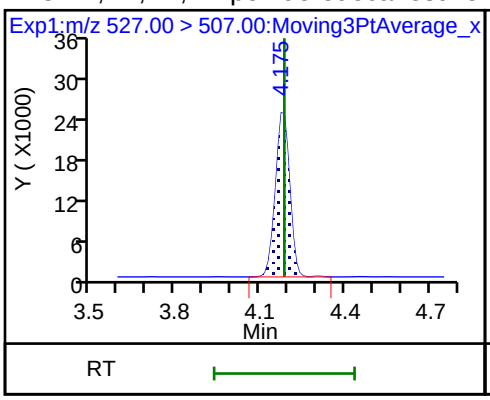
24 Perfluorodecanoic acid



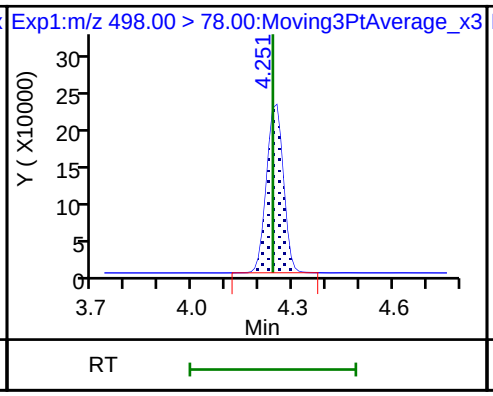
D 26 M2-8:2 FTS



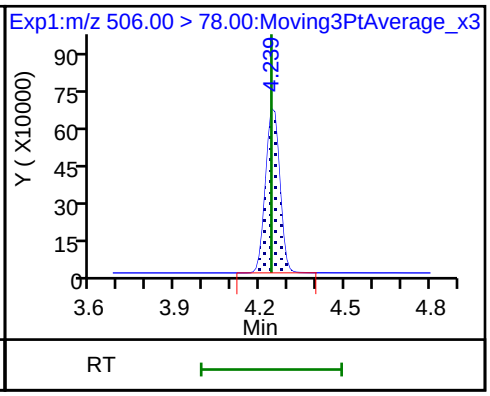
25 1H,1H,2H,2H-perfluorodecanesulfoni



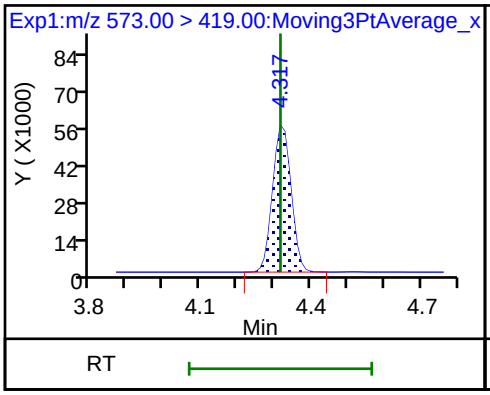
22 Perfluorooctanesulfonamide



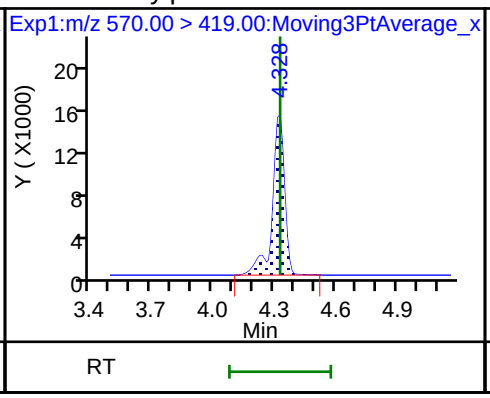
D 21 13C8 FOSA



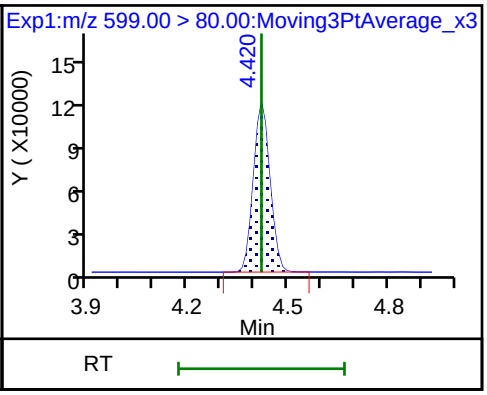
D 27 d3-NMeFOSAA



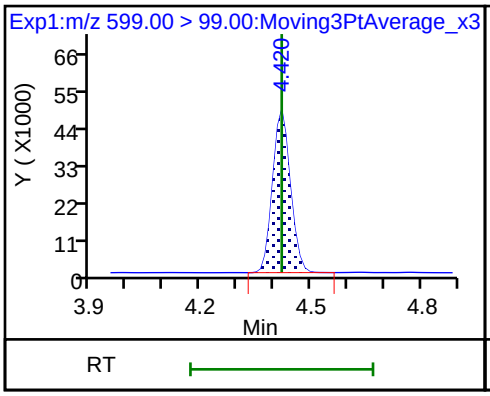
28 N-methylperfluorooctanesulfonamido



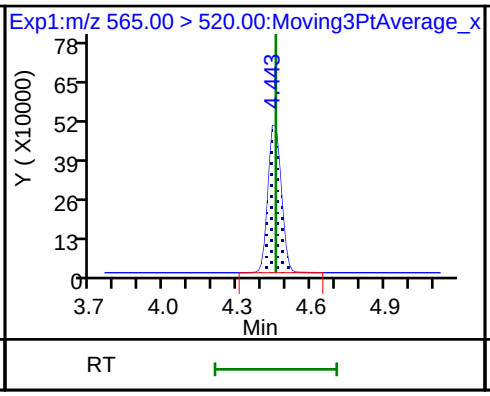
29 Perfluorodecanesulfonic acid



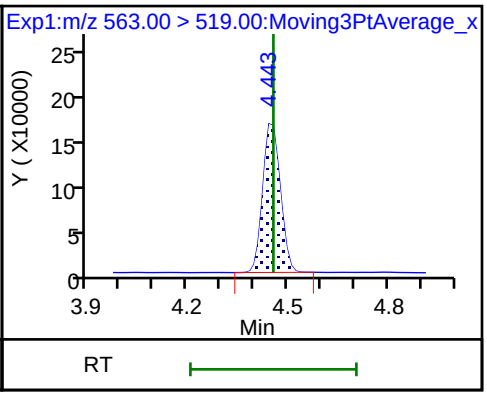
29 Perfluorodecanesulfonic acid



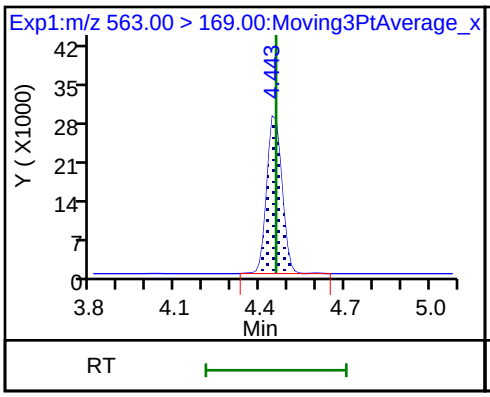
D 30 13C2 PFUnA



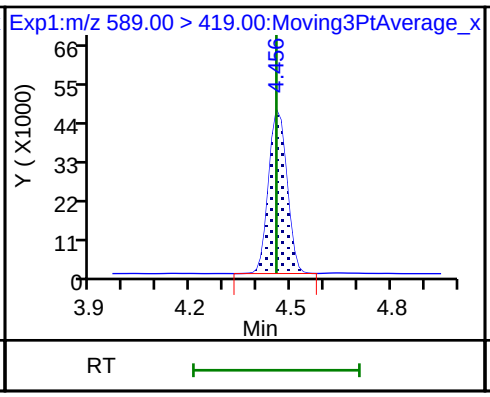
31 Perfluoroundecanoic acid



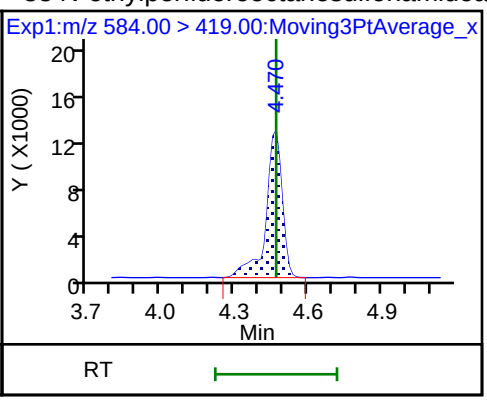
31 Perfluoroundecanoic acid



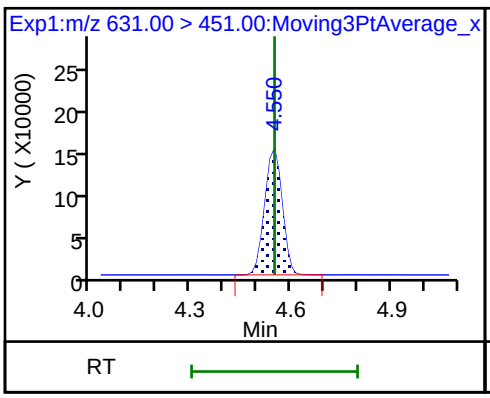
D 32 d5-NEtFOSAA



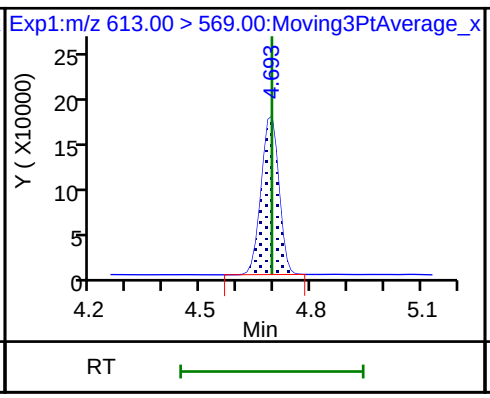
33 N-ethylperfluorooctanesulfonamidoa (M)



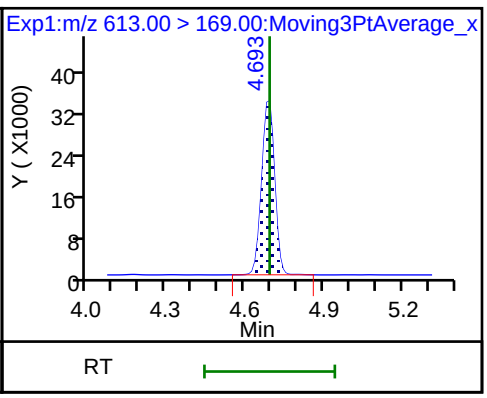
66 11-Chloroeicosafluoro-3-oxaundecan



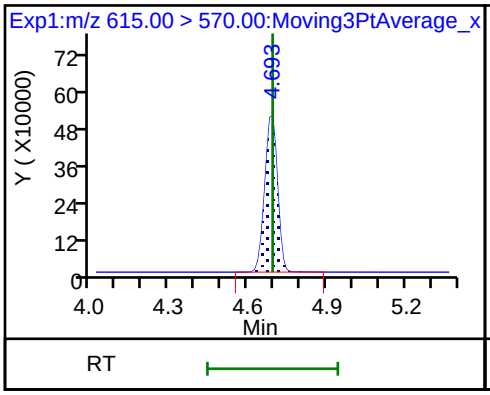
37 Perfluorododecanoic acid



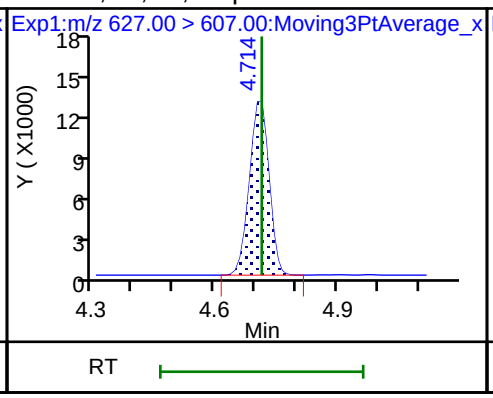
37 Perfluorododecanoic acid



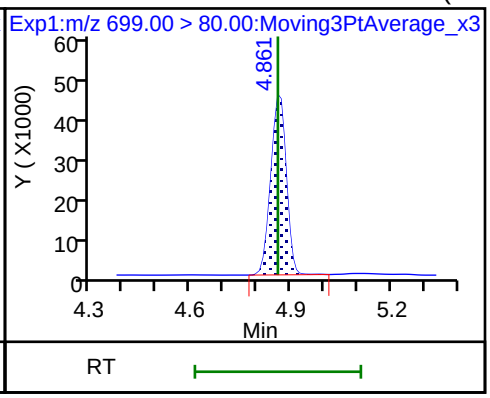
D 36 13C2 PFDoA



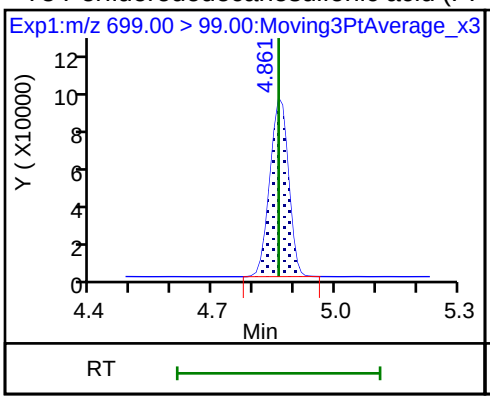
74 1H,1H,2H,2H-perfluorododecanesulfo



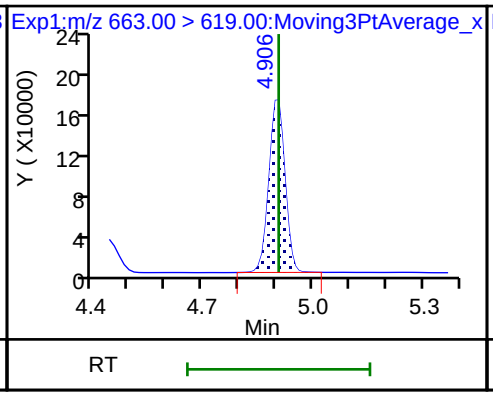
75 Perfluorododecanesulfonic acid (PF



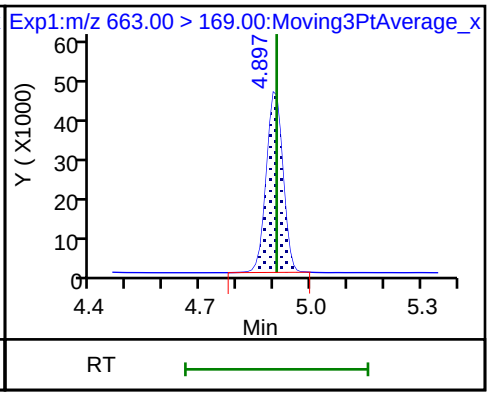
75 Perfluorododecanesulfonic acid (PF



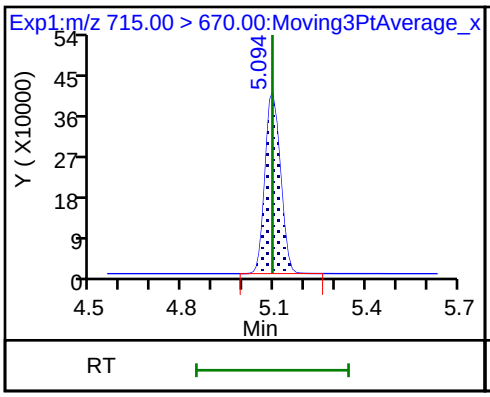
41 Perfluorotridecanoic acid



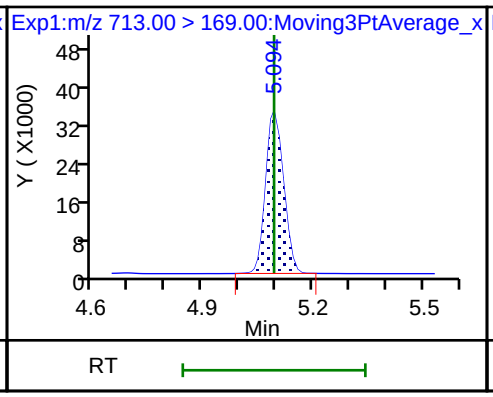
41 Perfluorotridecanoic acid



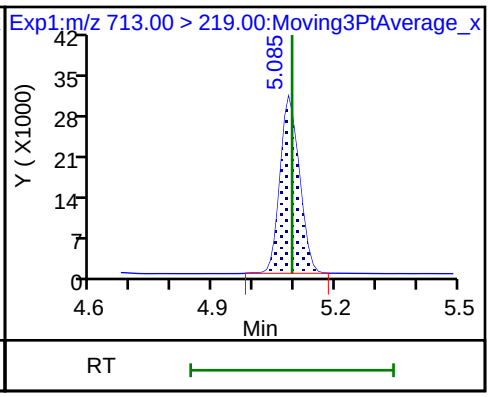
D 43 13C2 PFTeDA



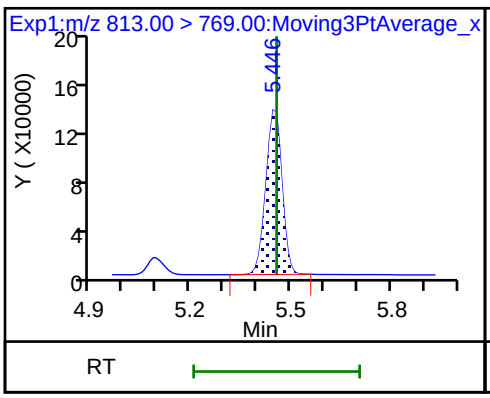
42 Perfluorotetradecanoic acid



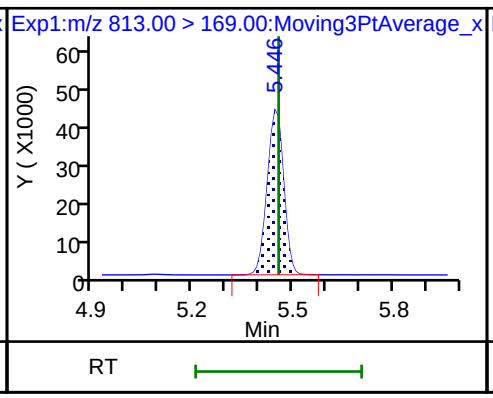
42 Perfluorotetradecanoic acid



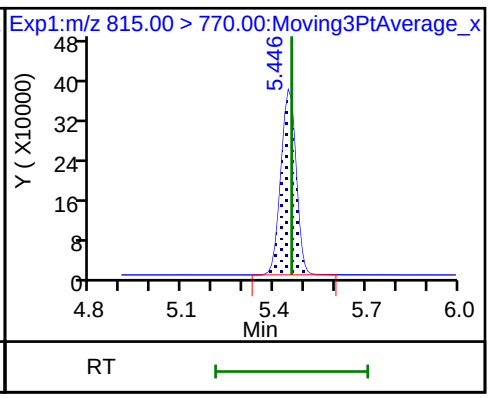
45 Perfluorohexadecanoic acid



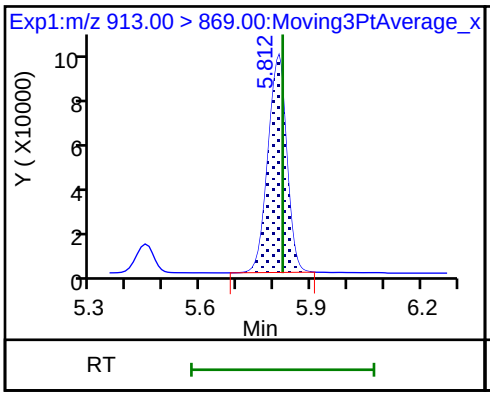
45 Perfluorohexadecanoic acid



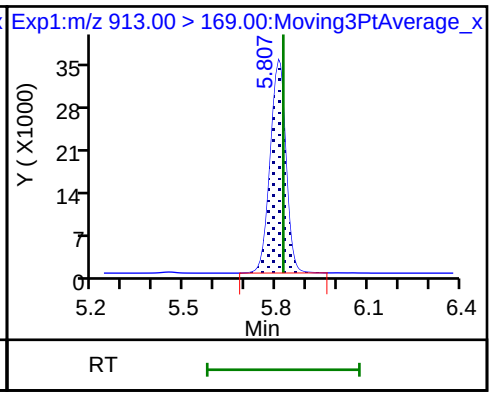
D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

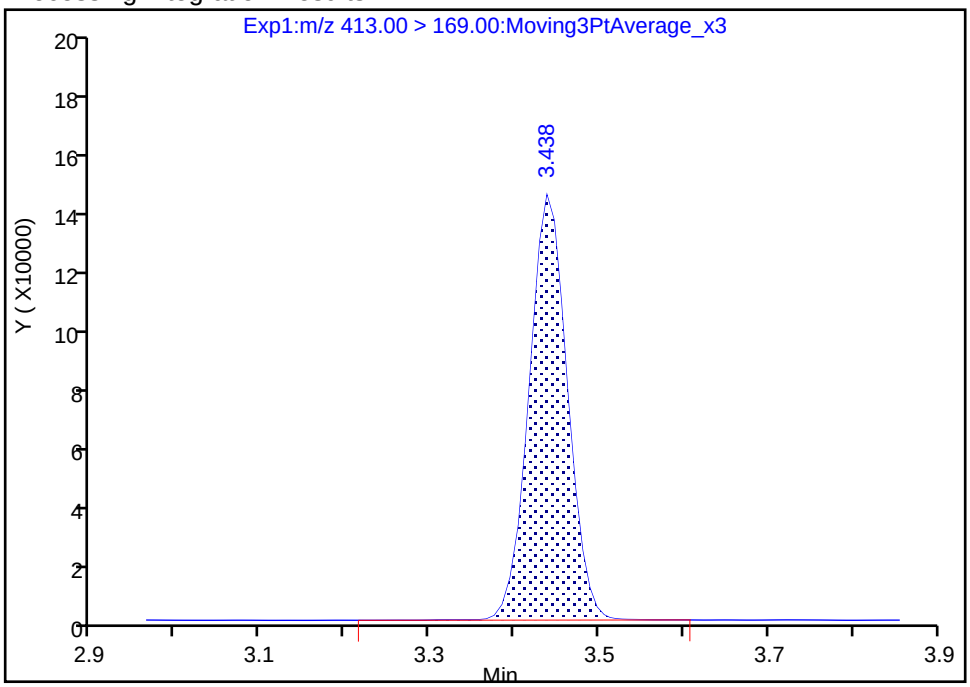
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d
Injection Date: 07-Dec-2019 06:38:38 Instrument ID: LC812
Lims ID: LCS 200-150277/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

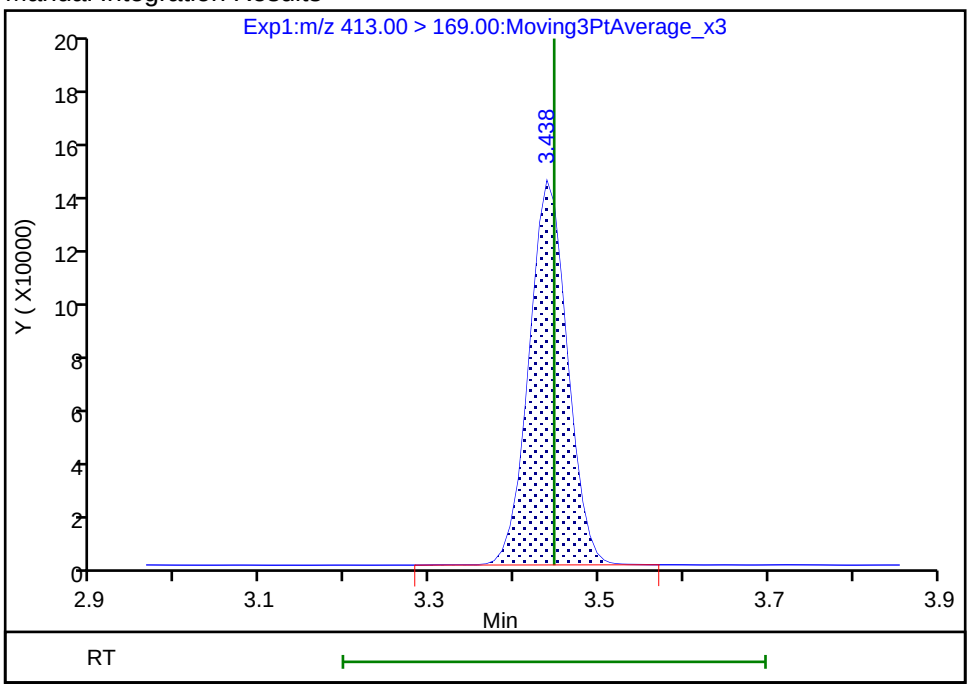
RT: 3.44
Area: 448120
Amount: 0.847321
Amount Units: ng/ml

Processing Integration Results



RT: 3.44
Area: 447643
Amount: 0.847321
Amount Units: ng/ml

Manual Integration Results



Reviewer: manopan, 09-Dec-2019 13:15:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

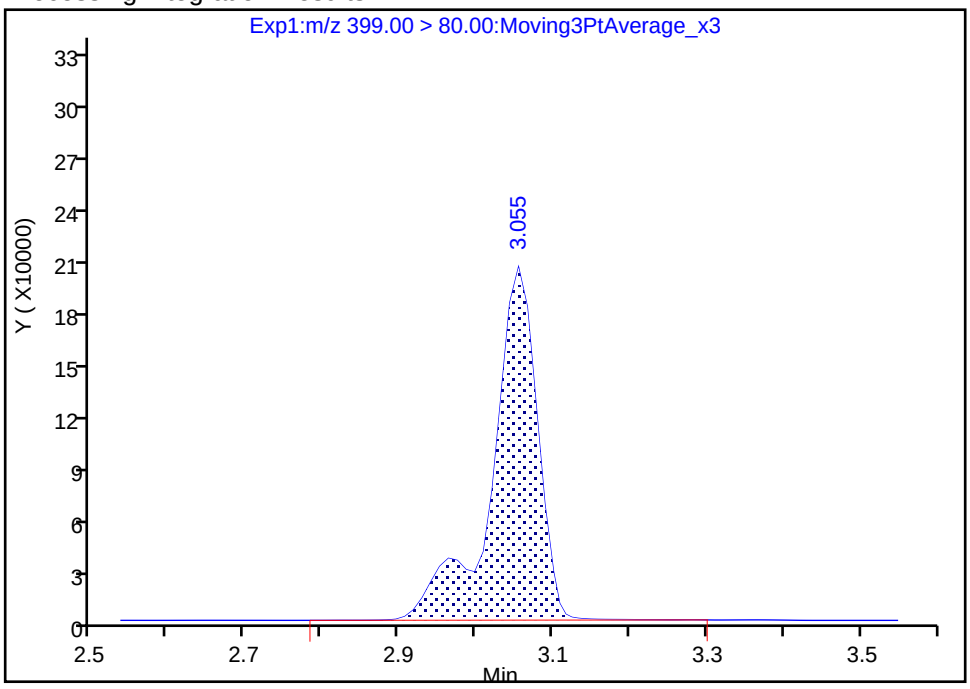
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d
Injection Date: 07-Dec-2019 06:38:38 Instrument ID: LC812
Lims ID: LCS 200-150277/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

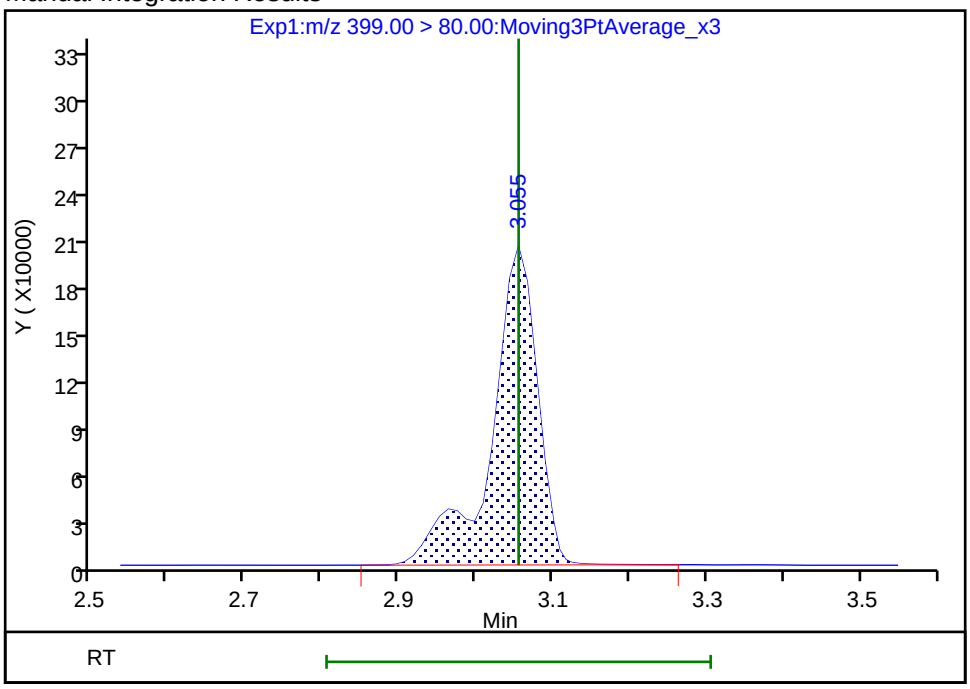
Processing Integration Results

RT: 3.06
Area: 836723
Amount: 0.903952
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 835605
Amount: 0.902745
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:16:23
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

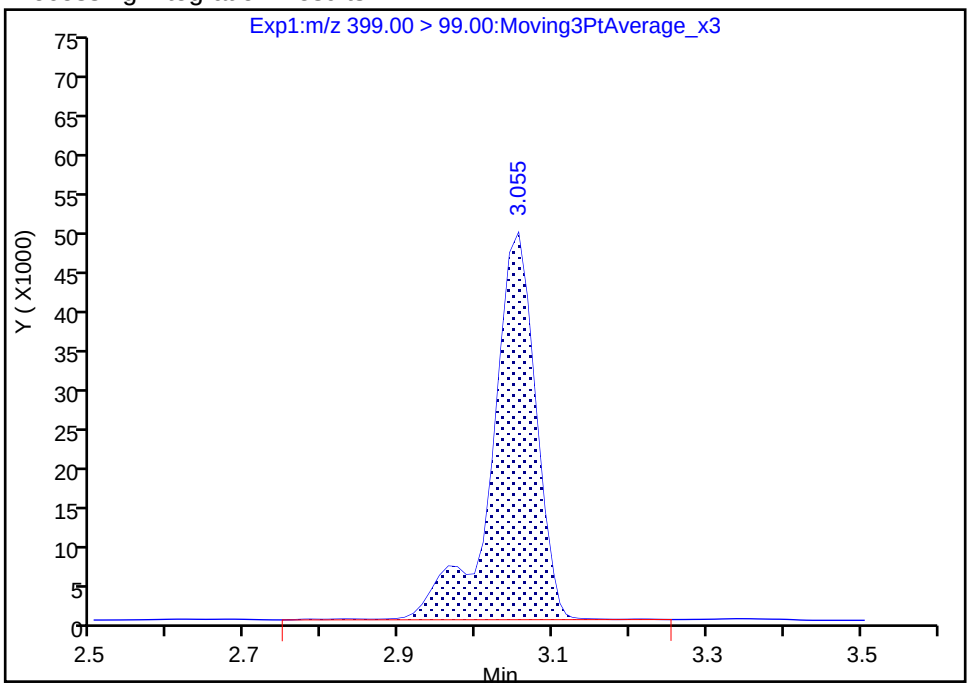
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d				
Injection Date:	07-Dec-2019 06:38:38	Instrument ID:	LC812		
Lims ID:	LCS 200-150277/2-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

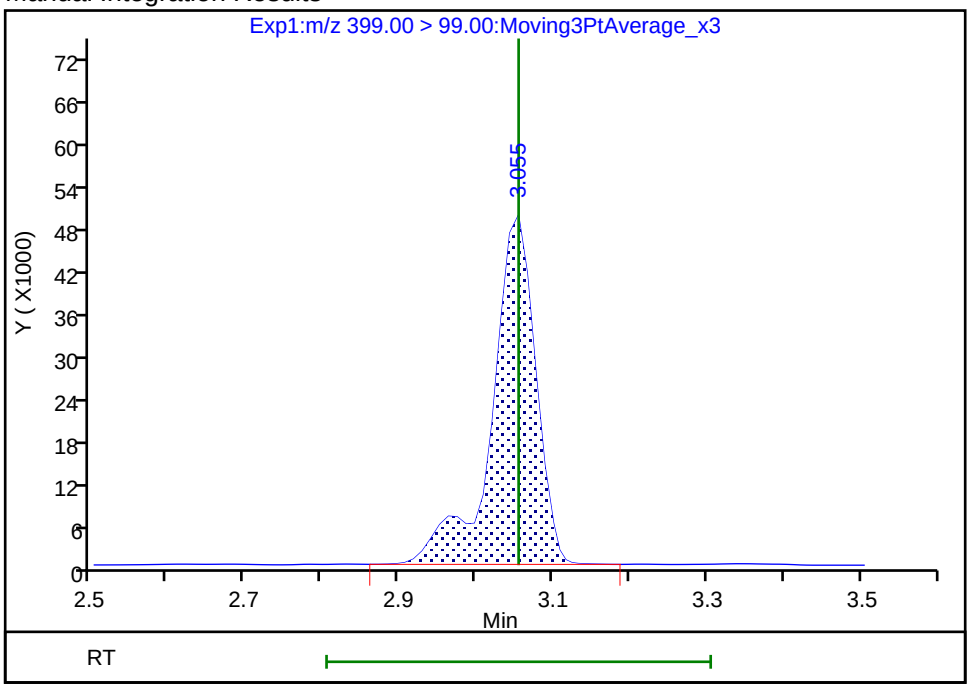
Processing Integration Results

RT: 3.06
Area: 198972
Amount: 0.903952
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 197634
Amount: 0.902745
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:16:27

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

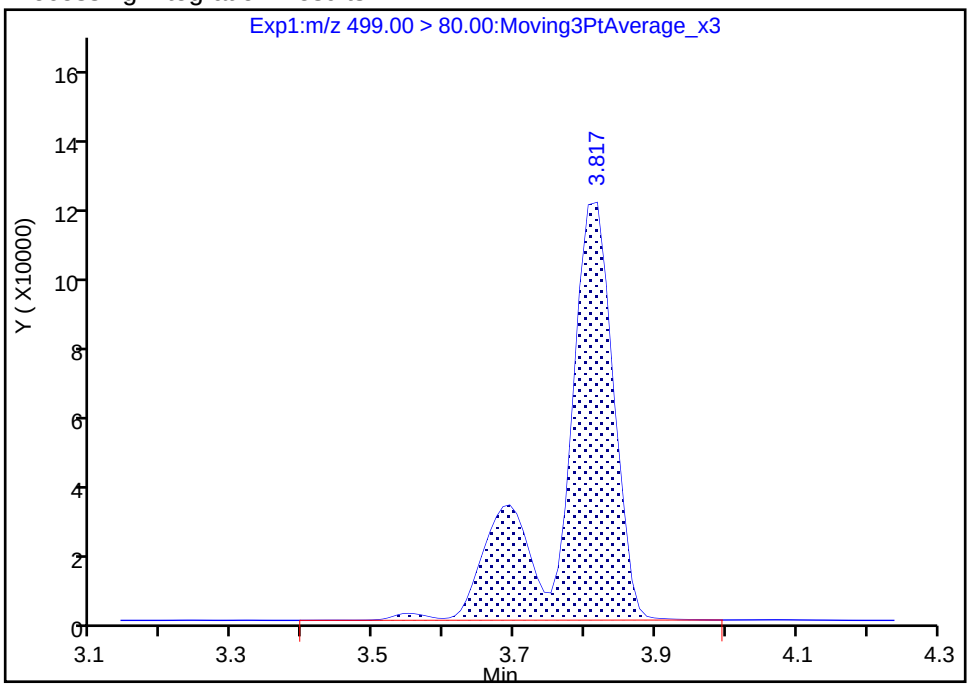
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d
Injection Date: 07-Dec-2019 06:38:38 Instrument ID: LC812
Lims ID: LCS 200-150277/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

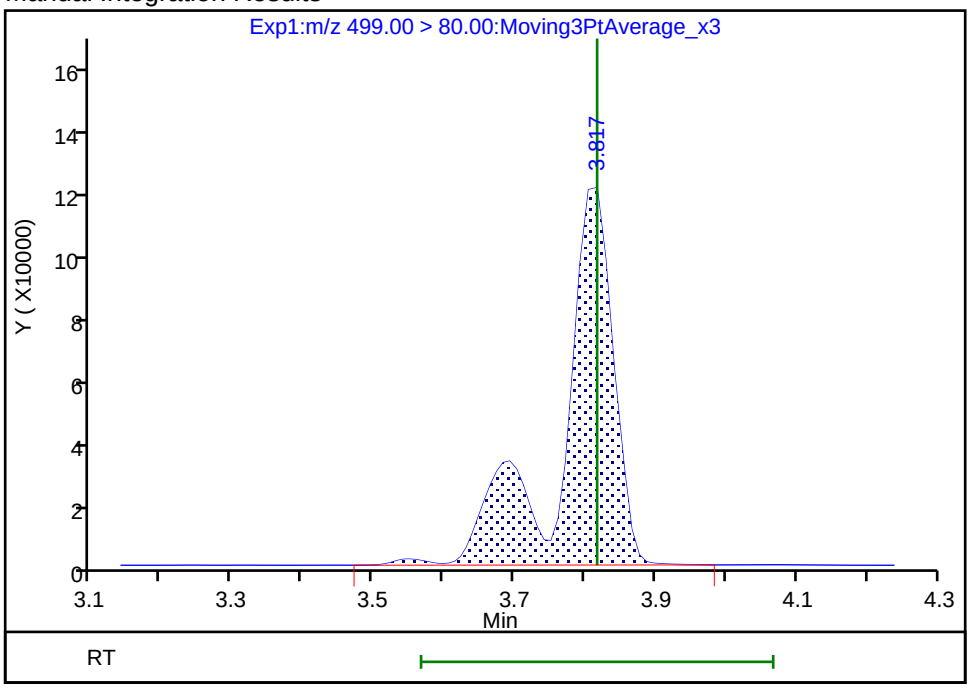
Processing Integration Results

RT: 3.82
Area: 621714
Amount: 0.903449
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 621644
Amount: 0.903347
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:15:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

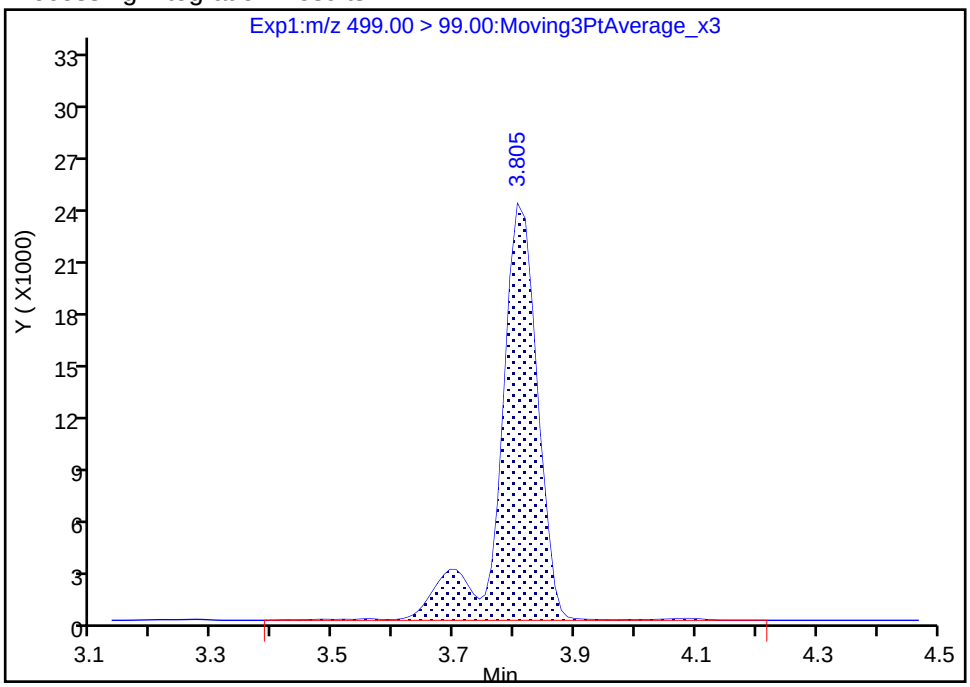
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d				
Injection Date:	07-Dec-2019 06:38:38	Instrument ID:	LC812		
Lims ID:	LCS 200-150277/2-A				
Client ID:					
Operator ID:	lc812tech	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

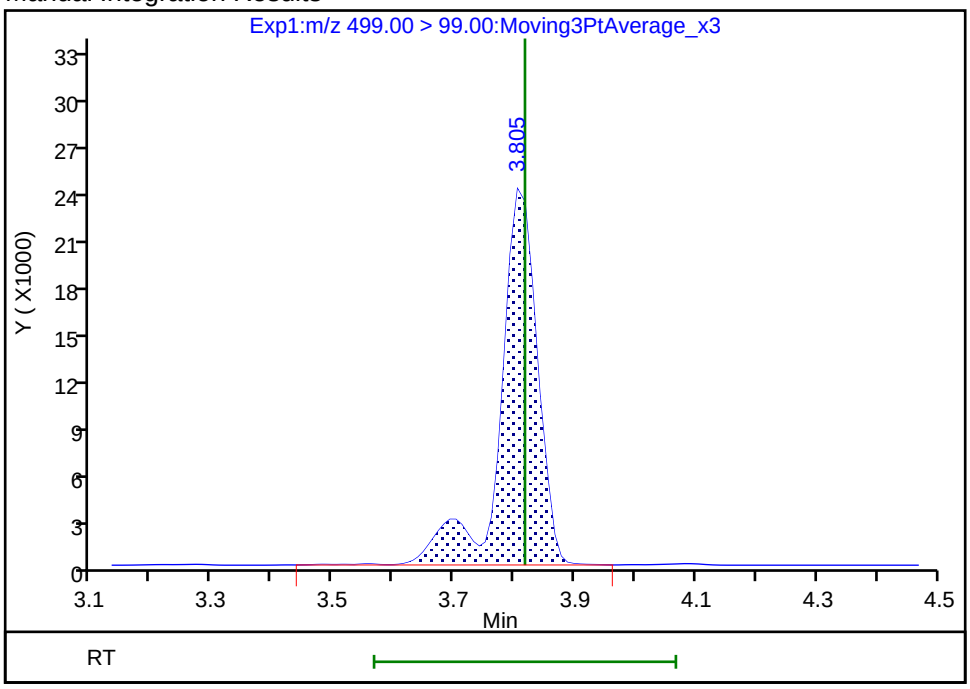
Processing Integration Results

RT: 3.80
Area: 103631
Amount: 0.903449
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 102645
Amount: 0.903347
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:15:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

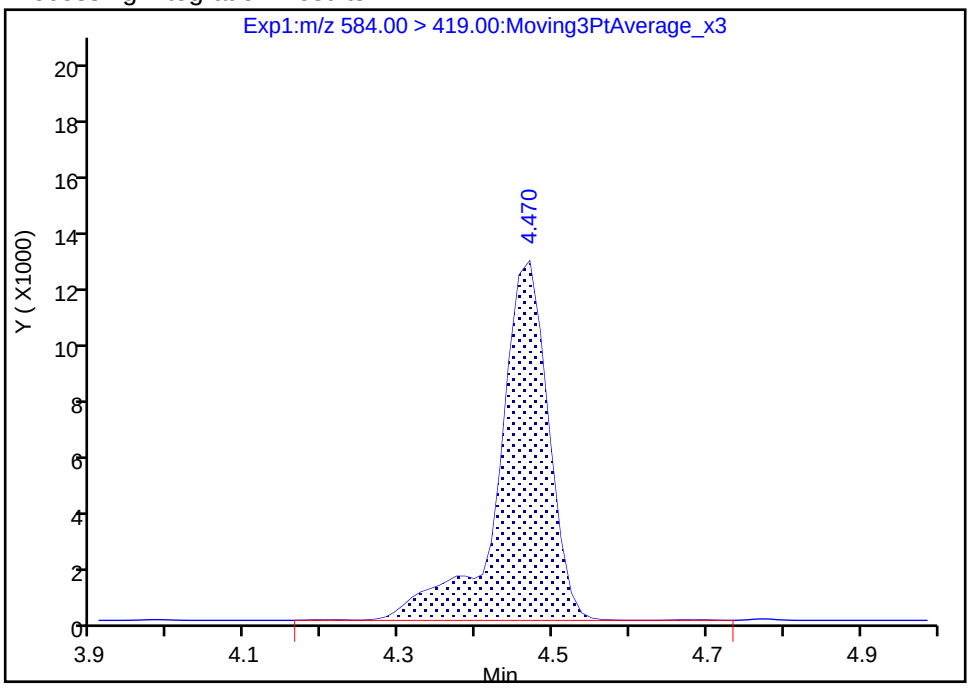
Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F003.d
Injection Date: 07-Dec-2019 06:38:38 Instrument ID: LC812
Lims ID: LCS 200-150277/2-A
Client ID:
Operator ID: lc812tech ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Method: PFC_LC812 Limit Group: LC_PFC_ICAL
Column: C-18 (4.60 mm) Detector EXP1

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

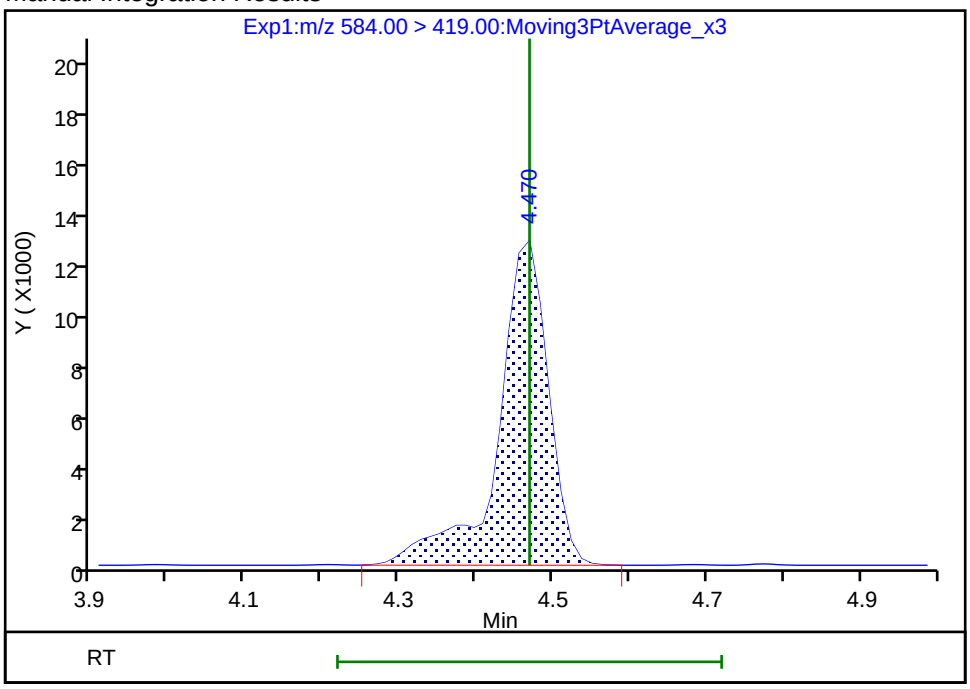
Processing Integration Results

RT: 4.47
Area: 56754
Amount: 0.959608
Amount Units: ng/ml



Manual Integration Results

RT: 4.47
Area: 56582
Amount: 0.956700
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:15:07
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-03 MS Lab Sample ID: 480-163109-2 MS

Matrix: Water Lab File ID: SC120619F022.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 16:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 308.3(mL) Date Analyzed: 12/07/2019 09:14

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	33.2		1.6	0.81
2706-90-3	Perfluoropentanoic acid (PFPeA)	27.2		1.6	0.51
307-24-4	Perfluorohexanoic acid (PFHxA)	31.6		1.6	0.62
375-85-9	Perfluoroheptanoic acid (PFHpA)	29.5		1.6	0.74
335-67-1	Perfluorooctanoic acid (PFOA)	36.3		1.6	0.66
375-95-1	Perfluorononanoic acid (PFNA)	30.4		1.6	0.22
335-76-2	Perfluorodecanoic acid (PFDA)	31.0		1.6	0.62
2058-94-8	Perfluoroundecanoic acid (PFUnA)	27.7		1.6	0.63
307-55-1	Perfluorododecanoic acid (PFDoA)	32.9		1.6	0.48
72629-94-8	Perfluorotridecanoic acid (PFTriA)	30.0		1.6	0.49
376-06-7	Perfluorotetradecanoic acid (PFTeA)	30.7		1.6	0.75
375-73-5	Perfluorobutanesulfonic acid (PFBS)	31.0		1.6	0.40
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	34.9		1.6	0.65
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	33.5		1.6	0.77
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	192		1.6	0.49
335-77-3	Perfluorodecanesulfonic acid (PFDS)	28.9		1.6	0.73
754-91-6	Perfluorooctanesulfonamide (PFOSA)	32.0		8.1	8.1
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	33.1		16	1.4
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	28.9		16	1.2
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	27.3		16	4.5
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	28.8		16	2.4

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-03 MS Lab Sample ID: 480-163109-2 MS

Matrix: Water Lab File ID: SC120619F022.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 16:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 308.3(mL) Date Analyzed: 12/07/2019 09:14

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	120		50-150
STL01892	13C4 PFHpA	125		50-150
STL00990	13C4 PFOA	111		50-150
STL00991	13C4 PFOS	107		50-150
STL00995	13C5 PFNA	108		50-150
STL00992	13C4 PFBA	91		25-150
STL00993	13C2 PFHxA	112		50-150
STL00996	13C2 PFDA	101		50-150
STL00997	13C2 PFUnA	96		50-150
STL00998	13C2 PFDoA	90		50-150
STL01056	13C8 FOSA	88		25-150
STL01893	13C5 PFPeA	114		25-150
STL02116	13C2 PFTeDA	97		50-150
STL02118	d3-NMeFOSAA	75		50-150
STL02117	d5-NEtFOSAA	89		50-150
STL02279	M2-6:2 FTS	107		25-150
STL02280	M2-8:2 FTS	119		25-150
STL02337	13C3 PFBS	116		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d
Lims ID: 480-163109-A-2-B MS
Client ID: MW-03
Sample Type: MS
Inject. Date: 07-Dec-2019 09:14:23 ALS Bottle#: 22 Worklist Smp#: 22
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 480-163109-A-2-B MS
Misc. Info.: 200-0039120-022 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 13:28:41
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.556	1735751	2.27		90.7	11815	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.917	1.926	-0.009	1.000	706370	1.02		102	152	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.659	1665346	2.84		114	2727	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.271	2.285	-0.014	1.000	633119	0.8393		83.9	18.3	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.000	844884	0.9554	Target=2.03	108	80.4	
298.90 > 99.00	2.298	2.298	0.0	1.000	432293		1.95(1.01-3.04)		128	
D 47 13C3 PFBS										
301.90 > 80.00	2.298	2.312	-0.014	0.667	1891632	2.71		116	89721	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.636	2.636	0.0	1.000	120370	0.8126		87.0	1279	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.636	2.636	0.0	0.765	199660	3.06		131	50.1	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.673	0.0	0.875	714207	0.9317	Target=3.50	99.3	157	
349.00 > 99.00	2.673	2.673	0.0	0.875	238962		2.99(1.75-5.25)		189	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.673	2.673	0.0	1.000	729667	0.9750	Target=13.76	97.5	49.0	
313.00 > 119.00	2.673	2.673	0.0	1.000	63023		11.58(6.88-20.64)		103	
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.775	1832397	2.81		112	4737	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.791	2.784	0.007	1.003	100575	0.8349		83.5	32.8	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.784	2.792	-0.008	0.808	83875	2.94		118	602	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.066	3.055	0.011	1.004	745358	0.9088	Target=3.95	90.9	89.2	
363.00 > 169.00	3.066	3.055	0.011	1.004	221463		3.37(1.97-5.92)		699	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.886	1561242	2.83		120	8980	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.886	1939435	3.13		125	5687	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	804056	1.08	Target=3.90	118	231	M
399.00 > 99.00	3.055	3.055	0.0	1.000	202161		3.98(1.95-5.85)		263	M
77 DONA										
377.00 > 251.00	3.101	3.101	0.0	0.812	1680926	1.02	Target=2.49	108	2788	
377.00 > 85.00	3.101	3.101	0.0	0.812	675437		2.49(1.24-3.73)		880	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.430	3.430	0.0	1.000	80337	0.8413		88.7	811	
16 Perfluoroheptanesulfonic acid										
449.00 > 80.00	3.430	3.430	0.0	0.899	593033	1.03	Target=6.46	109	203	
449.00 > 99.00	3.430	3.430	0.0	0.899	104445		5.68(3.23-9.69)		99.6	
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.995	240329	2.54		107	185	
D 14 13C4 PFOA										
417.00 > 372.00	3.438	3.438	0.0	0.998	1817068	2.77		111	4204	
* 62 13C2 PFOA										
415.00 > 370.00	3.447	3.438	0.009		1807670	2.50			5836	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.438	3.447	-0.009	1.000	901918	1.12	Target=2.40	112	132	M
413.00 > 169.00	3.438	3.447	-0.009	1.000	392315		2.30(1.20-3.60)		1272	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.000	2988661	5.91	Target=5.74	637	1350	M
499.00 > 99.00	3.805	3.817	-0.012	0.997	841708		3.55(2.87-8.61)		899	M
D 18 13C4 PFOS										
503.00 > 80.00	3.817	3.817	0.0	1.107	1118772	2.56		107	800	
20 Perfluorononanoic acid										
463.00 > 419.00	3.841	3.829	0.012	1.000	600029	0.9382	Target=7.01	93.8	151	
463.00 > 169.00	3.841	3.829	0.012	1.000	90673		6.62(3.50-10.51)		507	
D 19 13C5 PFNA										
468.00 > 423.00	3.841	3.842	-0.001	1.115	1630536	2.70		108	5809	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.994	3.994	0.0	1.046	463227	0.8025		86.1	2041	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.141	4.141	0.0	1.085	340177	0.8796	Target=3.14	91.6	631	
549.00 > 99.00	4.141	4.141	0.0	1.085	127243		2.67(1.57-4.71)		361	
D 23 13C2 PFDA										
515.00 > 470.00	4.174	4.175	-0.001	1.211	1504559	2.53		101	6280	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.174	4.175	-0.001	1.000	555663	0.9543	Target=7.28	95.4	346	
513.00 > 169.00	4.174	4.175	-0.001	1.000	76254		7.29(3.64-10.91)		703	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.185	4.185	0.0	1.214	322708	2.86		119	547	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.185	4.185	0.0	1.000	55153	0.8867		92.6	576	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.239	4.239	0.0	1.000	671797	0.9854		98.5	2425	
D 21 13C8 FOSA										
506.00 > 78.00	4.239	4.239	0.0	1.230	1712784	2.20		88.0	3726	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.328	4.317	0.011	1.256	108161	1.89		75.5	978	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.328	4.328	0.0	1.000	38406	1.02		102	791	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.420	4.420	0.0	1.158	299724	0.8898	Target=2.76	92.3	1662	
599.00 > 99.00	4.420	4.420	0.0	1.158	100561		2.98(1.38-4.14)		795	
D 30 13C2 PFUnA										
565.00 > 520.00	4.456	4.456	0.0	1.293	1213609	2.40		95.9	3323	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.456	4.456	0.0	1.000	351470	0.8539	Target=5.78	85.4	281	
563.00 > 169.00	4.456	4.456	0.0	1.000	72558		4.84(2.89-8.67)		825	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.456	4.456	0.0	1.293	140848	2.22		88.7	908	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.469	4.469	0.0	1.003	41615	0.8924		89.2	641	M
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.550	4.550	0.0	1.192	423024	0.7772		82.5	2501	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.693	4.693	0.0	1.000	468962	1.01	Target=5.13	101	127	
613.00 > 169.00	4.693	4.693	0.0	1.000	97803		4.79(2.56-7.69)		1452	
D 36 13C2 PFDoA										
615.00 > 570.00	4.693	4.693	0.0	1.362	1251550	2.25		90.2	4735	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.714	4.714	0.0	1.126	32548	0.8243		85.5	868	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.869	4.860	0.009	1.276	101335	0.7914	Target=0.45	81.8	305	
699.00 > 99.00	4.869	4.860	0.009	1.276	213235		0.48(0.22-0.67)		1565	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.906	4.906	0.0	1.045	406089	0.9241	Target=3.82	92.4	118	
663.00 > 169.00	4.906	4.906	0.0	1.045	124582		3.26(1.91-5.74)		1118	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.093	5.094	-0.001	1.478	1125048	2.42		96.7	7294	
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.093	5.094	-0.001	1.000	85465	0.9454	Target=1.05	94.5	1392	
713.00 > 219.00	5.085	5.094	-0.009	0.998	72301		1.18(0.52-1.57)		1142	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.456	5.457	-0.001	1.000	274438	0.9132	Target=3.20	91.3	93.7	
813.00 > 169.00	5.456	5.457	-0.001	1.000	93155		2.95(1.60-4.80)		1504	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.456	5.457	-0.001	1.583	823832	1.93		77.0	6592	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.817	5.823	-0.006	1.066	197742	0.8308	Target=2.86	83.1	98.4	
913.00 > 169.00	5.817	5.823	-0.006	1.066	74749		2.65(1.43-4.29)		1015	

QC Flag Legend

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:20:00 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d

Injection Date: 07-Dec-2019 09:14:23 Instrument ID: LC812

Lims ID: 480-163109-A-2-B MS

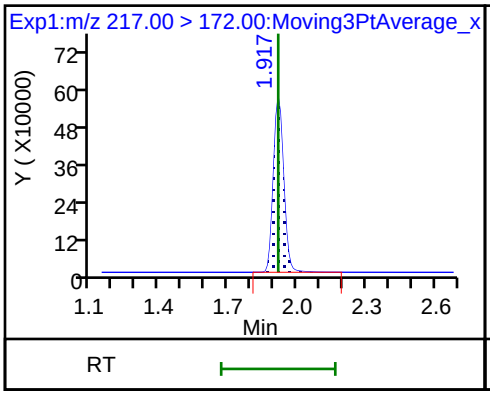
Client ID: MW-03

Operator ID: lc812tech ALS Bottle#: 22 Worklist Smp#: 22

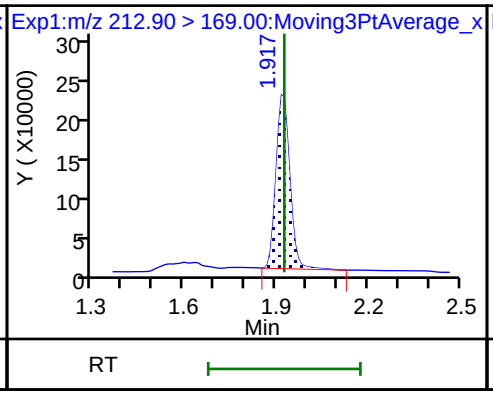
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

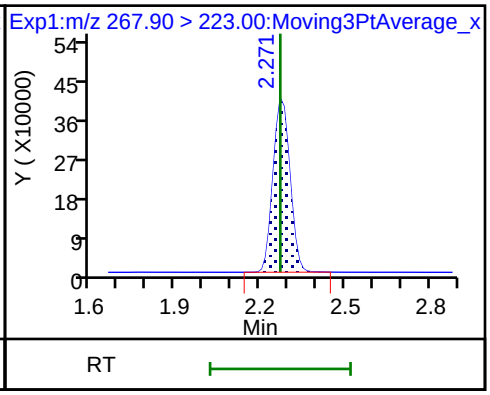
D 1 13C4 PFBA



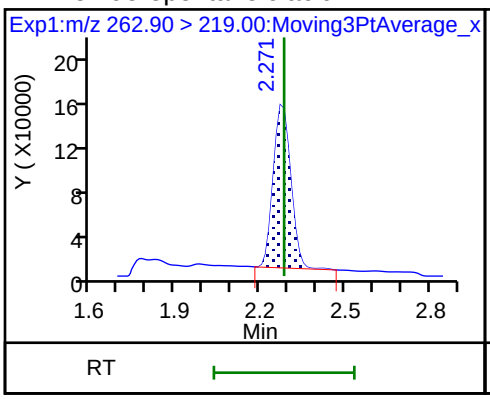
2 Perfluorobutanoic acid



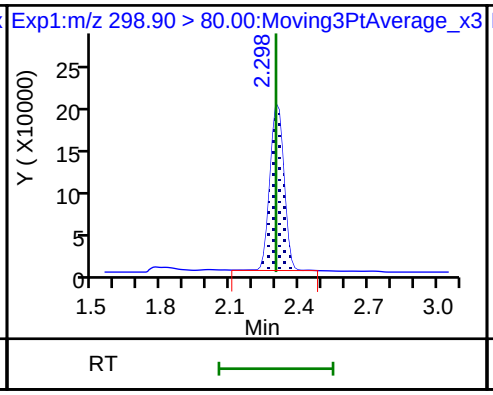
D 3 13C5 PFPeA



4 Perfluoropentanoic acid



5 Perfluorobutanesulfonic acid



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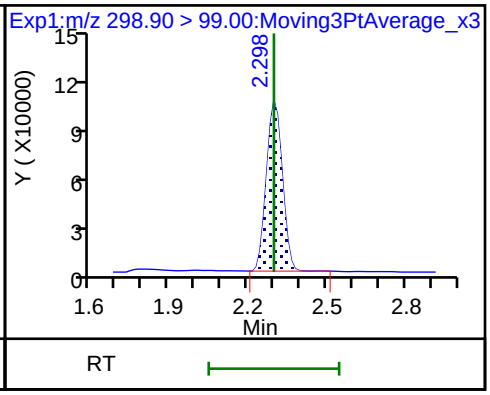
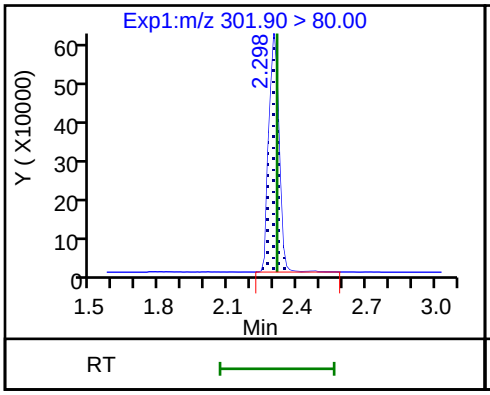
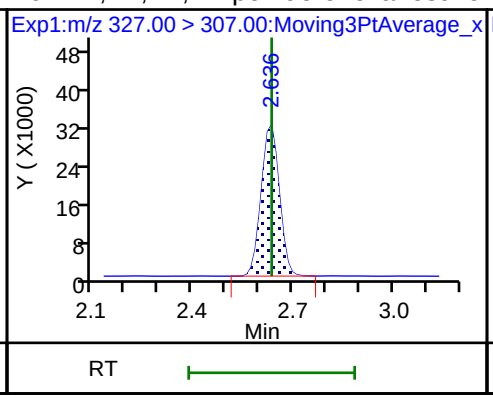


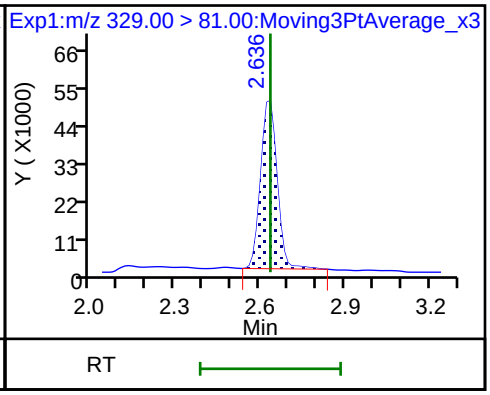
D 47 13C3 PFBS



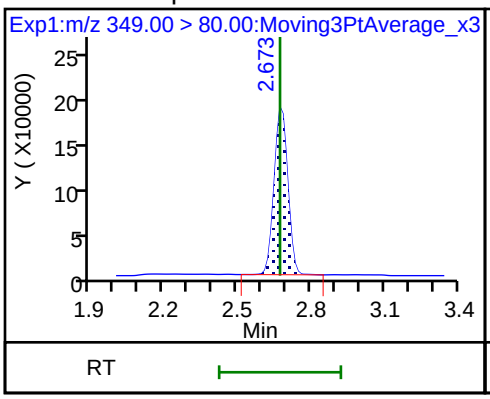
61 1H,1H,2H,2H-perfluorohexanesulfon



D 60 M2-4:2 FTS



70 Perfluoropentanesulfonic acid



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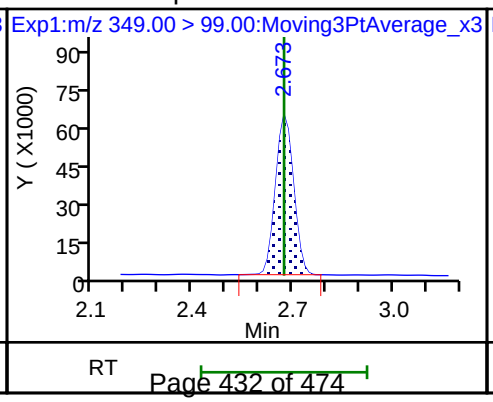
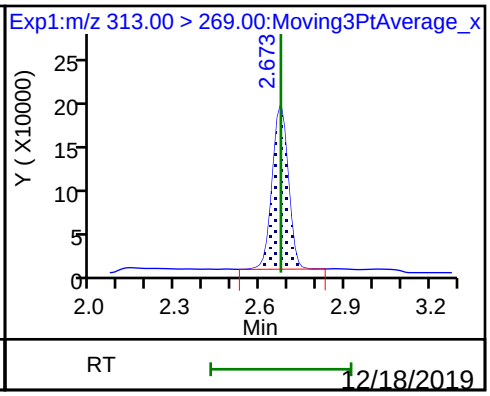
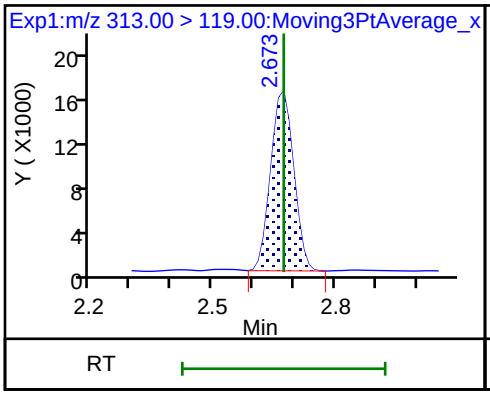


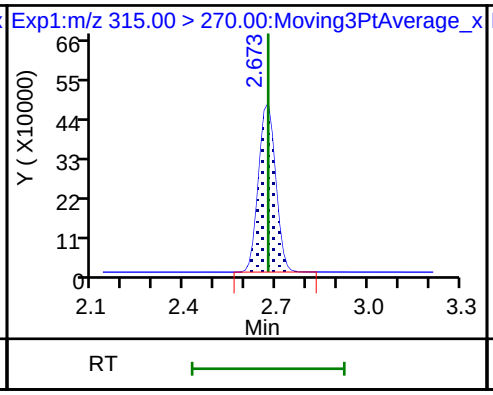
6 Perfluorohexanoic acid



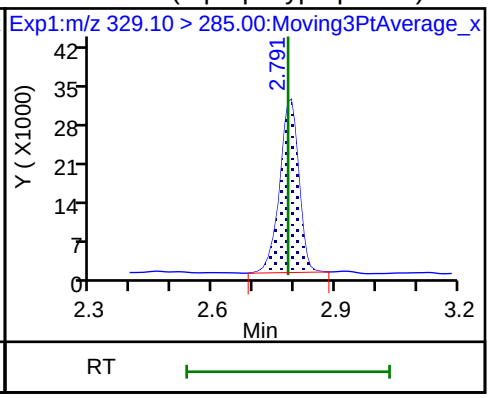
6 Perfluorohexanoic acid



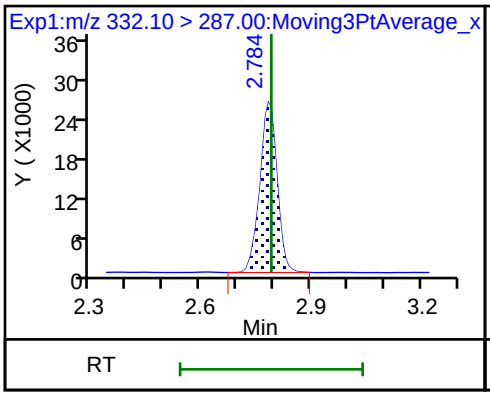
D 7 13C2 PFHxA



67 Perfluoro(2-propoxypropanoic) acid



D 64 13C3 HFPO-DA



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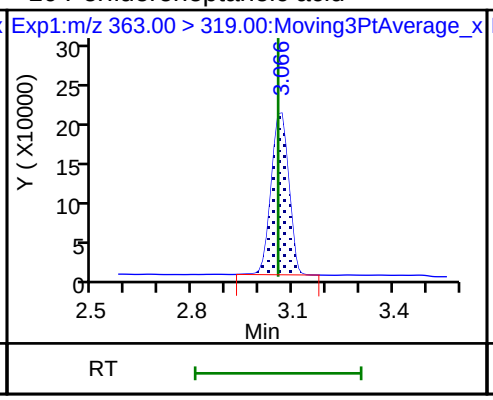

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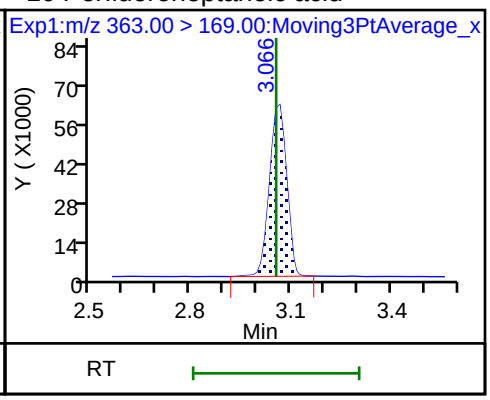
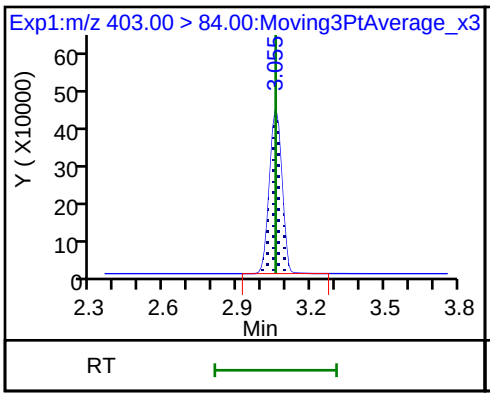


D 11 18O2 PFHxS



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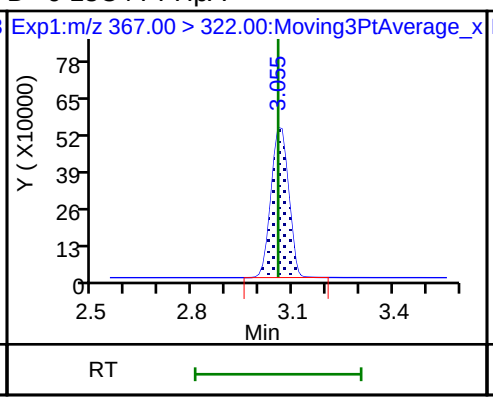
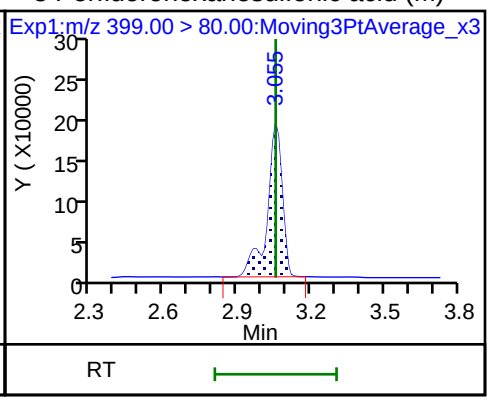


8 Perfluorohexanesulfonic acid (M)



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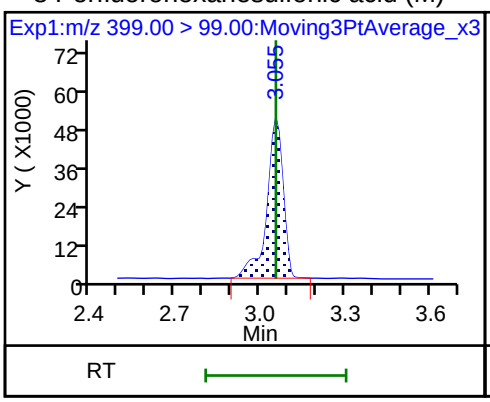
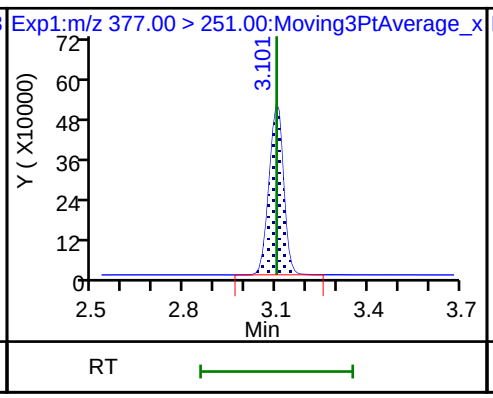
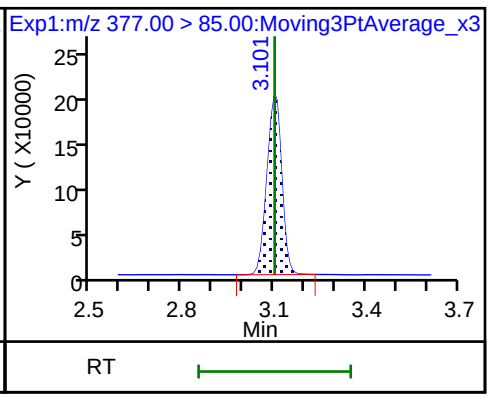


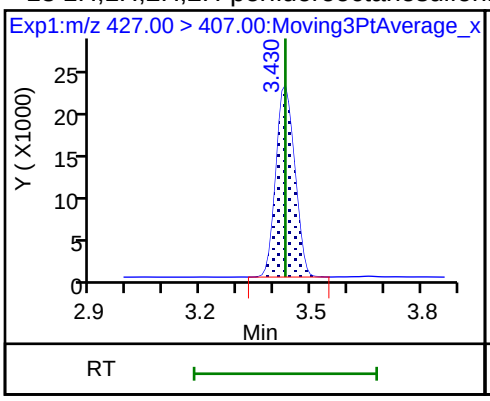
77 DONA



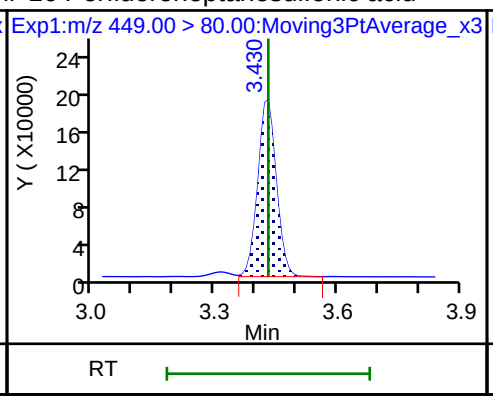
77 DONA



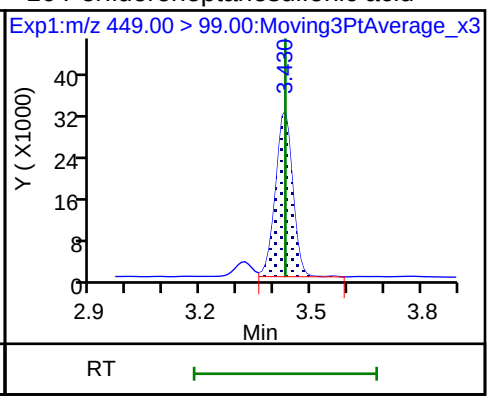
13 1H,1H,2H,2H-perfluorooctanesulfoni



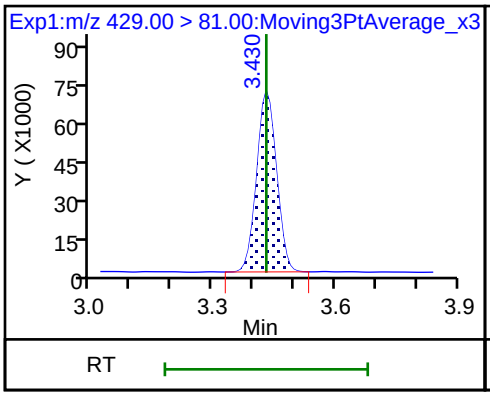
16 Perfluoroheptanesulfonic acid



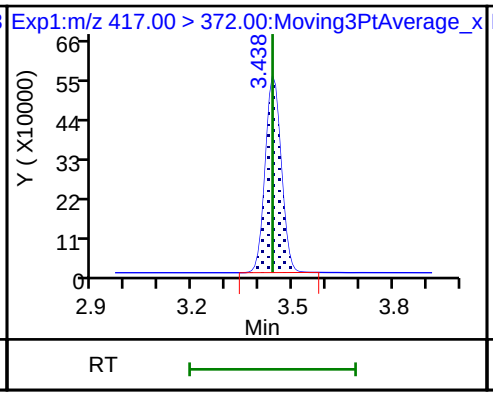
16 Perfluoroheptanesulfonic acid



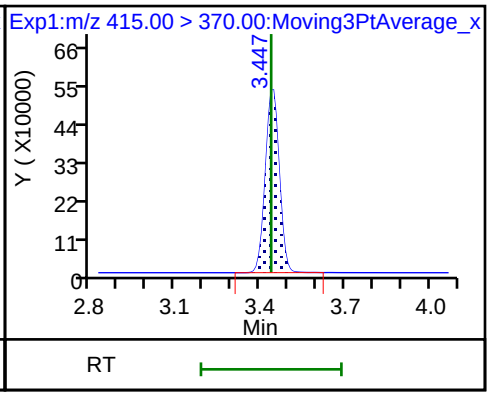
D 12 M2-6:2 FTS



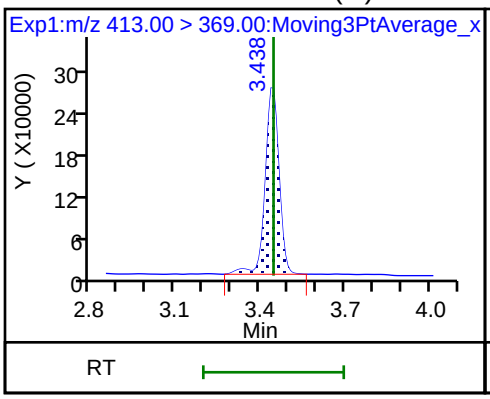
D 14 13C4 PFOA



* 62 13C2 PFOA



15 Perfluorooctanoic acid (M)



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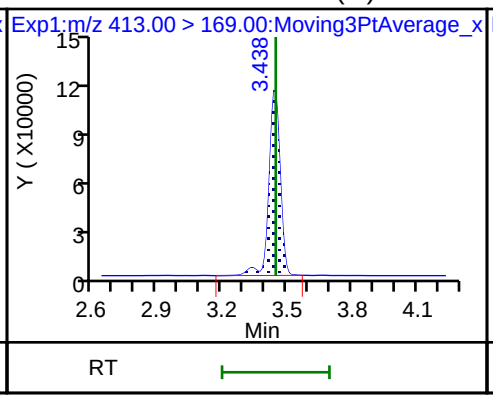
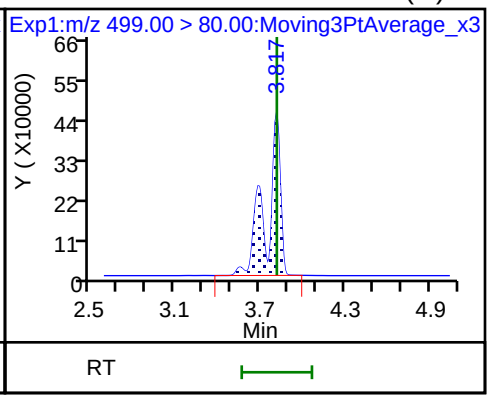
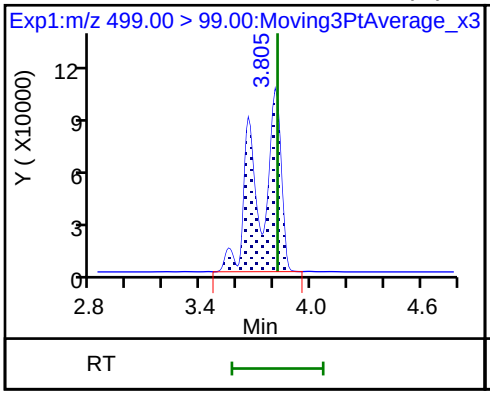


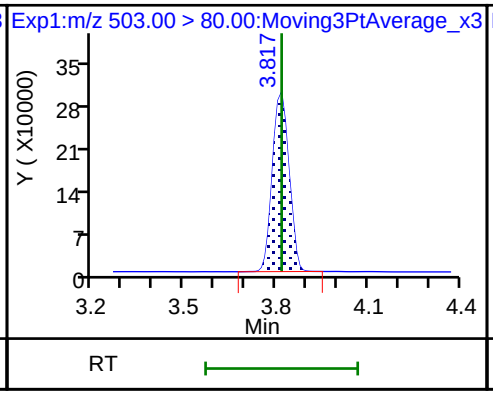
17 Perfluorooctanesulfonic acid (M)



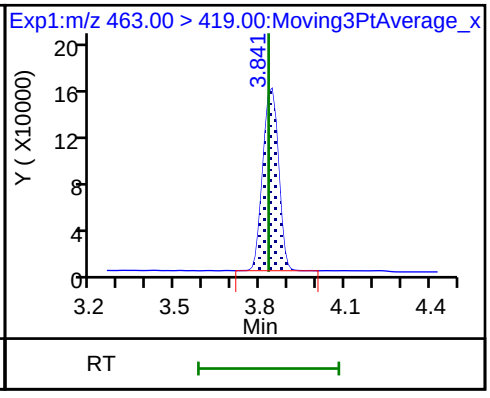
17 Perfluorooctanesulfonic acid (M)



D 18 13C4 PFOS



20 Perfluorononanoic acid



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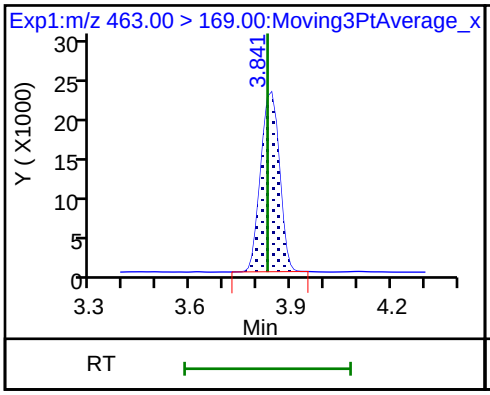
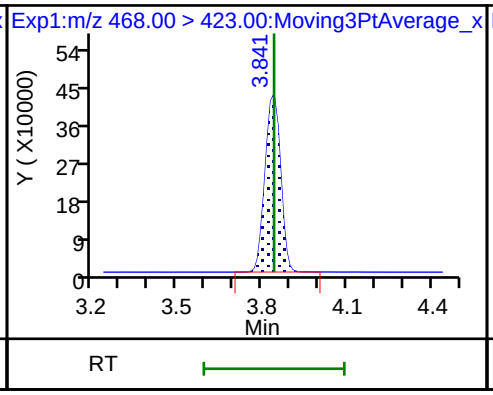
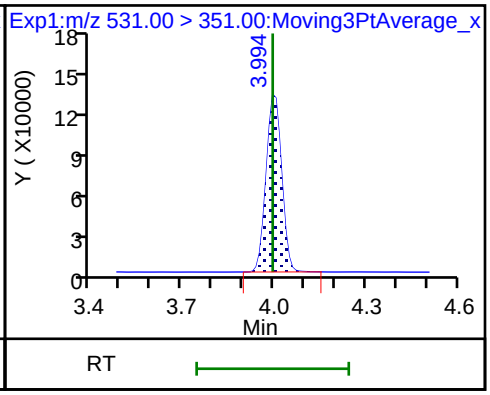


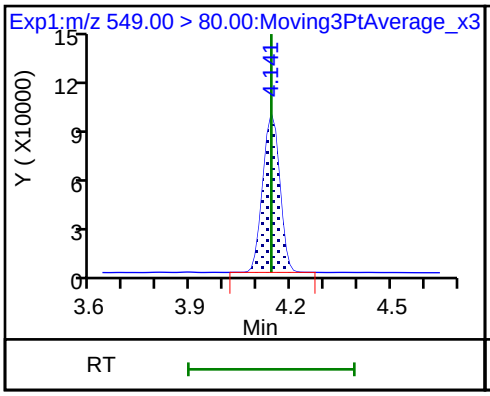
D 19 13C5 PFNA



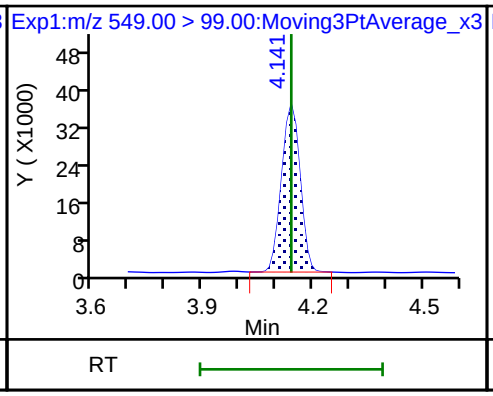
69 9-Chlorohexadecafluoro-3-oxanonane



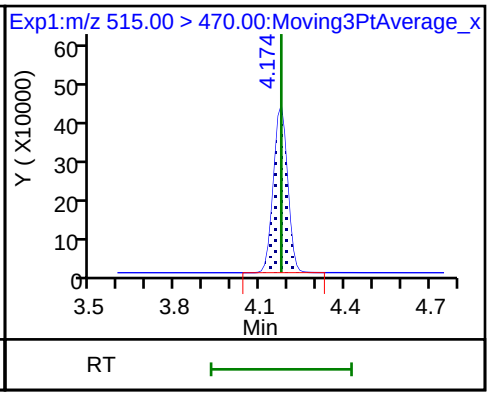
68 Perfluorononanesulfonic acid



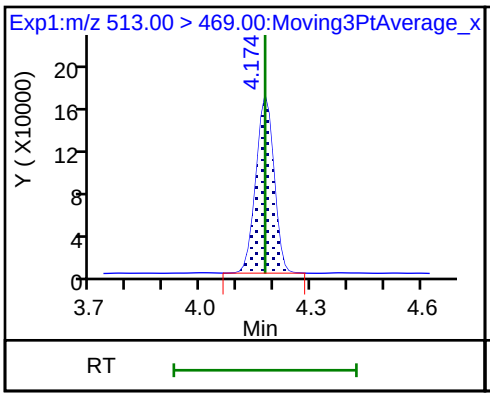
68 Perfluorononanesulfonic acid



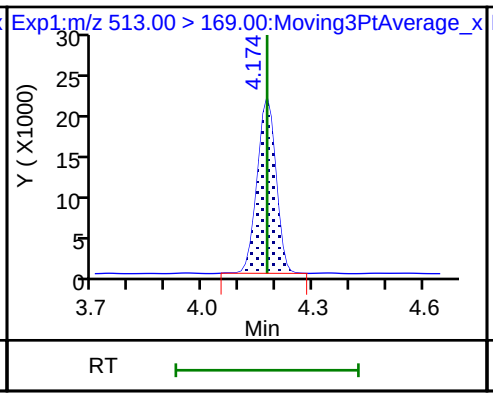
D 23 13C2 PFDA



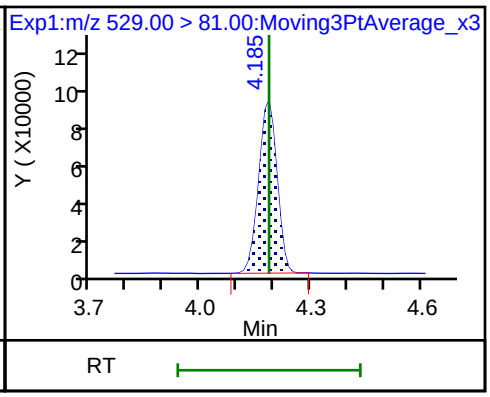
24 Perfluorodecanoic acid



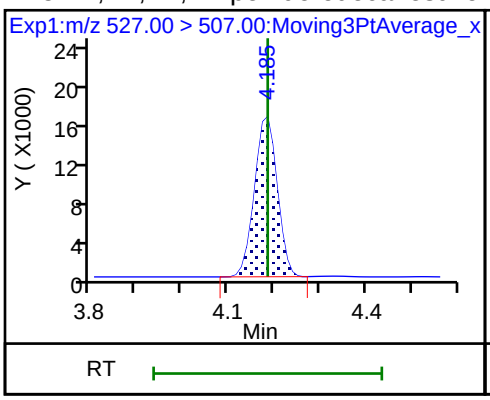
24 Perfluorodecanoic acid



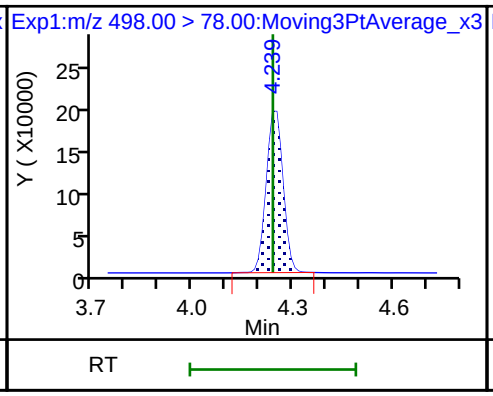
D 26 M2-8:2 FTS



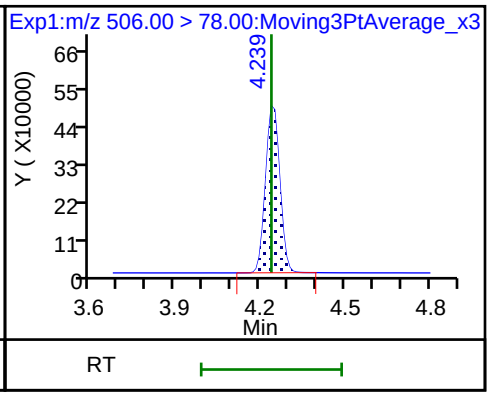
25 1H,1H,2H,2H-perfluorodecanesulfoni



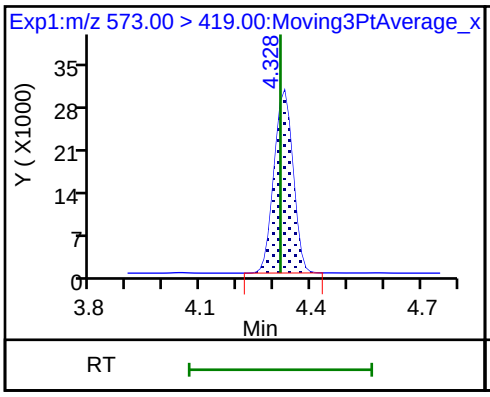
22 Perfluorooctanesulfonamide



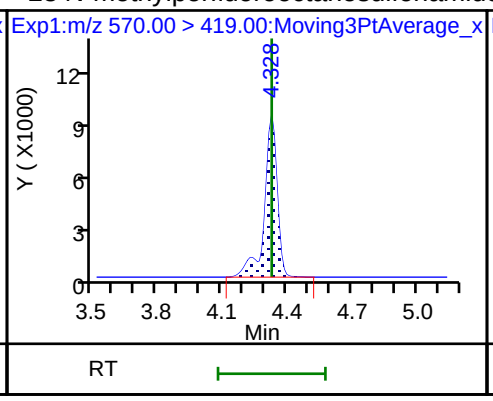
D 21 13C8 FOSA



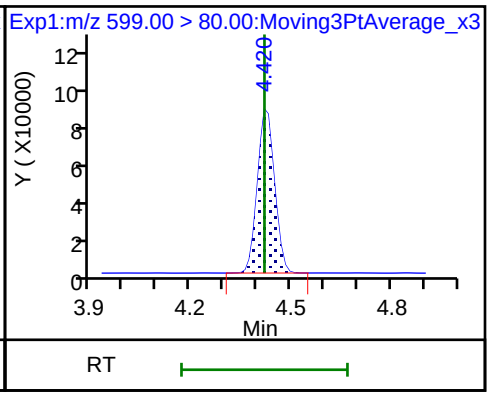
D 27 d3-NMeFOSAA



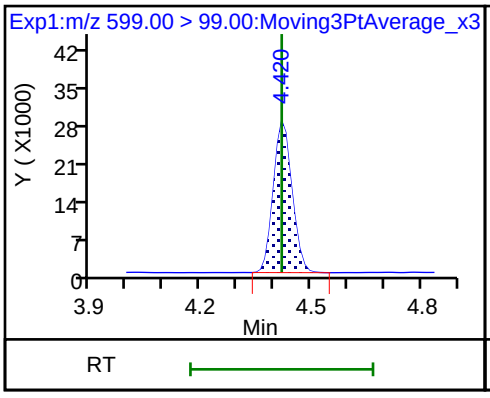
28 N-methylperfluorooctanesulfonamido



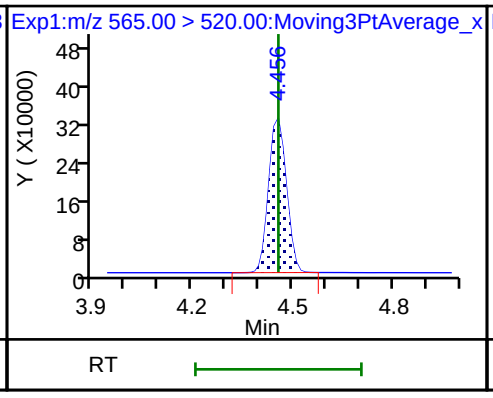
29 Perfluorodecanesulfonic acid



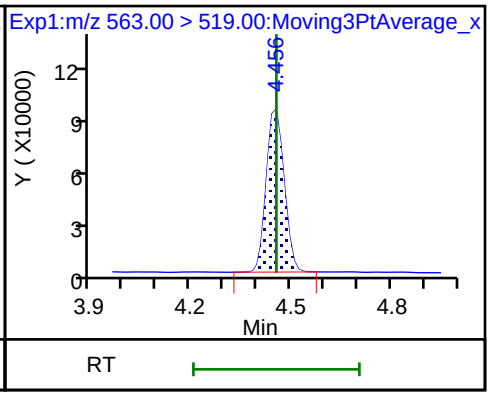
29 Perfluorodecanesulfonic acid



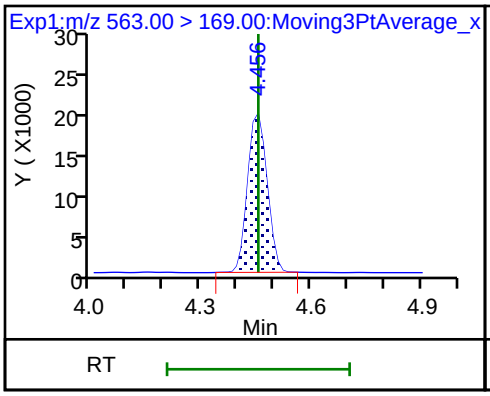
D 30 13C2 PFUnA



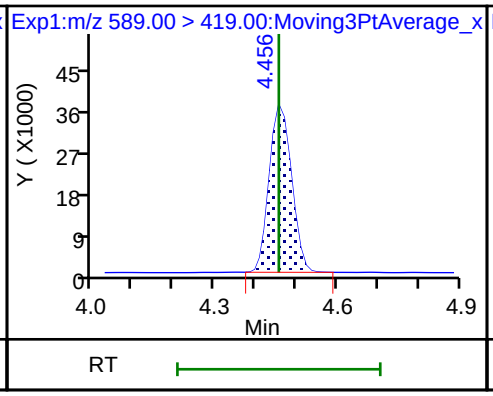
31 Perfluoroundecanoic acid



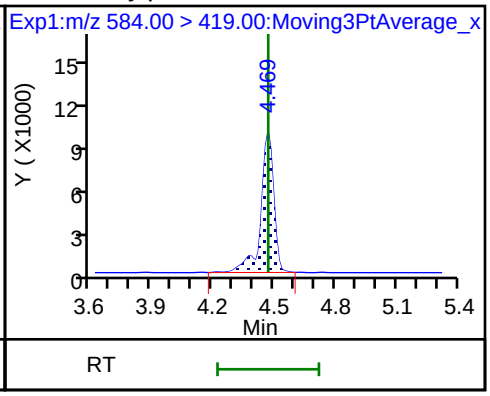
31 Perfluoroundecanoic acid



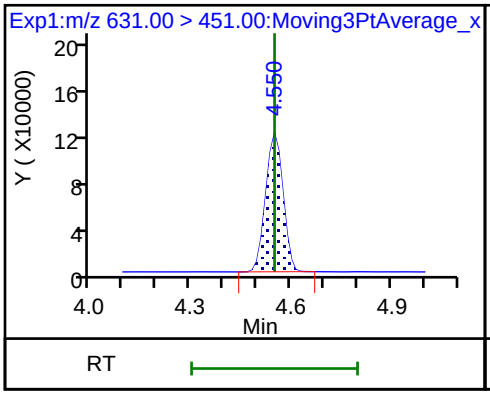
D 32 d5-NEtFOSAA



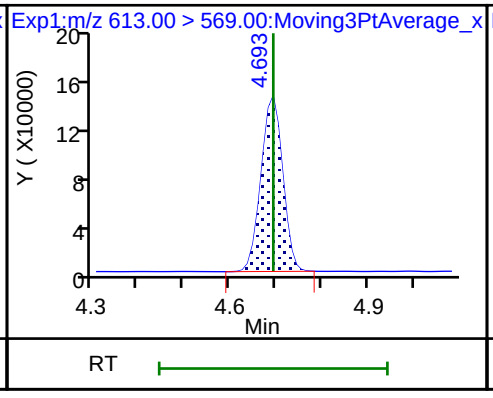
33 N-ethylperfluorooctanesulfonamidoa (M)



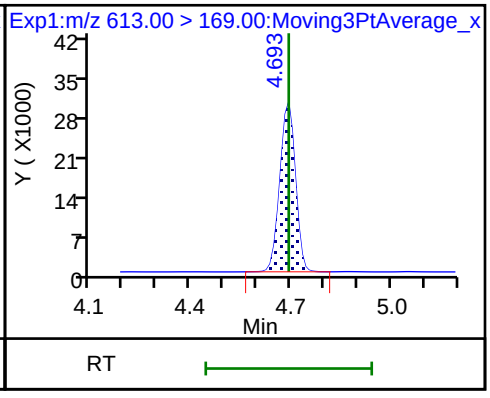
66 11-Chloroeicosafluoro-3-oxaundecan



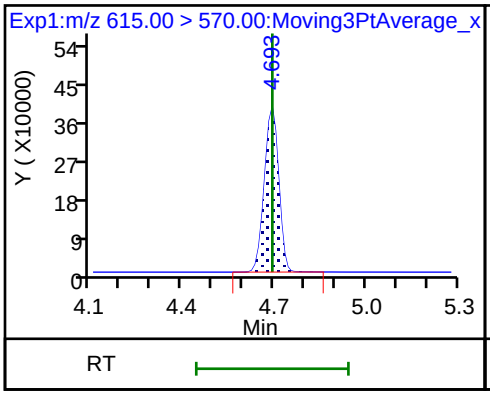
37 Perfluorododecanoic acid



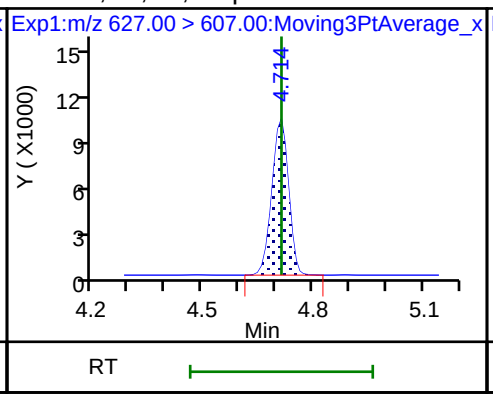
37 Perfluorododecanoic acid



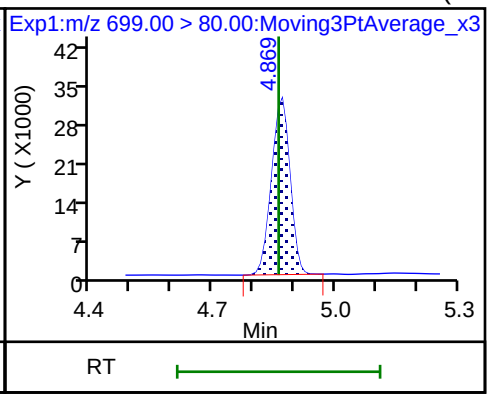
D 36 13C2 PFDoA



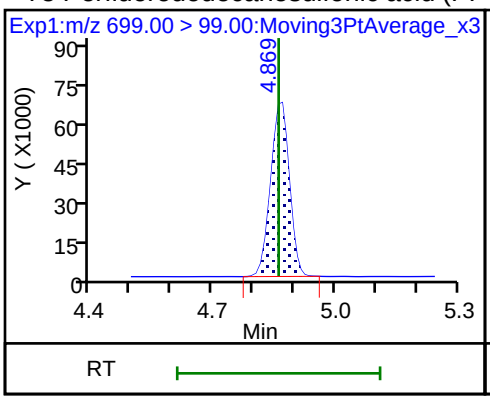
74 1H,1H,2H,2H-perfluorododecanesulfo



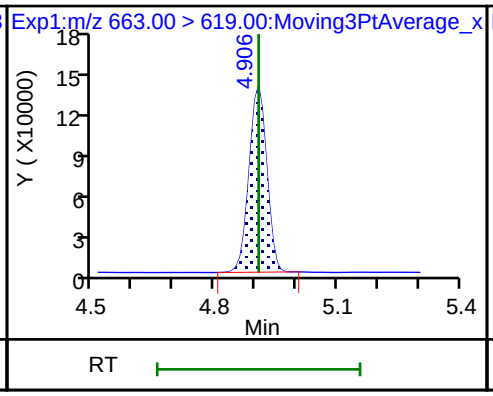
75 Perfluorododecanesulfonic acid (PF



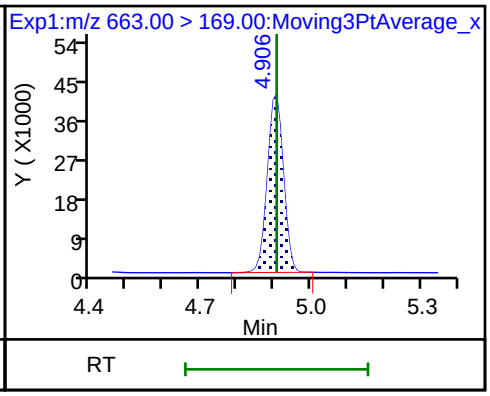
75 Perfluorododecanesulfonic acid (PF



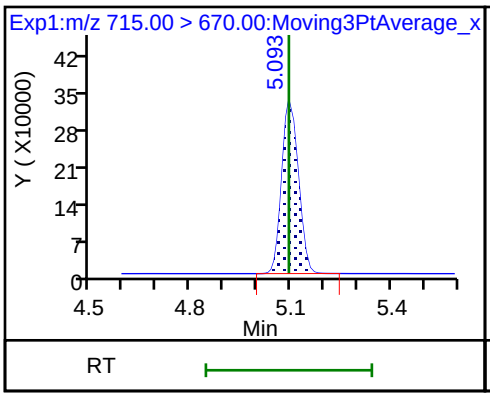
41 Perfluorotridecanoic acid



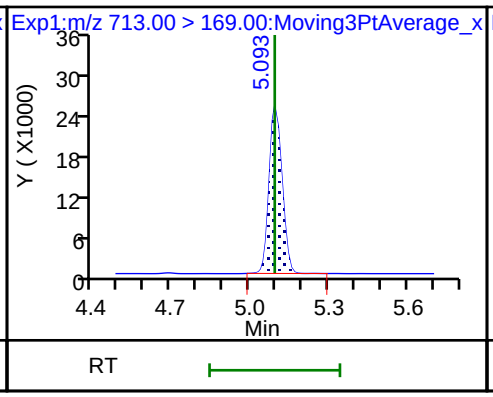
41 Perfluorotridecanoic acid



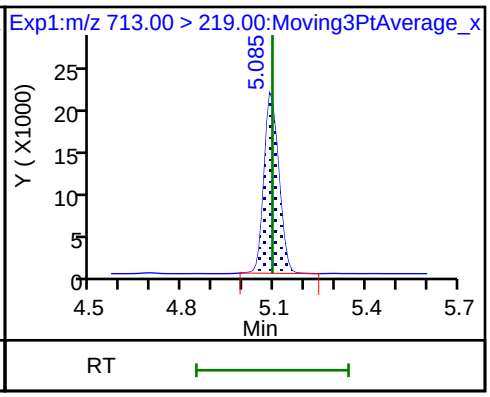
D 43 13C2 PFTeDA



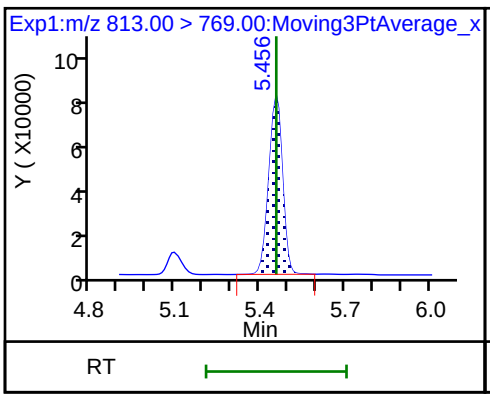
42 Perfluorotetradecanoic acid



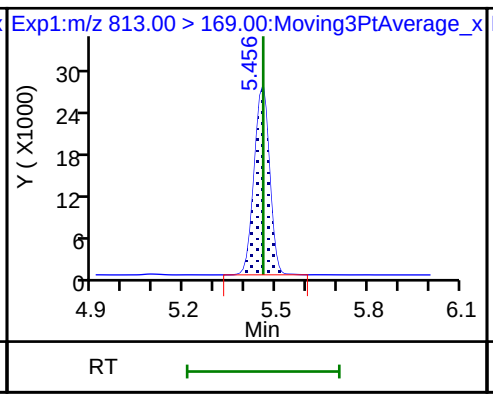
42 Perfluorotetradecanoic acid



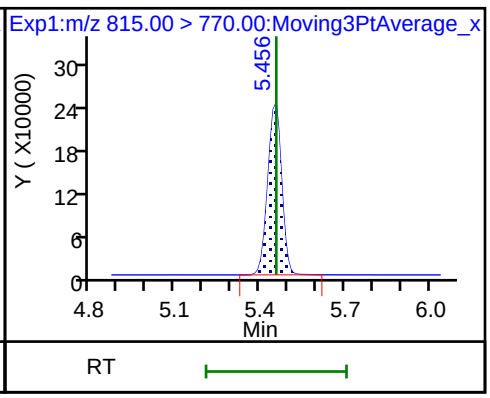
45 Perfluorohexadecanoic acid



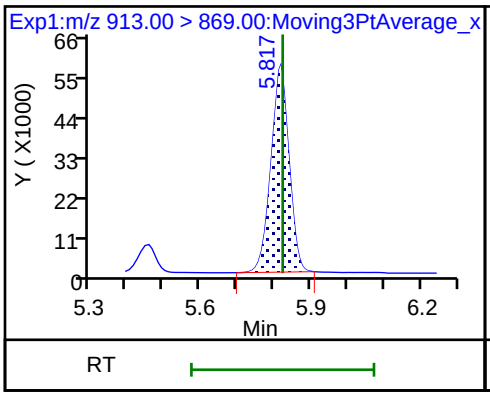
45 Perfluorohexadecanoic acid



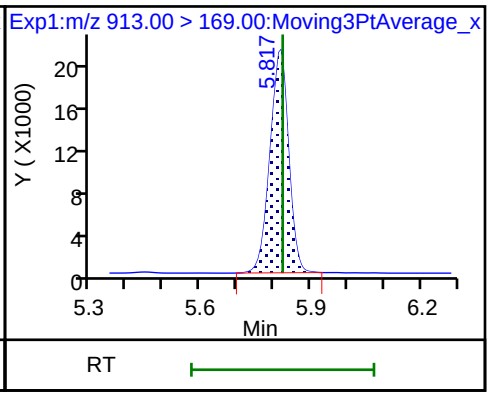
D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Eurofins TestAmerica, Burlington

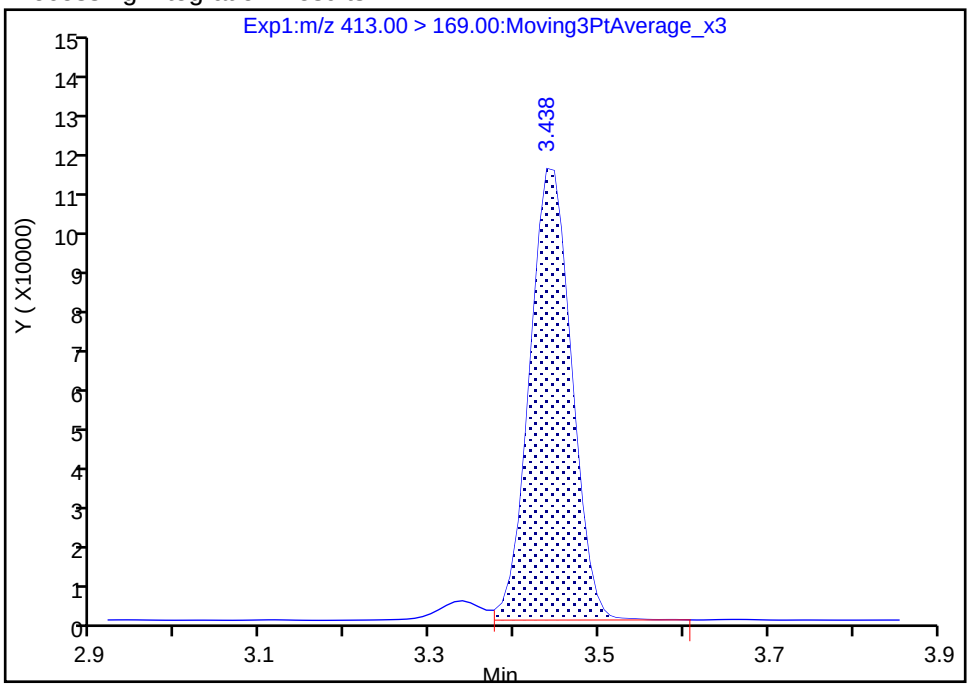
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d				
Injection Date:	07-Dec-2019 09:14:23	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-B MS				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

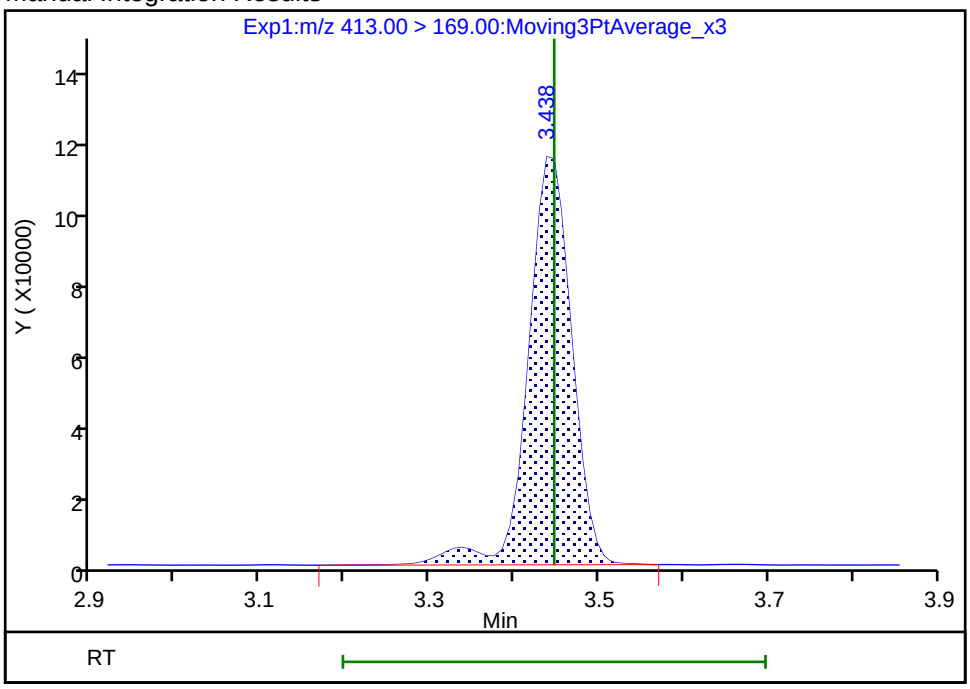
Processing Integration Results

RT: 3.44
Area: 376078
Amount: 1.120504
Amount Units: ng/ml



Manual Integration Results

RT: 3.44
Area: 392315
Amount: 1.118404
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:27:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

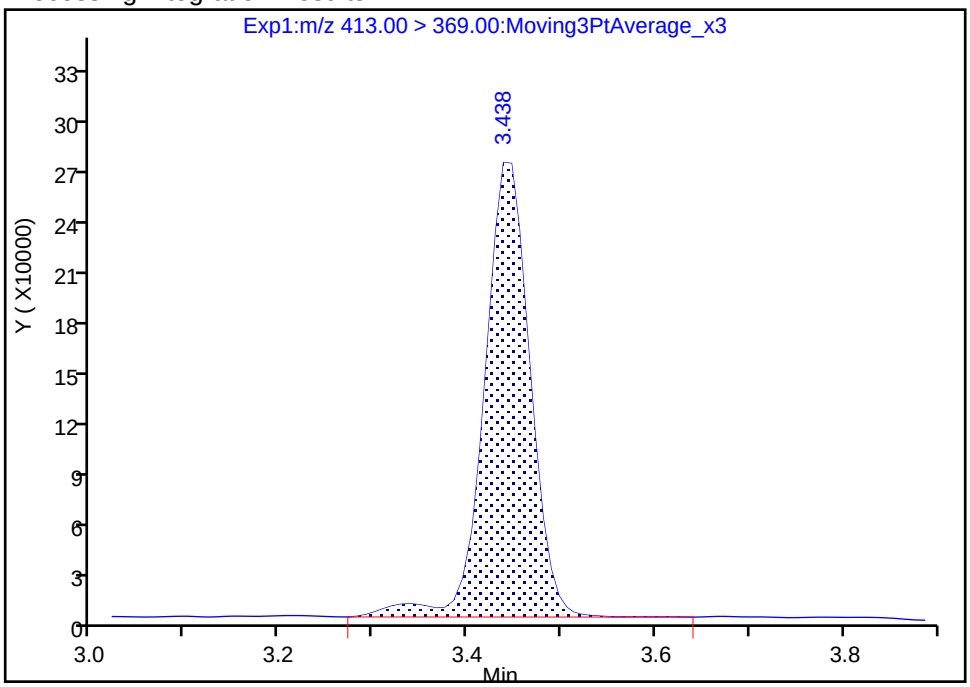
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d				
Injection Date:	07-Dec-2019 09:14:23	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-B MS				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

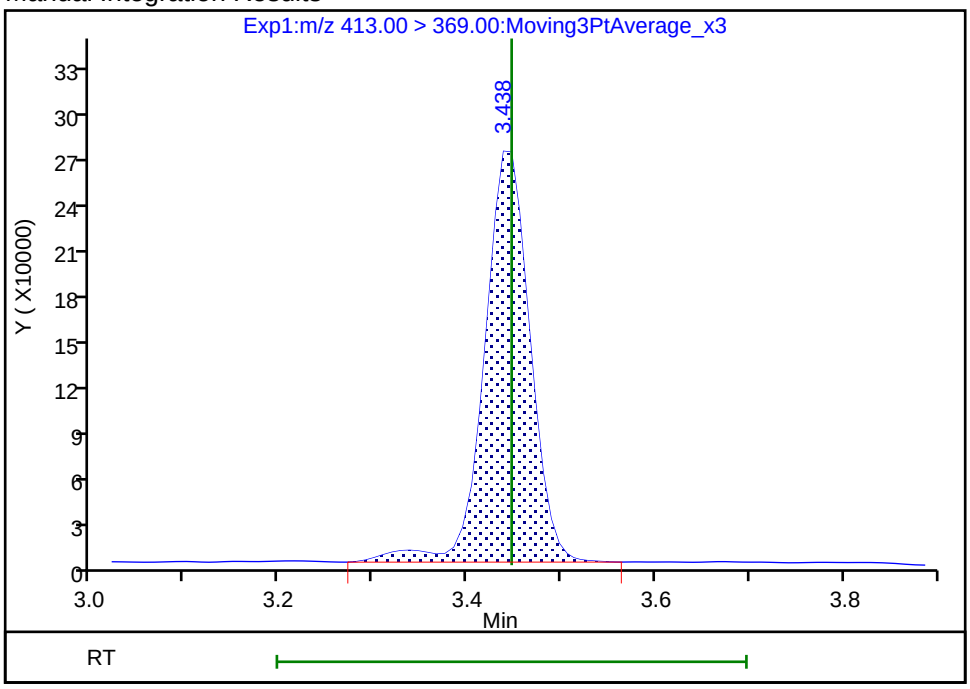
Processing Integration Results

RT: 3.44
Area: 903611
Amount: 1.120504
Amount Units: ng/ml



Manual Integration Results

RT: 3.44
Area: 901918
Amount: 1.118404
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:27:33

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

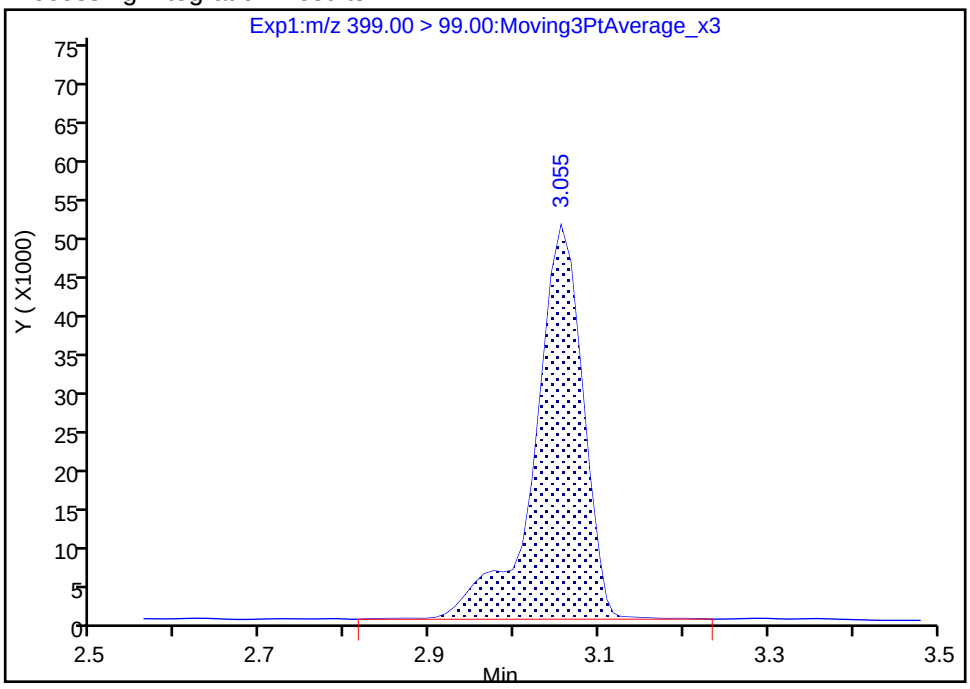
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d				
Injection Date:	07-Dec-2019 09:14:23	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-B MS				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

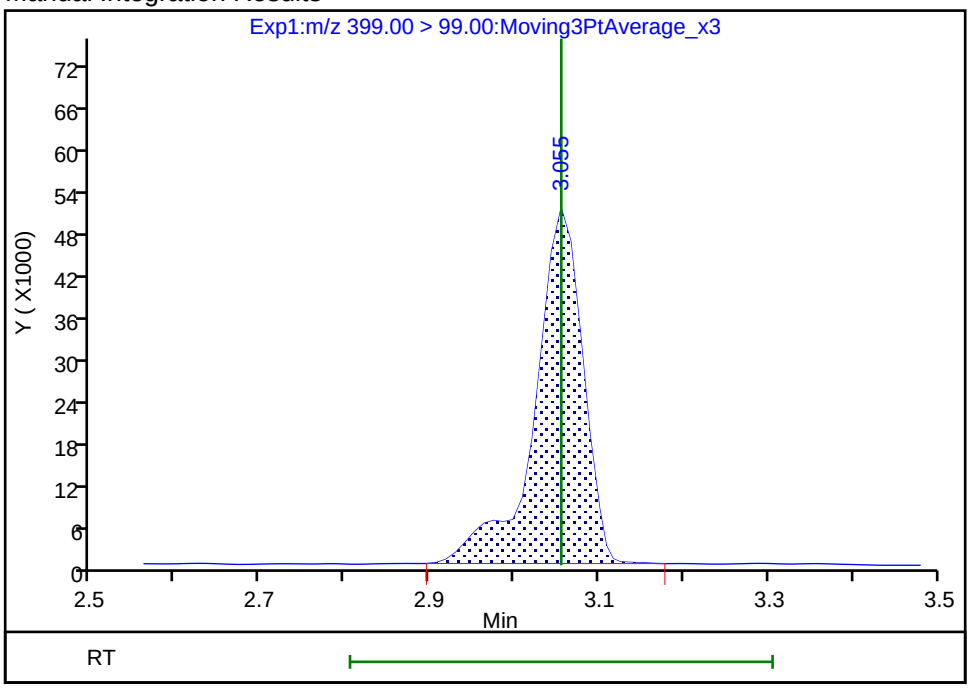
Processing Integration Results

RT: 3.06
Area: 204270
Amount: 1.086522
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 202161
Amount: 1.076202
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:27:05
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

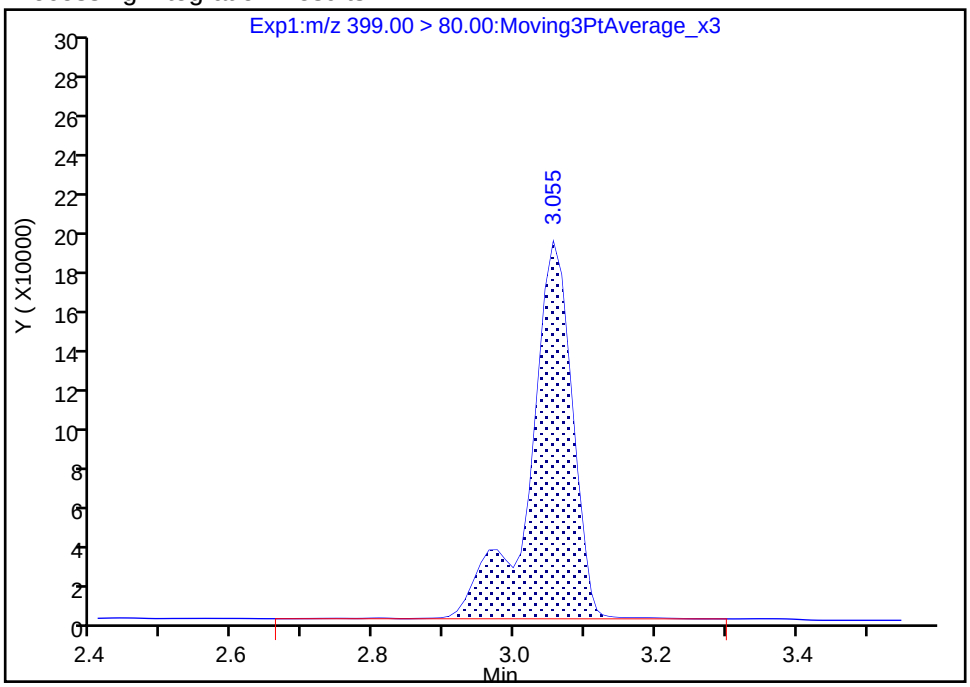
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d				
Injection Date:	07-Dec-2019 09:14:23	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-B MS				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

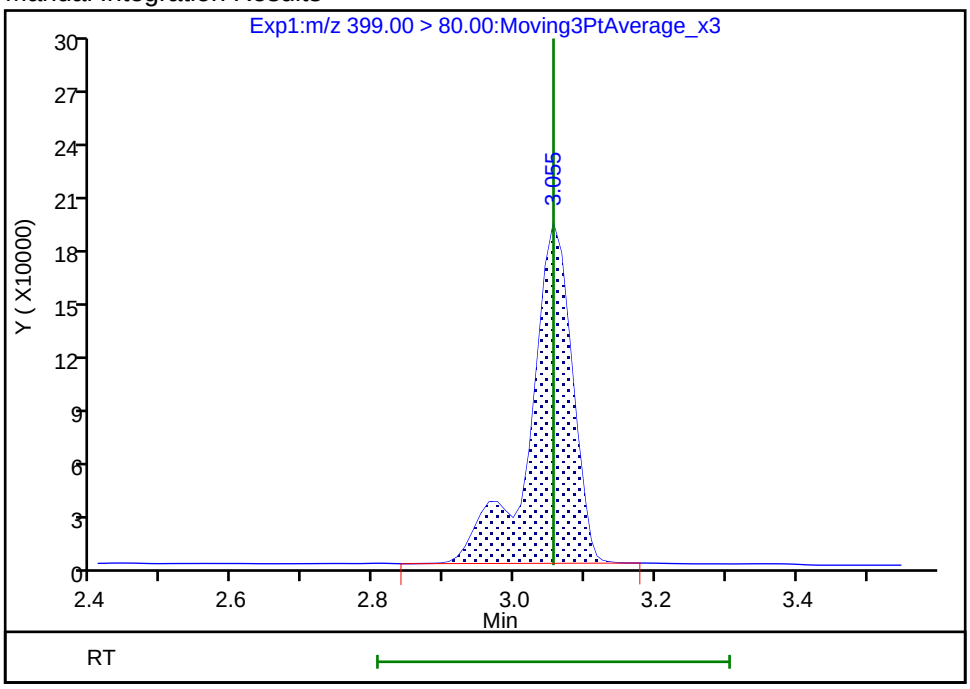
Processing Integration Results

RT: 3.06
Area: 811766
Amount: 1.086522
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 804056
Amount: 1.076202
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:27:09

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

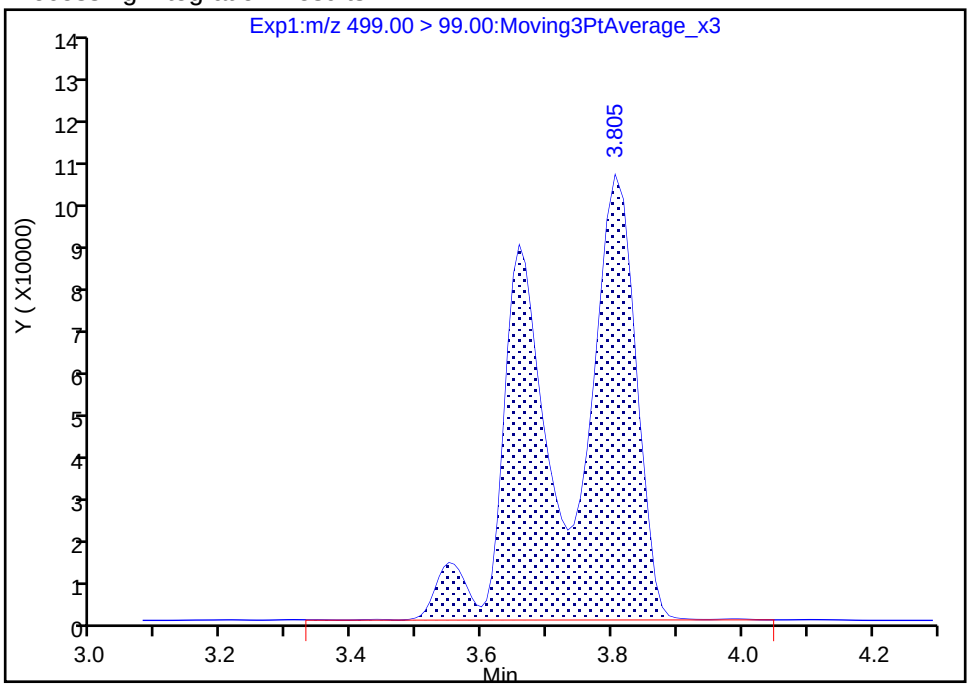
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d				
Injection Date:	07-Dec-2019 09:14:23	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-B MS				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 2

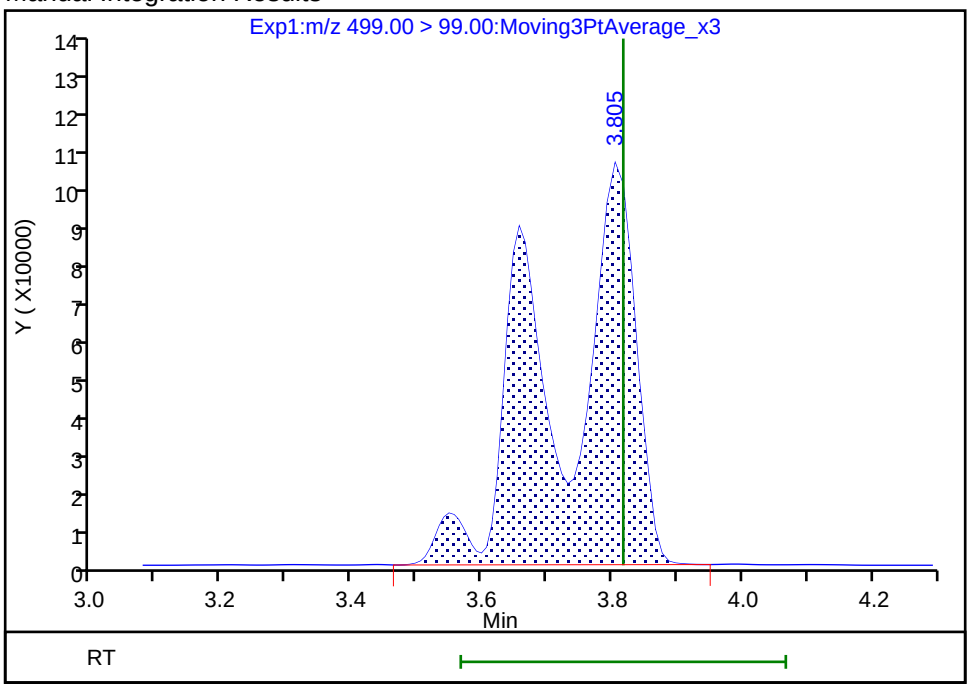
Processing Integration Results

RT: 3.80
Area: 843793
Amount: 5.925582
Amount Units: ng/ml



Manual Integration Results

RT: 3.80
Area: 841708
Amount: 5.914214
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:27:46
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

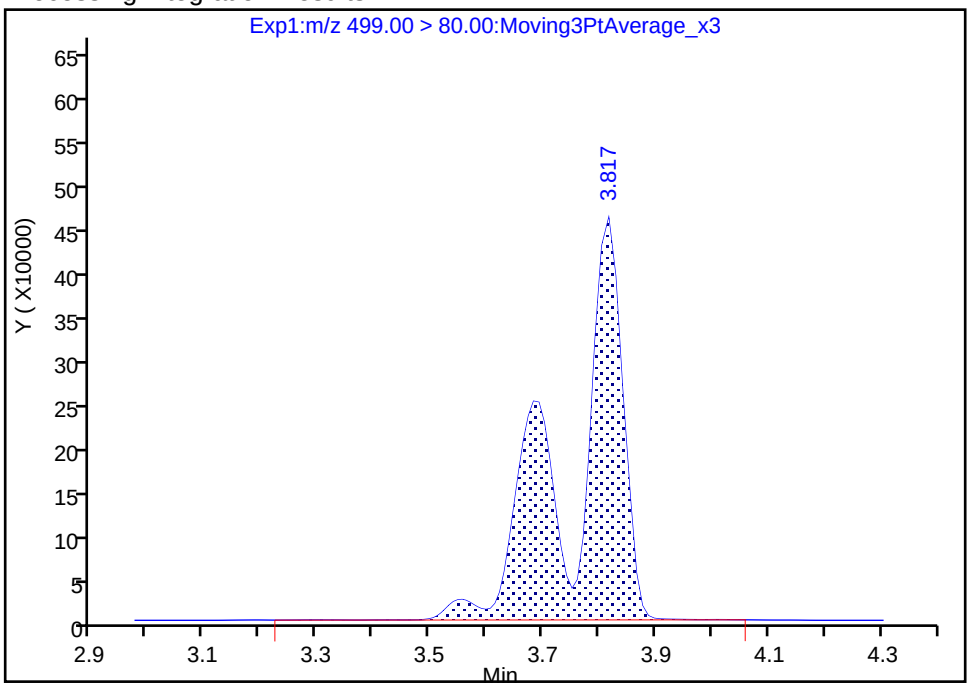
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d				
Injection Date:	07-Dec-2019 09:14:23	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-B MS				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

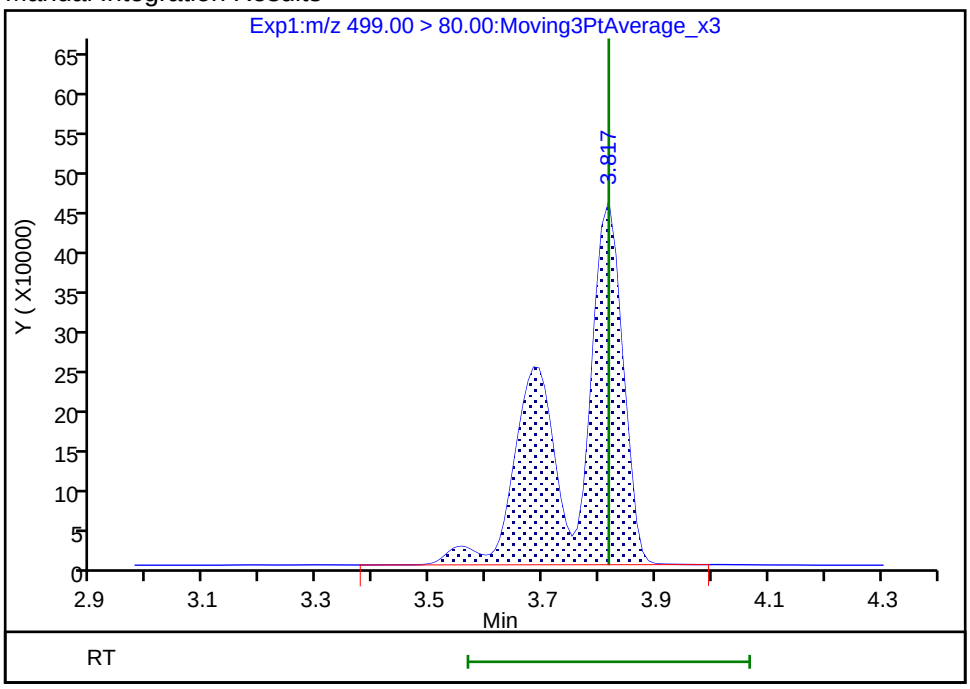
Processing Integration Results

RT: 3.82
Area: 2994406
Amount: 5.925582
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 2988661
Amount: 5.914214
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:27:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

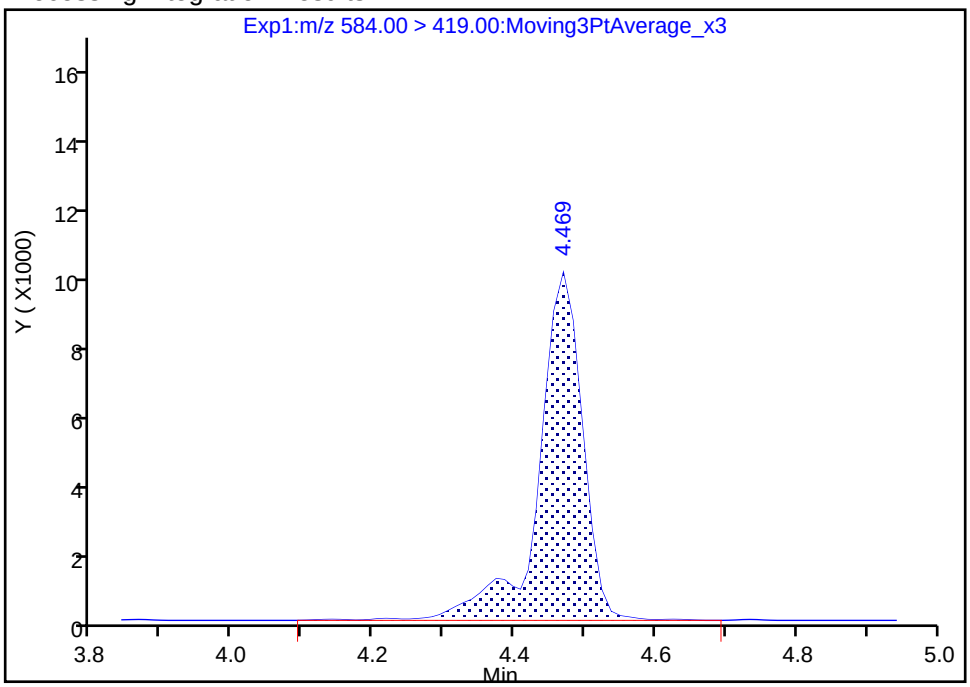
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F022.d				
Injection Date:	07-Dec-2019 09:14:23	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-B MS				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	22	Worklist Smp#:	22
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

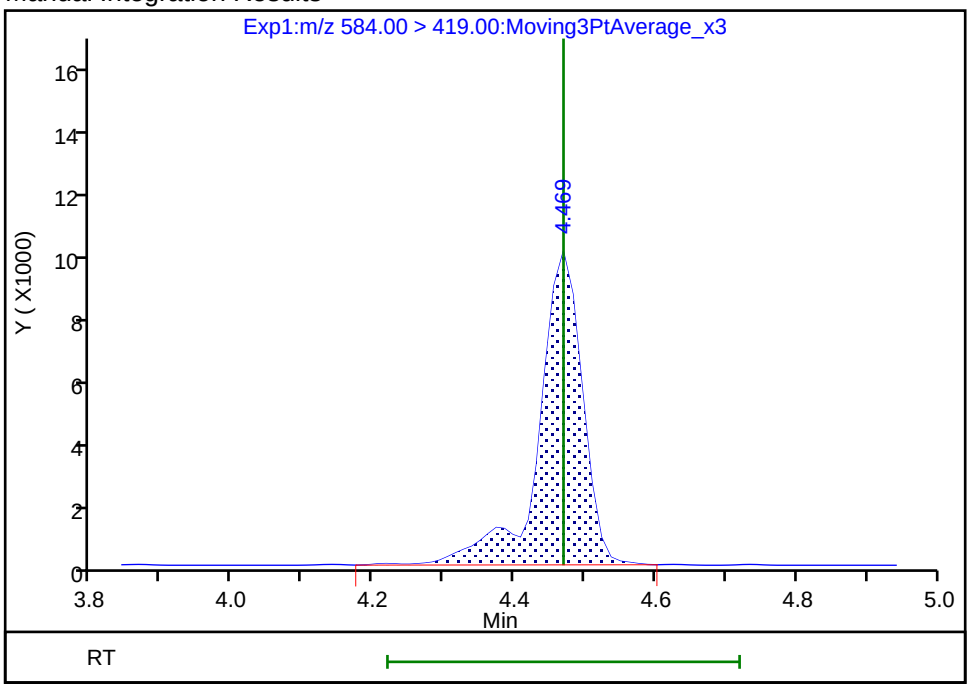
Processing Integration Results

RT: 4.47
Area: 41993
Amount: 0.900508
Amount Units: ng/ml



Manual Integration Results

RT: 4.47
Area: 41615
Amount: 0.892402
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:28:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-03 MSD Lab Sample ID: 480-163109-2 MSD

Matrix: Water Lab File ID: SC120619F023.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 16:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 291.9(mL) Date Analyzed: 12/07/2019 09:22

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
375-22-4	Perfluorobutanoic acid (PFBA)	35.5		1.7	0.86
2706-90-3	Perfluoropentanoic acid (PFPeA)	29.8		1.7	0.54
307-24-4	Perfluorohexanoic acid (PFHxA)	34.6		1.7	0.65
375-85-9	Perfluoroheptanoic acid (PFHpA)	34.4		1.7	0.78
335-67-1	Perfluorooctanoic acid (PFOA)	41.1		1.7	0.69
375-95-1	Perfluorononanoic acid (PFNA)	34.1		1.7	0.23
335-76-2	Perfluorodecanoic acid (PFDA)	29.1		1.7	0.66
2058-94-8	Perfluoroundecanoic acid (PFUnA)	31.1		1.7	0.67
307-55-1	Perfluorododecanoic acid (PFDoA)	34.5		1.7	0.51
72629-94-8	Perfluorotridecanoic acid (PFTriA)	27.5		1.7	0.51
376-06-7	Perfluorotetradecanoic acid (PFTeA)	31.8		1.7	0.79
375-73-5	Perfluorobutanesulfonic acid (PFBS)	31.2		1.7	0.42
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	35.0		1.7	0.69
375-92-8	Perfluoroheptanesulfonic Acid (PFHpS)	42.4		1.7	0.81
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	203		1.7	0.52
335-77-3	Perfluorodecanesulfonic acid (PFDS)	30.1		1.7	0.77
754-91-6	Perfluorooctanesulfonamide (PFOSA)	32.6		8.6	8.6
2355-31-9	N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	30.5		17	1.5
2991-50-6	N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	28.2		17	1.3
27619-97-2	1H,1H,2H,2H-perfluorooctanesulfonic acid (6:2)	26.2		17	4.7
39108-34-4	1H,1H,2H,2H-perfluorodecanesulfonic acid (8:2)	30.5		17	2.5

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Client Sample ID: MW-03 MSD Lab Sample ID: 480-163109-2 MSD

Matrix: Water Lab File ID: SC120619F023.d

Analysis Method: 537 (modified) Date Collected: 11/19/2019 16:15

Extraction Method: 3535 Date Extracted: 12/02/2019 09:31

Sample wt/vol: 291.9(mL) Date Analyzed: 12/07/2019 09:22

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

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

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

Analysis Batch No.: 150462 Units: ng/L

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00994	18O2 PFHxS	127		50-150
STL01892	13C4 PFHpA	127		50-150
STL00990	13C4 PFOA	113		50-150
STL00991	13C4 PFOS	102		50-150
STL00995	13C5 PFNA	97		50-150
STL00992	13C4 PFBA	95		25-150
STL00993	13C2 PFHxA	122		50-150
STL00996	13C2 PFDA	103		50-150
STL00997	13C2 PFUnA	96		50-150
STL00998	13C2 PFDoA	88		50-150
STL01056	13C8 FOSA	87		25-150
STL01893	13C5 PFPeA	120		25-150
STL02116	13C2 PFTeDA	94		50-150
STL02118	d3-NMeFOSAA	93		50-150
STL02117	d5-NEtFOSAA	92		50-150
STL02279	M2-6:2 FTS	118		25-150
STL02280	M2-8:2 FTS	106		25-150
STL02337	13C3 PFBS	132		50-150

Eurofins TestAmerica, Burlington
Target Compound Quantitation Report

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d
Lims ID: 480-163109-A-2-C MSD
Client ID: MW-03
Sample Type: MSD
Inject. Date: 07-Dec-2019 09:22:35 ALS Bottle#: 23 Worklist Smp#: 23
Injection Vol: 20.0 ul Dil. Factor: 1.0000
Sample Info: 480-163109-A-2-C MSD
Misc. Info.: 200-0039120-023 Plate: 1 Rack: 4
Operator ID: lc812tech Instrument ID: LC812

Method: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\PFC_LC812.m
Limit Group: LC_PFC_ICAL
Last Update: 12-Dec-2019 18:19:37 Calib Date: 06-Dec-2019 15:13:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Burlington\ChromData\LC812\20191206-39114.b\SC120619ICAL010.d

Column 1 : C-18 (4.60 mm) Det: EXP1
Process Host: CTX1029

First Level Reviewer: manopan Date: 09-Dec-2019 13:31:33
Ratio Calibration: Initial Calibration Level: 4

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.917	1.917	0.0	0.556	1743134	2.39		95.4	16072	
2 Perfluorobutanoic acid										
212.90 > 169.00	1.926	1.926	0.0	1.005	718056	1.04		104	157	
D 3 13C5 PFPeA										
267.90 > 223.00	2.271	2.271	0.0	0.659	1673487	3.00		120	2594	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.285	2.285	0.0	1.006	658373	0.8686		86.9	19.3	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.298	2.298	0.0	1.006	867255	0.9097	Target=2.03	103	84.9	
298.90 > 99.00	2.298	2.298	0.0	1.006	466275		1.86(1.01-3.04)		147	
D 47 13C3 PFBS										
301.90 > 80.00	2.285	2.312	-0.027	0.663	2039335	3.06		132	116623	
61 1H,1H,2H,2H-perfluorohexanesulfoni										
327.00 > 307.00	2.623	2.636	-0.013	0.995	122931	0.8967		96.0	1730	
D 60 M2-4:2 FTS										
329.00 > 81.00	2.636	2.636	0.0	0.765	184795	2.97		127	45.2	
70 Perfluoropentanesulfonic acid										
349.00 > 80.00	2.673	2.673	0.0	0.875	772935	0.99	Target=3.50	106	178	
349.00 > 99.00	2.673	2.673	0.0	0.875	233061		3.32(1.75-5.25)		172	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.673	2.673	0.0	1.000	786114	1.01	Target=13.76	101	54.6	
313.00 > 119.00	2.673	2.673	0.0	1.000	64662		12.16(6.88-20.64)		103	
D 7 13C2 PFHxA										
315.00 > 270.00	2.673	2.673	0.0	0.775	1907732	3.06		122	4994	
67 Perfluoro(2-propoxypropanoic) acid										
329.10 > 285.00	2.792	2.784	0.008	1.003	104030	1.14		114	37.6	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 64 13C3 HFPO-DA										
332.10 > 287.00	2.784	2.792	-0.008	0.808	63733	2.34		93.7	431	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.067	3.055	0.012	1.004	800447	1.01	Target=3.95	101	95.1	
363.00 > 169.00	3.067	3.055	0.012	1.004	216596		3.70(1.97-5.92)		671	
D 11 18O2 PFHxS										
403.00 > 84.00	3.055	3.055	0.0	0.886	1584658	3.01		127	6468	
D 9 13C4 PFHpA										
367.00 > 322.00	3.055	3.055	0.0	0.886	1882441	3.19		127	5896	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.055	3.055	0.0	1.000	774720	1.02	Target=3.90	112	216	M
399.00 > 99.00	3.055	3.055	0.0	1.000	208560		3.71(1.95-5.85)		229	M
77 DONA										
377.00 > 251.00	3.101	3.101	0.0	0.812	1741673	1.16	Target=2.49	123	2886	
377.00 > 85.00	3.101	3.101	0.0	0.812	650884		2.68(1.24-3.73)		956	
13 1H,1H,2H,2H-perfluorooctanesulfoni										
427.00 > 407.00	3.430	3.430	0.0	1.000	76882	0.7639		80.6	907	
16 Perfluoroheptanesulfonic acid										M
449.00 > 80.00	3.430	3.430	0.0	0.899	647252	1.24	Target=6.46	130	253	
449.00 > 99.00	3.430	3.430	0.0	0.899	102119		6.34(3.23-9.69)		107	M
D 12 M2-6:2 FTS										
429.00 > 81.00	3.430	3.430	0.0	0.995	253296	2.80		118	201	
D 14 13C4 PFOA										
417.00 > 372.00	3.439	3.438	0.0	0.998	1771641	2.83		113	4485	
* 62 13C2 PFOA										
415.00 > 370.00	3.447	3.438	0.009		1724517	2.50			4506	
15 Perfluorooctanoic acid										M
413.00 > 369.00	3.447	3.447	0.0	1.002	942366	1.20	Target=2.40	120	140	M
413.00 > 169.00	3.447	3.447	0.0	1.002	360496		2.61(1.20-3.60)		1312	M
17 Perfluorooctanesulfonic acid										M
499.00 > 80.00	3.817	3.817	0.0	1.000	2723462	5.91	Target=5.74	637	1154	M
499.00 > 99.00	3.805	3.817	-0.012	0.997	793390		3.43(2.87-8.61)		821	
D 18 13C4 PFOS										
503.00 > 80.00	3.817	3.817	0.0	1.107	1019996	2.44		102	751	
20 Perfluorononanoic acid										
463.00 > 419.00	3.842	3.829	0.013	1.000	545759	0.99	Target=7.01	99.5	149	
463.00 > 169.00	3.842	3.829	0.013	1.000	90315		6.04(3.50-10.51)		666	
D 19 13C5 PFNA										
468.00 > 423.00	3.842	3.842	0.0	1.115	1398946	2.43		97.1	4811	
69 9-Chlorohexadecafluoro-3-oxanonane										
531.00 > 351.00	3.994	3.994	0.0	1.046	427020	0.8114		87.1	2024	
68 Perfluorononanesulfonic acid										
549.00 > 80.00	4.141	4.141	0.0	1.085	313880	0.8902	Target=3.14	92.7	491	
549.00 > 99.00	4.141	4.141	0.0	1.085	100964		3.11(1.57-4.71)		280	
D 23 13C2 PFDA										
515.00 > 470.00	4.175	4.175	0.0	1.211	1458110	2.57		103	3144	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
24 Perfluorodecanoic acid										
513.00 > 469.00	4.175	4.175	0.0	1.000	480082	0.8508	Target=7.28	85.1	300	
513.00 > 169.00	4.175	4.175	0.0	1.000	72655		6.61(3.64-10.91)		774	
D 26 M2-8:2 FTS										
529.00 > 81.00	4.185	4.185	0.0	1.214	273498	2.54		106	415	
25 1H,1H,2H,2H-perfluorodecanesulfoni										
527.00 > 507.00	4.185	4.185	0.0	1.000	46874	0.8892		92.8	805	
22 Perfluorooctanesulfonamide										
498.00 > 78.00	4.251	4.239	0.012	1.000	610842	0.9505		95.1	2506	
D 21 13C8 FOSA										
506.00 > 78.00	4.251	4.239	0.012	1.233	1614482	2.17		86.9	5069	
35 MeFOSA										
512.00 > 169.00	4.328	4.283	0.045		1066	NC			10.0	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.328	4.317	0.011	1.256	126735	2.32		92.7	790	
28 N-methylperfluorooctanesulfonamido										
570.00 > 419.00	4.328	4.328	0.0	1.000	39256	0.8912		89.1	688	
29 Perfluorodecanesulfonic acid										
599.00 > 80.00	4.420	4.420	0.0	1.158	269689	0.8782	Target=2.76	91.1	1134	
599.00 > 99.00	4.420	4.420	0.0	1.158	89364		3.02(1.38-4.14)		691	
D 30 13C2 PFUnA										
565.00 > 520.00	4.456	4.456	0.0	1.293	1153287	2.39		95.6	3379	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.456	4.456	0.0	1.000	354650	0.9067	Target=5.78	90.7	305	
563.00 > 169.00	4.456	4.456	0.0	1.000	64313		5.51(2.89-8.67)		760	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.470	4.456	0.014	1.297	139640	2.30		92.1	1352	
33 N-ethylperfluorooctanesulfonamidoa										M
584.00 > 419.00	4.470	4.469	0.001	1.000	38054	0.8231		82.3	556	M
66 11-Chloroeicosafluoro-3-oxaundecan										
631.00 > 451.00	4.550	4.550	0.0	1.192	363754	0.7330		77.8	1874	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.693	4.693	0.0	1.000	436097	1.01	Target=5.13	101	118	
613.00 > 169.00	4.693	4.693	0.0	1.000	89274		4.88(2.56-7.69)		1252	
D 36 13C2 PFDoA										
615.00 > 570.00	4.693	4.693	0.0	1.362	1170186	2.21		88.4	3915	
74 1H,1H,2H,2H-perfluorododecanesulfo										
627.00 > 607.00	4.714	4.714	0.0	1.126	30040	0.8976		93.1	623	
75 Perfluorododecanesulfonic acid (PF										
699.00 > 80.00	4.870	4.860	0.010	1.276	97033	0.8312	Target=0.45	85.9	296	
699.00 > 99.00	4.870	4.860	0.010	1.276	192133		0.51(0.22-0.67)		2655	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.906	4.906	0.0	1.045	329519	0.8020	Target=3.82	80.2	104	
663.00 > 169.00	4.906	4.906	0.0	1.045	101618		3.24(1.91-5.74)		1051	
D 43 13C2 PFTeDA										
715.00 > 670.00	5.094	5.094	0.0	1.478	1040271	2.34		93.8	7373	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
42 Perfluorotetradecanoic acid										
713.00 > 169.00	5.094	5.094	0.0	1.000	77486	0.9270	Target=1.05	92.7	1257	
713.00 > 219.00	5.085	5.094	-0.009	0.998	64933		1.19(0.52-1.57)		916	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.457	5.457	0.0	1.000	288175	0.9117	Target=3.20	91.2	109	
813.00 > 169.00	5.457	5.457	0.0	1.000	102780		2.80(1.60-4.80)		1448	
D 44 13C2 PFHxDA										
815.00 > 770.00	5.457	5.457	0.0	1.583	866418	2.12		84.9	8569	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.818	5.823	-0.005	1.066	222140	0.8875	Target=2.86	88.7	107	
913.00 > 169.00	5.818	5.823	-0.005	1.066	81572		2.72(1.43-4.29)		1285	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Report Date: 12-Dec-2019 18:20:03 Chrom Revision: 2.3 02-Dec-2019 08:23:04

Eurofins TestAmerica, Burlington

Data File: \\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d

Injection Date: 07-Dec-2019 09:22:35 Instrument ID: LC812

Lims ID: 480-163109-A-2-C MSD

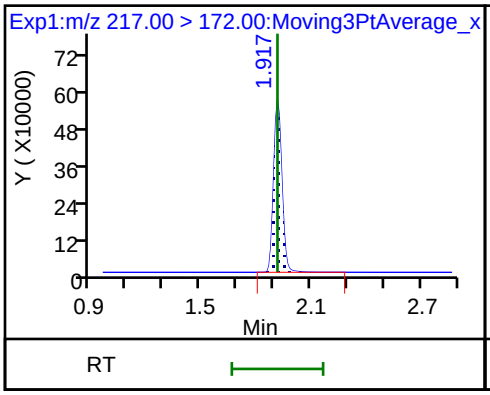
Client ID: MW-03

Operator ID: lc812tech ALS Bottle#: 23 Worklist Smp#: 23

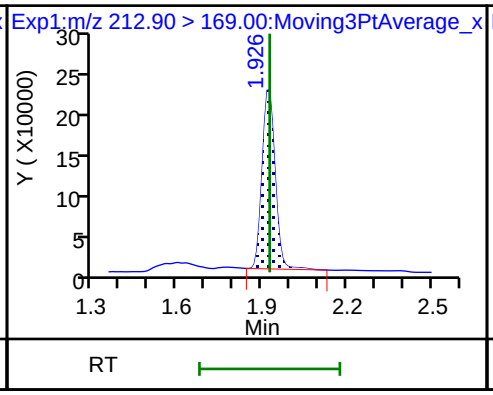
Injection Vol: 20.0 ul Dil. Factor: 1.0000

Method: PFC_LC812 Limit Group: LC_PFC_ICAL

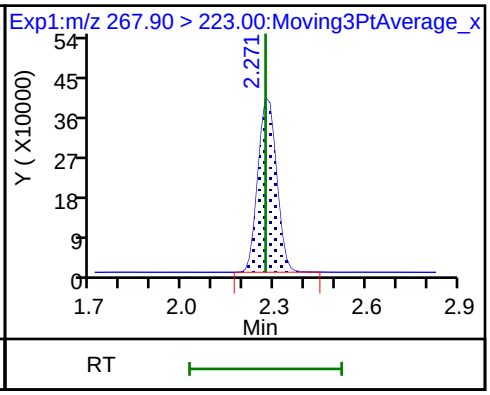
D 1 13C4 PFBA



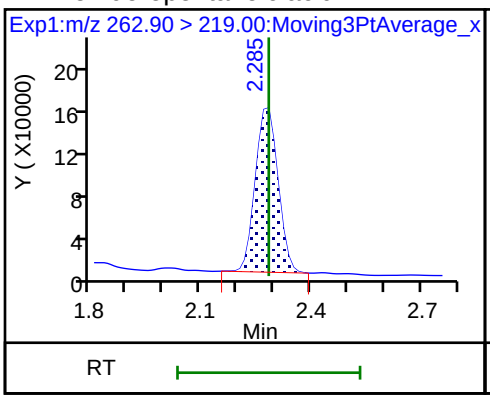
2 Perfluorobutanoic acid



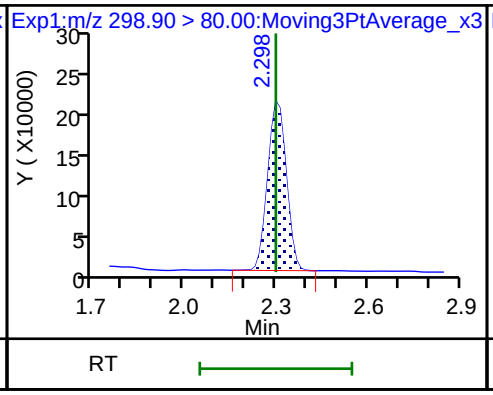
D 3 13C5 PFPeA



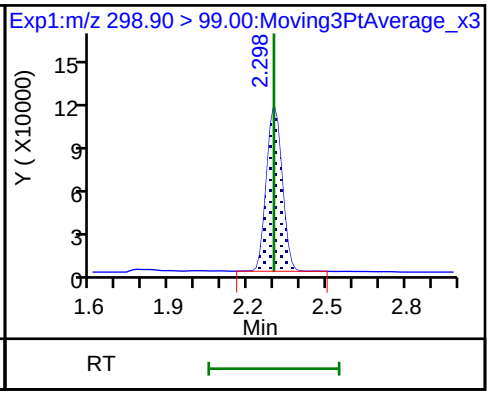
4 Perfluoropentanoic acid



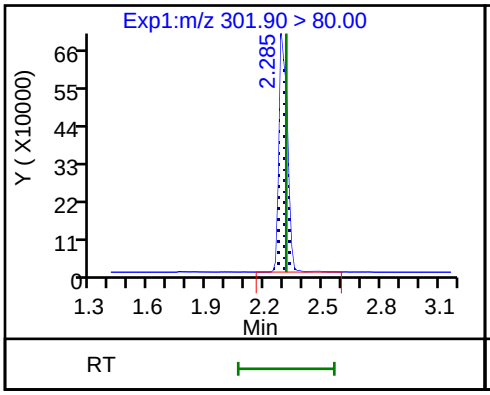
5 Perfluorobutanesulfonic acid



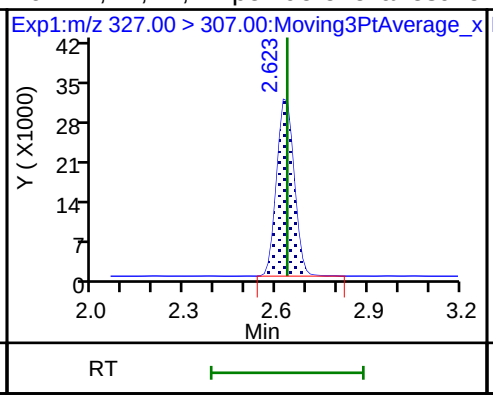
5 Perfluorobutanesulfonic acid



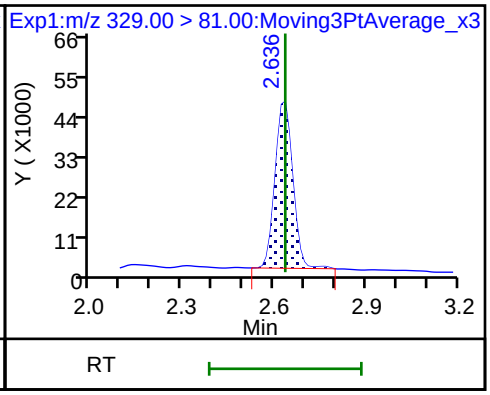
D 47 13C3 PFBS



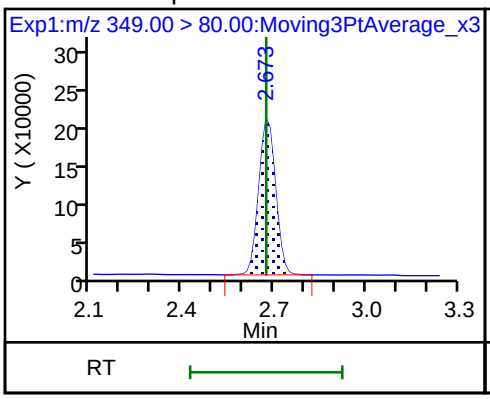
61 1H,1H,2H,2H-perfluorohexanesulfon



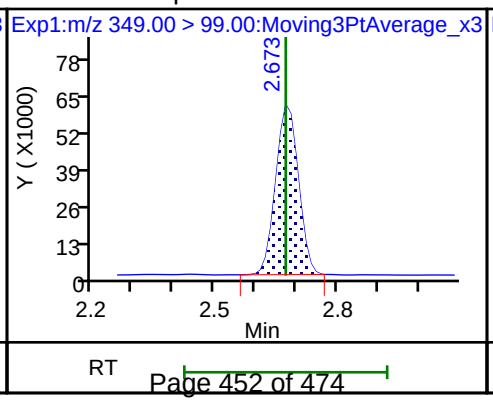
D 60 M2-4:2 FTS



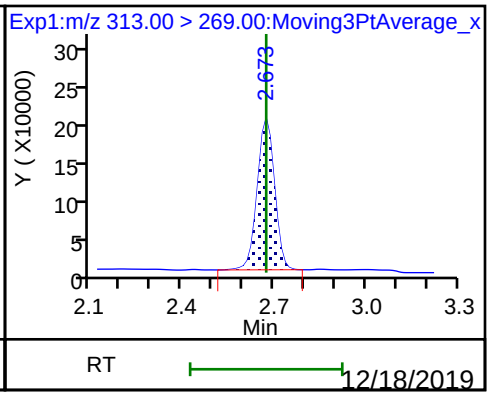
70 Perfluoropentanesulfonic acid



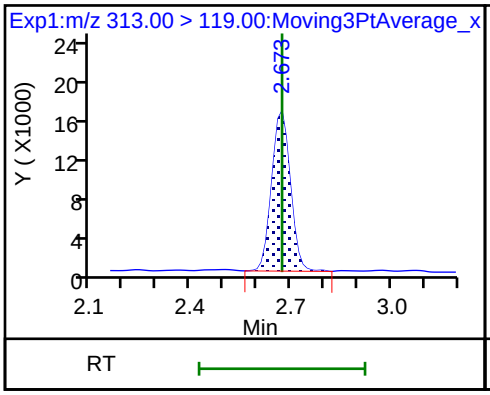
70 Perfluoropentanesulfonic acid



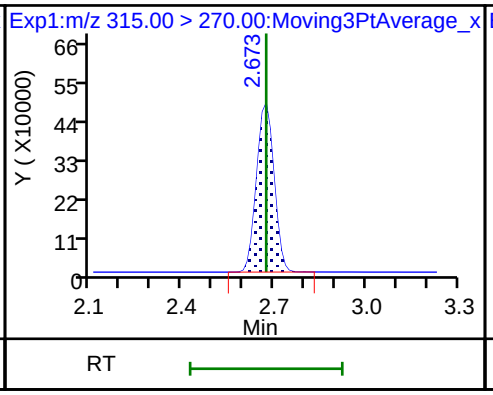
6 Perfluorohexanoic acid



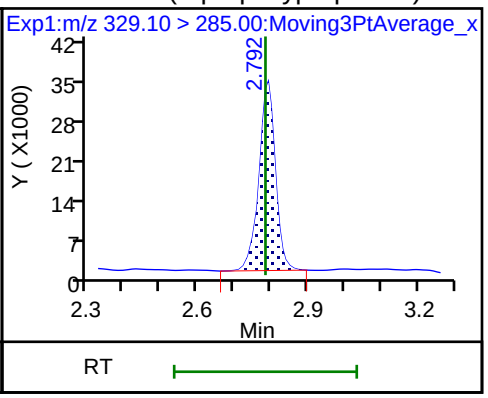
6 Perfluorohexanoic acid



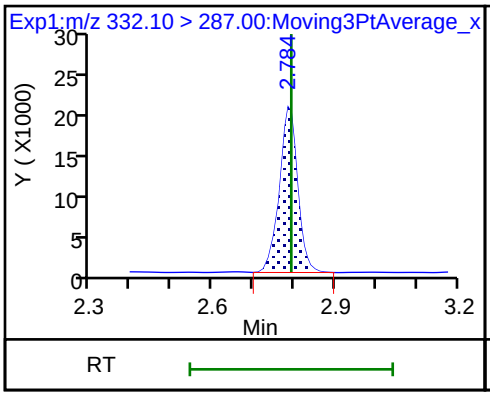
D 7 13C2 PFHxA



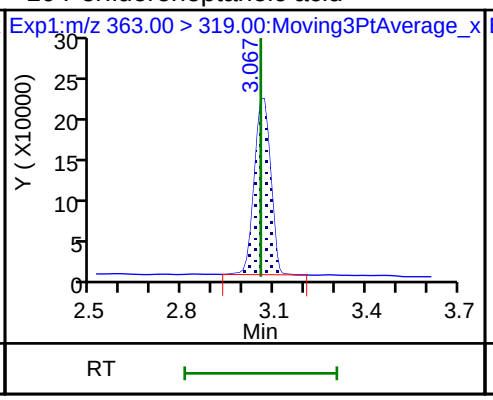
67 Perfluoro(2-propoxypropanoic) acid



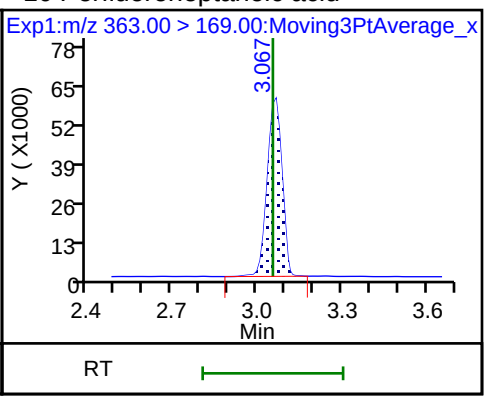
D 64 13C3 HFPO-DA



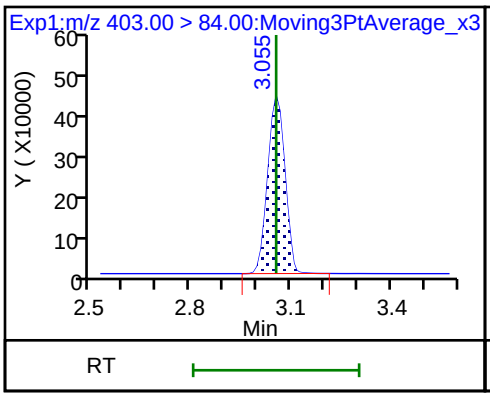
10 Perfluoroheptanoic acid



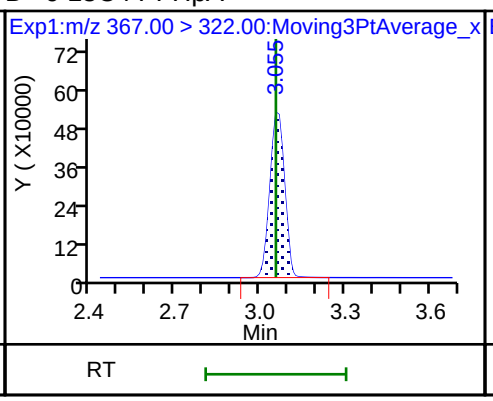
10 Perfluoroheptanoic acid



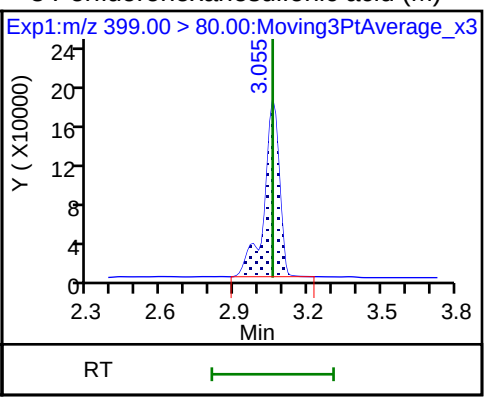
D 11 18O2 PFHxS



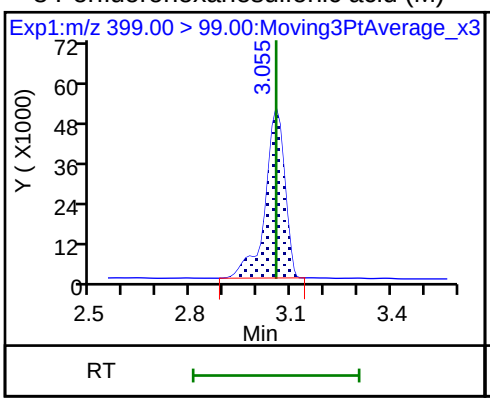
D 9 13C4 PFHpA



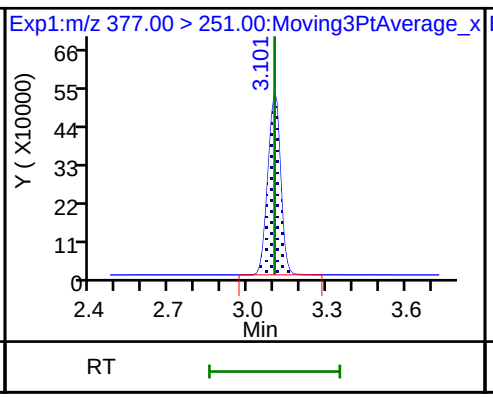
8 Perfluorohexanesulfonic acid (M)



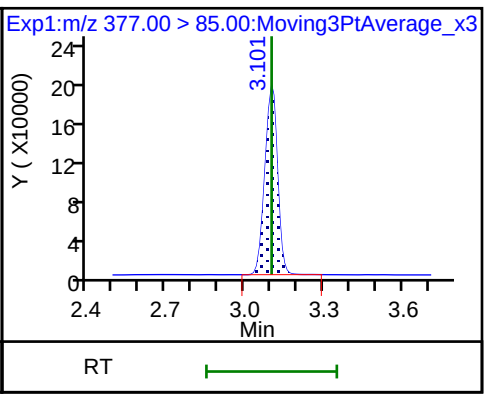
8 Perfluorohexanesulfonic acid (M)



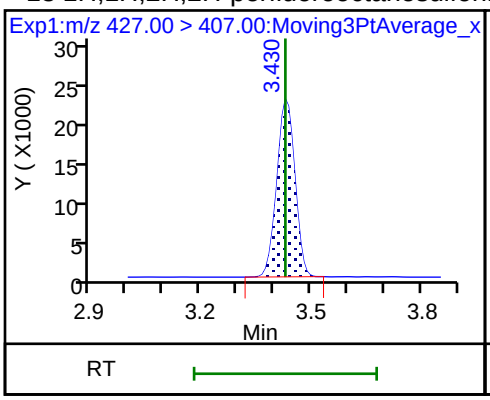
77 DONA



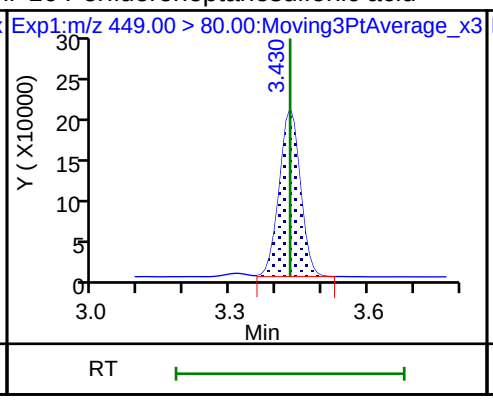
77 DONA



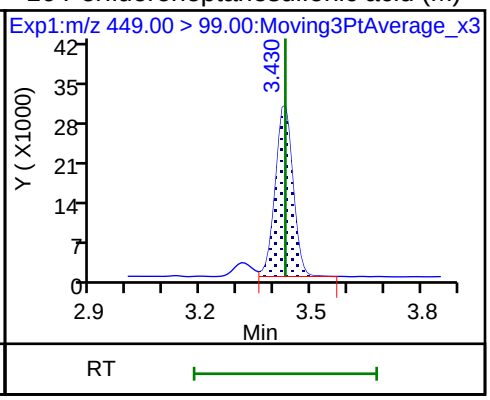
13 1H,1H,2H,2H-perfluorooctanesulfoni



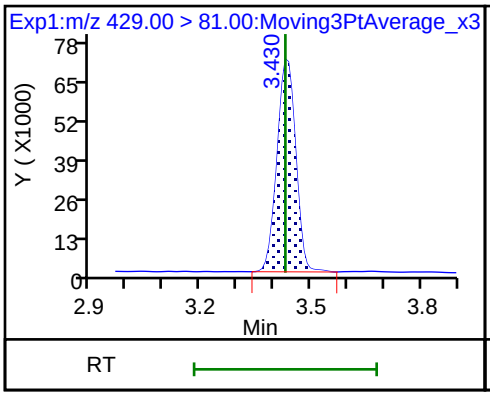
16 Perfluoroheptanesulfonic acid



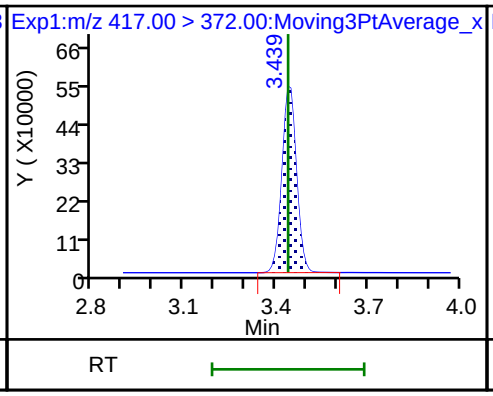
16 Perfluoroheptanesulfonic acid (M)



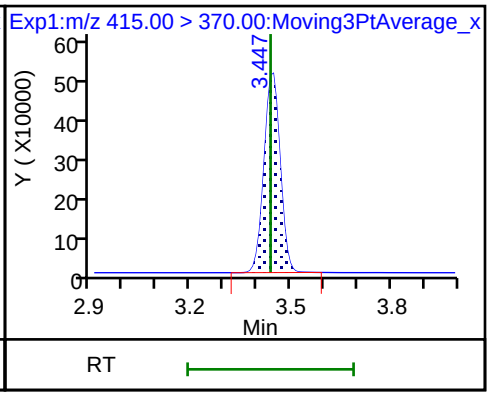
D 12 M2-6:2 FTS



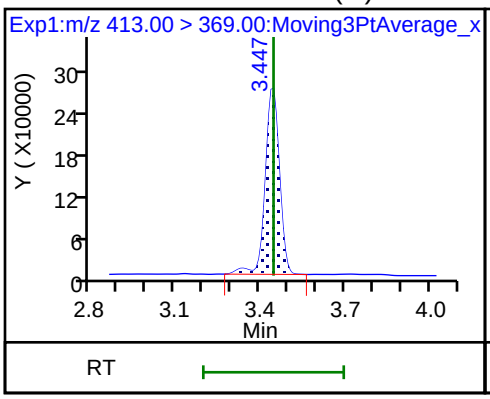
D 14 13C4 PFOA



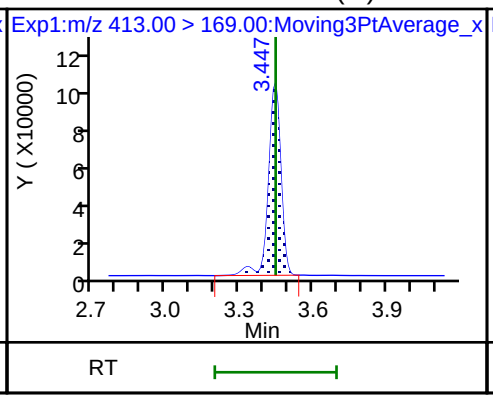
* 62 13C2 PFOA



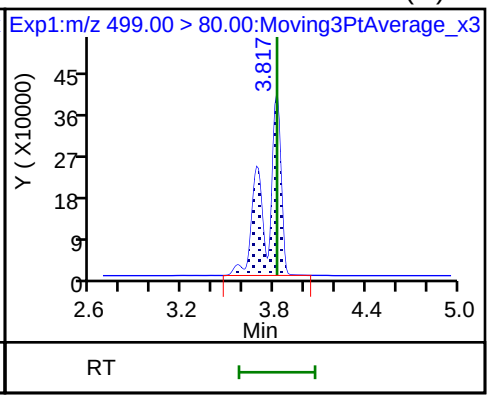
15 Perfluorooctanoic acid (M)



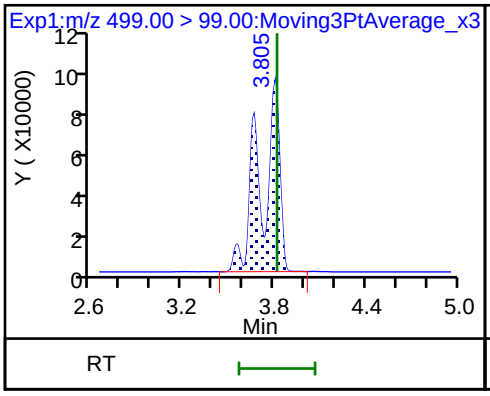
15 Perfluorooctanoic acid (M)



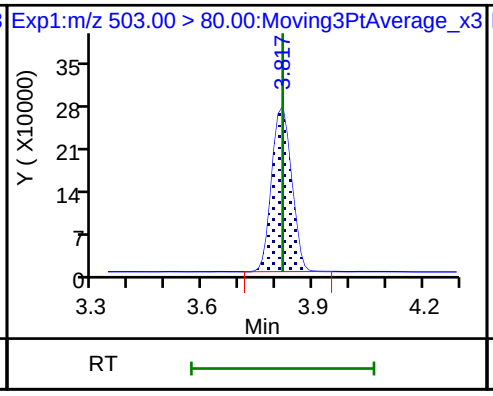
17 Perfluorooctanesulfonic acid (M)



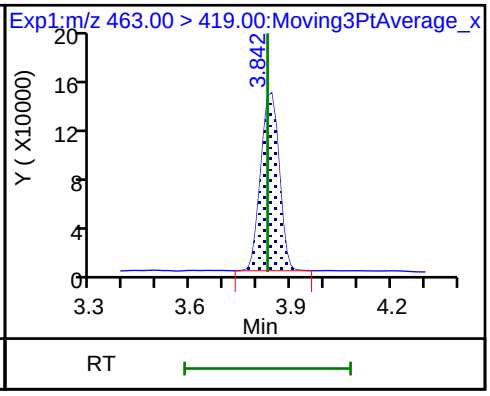
17 Perfluorooctanesulfonic acid



D 18 13C4 PFOS



20 Perfluorononanoic acid



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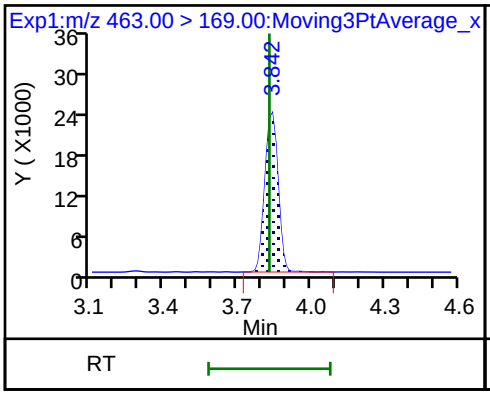
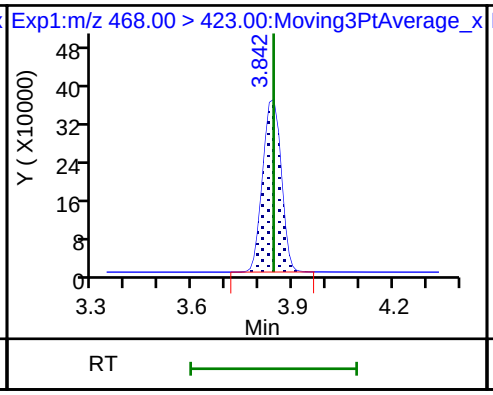
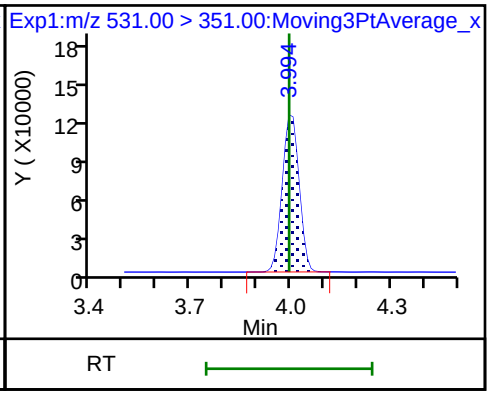


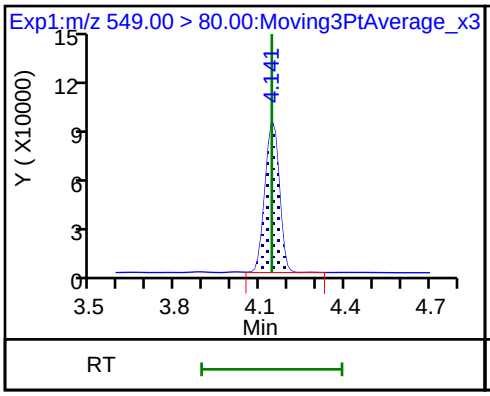
D 19 13C5 PFNA



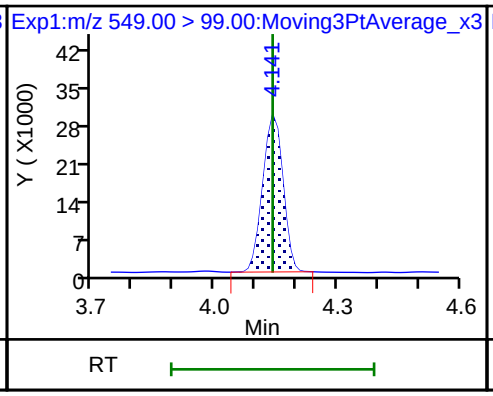
69 9-Chlorohexadecafluoro-3-oxanonane



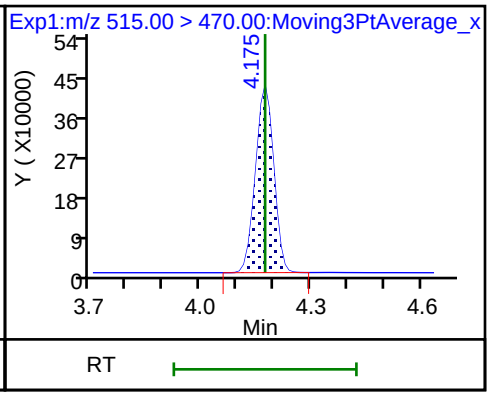
68 Perfluorononanesulfonic acid



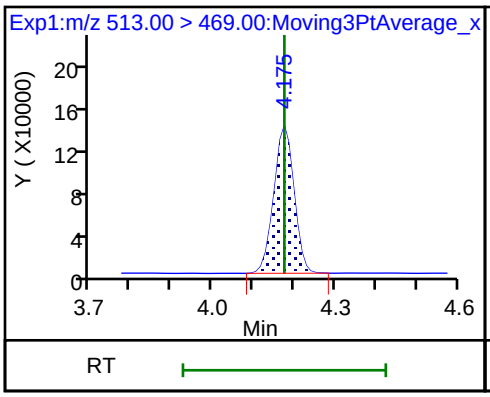
68 Perfluorononanesulfonic acid



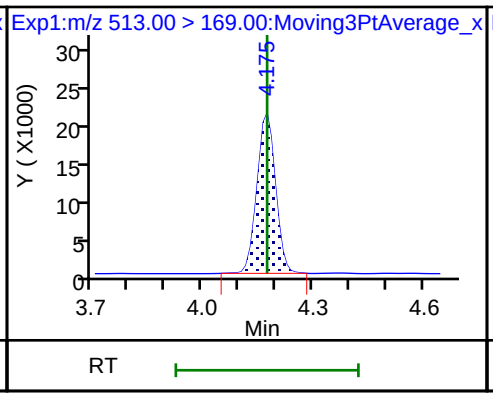
D 23 13C2 PFDA



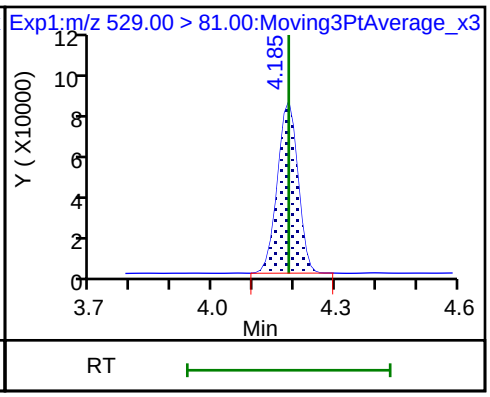
24 Perfluorodecanoic acid



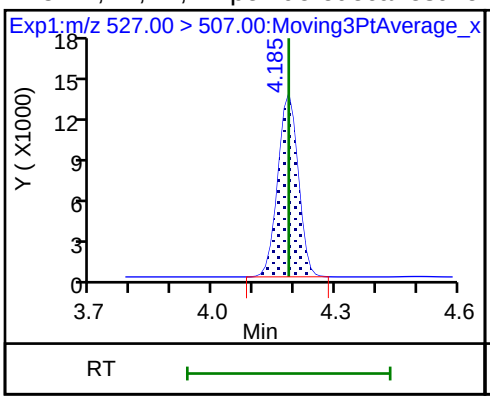
24 Perfluorodecanoic acid



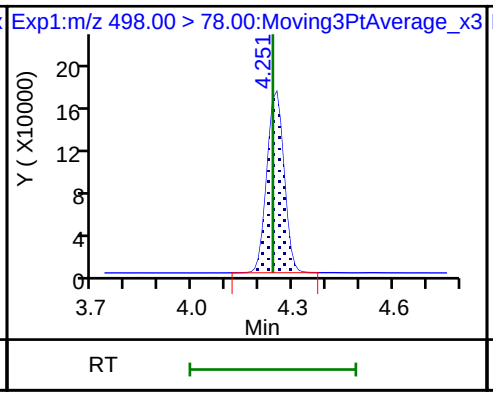
D 26 M2-8:2 FTS



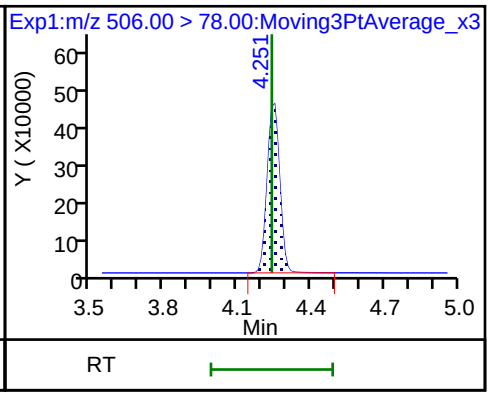
25 1H,1H,2H,2H-perfluorodecanesulfoni



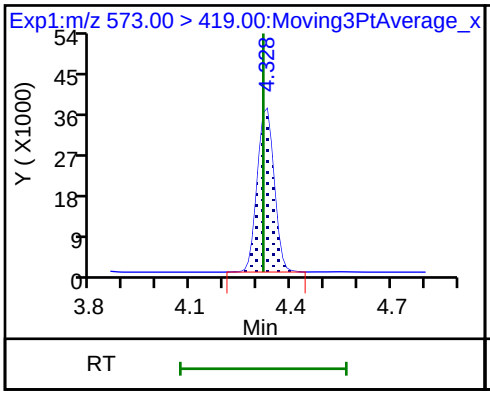
22 Perfluorooctanesulfonamide



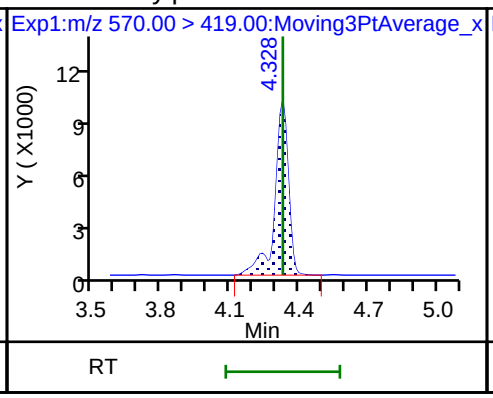
D 21 13C8 FOSA



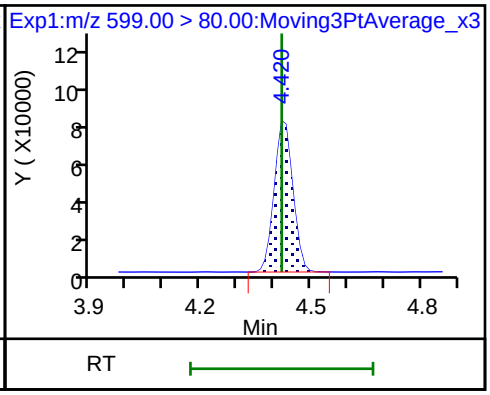
D 27 d3-NMeFOSAA



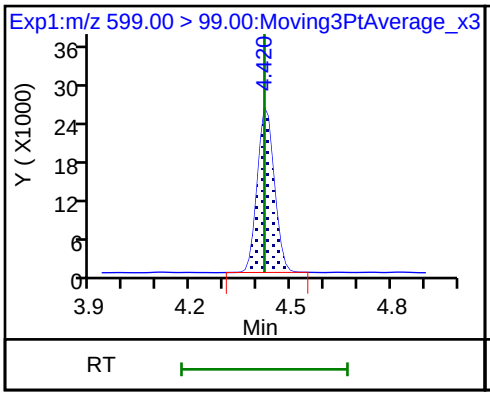
28 N-methylperfluorooctanesulfonamido



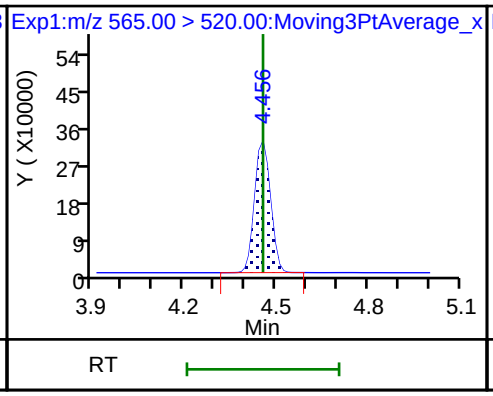
29 Perfluorodecanesulfonic acid



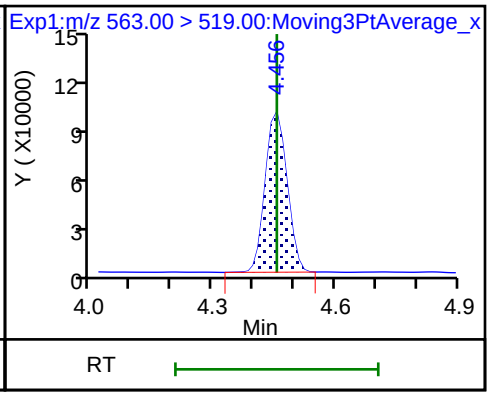
29 Perfluorodecanesulfonic acid



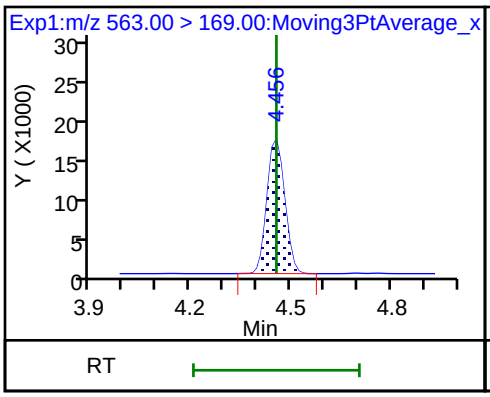
D 30 13C2 PFUnA



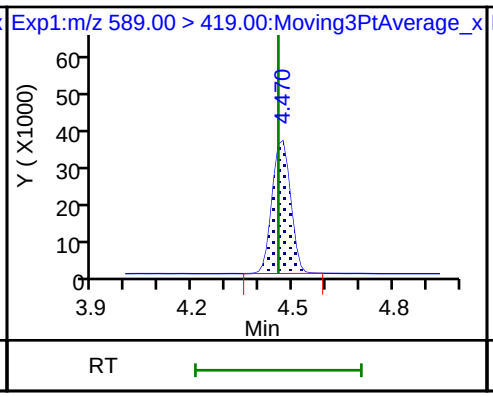
31 Perfluoroundecanoic acid



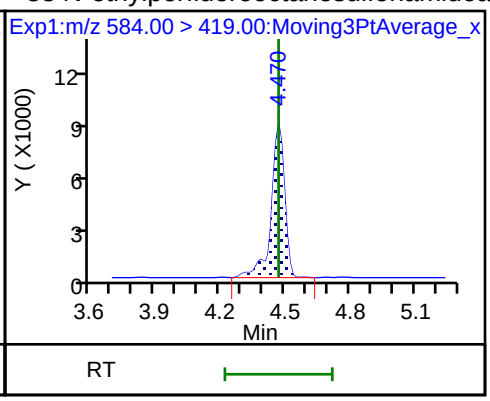
31 Perfluoroundecanoic acid



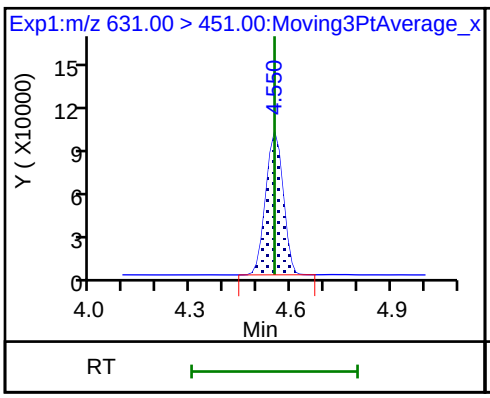
D 32 d5-NEtFOSAA



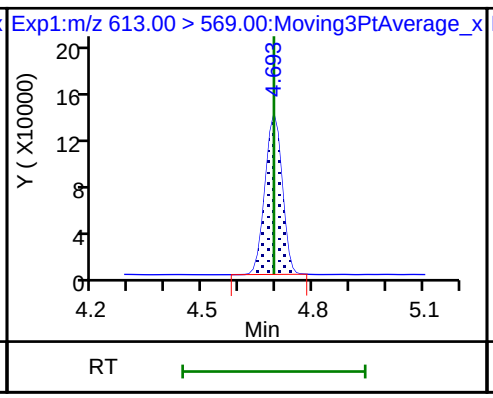
33 N-ethylperfluorooctanesulfonamidoa (M)



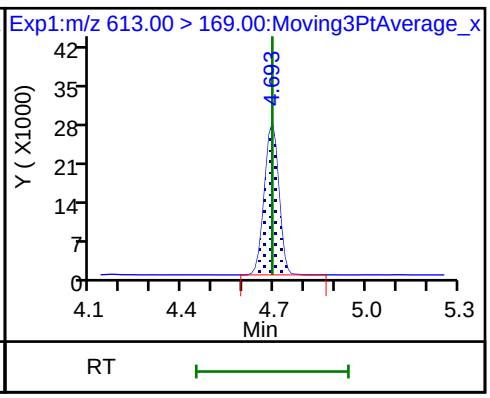
66 11-Chloroeicosafluoro-3-oxaundecan



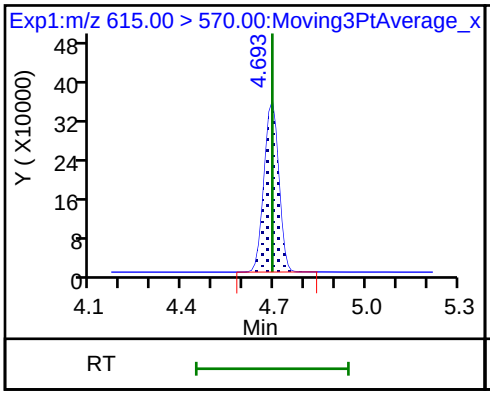
37 Perfluorododecanoic acid



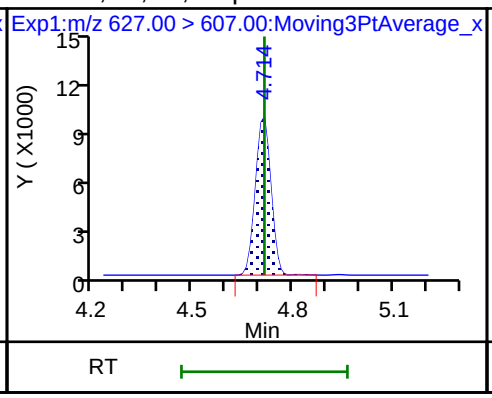
37 Perfluorododecanoic acid



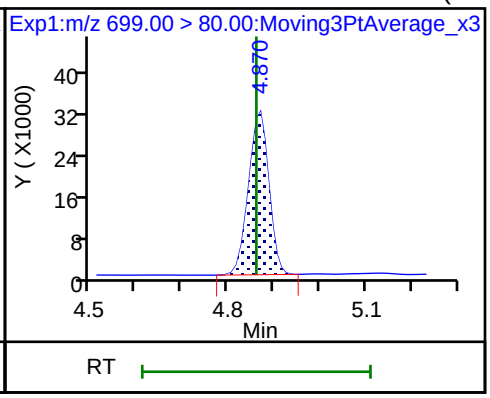
D 36 13C2 PFDoA



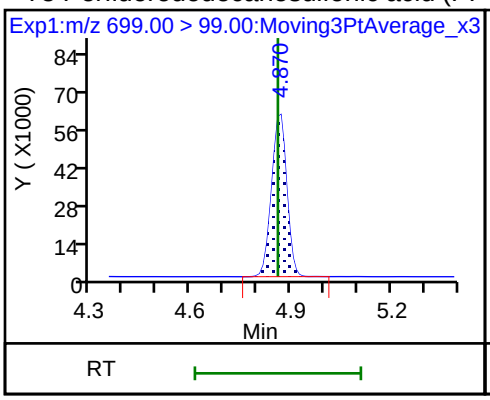
74 1H,1H,2H,2H-perfluorododecanesulfo



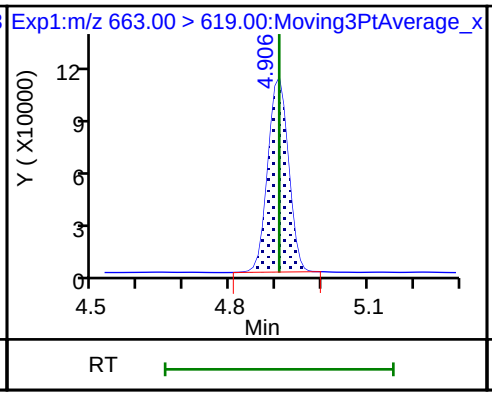
75 Perfluorododecanesulfonic acid (PF



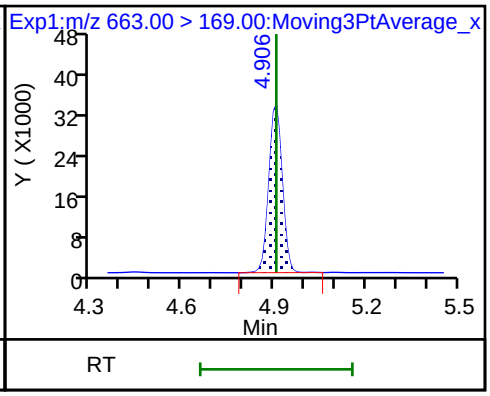
75 Perfluorododecanesulfonic acid (PF



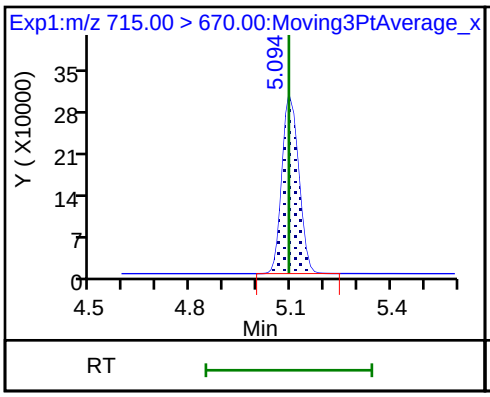
41 Perfluorotridecanoic acid



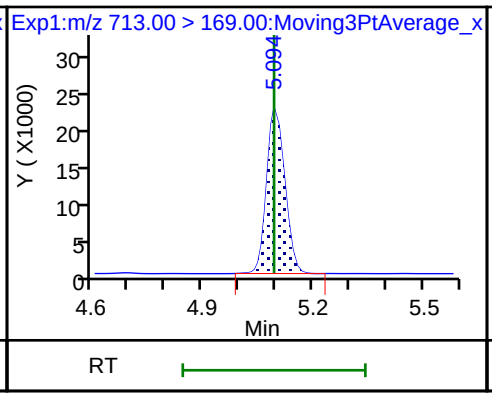
41 Perfluorotridecanoic acid



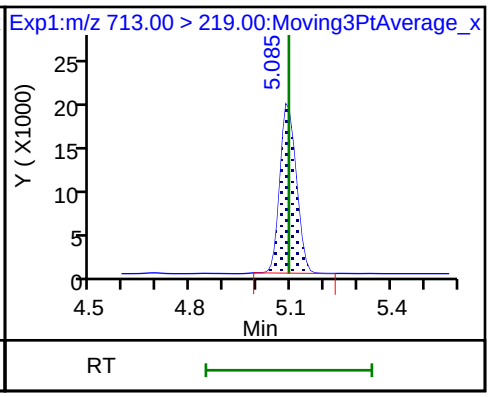
D 43 13C2 PFTeDA



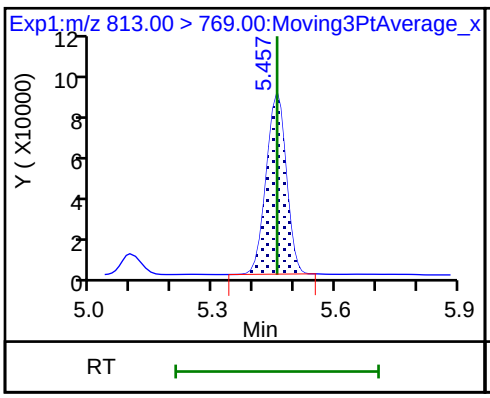
42 Perfluorotetradecanoic acid



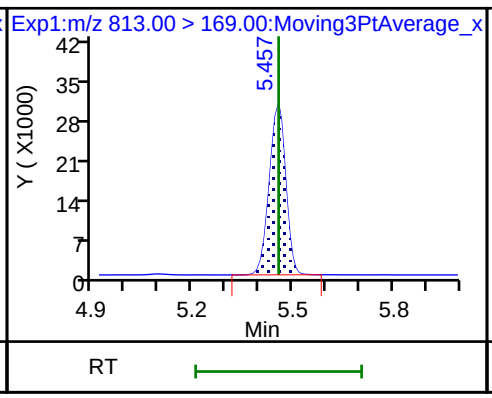
42 Perfluorotetradecanoic acid



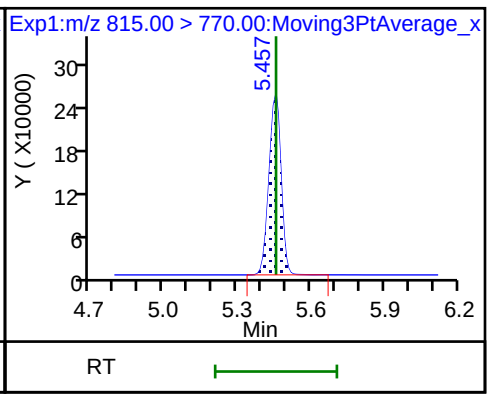
45 Perfluorohexadecanoic acid



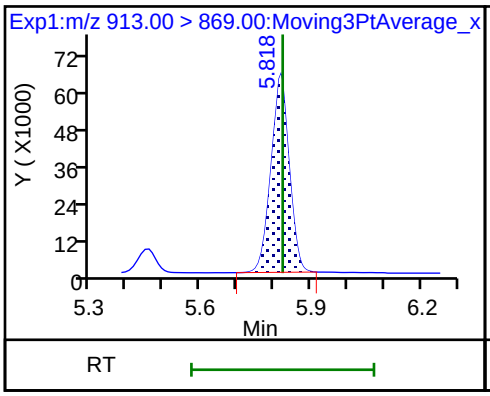
45 Perfluorohexadecanoic acid



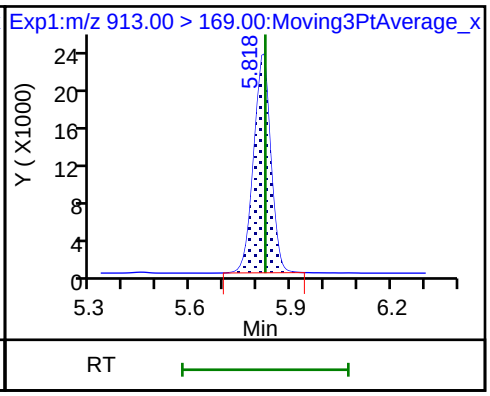
D 44 13C2 PFHxDA



46 Perfluorooctadecanoic acid



46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

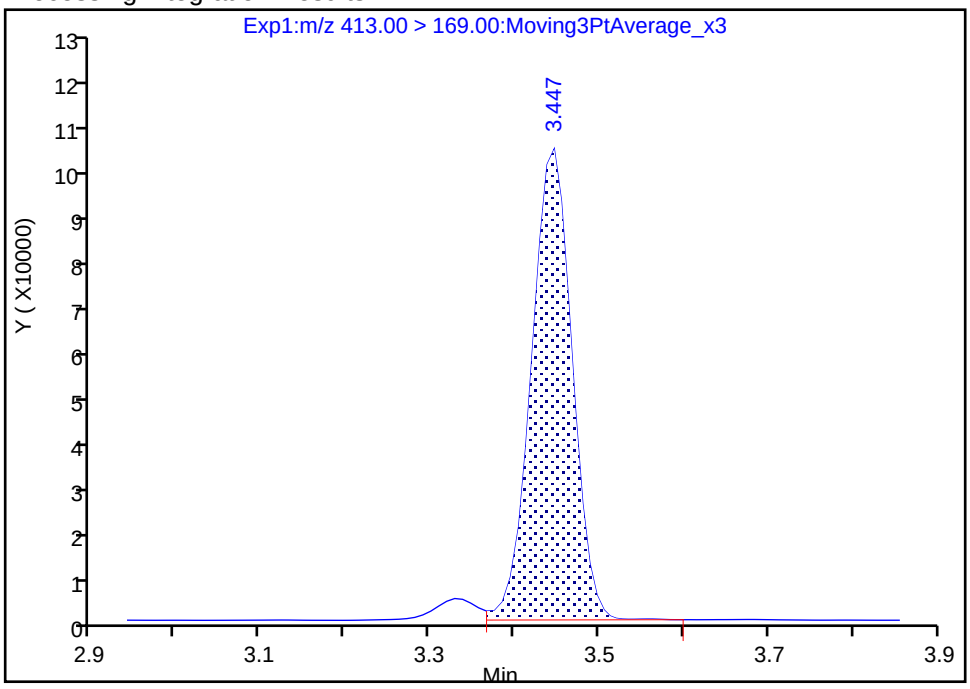
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d				
Injection Date:	07-Dec-2019 09:22:35	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-C MSD				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

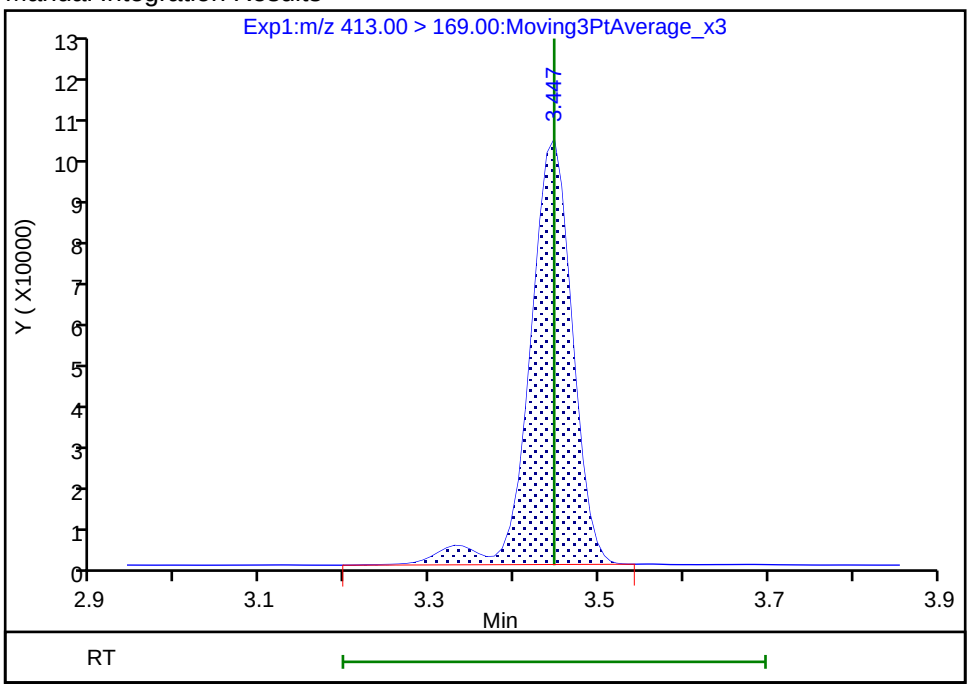
Processing Integration Results

RT: 3.45
Area: 345742
Amount: 1.203859
Amount Units: ng/ml



Manual Integration Results

RT: 3.45
Area: 360496
Amount: 1.198524
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:30:30

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

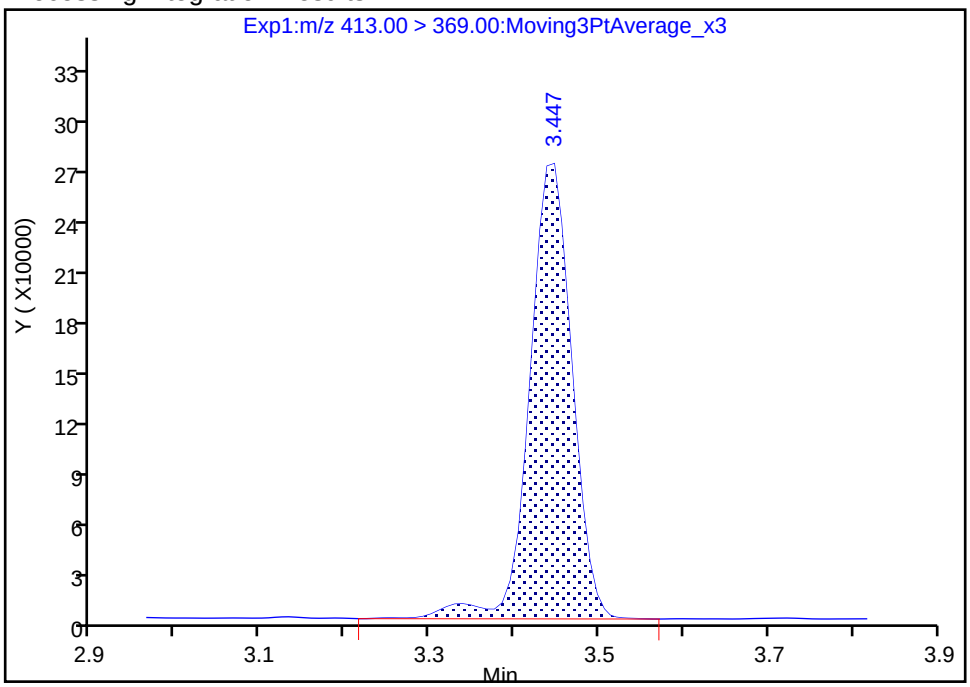
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d				
Injection Date:	07-Dec-2019 09:22:35	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-C MSD				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

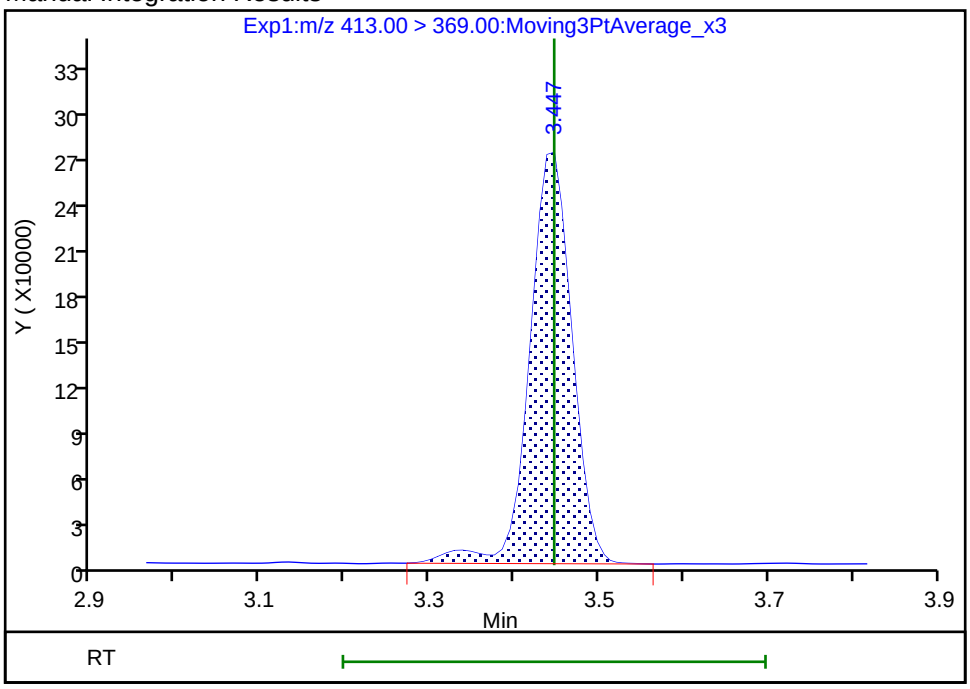
Processing Integration Results

RT: 3.45
Area: 946560
Amount: 1.203859
Amount Units: ng/ml



Manual Integration Results

RT: 3.45
Area: 942366
Amount: 1.198524
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:30:34

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins TestAmerica, Burlington

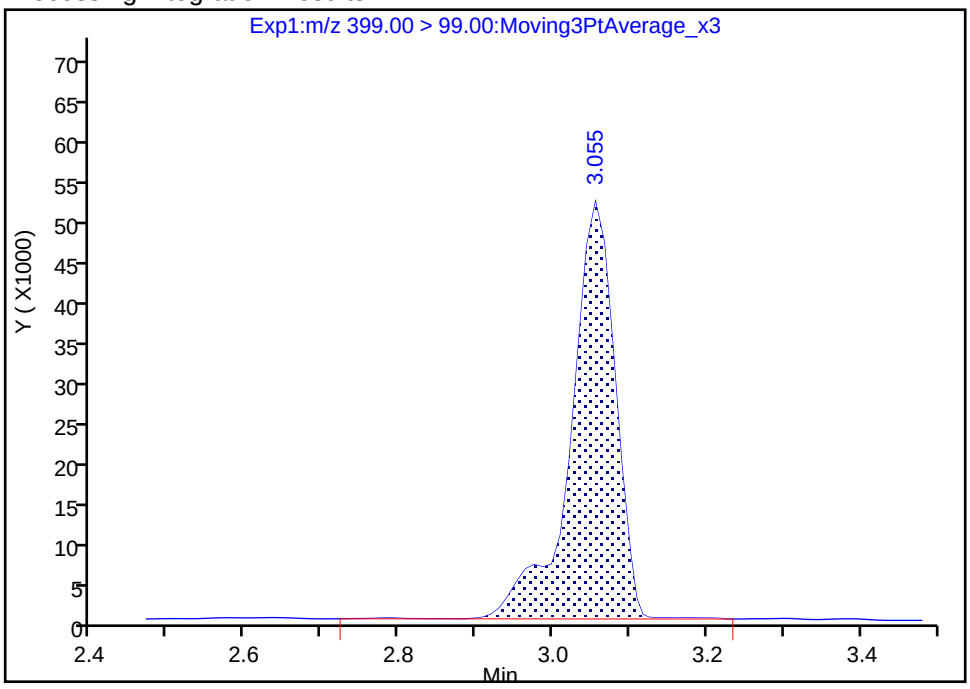
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d				
Injection Date:	07-Dec-2019 09:22:35	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-C MSD				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 2

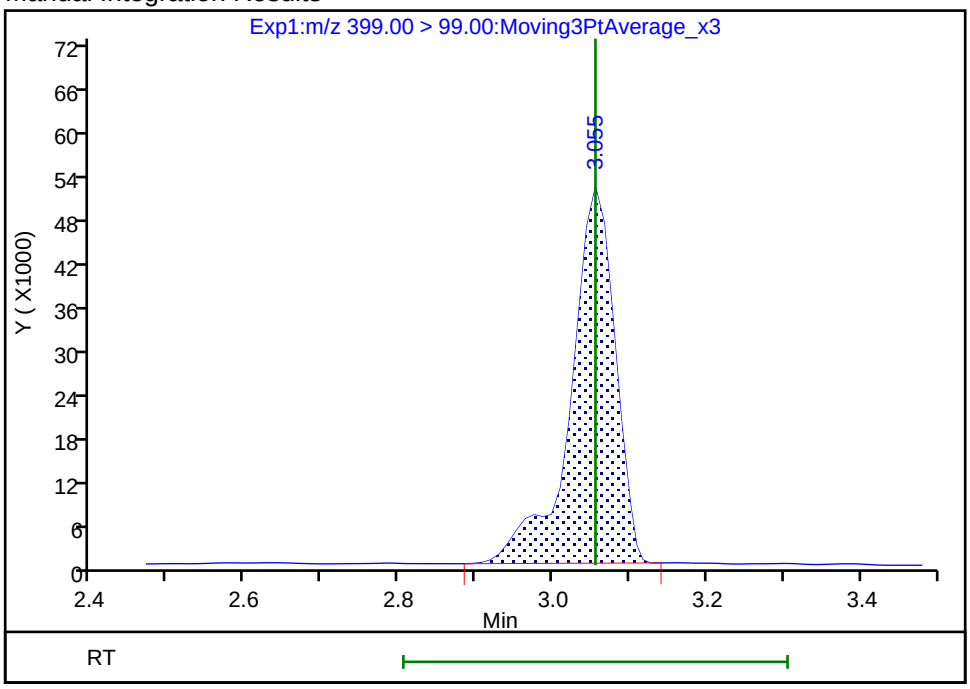
Processing Integration Results

RT: 3.06
Area: 210838
Amount: 1.030194
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 208560
Amount: 1.021614
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:29:45
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

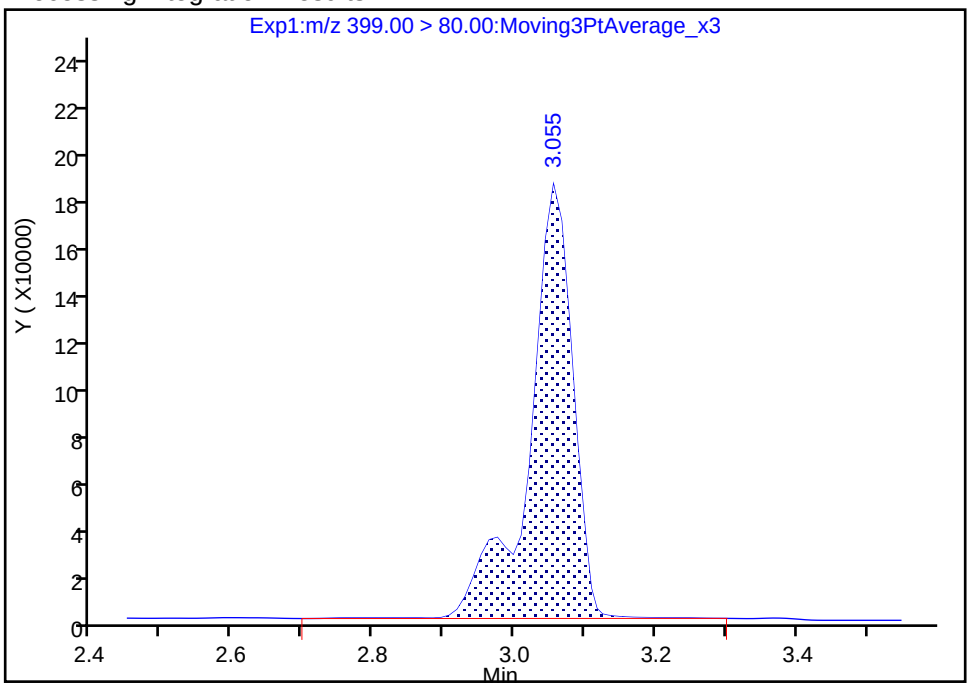
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d				
Injection Date:	07-Dec-2019 09:22:35	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-C MSD				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

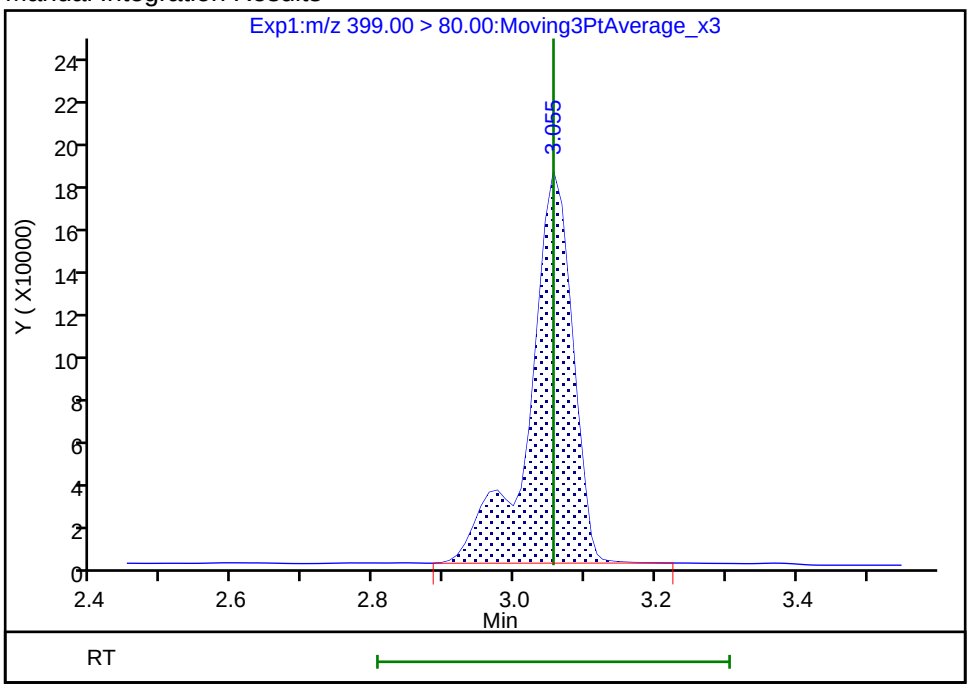
Processing Integration Results

RT: 3.06
Area: 781226
Amount: 1.030194
Amount Units: ng/ml



Manual Integration Results

RT: 3.06
Area: 774720
Amount: 1.021614
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:29:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

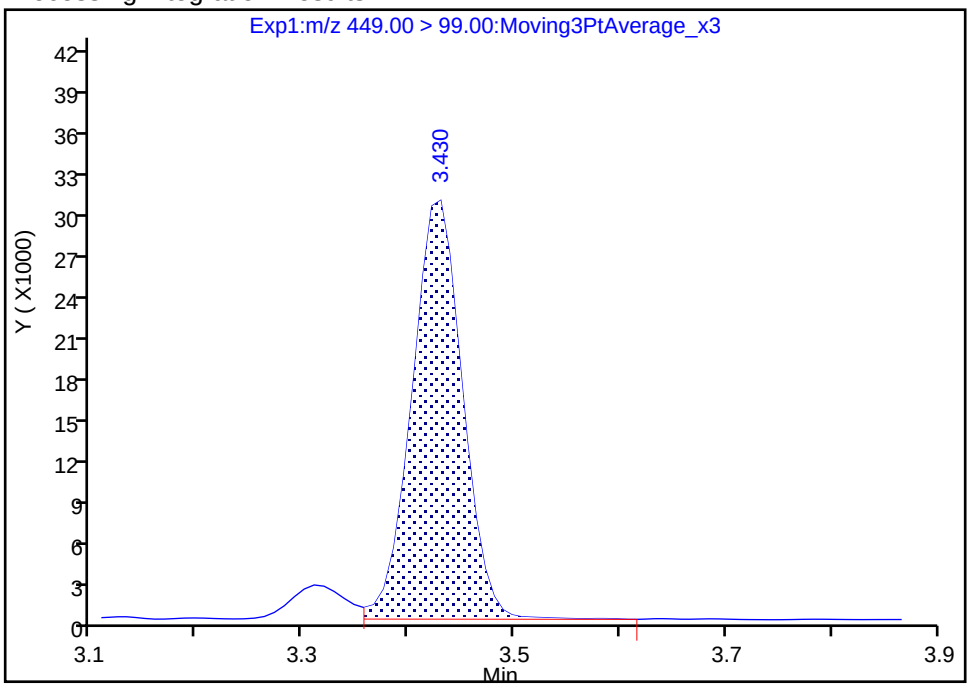
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d				
Injection Date:	07-Dec-2019 09:22:35	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-C MSD				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

16 Perfluoroheptanesulfonic acid, CAS: 375-92-8

Signal: 2

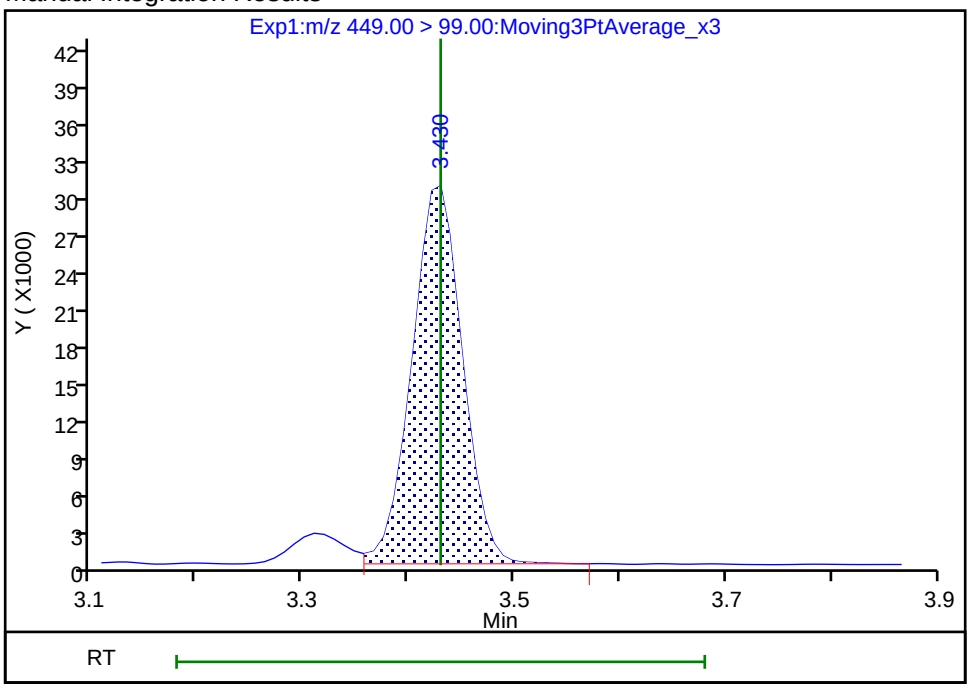
Processing Integration Results

RT: 3.43
Area: 102593
Amount: 1.238195
Amount Units: ng/ml



Manual Integration Results

RT: 3.43
Area: 102119
Amount: 1.238195
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:30:17

Audit Action: Manually Integrated Audit Reason: Split Peak

Eurofins TestAmerica, Burlington

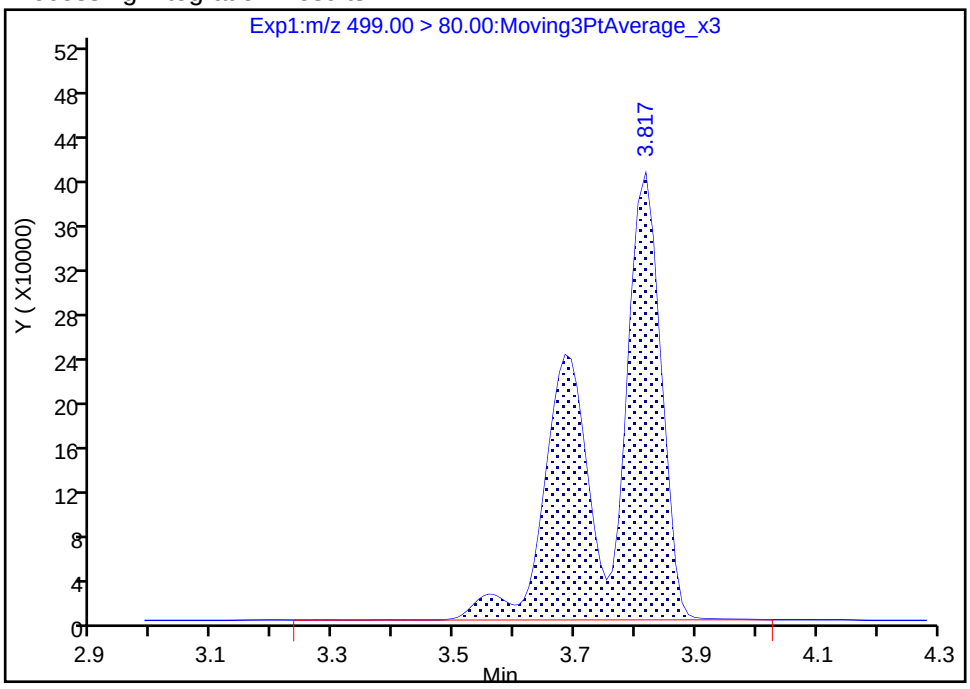
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d				
Injection Date:	07-Dec-2019 09:22:35	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-C MSD				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

17 Perfluorooctanesulfonic acid, CAS: 1763-23-1

Signal: 1

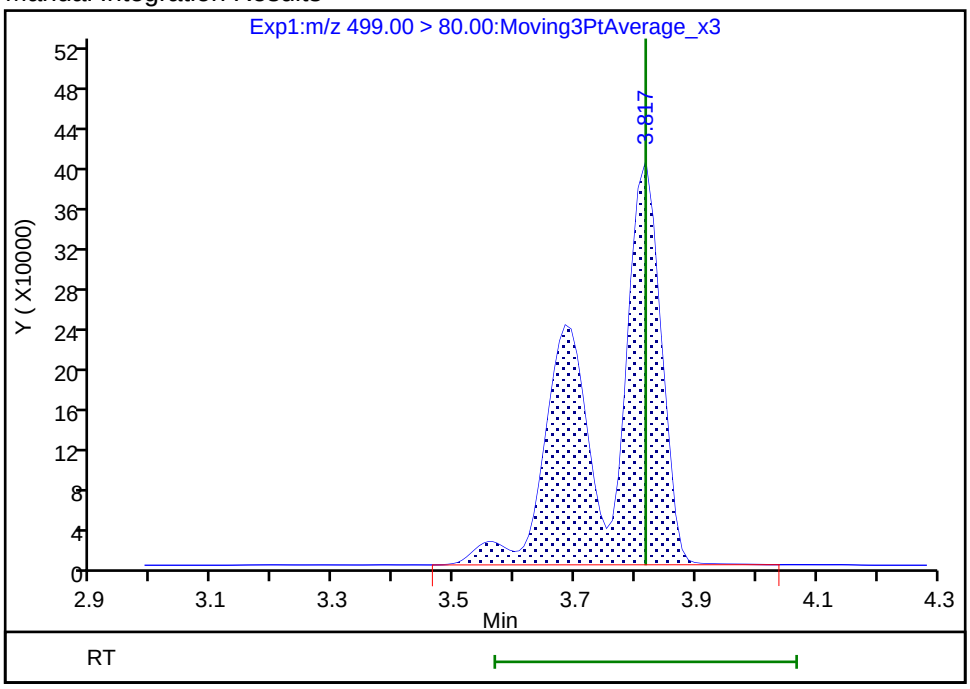
Processing Integration Results

RT: 3.82
Area: 2724648
Amount: 5.913899
Amount Units: ng/ml



Manual Integration Results

RT: 3.82
Area: 2723462
Amount: 5.911324
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:30:47
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins TestAmerica, Burlington

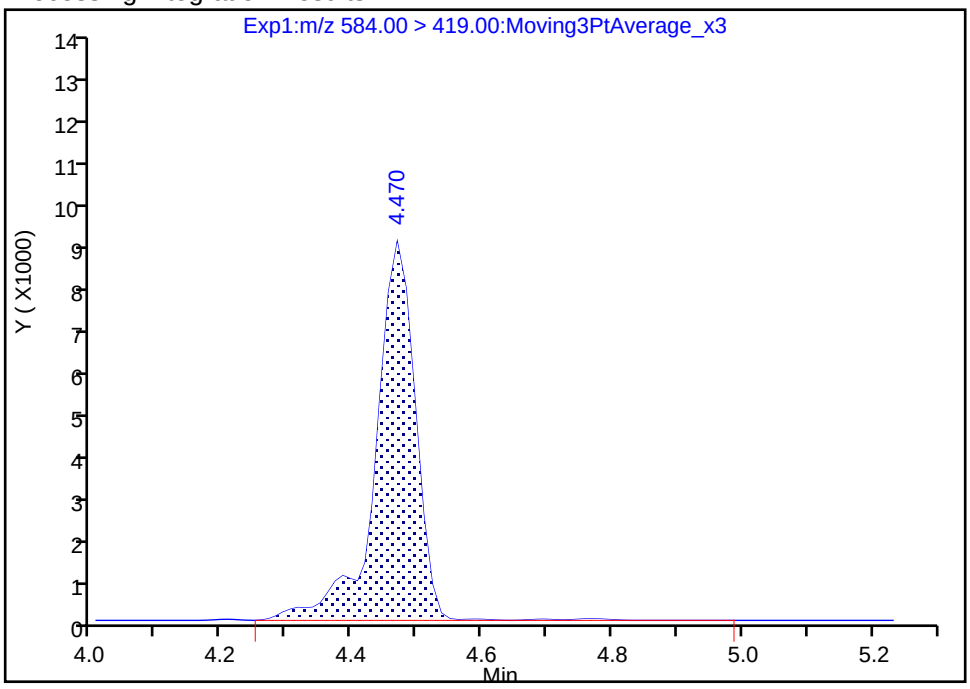
Data File:	\\ChromNA\Burlington\ChromData\LC812\20191206-39120.b\SC120619F023.d				
Injection Date:	07-Dec-2019 09:22:35	Instrument ID:	LC812		
Lims ID:	480-163109-A-2-C MSD				
Client ID:	MW-03				
Operator ID:	lc812tech	ALS Bottle#:	23	Worklist Smp#:	23
Injection Vol:	20.0 ul	Dil. Factor:	1.0000		
Method:	PFC_LC812	Limit Group:	LC_PFC_ICAL		
Column:	C-18 (4.60 mm)	Detector	EXP1		

33 N-ethylperfluorooctanesulfonamidoacetic acid, CAS: 2991-50-6

Signal: 1

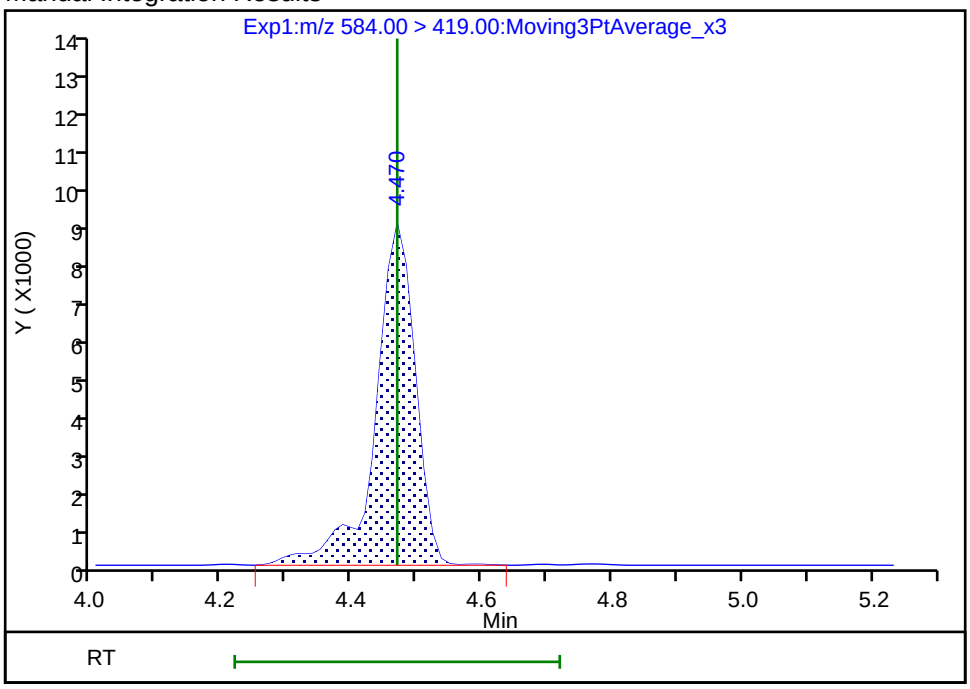
Processing Integration Results

RT: 4.47
Area: 38238
Amount: 0.827079
Amount Units: ng/ml



Manual Integration Results

RT: 4.47
Area: 38054
Amount: 0.823099
Amount Units: ng/ml



Reviewer: manopan, 09-Dec-2019 13:31:13

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Instrument ID: LC812 Start Date: 12/06/2019 13:59

Analysis Batch Number: 150448 End Date: 12/06/2019 15:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		12/06/2019 13:59	1		C-18 4.6(mm)
ZZZZZ		12/06/2019 14:07	1		C-18 4.6(mm)
ZZZZZ		12/06/2019 14:16	1		C-18 4.6(mm)
ZZZZZ		12/06/2019 14:24	1		C-18 4.6(mm)
IC 200-150448/5		12/06/2019 14:32	1	SC120619ICAL005.d	C-18 4.6(mm)
IC 200-150448/6		12/06/2019 14:40	1	SC120619ICAL006.d	C-18 4.6(mm)
IC 200-150448/7		12/06/2019 14:48	1	SC120619ICAL007.d	C-18 4.6(mm)
ICIS 200-150448/8		12/06/2019 14:57	1	SC120619ICAL008.d	C-18 4.6(mm)
IC 200-150448/9		12/06/2019 15:05	1	SC120619ICAL009.d	C-18 4.6(mm)
IC 200-150448/10		12/06/2019 15:13	1	SC120619ICAL010.d	C-18 4.6(mm)
ICB 200-150448/11		12/06/2019 15:21	1		C-18 4.6(mm)
ICV 200-150448/12		12/06/2019 15:29	1	SC120619ICAL012.d	C-18 4.6(mm)
ZZZZZ		12/06/2019 15:37	1		C-18 4.6(mm)

537 (modified)

LCMS ANALYSIS RUN LOG

Lab Name: Eurofins TestAmerica, Burlington Job No.: 480-163109-1

SDG No.: 480-163109

Instrument ID: LC812 Start Date: 12/07/2019 06:22

Analysis Batch Number: 150462 End Date: 12/07/2019 09:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 200-150462/1		12/07/2019 06:22	1	SC120619F001.d	C-18 4.6(mm)
MB 200-150277/1-A		12/07/2019 06:30	1	SC120619F002.d	C-18 4.6(mm)
LCS 200-150277/2-A		12/07/2019 06:38	1	SC120619F003.d	C-18 4.6(mm)
ZZZZZ		12/07/2019 06:46	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 06:55	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 07:03	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 07:11	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 07:19	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 07:27	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 07:35	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 07:44	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 07:52	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 08:00	1		C-18 4.6(mm)
CCV 200-150462/14		12/07/2019 08:08	1	SC120619F014.d	C-18 4.6(mm)
ZZZZZ		12/07/2019 08:17	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 08:25	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 08:33	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 08:41	1		C-18 4.6(mm)
ZZZZZ		12/07/2019 08:49	1		C-18 4.6(mm)
480-163109-1		12/07/2019 08:57	1	SC120619F020.d	C-18 4.6(mm)
480-163109-2		12/07/2019 09:06	1	SC120619F021.d	C-18 4.6(mm)
480-163109-2 MS		12/07/2019 09:14	1	SC120619F022.d	C-18 4.6(mm)
480-163109-2 MSD		12/07/2019 09:22	1	SC120619F023.d	C-18 4.6(mm)
480-163109-3		12/07/2019 09:30	1	SC120619F024.d	C-18 4.6(mm)
480-163109-4		12/07/2019 09:38	1	SC120619F025.d	C-18 4.6(mm)
480-163109-5		12/07/2019 09:47	1	SC120619F026.d	C-18 4.6(mm)
CCV 200-150462/27		12/07/2019 09:55	1	SC120619F027.d	C-18 4.6(mm)

537 (modified)

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt Job No.: 480-163109-1

SDG No.: 480-163109

Batch Number: 150277 Batch Start Date: 12/02/19 09:31 Batch Analyst: Morrill, Morgan B

Batch Method: 3535 Batch End Date: 12/02/19 13:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFCIDASPK 00010	LCMPFCIDASPK 00011
MB 200-150277/1		3535, 537 (modified)		250 g	0 g	250 mL	10 mL	25 uL	
LCS 200-150277/2		3535, 537 (modified)		250 g	0 g	250 mL	10 mL	25 uL	
480-163109-A-1	MW-01	3535, 537 (modified)	T	333.74 g	25.62 g	308.1 mL	10 mL	25 uL	
480-163109-A-2	MW-03	3535, 537 (modified)	T	337.58 g	25.48 g	312.1 mL	10 mL	25 uL	
480-163109-A-2 MS	MW-03	3535, 537 (modified)	T	333.81 g	25.53 g	308.3 mL	10 mL	25 uL	
480-163109-A-2 MSD	MW-03	3535, 537 (modified)	T	317.18 g	25.30 g	291.9 mL	10 mL	25 uL	
480-163109-A-3	MW-05	3535, 537 (modified)	T	330.28 g	25.32 g	305 mL	10 mL	25 uL	
480-163109-A-4	DUP	3535, 537 (modified)	T	338.88 g	25.73 g	313.2 mL	10 mL	25 uL	
480-163109-A-5	EQUIPMENT BLANK	3535, 537 (modified)	T	325.49 g	25.79 g	299.7 mL	10 mL		25 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC32MTXStk 00007	PFAS21 IS Stk 00014	AnalysisComment			
MB 200-150277/1		3535, 537 (modified)			10 uL				
LCS 200-150277/2		3535, 537 (modified)		25 uL	10 uL				
480-163109-A-1	MW-01	3535, 537 (modified)	T		10 uL	Dried in oven and sediment discarded. 302.93 mL of liquid extracted.			
480-163109-A-2	MW-03	3535, 537 (modified)	T		10 uL				
480-163109-A-2 MS	MW-03	3535, 537 (modified)	T	25 uL	10 uL	Dried in oven and sediment discarded. 307.78 mL of liquid extracted.			
480-163109-A-2 MSD	MW-03	3535, 537 (modified)	T	25 uL	10 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: Eurofins TestAmerica, Burlingt Job No.: 480-163109-1

SDG No.: 480-163109

Batch Number: 150277 Batch Start Date: 12/02/19 09:31 Batch Analyst: Morrill, Morgan B

Batch Method: 3535 Batch End Date: 12/02/19 13:05

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC32MTXStk 00007	PFAS21 IS Stk 00014	AnalysisComment			
480-163109-A-3	MW-05	3535, 537 (modified)	T		10 uL	Dried in oven and sediment discarded. 304.67 mL of liquid extracted.			
480-163109-A-4	DUP	3535, 537 (modified)	T		10 uL				
480-163109-A-5	EQUIPMENT BLANK	3535, 537 (modified)	T		10 uL	Exhausted IDA spike on prior sample. New vial of IDA spike used on this sample.			

Batch Notes	
Balance ID	M02926
Manifold ID	IDA 3 & 4
Rinse Solvent Lot	1342538
Rinse Solvent Name	Hexane
Solvent Lot #	1344574
Solvent Name	Methanol (0.3% NH4OH)
SPE Cartridge Lot ID	Lot 004839175A
SPE Cartridge Type	Oasis WAX 500 mg
Analyst ID - Spike Analyst	MBM
Analyst ID - Spike Witness Analyst	NDD

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

Eurofins TestAmerica, Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Phone: 716-691-2600 Fax: 716-691-7991

From Cyn: PFEI → BUF, BAL → BUF, -Rc

Chain of Custody Record

eurofins | Environment Testing TestAmerica

Syracuse

Client Information	Sampler:	Lab PM: Johnson, Orlette S	Carrier Tracking No(s): #225	COC No: 480-138511-31156.1
Client Contact: Mr. Christopher Gabriel	Phone:	E-Mail: orlette.johnson@testamericainc.com		Page: Page 1 of 1
Company: Geologic NY Inc				Job #:
Address: PO BOX 350 37 Copeland Ave	Due Date Requested:			
City: Homer	TAT Requested (days):			
State, Zip: NY, 13077				
Phone: 607-749-5000(Tel)	PO #: Proj# 215042			
Email: ChrisG@geologic.net	WO #:			
Project Name: Emerging Contaminants	Project #: 48021303			
Site: 215042	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)	PFC_IDA - PFAS, Standard List (21 analytes)	8270D_SIM_MS_ID - 1,4-Dioxane	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
MW-01	11-20-19	12:00	G	Water			✓	✓		
MW-03	11-19-19	16:15	G	Water			✓	✓		
MW-05	11-19-19	15:15	G	Water			✓	✓		
DUP	11-19-19	15:15	G	Water			✓	✓		
MS	11-19-19	16:15	G	Water			✓	✓		
MSD	11-19-19	16:15	G	Water			✓	✓		
Equipment Blank	11-20-19	16:00	G	Water			✓	✓		
				AP						
		11/21/19								

480-163109 Chain of Custody

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) Cat. B Deliverables

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	[signature]	11-20-19 16:45	Geologic	Geologic Fedex	11-20-19 / 16:45	Geologic
2	Geologic Fedex [signature]	11/21/19 / 11:50	Geologic	[signature]	11/21/19 11:50	TestAm
3	[signature]	11-21-19, 19:00	Eya	[signature]	11/22/19 10:39	TestAm

Custody Seals Intact: ☑ Yes ☐ No | Custody Seal No.: 1080043

Cooler Temperature(s) °C and Other Remarks: 0.1

Ver: 01/16/2019

12/18/2019

FROM: ORIGIN ID:SYRA (315) 431-0171
SYR SERVICE CENTER
EUROFINS TESTAMERICA
118 BOSS RD

SYRACUSE, NY 13211
UNITED STATES US

SHIP DATE: 21NOV19
ACTWGT: 13.00 LB MAN
CAD: 251798/CAFE3211

BILL RECIPIENT

TO SAMPLE RECEIVING
TESTAMERICA BURLINGTON
30 COMMUNITY DRIVE SUITE 11

SOUTH BURLINGTON VT 05403
(802) 660-1990
REF: GEOLOGIC 215042 1COOLER

551C1/F330/104C

FedEx Express

J18111806050luw

TRK# 0201 1112 8550 2023

FRI - 22 NOV 10:30A
PRIORITY OVERNIGHT

NL BTVA

05403
VT-US BTV

Login Sample Receipt Checklist

Client: Geologic NY Inc

Job Number: 480-163109-1
SDG Number: 480-163109

Login Number: 163109
List Number: 1
Creator: Mohn, Taylor J

List Source: Eurofins TestAmerica, Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	NA: Lab does not accept radioactive samples
The cooler's custody seal, if present, is intact.	True	1080093
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.1ºC
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	N/A	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

APPENDIX G

DUSRS

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

NYSDEC Remedial Investigation-215042
Eurofins SDG#480-212892-1
December 27, 2023
Sampling date: 9/18, 19/2023

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Geologic NY Inc., project located at NYSDEC Remedial Investigation-215042, Eurofins SDG #480-212892-1 submitted to Vali-Data of WNY, LLC on October 5, 2023. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines (NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using the USEPA method Volatile Organics (8260C), Inorganics (6010C), Mercury (7470A) and in accordance with wet chemistry methods.

ID	Sample ID	Laboratory ID
1	MW-01	480-212892-1
2	MW-02	480-212892-2
3	MW-03	480-212892-3
4	MW-04	480-212892-4
5	MW-05	480-212892-5
6	MW-06	480-212892-6
7	MW-07	480-212892-7
8	DUP	480-212892-8
9	TRIP BLANK	480-212892-9

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below in MS/MSD.

Samples: DUSR ID#3-5 and #4MS/MSD were diluted due to high target analyte concentrations.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met except a few target analytes were outside QC limits in the matrix spikes and should be qualified as estimated.

Target Analyte	%Rec #4MS	%Rec #4MSD	RPD	Qualifier	Associated Sample
Dichlorodifluoromethane	28	26	-	UJ	4
Trichloroethene	47	21	-	J	4
Vinyl chloride	62	58	-	UJ	4
Acetone	-	-	26	UJ	4

Some target analytes were outside QC limits in the matrix spike or the matrix spike duplicate

but not both, so no further action is required.

COMPOUND QUANTITATION
All criteria were met.

INITIAL CALIBRATION
All criteria were met.
Alternate forms of regression were used on some target analytes with acceptable results, so no further action is required.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

METALS

The following items/criteria were reviewed for this analytical suite:

- -Data Completeness
- -Narrative and Data Reporting Forms
- -Chain of Custody and Traffic Reports
- -Holding Times
- -Blanks
- -Laboratory Control Sample
- -MS/MSD/Duplicate
- -Field Duplicate
- -Serial Dilution
- -Compound Quantitation
- -Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use but are qualified below in Blanks and Calibration.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

BLANKS
All criteria were met except a target analyte was detected in a blank and should be qualified in the associated samples in which it was detected.

Blank ID	Target Analyte	Concentration	Qualifier	Associated Sample
MB 480-684307	Zn	.00180mg/L	U at RL	1, 3, 5-7
MB 480-684307	Zn	.00180mg/L	JH	2, 4, 8

LABORATORY CONTROL SAMPLE
All criteria were met.

MS/MSD/DUPLICATE
All criteria were met.

FIELD DUPLICATE
All criteria were met.

SERIAL DILUTION
All criteria were met.

COMPOUND QUANTITATION
All criteria were met.

CALIBRATION
All criteria were met except the %Rec of several target analytes was outside QC limits in the Low-Concentration Calibration Verifications. These target analytes should be qualified as estimated in the associated samples, blanks and spikes.

Calibration ID	Target Analyte	%D	Qualifier	Associated Sample
ICVL 480-684582/7	Cu	87	UJ/J	480-684307, 1-8, 4MS/MSD
ICVL 480-684582/7	Se	120	JH	LCS 480-684307, 4MS/MSD
CCVL 480-684582/20	Se	85	UJ/J	480-684307, 1
CCVL 480-684582/20	Ag	84	UJ/J	480-684307, 1
CCVL 480-684582/26	Ag	89	UJ/J	480-684307, 1-6, 4MS/MSD
CCVL 480-684582/26	Cu	112	JH	LCS 480-684307, 1-6, 4MS/MSD

Calibration ID	Target Analyte	%D	Qualifier	Associated Sample
CCVL 480-684582/38	Ag	82	UJ/J	2-8, 4MS/MSD
CCVL 480-684582/50	Se	88	UJ	7, 8
CCVL 480-684582/50	Ag	77	UJ	7, 8
CCVL 480-684582/50	Cu	113	JH	7, 8

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Hexavalent Chromium

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below.

HEXAVALENT CHROMIUM

All criteria were met except the samples arrived at the laboratory outside hold time. Samples in which hexavalent chromium was detected should be qualified as estimated and samples in which it was not detected should be qualified as unusable.

Job Narrative
480-212892-1

Receipt
The samples were received on 9/20/2023 10:30 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 3.1º C.

GC/MS VOA
Method 8260C: The following samples were diluted to bring the concentration of target analytes within the calibration range: MW-03 (480-212892-3), MW-04 (480-212892-4), MW-04 (480-212892-4[MS]), MW-04 (480-212892-4[MSD]) and MW-05 (480-212892-5). Elevated reporting limits (RLs) are provided.

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

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

General Chemistry
Method 7196A: The following samples were received outside of holding time: MW-01 (480-212892-1), MW-02 (480-212892-2), MW-03 (480-212892-3), MW-04 (480-212892-4), MW-04 (480-212892-4[MS]), MW-04 (480-212892-4[MSD]), MW-05 (480-212892-5), MW-06 (480-212892-6), MW-07 (480-212892-7) and DUP (480-212892-8).

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

Client Sample ID: MW-01
Date Collected: 09/19/23 07:50
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-1
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 13:43	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 13:43	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 13:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 13:43	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 13:43	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 13:43	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 13:43	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 13:43	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 13:43	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 13:43	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 13:43	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 13:43	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 13:43	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 13:43	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 13:43	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 13:43	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 13:43	1
Acetone	ND		10	3.0	ug/L			09/21/23 13:43	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 13:43	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 13:43	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 13:43	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 13:43	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 13:43	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 13:43	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 13:43	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 13:43	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 13:43	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 13:43	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 13:43	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 13:43	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 13:43	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 13:43	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 13:43	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 13:43	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 13:43	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 13:43	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 13:43	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 13:43	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 13:43	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 13:43	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 13:43	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 13:43	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 13:43	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 13:43	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 13:43	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 13:43	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 13:43	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 13:43	1

Client Sample ID: MW-01
Date Collected: 09/19/23 07:50
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-1
Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*77 - 120*		*09/21/23 13:43*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*09/21/23 13:43*	*1*
4-Bromofluorobenzene (Surr)	*107*		*73 - 120*		*09/21/23 13:43*	*1*
Dibromofluoromethane (Surr)	*108*		*75 - 123*		*09/21/23 13:43*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:06	1
Barium	**0.037**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:06	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:06	1
Chromium	ND		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:06	1
Copper	**0.0026**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:06	1
Lead	**0.013**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:06	1
Nickel	ND		0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:06	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:06	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:06	1
Zinc	**0.0034**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:06	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:32	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-02
Date Collected: 09/18/23 12:10
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.6**		1.0	0.82	ug/L			09/21/23 14:05	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 14:05	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 14:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 14:05	1
1,1-Dichloroethane	**0.39**	**J**	1.0	0.38	ug/L			09/21/23 14:05	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 14:05	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 14:05	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 14:05	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 14:05	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 14:05	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 14:05	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 14:05	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 14:05	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 14:05	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 14:05	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 14:05	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 14:05	1
Acetone	ND		10	3.0	ug/L			09/21/23 14:05	1

Client Sample ID: MW-02
Date Collected: 09/18/23 12:10
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-2
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			09/21/23 14:05	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 14:05	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 14:05	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 14:05	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 14:05	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 14:05	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 14:05	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 14:05	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 14:05	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 14:05	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 14:05	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 14:05	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 14:05	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 14:05	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 14:05	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 14:05	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 14:05	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 14:05	1
Methyl tert-butyl ether	**0.68**	**J**	1.0	0.16	ug/L			09/21/23 14:05	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 14:05	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 14:05	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 14:05	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 14:05	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 14:05	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 14:05	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 14:05	1
Trichloroethene	**12**		1.0	0.46	ug/L			09/21/23 14:05	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 14:05	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 14:05	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 14:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*119*		*77 - 120*		*09/21/23 14:05*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*09/21/23 14:05*	*1*
4-Bromofluorobenzene (Surr)	*104*		*73 - 120*		*09/21/23 14:05*	*1*
Dibromofluoromethane (Surr)	*120*		*75 - 123*		*09/21/23 14:05*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:21	1
Barium	**0.078**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:21	1
Cadmium	**0.0087**		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:21	1
Chromium	**0.0038**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:21	1
Copper	**0.0051**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:21	1
Lead	**0.018**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:21	1
Nickel	**0.0039**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:21	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:21	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:21	1
Zinc	**0.015**	**B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:21	1

Client Sample ID: MW-02
Lab Sample ID: 480-212892-2

Date Collected: 09/18/23 12:10
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-03
Lab Sample ID: 480-212892-3

Date Collected: 09/18/23 15:20
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**53**		5.0	4.1	ug/L			09/21/23 14:27	5
1,1,2,2-Tetrachloroethane	ND		5.0	1.1	ug/L			09/21/23 14:27	5
1,1,2-Trichloroethane	ND		5.0	1.2	ug/L			09/21/23 14:27	5
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		5.0	1.6	ug/L			09/21/23 14:27	5
1,1-Dichloroethane	ND		5.0	1.9	ug/L			09/21/23 14:27	5
1,1-Dichloroethene	**21**		5.0	1.5	ug/L			09/21/23 14:27	5
1,2,4-Trichlorobenzene	ND		5.0	2.1	ug/L			09/21/23 14:27	5
1,2-Dibromo-3-Chloropropane	ND		5.0	2.0	ug/L			09/21/23 14:27	5
1,2-Dibromoethane	ND		5.0	3.7	ug/L			09/21/23 14:27	5
1,2-Dichlorobenzene	ND		5.0	4.0	ug/L			09/21/23 14:27	5
1,2-Dichloroethane	ND		5.0	1.1	ug/L			09/21/23 14:27	5
1,2-Dichloropropane	ND		5.0	3.6	ug/L			09/21/23 14:27	5
1,3-Dichlorobenzene	ND		5.0	3.9	ug/L			09/21/23 14:27	5
1,4-Dichlorobenzene	ND		5.0	4.2	ug/L			09/21/23 14:27	5
2-Hexanone	ND		25	6.2	ug/L			09/21/23 14:27	5
2-Butanone (MEK)	ND		50	6.6	ug/L			09/21/23 14:27	5
4-Methyl-2-pentanone (MIBK)	ND		25	11	ug/L			09/21/23 14:27	5
Acetone	ND		50	15	ug/L			09/21/23 14:27	5
Benzene	ND		5.0	2.1	ug/L			09/21/23 14:27	5
Bromodichloromethane	ND		5.0	2.0	ug/L			09/21/23 14:27	5
Bromoform	ND		5.0	1.3	ug/L			09/21/23 14:27	5
Bromomethane	ND		5.0	3.5	ug/L			09/21/23 14:27	5
Carbon disulfide	ND		5.0	0.95	ug/L			09/21/23 14:27	5
Carbon tetrachloride	ND		5.0	1.4	ug/L			09/21/23 14:27	5
Chlorobenzene	ND		5.0	3.8	ug/L			09/21/23 14:27	5
Dibromochloromethane	ND		5.0	1.6	ug/L			09/21/23 14:27	5
Chloroethane	ND		5.0	1.6	ug/L			09/21/23 14:27	5
Chloroform	ND		5.0	1.7	ug/L			09/21/23 14:27	5
Chloromethane	ND		5.0	1.8	ug/L			09/21/23 14:27	5
cis-1,2-Dichloroethene	**10**		5.0	4.1	ug/L			09/21/23 14:27	5
cis-1,3-Dichloropropene	ND		5.0	1.8	ug/L			09/21/23 14:27	5
Cyclohexane	ND		5.0	0.90	ug/L			09/21/23 14:27	5
Dichlorodifluoromethane	ND		5.0	3.4	ug/L			09/21/23 14:27	5
Ethylbenzene	ND		5.0	3.7	ug/L			09/21/23 14:27	5
Isopropylbenzene	ND		5.0	4.0	ug/L			09/21/23 14:27	5
Methyl acetate	ND		13	6.5	ug/L			09/21/23 14:27	5
Methyl tert-butyl ether	ND		5.0	0.80	ug/L			09/21/23 14:27	5

Client Sample ID: MW-03
Date Collected: 09/18/23 15:20
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-3
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		5.0	0.80	ug/L			09/21/23 14:27	5
Methylene Chloride	**13**		5.0	2.2	ug/L			09/21/23 14:27	5
Styrene	ND		5.0	3.7	ug/L			09/21/23 14:27	5
Tetrachloroethene	**3.9**	**J**	5.0	1.8	ug/L			09/21/23 14:27	5
Toluene	ND		5.0	2.6	ug/L			09/21/23 14:27	5
trans-1,2-Dichloroethene	ND		5.0	4.5	ug/L			09/21/23 14:27	5
trans-1,3-Dichloropropene	ND		5.0	1.9	ug/L			09/21/23 14:27	5
Trichloroethene	**300**		5.0	2.3	ug/L			09/21/23 14:27	5
Trichlorofluoromethane	ND		5.0	4.4	ug/L			09/21/23 14:27	5
Vinyl chloride	ND		5.0	4.5	ug/L			09/21/23 14:27	5
Xylenes, Total	ND		10	3.3	ug/L			09/21/23 14:27	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*09/21/23 14:27*	*5*
Toluene-d8 (Surr)	*94*		*80 - 120*		*09/21/23 14:27*	*5*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*09/21/23 14:27*	*5*
Dibromofluoromethane (Surr)	*110*		*75 - 123*		*09/21/23 14:27*	*5*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:25	1
Barium	**0.092**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:25	1
Cadmium	**0.00052**	**J**	0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:25	1
Chromium	**1.7**		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:25	1
Copper	**0.0055**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:25	1
Lead	**0.012**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:25	1
Nickel	**0.0054**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:25	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:25	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:25	1
Zinc	**0.0050**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:25	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:34	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**1.8**	**H H3**	0.050	0.025	mg/L			09/20/23 12:02	5

Client Sample ID: MW-04
Date Collected: 09/18/23 16:12
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**910**		40	33	ug/L			09/21/23 14:52	40
1,1,2,2-Tetrachloroethane	ND		40	8.4	ug/L			09/21/23 14:52	40
1,1,2-Trichloroethane	ND		40	9.2	ug/L			09/21/23 14:52	40
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		40	12	ug/L			09/21/23 14:52	40
1,1-Dichloroethane	**43**		40	15	ug/L			09/21/23 14:52	40

Client Sample ID: MW-04
Date Collected: 09/18/23 16:12
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-4
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	**300**		40	12	ug/L			09/21/23 14:52	40
1,2,4-Trichlorobenzene	ND		40	16	ug/L			09/21/23 14:52	40
1,2-Dibromo-3-Chloropropane	ND		40	16	ug/L			09/21/23 14:52	40
1,2-Dibromoethane	ND		40	29	ug/L			09/21/23 14:52	40
1,2-Dichlorobenzene	ND		40	32	ug/L			09/21/23 14:52	40
1,2-Dichloroethane	ND		40	8.4	ug/L			09/21/23 14:52	40
1,2-Dichloropropane	ND		40	29	ug/L			09/21/23 14:52	40
1,3-Dichlorobenzene	ND		40	31	ug/L			09/21/23 14:52	40
1,4-Dichlorobenzene	ND		40	34	ug/L			09/21/23 14:52	40
2-Hexanone	ND		200	50	ug/L			09/21/23 14:52	40
2-Butanone (MEK)	ND		400	53	ug/L			09/21/23 14:52	40
4-Methyl-2-pentanone (MIBK)	ND		200	84	ug/L			09/21/23 14:52	40
Acetone	ND	F2	400	120	ug/L			09/21/23 14:52	40
Benzene	ND		40	16	ug/L			09/21/23 14:52	40
Bromodichloromethane	ND		40	16	ug/L			09/21/23 14:52	40
Bromoform	ND		40	10	ug/L			09/21/23 14:52	40
Bromomethane	ND		40	28	ug/L			09/21/23 14:52	40
Carbon disulfide	ND		40	7.6	ug/L			09/21/23 14:52	40
Carbon tetrachloride	ND		40	11	ug/L			09/21/23 14:52	40
Chlorobenzene	ND		40	30	ug/L			09/21/23 14:52	40
Dibromochloromethane	ND		40	13	ug/L			09/21/23 14:52	40
Chloroethane	ND	F1	40	13	ug/L			09/21/23 14:52	40
Chloroform	ND		40	14	ug/L			09/21/23 14:52	40
Chloromethane	ND	F1	40	14	ug/L			09/21/23 14:52	40
cis-1,2-Dichloroethene	**110**		40	32	ug/L			09/21/23 14:52	40
cis-1,3-Dichloropropene	ND		40	14	ug/L			09/21/23 14:52	40
Cyclohexane	ND		40	7.2	ug/L			09/21/23 14:52	40
Dichlorodifluoromethane	ND	F1	40	27	ug/L			09/21/23 14:52	40
Ethylbenzene	ND		40	30	ug/L			09/21/23 14:52	40
Isopropylbenzene	ND		40	32	ug/L			09/21/23 14:52	40
Methyl acetate	ND		100	52	ug/L			09/21/23 14:52	40
Methyl tert-butyl ether	ND		40	6.4	ug/L			09/21/23 14:52	40
Methylcyclohexane	ND		40	6.4	ug/L			09/21/23 14:52	40
Methylene Chloride	**120**		40	18	ug/L			09/21/23 14:52	40
Styrene	ND		40	29	ug/L			09/21/23 14:52	40
Tetrachloroethene	ND		40	14	ug/L			09/21/23 14:52	40
Toluene	ND		40	20	ug/L			09/21/23 14:52	40
trans-1,2-Dichloroethene	ND		40	36	ug/L			09/21/23 14:52	40
trans-1,3-Dichloropropene	ND		40	15	ug/L			09/21/23 14:52	40
Trichloroethene	**2500**	**F1**	40	18	ug/L			09/21/23 14:52	40
Trichlorofluoromethane	ND		40	35	ug/L			09/21/23 14:52	40
Vinyl chloride	ND	F1	40	36	ug/L			09/21/23 14:52	40
Xylenes, Total	ND		80	26	ug/L			09/21/23 14:52	40

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*09/21/23 14:52*	*40*
Toluene-d8 (Surr)	*95*		*80 - 120*		*09/21/23 14:52*	*40*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*09/21/23 14:52*	*40*
Dibromofluoromethane (Surr)	*111*		*75 - 123*		*09/21/23 14:52*	*40*

Client Sample ID: MW-04
Lab Sample ID: 480-212892-4

Date Collected: 09/18/23 16:12
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:29	1
Barium	**0.080**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:29	1
Cadmium	**0.00087**	**J**	0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:29	1
Chromium	**0.030**		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:29	1
Copper	**0.020**		0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:29	1
Lead	**0.015**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:29	1
Nickel	**0.042**		0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:29	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:29	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:29	1
Zinc	**0.010**	**B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:29	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:35	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**0.028**	**H H3**	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-05
Lab Sample ID: 480-212892-5

Date Collected: 09/18/23 13:45
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1700**		50	41	ug/L			09/21/23 15:14	50
1,1,2,2-Tetrachloroethane	ND		50	11	ug/L			09/21/23 15:14	50
1,1,2-Trichloroethane	ND		50	12	ug/L			09/21/23 15:14	50
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		50	16	ug/L			09/21/23 15:14	50
1,1-Dichloroethane	**38**	**J**	50	19	ug/L			09/21/23 15:14	50
1,1-Dichloroethene	**970**		50	15	ug/L			09/21/23 15:14	50
1,2,4-Trichlorobenzene	ND		50	21	ug/L			09/21/23 15:14	50
1,2-Dibromo-3-Chloropropane	ND		50	20	ug/L			09/21/23 15:14	50
1,2-Dibromoethane	ND		50	37	ug/L			09/21/23 15:14	50
1,2-Dichlorobenzene	ND		50	40	ug/L			09/21/23 15:14	50
1,2-Dichloroethane	ND		50	11	ug/L			09/21/23 15:14	50
1,2-Dichloropropane	ND		50	36	ug/L			09/21/23 15:14	50
1,3-Dichlorobenzene	ND		50	39	ug/L			09/21/23 15:14	50
1,4-Dichlorobenzene	ND		50	42	ug/L			09/21/23 15:14	50
2-Hexanone	ND		250	62	ug/L			09/21/23 15:14	50
2-Butanone (MEK)	ND		500	66	ug/L			09/21/23 15:14	50
4-Methyl-2-pentanone (MIBK)	ND		250	110	ug/L			09/21/23 15:14	50
Acetone	ND		500	150	ug/L			09/21/23 15:14	50
Benzene	ND		50	21	ug/L			09/21/23 15:14	50
Bromodichloromethane	ND		50	20	ug/L			09/21/23 15:14	50
Bromoform	ND		50	13	ug/L			09/21/23 15:14	50
Bromomethane	ND		50	35	ug/L			09/21/23 15:14	50
Carbon disulfide	ND		50	9.5	ug/L			09/21/23 15:14	50
Carbon tetrachloride	ND		50	14	ug/L			09/21/23 15:14	50
Chlorobenzene	ND		50	38	ug/L			09/21/23 15:14	50

Client Sample ID: MW-05
Date Collected: 09/18/23 13:45
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-5
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	ND		50	16	ug/L			09/21/23 15:14	50
Chloroethane	ND		50	16	ug/L			09/21/23 15:14	50
Chloroform	ND		50	17	ug/L			09/21/23 15:14	50
Chloromethane	ND		50	18	ug/L			09/21/23 15:14	50
cis-1,2-Dichloroethene	**200**		50	41	ug/L			09/21/23 15:14	50
cis-1,3-Dichloropropene	ND		50	18	ug/L			09/21/23 15:14	50
Cyclohexane	ND		50	9.0	ug/L			09/21/23 15:14	50
Dichlorodifluoromethane	ND		50	34	ug/L			09/21/23 15:14	50
Ethylbenzene	ND		50	37	ug/L			09/21/23 15:14	50
Isopropylbenzene	ND		50	40	ug/L			09/21/23 15:14	50
Methyl acetate	ND		130	65	ug/L			09/21/23 15:14	50
Methyl tert-butyl ether	ND		50	8.0	ug/L			09/21/23 15:14	50
Methylcyclohexane	ND		50	8.0	ug/L			09/21/23 15:14	50
Methylene Chloride	ND		50	22	ug/L			09/21/23 15:14	50
Styrene	ND		50	37	ug/L			09/21/23 15:14	50
Tetrachloroethene	ND		50	18	ug/L			09/21/23 15:14	50
Toluene	ND		50	26	ug/L			09/21/23 15:14	50
trans-1,2-Dichloroethene	ND		50	45	ug/L			09/21/23 15:14	50
trans-1,3-Dichloropropene	ND		50	19	ug/L			09/21/23 15:14	50
Trichloroethene	**3300**		50	23	ug/L			09/21/23 15:14	50
Trichlorofluoromethane	ND		50	44	ug/L			09/21/23 15:14	50
Vinyl chloride	ND		50	45	ug/L			09/21/23 15:14	50
Xylenes, Total	ND		100	33	ug/L			09/21/23 15:14	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*77 - 120*		*09/21/23 15:14*	*50*
Toluene-d8 (Surr)	*97*		*80 - 120*		*09/21/23 15:14*	*50*
4-Bromofluorobenzene (Surr)	*101*		*73 - 120*		*09/21/23 15:14*	*50*
Dibromofluoromethane (Surr)	*106*		*75 - 123*		*09/21/23 15:14*	*50*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:47	1
Barium	**0.023**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:47	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:47	1
Chromium	**0.0012**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:47	1
Copper	**0.0052**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:47	1
Lead	**0.012**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:47	1
Nickel	**0.042**		0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:47	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:47	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:47	1
Zinc	**0.0021**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:47	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:45	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**0.0067**	**J H H3**	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-06
Date Collected: 09/19/23 07:20
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-6
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 15:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 15:36	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 15:36	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 15:36	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 15:36	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 15:36	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 15:36	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 15:36	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 15:36	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 15:36	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 15:36	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 15:36	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 15:36	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 15:36	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 15:36	1
2-Butanone (MEK)	**2.4**	**J**	10	1.3	ug/L			09/21/23 15:36	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 15:36	1
Acetone	**12**		10	3.0	ug/L			09/21/23 15:36	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 15:36	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 15:36	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 15:36	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 15:36	1
Carbon disulfide	**2.3**		1.0	0.19	ug/L			09/21/23 15:36	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 15:36	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 15:36	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 15:36	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 15:36	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 15:36	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 15:36	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 15:36	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 15:36	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 15:36	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 15:36	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 15:36	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 15:36	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 15:36	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 15:36	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 15:36	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 15:36	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 15:36	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 15:36	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 15:36	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 15:36	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 15:36	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 15:36	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 15:36	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 15:36	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 15:36	1

Client Sample ID: MW-06
Lab Sample ID: 480-212892-6

Date Collected: 09/19/23 07:20
Matrix: Water
Date Received: 09/20/23 10:30

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*110*		*77 - 120*		*09/21/23 15:36*	*1*
Toluene-d8 (Surr)	*96*		*80 - 120*		*09/21/23 15:36*	*1*
4-Bromofluorobenzene (Surr)	*99*		*73 - 120*		*09/21/23 15:36*	*1*
Dibromofluoromethane (Surr)	*117*		*75 - 123*		*09/21/23 15:36*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 20:51	1
Barium	**0.070**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 20:51	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 20:51	1
Chromium	**0.0033**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 20:51	1
Copper	**0.0035**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 20:51	1
Lead	**0.0094**	**J**	0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 20:51	1
Nickel	**0.0013**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 20:51	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 20:51	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 20:51	1
Zinc	**0.0048**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 20:51	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:46	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: MW-07
Lab Sample ID: 480-212892-7

Date Collected: 09/19/23 08:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 15:58	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 15:58	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 15:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 15:58	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 15:58	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 15:58	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 15:58	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 15:58	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 15:58	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 15:58	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 15:58	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 15:58	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 15:58	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 15:58	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 15:58	1
2-Butanone (MEK)	**5.1**	**J**	10	1.3	ug/L			09/21/23 15:58	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 15:58	1
Acetone	**32**		10	3.0	ug/L			09/21/23 15:58	1

Client Sample ID: MW-07
Date Collected: 09/19/23 08:15
Date Received: 09/20/23 10:30

Lab Sample ID: 480-212892-7
Matrix: Water

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.41	ug/L			09/21/23 15:58	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 15:58	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 15:58	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 15:58	1
Carbon disulfide	**1.2**		1.0	0.19	ug/L			09/21/23 15:58	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 15:58	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 15:58	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 15:58	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 15:58	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 15:58	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 15:58	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 15:58	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 15:58	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 15:58	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 15:58	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 15:58	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 15:58	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 15:58	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 15:58	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 15:58	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 15:58	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 15:58	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 15:58	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 15:58	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 15:58	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 15:58	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 15:58	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 15:58	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 15:58	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 15:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*09/21/23 15:58*	*1*
Toluene-d8 (Surr)	*91*		*80 - 120*		*09/21/23 15:58*	*1*
4-Bromofluorobenzene (Surr)	*96*		*73 - 120*		*09/21/23 15:58*	*1*
Dibromofluoromethane (Surr)	*112*		*75 - 123*		*09/21/23 15:58*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 21:24	1
Barium	**0.14**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 21:24	1
Cadmium	ND		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 21:24	1
Chromium	**0.010**		0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 21:24	1
Copper	**0.010**		0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 21:24	1
Lead	**0.016**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 21:24	1
Nickel	**0.0023**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 21:24	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 21:24	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 21:24	1
Zinc	**0.0088**	**J B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 21:24	1

Client Sample ID: MW-07
Lab Sample ID: 480-212892-7

Date Collected: 09/19/23 08:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	**0.0067**	**J H H3**	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: DUP
Lab Sample ID: 480-212892-8

Date Collected: 09/18/23 12:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.5**		1.0	0.82	ug/L			09/21/23 16:20	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 16:20	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 16:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 16:20	1
1,1-Dichloroethane	**0.42**	**J**	1.0	0.38	ug/L			09/21/23 16:20	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 16:20	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 16:20	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 16:20	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 16:20	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 16:20	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 16:20	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 16:20	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 16:20	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 16:20	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 16:20	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 16:20	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 16:20	1
Acetone	ND		10	3.0	ug/L			09/21/23 16:20	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 16:20	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 16:20	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 16:20	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 16:20	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 16:20	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 16:20	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 16:20	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 16:20	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 16:20	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 16:20	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 16:20	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 16:20	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 16:20	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 16:20	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 16:20	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 16:20	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 16:20	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 16:20	1
Methyl tert-butyl ether	**0.67**	**J**	1.0	0.16	ug/L			09/21/23 16:20	1

Client Sample ID: DUP
Lab Sample ID: 480-212892-8
Date Collected: 09/18/23 12:15
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 16:20	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 16:20	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 16:20	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 16:20	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 16:20	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 16:20	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 16:20	1
Trichloroethene	**12**		1.0	0.46	ug/L			09/21/23 16:20	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 16:20	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 16:20	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 16:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*77 - 120*		*09/21/23 16:20*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*09/21/23 16:20*	*1*
4-Bromofluorobenzene (Surr)	*102*		*73 - 120*		*09/21/23 16:20*	*1*
Dibromofluoromethane (Surr)	*109*		*75 - 123*		*09/21/23 16:20*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.015	0.0056	mg/L		09/21/23 08:19	09/21/23 21:28	1
Barium	**0.071**		0.0020	0.00070	mg/L		09/21/23 08:19	09/21/23 21:28	1
Cadmium	**0.0085**		0.0020	0.00050	mg/L		09/21/23 08:19	09/21/23 21:28	1
Chromium	**0.0034**	**J**	0.0040	0.0010	mg/L		09/21/23 08:19	09/21/23 21:28	1
Copper	**0.0056**	**J**	0.010	0.0016	mg/L		09/21/23 08:19	09/21/23 21:28	1
Lead	**0.017**		0.010	0.0030	mg/L		09/21/23 08:19	09/21/23 21:28	1
Nickel	**0.0040**	**J**	0.010	0.0013	mg/L		09/21/23 08:19	09/21/23 21:28	1
Selenium	ND		0.025	0.0087	mg/L		09/21/23 08:19	09/21/23 21:28	1
Silver	ND		0.0060	0.0017	mg/L		09/21/23 08:19	09/21/23 21:28	1
Zinc	**0.014**	**B**	0.010	0.0015	mg/L		09/21/23 08:19	09/21/23 21:28	1

Method: SW846 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.000043	mg/L		09/26/23 12:08	09/26/23 16:49	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium, hexavalent (SW846 7196A)	ND	H H3	0.010	0.0050	mg/L			09/20/23 12:02	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-212892-9
Date Collected: 09/18/23 00:00
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			09/21/23 16:42	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			09/21/23 16:42	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			09/21/23 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			09/21/23 16:42	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			09/21/23 16:42	1

Client Sample ID: TRIP BLANK
Lab Sample ID: 480-212892-9

Date Collected: 09/18/23 00:00
Matrix: Water
Date Received: 09/20/23 10:30

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethene	ND		1.0	0.29	ug/L			09/21/23 16:42	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			09/21/23 16:42	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			09/21/23 16:42	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			09/21/23 16:42	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			09/21/23 16:42	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			09/21/23 16:42	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			09/21/23 16:42	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			09/21/23 16:42	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			09/21/23 16:42	1
2-Hexanone	ND		5.0	1.2	ug/L			09/21/23 16:42	1
2-Butanone (MEK)	ND		10	1.3	ug/L			09/21/23 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			09/21/23 16:42	1
Acetone	ND		10	3.0	ug/L			09/21/23 16:42	1
Benzene	ND		1.0	0.41	ug/L			09/21/23 16:42	1
Bromodichloromethane	ND		1.0	0.39	ug/L			09/21/23 16:42	1
Bromoform	ND		1.0	0.26	ug/L			09/21/23 16:42	1
Bromomethane	ND		1.0	0.69	ug/L			09/21/23 16:42	1
Carbon disulfide	ND		1.0	0.19	ug/L			09/21/23 16:42	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			09/21/23 16:42	1
Chlorobenzene	ND		1.0	0.75	ug/L			09/21/23 16:42	1
Dibromochloromethane	ND		1.0	0.32	ug/L			09/21/23 16:42	1
Chloroethane	ND		1.0	0.32	ug/L			09/21/23 16:42	1
Chloroform	ND		1.0	0.34	ug/L			09/21/23 16:42	1
Chloromethane	ND		1.0	0.35	ug/L			09/21/23 16:42	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			09/21/23 16:42	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			09/21/23 16:42	1
Cyclohexane	ND		1.0	0.18	ug/L			09/21/23 16:42	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			09/21/23 16:42	1
Ethylbenzene	ND		1.0	0.74	ug/L			09/21/23 16:42	1
Isopropylbenzene	ND		1.0	0.79	ug/L			09/21/23 16:42	1
Methyl acetate	ND		2.5	1.3	ug/L			09/21/23 16:42	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			09/21/23 16:42	1
Methylcyclohexane	ND		1.0	0.16	ug/L			09/21/23 16:42	1
Methylene Chloride	ND		1.0	0.44	ug/L			09/21/23 16:42	1
Styrene	ND		1.0	0.73	ug/L			09/21/23 16:42	1
Tetrachloroethene	ND		1.0	0.36	ug/L			09/21/23 16:42	1
Toluene	ND		1.0	0.51	ug/L			09/21/23 16:42	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			09/21/23 16:42	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			09/21/23 16:42	1
Trichloroethene	ND		1.0	0.46	ug/L			09/21/23 16:42	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			09/21/23 16:42	1
Vinyl chloride	ND		1.0	0.90	ug/L			09/21/23 16:42	1
Xylenes, Total	ND		2.0	0.66	ug/L			09/21/23 16:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 120*		*09/21/23 16:42*	*1*
Toluene-d8 (Surr)	*92*		*80 - 120*		*09/21/23 16:42*	*1*
4-Bromofluorobenzene (Surr)	*97*		*73 - 120*		*09/21/23 16:42*	*1*
Dibromofluoromethane (Surr)	*104*		*75 - 123*		*09/21/23 16:42*	*1*

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-212892-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N1089.d

Lab ID: 480-212892-4 MS Client ID: MW-04 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	1000	910	1820	91	73-126	
1,1,2,2-Tetrachloroethane	1000	ND	925	93	76-120	
1,1,2-Trichloroethane	1000	ND	916	92	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	ND	1150	115	61-148	
1,1-Dichloroethane	1000	43	1080	104	77-120	
1,1-Dichloroethene	1000	300	1290	98	66-127	
1,2,4-Trichlorobenzene	1000	ND	972	97	79-122	
1,2-Dibromo-3-Chloropropane	1000	ND	904	90	56-134	
1,2-Dibromoethane	1000	ND	1010	101	77-120	
1,2-Dichlorobenzene	1000	ND	997	100	80-124	
1,2-Dichloroethane	1000	ND	1060	106	75-120	
1,2-Dichloropropane	1000	ND	1000	100	76-120	
1,3-Dichlorobenzene	1000	ND	977	98	77-120	
1,4-Dichlorobenzene	1000	ND	975	97	78-124	
2-Hexanone	5000	ND	5030	101	65-127	
2-Butanone (MEK)	5000	ND	5150	103	57-140	
4-Methyl-2-pentanone (MIBK)	5000	ND	4900	98	71-125	
Acetone	5000	ND	5800	116	56-142	
Benzene	1000	ND	1030	103	71-124	
Bromodichloromethane	1000	ND	1030	103	80-122	
Bromoform	1000	ND	971	97	61-132	
Bromomethane	1000	ND	727	73	55-144	
Carbon disulfide	1000	ND	1020	102	59-134	
Carbon tetrachloride	1000	ND	1220	122	72-134	
Chlorobenzene	1000	ND	976	98	80-120	
Dibromochloromethane	1000	ND	992	99	75-125	
Chloroethane	1000	ND	723	72	69-136	
Chloroform	1000	ND	1080	108	73-127	
Chloromethane	1000	ND	703	70	68-124	
cis-1,2-Dichloroethene	1000	110	1170	106	74-124	
cis-1,3-Dichloropropene	1000	ND	962	96	74-124	
Cyclohexane	1000	ND	1120	112	59-135	
Dichlorodifluoromethane	1000	ND	278	28	59-135	F1
Ethylbenzene	1000	ND	962	96	77-123	
Isopropylbenzene	1000	ND	958	96	77-122	
Methyl acetate	2000	ND	1970	99	74-133	
Methyl tert-butyl ether	1000	ND	1060	106	77-120	
Methylcyclohexane	1000	ND	1080	108	68-134	
Methylene Chloride	1000	120	1100	99	75-124	
Styrene	1000	ND	967	97	80-120	
Tetrachloroethene	1000	ND	1110	111	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-212892-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N1089.d

Lab ID: 480-212892-4 MS Client ID: MW-04 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Toluene	1000	ND	965	97	80-122	
trans-1,2-Dichloroethene	1000	ND	1110	111	73-127	
Trichloroethene	1000	2500	2970	47	74-123	F1
Trichlorofluoromethane	1000	ND	690	69	62-150	
Vinyl chloride	1000	ND	623	62	65-133	F1

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-212892-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N1090.d

Lab ID: 480-212892-4 MSD Client ID: MW-04 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	1000	1780	86	3	15	73-126	
1,1,2,2-Tetrachloroethane	1000	934	93	1	15	76-120	
1,1,2-Trichloroethane	1000	915	92	0	15	76-122	
1,1,2-Trichloro-1,2,2-trifluoroethane	1000	1060	106	8	20	61-148	
1,1-Dichloroethane	1000	1030	99	5	20	77-120	
1,1-Dichloroethene	1000	1230	92	5	16	66-127	
1,2,4-Trichlorobenzene	1000	918	92	6	20	79-122	
1,2-Dibromo-3-Chloropropane	1000	881	88	3	15	56-134	
1,2-Dibromoethane	1000	928	93	8	15	77-120	
1,2-Dichlorobenzene	1000	976	98	2	20	80-124	
1,2-Dichloroethane	1000	1030	103	3	20	75-120	
1,2-Dichloropropane	1000	1010	101	1	20	76-120	
1,3-Dichlorobenzene	1000	936	94	4	20	77-120	
1,4-Dichlorobenzene	1000	924	92	5	20	78-124	
2-Hexanone	5000	5060	101	1	15	65-127	
2-Butanone (MEK)	5000	5210	104	1	20	57-140	
4-Methyl-2-pentanone (MIBK)	5000	4840	97	1	35	71-125	
Acetone	5000	4450	89	26	15	56-142	F2
Benzene	1000	986	99	4	13	71-124	
Bromodichloromethane	1000	992	99	4	15	80-122	
Bromoform	1000	929	93	4	15	61-132	
Bromomethane	1000	721	72	1	15	55-144	
Carbon disulfide	1000	964	96	6	15	59-134	
Carbon tetrachloride	1000	1140	114	6	15	72-134	
Chlorobenzene	1000	944	94	3	25	80-120	
Dibromochloromethane	1000	981	98	1	15	75-125	
Chloroethane	1000	676	68	7	15	69-136	F1
Chloroform	1000	1040	104	4	20	73-127	
Chloromethane	1000	654	65	7	15	68-124	F1
cis-1,2-Dichloroethene	1000	1170	106	0	15	74-124	
cis-1,3-Dichloropropene	1000	944	94	2	15	74-124	
Cyclohexane	1000	1080	108	4	20	59-135	
Dichlorodifluoromethane	1000	257	26	8	20	59-135	F1
Ethylbenzene	1000	934	93	3	15	77-123	
Isopropylbenzene	1000	937	94	2	20	77-122	
Methyl acetate	2000	1870	94	5	20	74-133	
Methyl tert-butyl ether	1000	1030	103	2	37	77-120	
Methylcyclohexane	1000	1060	106	3	20	68-134	
Methylene Chloride	1000	1090	97	1	15	75-124	
Styrene	1000	952	95	2	20	80-120	
Tetrachloroethene	1000	1030	103	8	20	74-122	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Buffalo Job No.: 480-212892-1

SDG No.:

Matrix: Water Level: Low Lab File ID: N1090.d

Lab ID: 480-212892-4 MSD Client ID: MW-04 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Toluene	1000	932	93	3	15	80-122	
trans-1,2-Dichloroethene	1000	1080	108	2	20	73-127	
Trichloroethene	1000	2710	21	9	16	74-123	F1
Trichlorofluoromethane	1000	638	64	8	20	62-150	
Vinyl chloride	1000	576	58	8	15	65-133	F1

Column to be used to flag recovery and RPD values

FORM III 8260C

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-212892-1

SDG No.:

ICV Source: MEI_10_CCVL_00503 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00503

Analyte	ICVL 480-684582/7 09/21/2023 12:37				CCVL 480-684582/20 09/21/2023 19:33				CCVL 480-684582/26 09/21/2023 20:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0151		0.0150	101	0.0155		0.0150	103	0.0155		0.0150	103
Barium	0.00207		0.00200	104	0.00203		0.00200	102	0.00199	J	0.00200	100
Cadmium	0.00207		0.00200	104	0.00198	J	0.00200	99	0.00191	J	0.00200	96
Chromium	0.00404		0.00400	101	0.00419		0.00400	105	0.00407		0.00400	102
Copper	0.00867	J	0.0100	87	0.0106		0.0100	106	0.0112		0.0100	112
Lead	0.0100		0.0100	100	0.00957	J	0.0100	96	0.0101		0.0100	101
Nickel	0.00974	J	0.0100	97	0.00967	J	0.0100	97	0.00960	J	0.0100	96
Selenium	0.0300		0.0250	120	0.0213	J	0.0250	85	0.0268		0.0250	107
Silver	0.00570	J	0.00600	95	0.00502	J	0.00600	84	0.00533	J	0.00600	89
Zinc	0.0108		0.0100	108	0.00995	J	0.0100	100	0.00981	J	0.0100	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-212892-1

SDG No.:

ICV Source: MEI_10_CCVL_00503 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00503

Analyte	CCVL 480-684582/38 09/21/2023 21:02				CCVL 480-684582/50 09/21/2023 21:47							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0160		0.0150	107	0.0161		0.0150	107				
Barium	0.00200		0.00200	100	0.00200		0.00200	100				
Cadmium	0.00192	J	0.00200	96	0.00191	J	0.00200	96				
Chromium	0.00404		0.00400	101	0.00432		0.00400	108				
Copper	0.0106		0.0100	106	0.0113		0.0100	113				
Lead	0.00961	J	0.0100	96	0.00998	J	0.0100	100				
Nickel	0.00967	J	0.0100	97	0.00937	J	0.0100	94				
Selenium	0.0235	J	0.0250	94	0.0219	J	0.0250	88				
Silver	0.00490	J	0.00600	82	0.00463	J	0.00600	77				
Zinc	0.0106		0.0100	106	0.00997	J	0.0100	100				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Buffalo Job No.: 480-212892-1

SDG No.:

Concentration Units: mg/L Lab Sample ID: MB 480-684307/1-A

Instrument Code: ICAP2 Batch No.: 684582

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	ND			6010C
7440-39-3	Barium	ND			6010C
7440-43-9	Cadmium	ND			6010C
7440-47-3	Chromium	ND			6010C
7440-50-8	Copper	ND			6010C
7439-92-1	Lead	ND			6010C
7440-02-0	Nickel	ND			6010C
7782-49-2	Selenium	ND			6010C
7440-22-4	Silver	ND			6010C
7440-66-6	Zinc	0.00180	J		6010C

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

NYSDEC Remedial Investigation-215042
Eurofins SDG#480-212261-1
December 27, 2023
Sampling date: 8/28/2023

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Geologic NY Inc., project located at NYSDEC Remedial Investigation-215042, Eurofins SDG #480-212261-1 submitted to Vali-Data of WNY, LLC on October 5, 2023. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines (NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using the USEPA method Volatile Organics (8260C), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

ID	Sample ID	Laboratory ID
1	MW-6 34'-36'	480-212261-1

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
No field duplicate was acquired.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
No MS/MSD was acquired.

COMPOUND QUANTITATION
All criteria were met.

INITIAL CALIBRATION
All criteria were met.
Alternate forms of regression were used on some target analytes with acceptable results, so no further action is required.

CONTINUING CALIBRATION
All criteria were met.
Some target analytes were outside laboratory QC limits but within NFG QC limits, so no further action is required.

GC/MS PERFORMANCE CHECK
All criteria were met.

METALS

The following items/criteria were reviewed for this analytical suite:

- -Data Completeness
- -Narrative and Data Reporting Forms
- -Chain of Custody and Traffic Reports
- -Holding Times
- -Blanks
- -Laboratory Control Sample
- -MS/MSD/Duplicate
- -Field Duplicate
- -Serial Dilution
- -Compound Quantitation
- -Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use but are qualified below in Calibration.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

BLANKS
All criteria were met.

LABORATORY CONTROL SAMPLE
All criteria were met.

MS/MSD/DUPLICATE
No MS/MSD/Duplicate was acquired.

FIELD DUPLICATE
No field duplicate was acquired.

SERIAL DILUTION
No serial dilution was performed.

COMPOUND QUANTITATION
All criteria were met.

CALIBRATION
All criteria were met except the %Rec of several target analytes was outside QC limits in the Low-Concentration Calibration Verifications. These target analytes should be qualified as estimated in the associated samples, blanks and spikes.

Calibration ID	Target Analyte	%D	Qualifier	Associated Sample
ICVL 480-682645/7	Pb	89	UJ/J	480-682339, 1
ICVL 480-682645/7	Se	86	UJ/J	480-682339, 1
CCVL 480-682645/20	Ag	112	JH	LCS 480-682339
CCVL 480-682645/40	Pb	84	J	1
CCVL 480-682645/40	Se	83	UJ	1
CCVL 480-682645/40	Zn	89	J	1

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Hexavalent Chromium

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below.

HEXAVALENT CHROMIUM
All criteria were met.

Job Narrative
480-212261-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 9/14/2023. This report (Revision 1) was revised to include Total Zinc via method 6010C.

Receipt
The sample was received on 8/30/2023 11:00 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.8º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-682096 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated sample is impacted: MW-6 34`-36` (480-212261-1).

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

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

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

Client Sample ID: MW-6 34`-36`
Date Collected: 08/28/23 16:50
Date Received: 08/30/23 11:00

Lab Sample ID: 480-212261-1
Matrix: Solid
Percent Solids: 96.3

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.7	0.27	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dichlorobenzene	ND		3.7	0.29	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1,2,2-Tetrachloroethane	ND		3.7	0.60	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1,2-Trichloroethane	ND		3.7	0.48	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.7	0.84	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1-Dichloroethane	ND		3.7	0.45	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,1-Dichloroethene	ND		3.7	0.45	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2,4-Trichlorobenzene	ND		3.7	0.22	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dibromo-3-Chloropropane	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dichloroethane	ND		3.7	0.19	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dichloropropane	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,3-Dichlorobenzene	ND		3.7	0.19	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,4-Dichlorobenzene	ND		3.7	0.52	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
2-Butanone (MEK)	ND		18	1.4	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
2-Hexanone	ND		18	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
4-Methyl-2-pentanone (MIBK)	ND		18	1.2	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Acetone	**5.9**	**J**	18	3.1	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Benzene	ND		3.7	0.18	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Bromodichloromethane	ND		3.7	0.50	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Bromoform	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Bromomethane	ND		3.7	0.33	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Carbon disulfide	ND		3.7	1.8	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Carbon tetrachloride	ND		3.7	0.36	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chlorobenzene	ND		3.7	0.49	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Dibromochloromethane	ND		3.7	0.47	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chloroethane	ND		3.7	0.84	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chloroform	ND		3.7	0.23	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Chloromethane	ND		3.7	0.22	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
cis-1,2-Dichloroethene	ND		3.7	0.47	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
cis-1,3-Dichloropropene	ND		3.7	0.53	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Cyclohexane	ND		3.7	0.52	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Dichlorodifluoromethane	ND		3.7	0.31	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Ethylbenzene	ND		3.7	0.26	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
1,2-Dibromoethane	ND		3.7	0.47	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Isopropylbenzene	ND		3.7	0.56	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methyl acetate	ND		18	2.2	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methyl tert-butyl ether	ND		3.7	0.36	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methylcyclohexane	ND		3.7	0.56	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Methylene Chloride	ND		3.7	1.7	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Styrene	ND		3.7	0.18	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Tetrachloroethene	ND		3.7	0.50	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Toluene	ND		3.7	0.28	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
trans-1,2-Dichloroethene	ND		3.7	0.38	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
trans-1,3-Dichloropropene	ND		3.7	1.6	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Trichloroethene	ND		3.7	0.81	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Trichlorofluoromethane	ND		3.7	0.35	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Vinyl chloride	ND		3.7	0.45	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1
Xylenes, Total	ND		7.4	0.62	ug/Kg	☼	08/30/23 11:30	08/31/23 22:33	1

Client Sample Results

Client: Geologic NY Inc
Job ID: 480-212261-1
Project/Site: NYSDEC Remedial Investigation - 215042

Client Sample ID: MW-6 34`-36`
Lab Sample ID: 480-212261-1

Date Collected: 08/28/23 16:50
Matrix: Solid

Date Received: 08/30/23 11:00
Percent Solids: 96.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*109*		*71 - 125*	*08/30/23 11:30*	*08/31/23 22:33*	*1*
1,2-Dichloroethane-d4 (Surr)	*105*		*64 - 126*	*08/30/23 11:30*	*08/31/23 22:33*	*1*
4-Bromofluorobenzene (Surr)	*90*		*72 - 126*	*08/30/23 11:30*	*08/31/23 22:33*	*1*
Dibromofluoromethane (Surr)	*102*		*60 - 140*	*08/30/23 11:30*	*08/31/23 22:33*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**5.3**		2.2	0.43	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Barium	**69.4**		0.54	0.12	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Cadmium	**0.098**	**J**	0.22	0.032	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Chromium	**15.8**		0.54	0.22	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Copper	**24.0**		1.1	0.23	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Lead	**8.7**		1.1	0.26	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Nickel	**22.1**		5.4	0.25	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Selenium	ND		4.3	0.43	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Silver	ND		0.65	0.22	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1
Zinc	**47.4**		2.2	0.69	mg/Kg	☼	09/05/23 11:56	09/06/23 17:34	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.0063**	**J**	0.019	0.0043	mg/Kg	☼	09/05/23 11:21	09/05/23 15:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.1	0.88	mg/Kg	☼	09/13/23 07:00	09/13/23 16:50	1

Lab Name: Eurofins Buffalo Job No.: 480-212261-1

SDG No.:

ICV Source: MEI_10_CCVL_00502 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00502

Analyte	ICVL 480-682645/7 09/06/2023 11:35				CCVL 480-682645/20 09/06/2023 15:38				CCVL 480-682645/28 09/06/2023 16:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0150		0.0150	100	0.0142	J	0.0150	95	0.0158		0.0150	105
Barium	0.00210		0.00200	105	0.00208		0.00200	104	0.00208		0.00200	104
Cadmium	0.00202		0.00200	101	0.00195	J	0.00200	98	0.00201		0.00200	101
Chromium	0.00378	J	0.00400	95	0.00376	J	0.00400	94	0.00382	J	0.00400	96
Copper	0.0100		0.0100	100	0.0101		0.0100	101	0.0103		0.0100	103
Lead	0.00889	J	0.0100	89	0.00908	J	0.0100	91	0.0101		0.0100	101
Nickel	0.00972	J	0.0100	97	0.00956	J	0.0100	96	0.00982	J	0.0100	98
Selenium	0.0216	J	0.0250	86	0.0229	J	0.0250	92	0.0261		0.0250	104
Silver	0.00614		0.00600	102	0.00674		0.00600	112	0.00647		0.00600	108
Zinc	0.00951	J	0.0100	95	0.00962	J	0.0100	96	0.0101		0.0100	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-212261-1

SDG No.:

ICV Source: MEI_10_CCVL_00502 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00502

Analyte	CCVL 480-682645/40 09/06/2023 17:10				CCVL 480-682645/52 09/06/2023 17:58							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0145	J	0.0150	97	0.0151		0.0150	100				
Barium	0.00203		0.00200	102	0.00208		0.00200	104				
Cadmium	0.00205		0.00200	103	0.00197	J	0.00200	99				
Chromium	0.00392	J	0.00400	98	0.00374	J	0.00400	94				
Copper	0.0101		0.0100	101	0.00991	J	0.0100	99				
Lead	0.00844	J	0.0100	84	0.00919	J	0.0100	92				
Nickel	0.00945	J	0.0100	95	0.00945	J	0.0100	95				
Selenium	0.0207	J	0.0250	83	0.0254		0.0250	101				
Silver	0.00620		0.00600	103	0.00661		0.00600	110				
Zinc	0.00889	J	0.0100	89	0.00993	J	0.0100	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Data Usability Summary Report

Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

NYSDEC Remedial Investigation-215042
Eurofins SDG#480-212302-1
December 27, 2023
Sampling date: 8/30/2023

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
20 Hickory Grove Spur
Fulton, NY 13069

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package for Geologic NY Inc., project located at NYSDEC Remedial Investigation-215042, Eurofins SDG #480-212302-1 submitted to Vali-Data of WNY, LLC on October 5, 2023. This DUSR has been prepared in general compliance with USEPA National Functional Guidelines (NFG) and NYSDEC Analytical Services Protocols. The laboratory performed the analyses using the USEPA method Volatile Organics (8260C), Inorganics (6010C), Mercury (7471B) and in accordance with wet chemistry methods.

ID	Sample ID	Laboratory ID
1	MW-7 35'-40'	480-212302-1
2	MW-7 35'-40' DUP	480-212302-2

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
No MS/MSD was acquired.

COMPOUND QUANTITATION
All criteria were met.

INITIAL CALIBRATION
All criteria were met.
Alternate forms of regression were used on some target analytes with acceptable results, so no further action is required.

CONTINUING CALIBRATION
All criteria were met.
Some target analytes were outside laboratory QC limits but within NFG QC limits, so no further action is required.

GC/MS PERFORMANCE CHECK
All criteria were met.

METALS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Blanks
-Laboratory Control Sample
-MS/MSD/Duplicate
-Field Duplicate
-Serial Dilution
-Compound Quantitation
-Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use but are qualified below in Blanks, Laboratory Control Samples and Calibration.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

BLANKS
All criteria were met except a few target analytes were detected in the blanks and should be qualified in the associated samples in which they were detected.

Blank ID	Target Analyte	Concentration	Qualifier	Associated Sample
MB 480-681996	Cd	.0557mg/kg	U at RL	1, 2
MB 480-681996	Zn	.747mg/kg	JH	1, 2
CCB 480-682354/31	Ni	.00131mg/L	JH	1, 2

LABORATORY CONTROL SAMPLE
All criteria were met except a target analyte was outside QC limits in the laboratory control samples and should be qualified as estimated.

LCS ID	Target Analyte	%Rec LCS	%Rec LCSD	Qualifier	Associated Sample
480-682975	Hg	58.2	56.0	J	1, 2

MS/MSD/DUPLICATE
No MS/MSD/Duplicate was acquired.

FIELD DUPLICATE
All criteria were met.

SERIAL DILUTION
No serial dilution was performed.

COMPOUND QUANTITATION
All criteria were met.

CALIBRATION
All criteria were met except the %Rec of several target analytes was outside QC limits in the Low-Concentration Calibration Verifications. These target analytes should be qualified as estimated in the associated samples, blanks and spikes.

Calibration ID	Target Analyte	%D	Qualifier	Associated Sample
ICVL 480-682354/7	Cr	84	UJ/J	480-681996, 1, 2
ICVL 480-682354/7	Pb	111	JH	LCS 480-681996, 1, 2
ICVL 480-682354/7	Ag	112	JH	LCS 480-681996, 1, 2
CCVL 480-682354/20	Cr	88	UJ/J	480-681996
CCVL 480-682354/20	As	113	JH	LCS 480-681996
CCVL 480-682354/32	Cr	88	UJ/J	480-681996, 1, 2
CCVL 480-682354/32	Ba	111	JH	LCS 480-681996, 1, 2

GENERAL CHEMISTRY

The following items/criteria were reviewed for this analytical suite:

- Hexavalent Chromium

The items listed above were technically in compliance with the method and SOP criteria with any exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below.

HEXAVALENT CHROMIUM
All criteria were met.

Job Narrative
480-212302-1

Comments
No additional comments.

Receipt
The samples were received on 8/31/2023 10:45 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 2.7º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 480-682096 recovered above the upper control limit for Carbon tetrachloride. The sample(s) associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated samples are impacted: MW-7 35`-40` (480-212302-1) and MW-7 35`-40` DUP (480-212302-2).

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

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

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

Client Sample ID: MW-7 35`-40`
Lab Sample ID: 480-212302-1

Date Collected: 08/30/23 12:30
Matrix: Solid

Date Received: 08/31/23 10:45
Percent Solids: 88.2

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.9	0.28	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dichlorobenzene	ND		3.9	0.30	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1,2,2-Tetrachloroethane	ND		3.9	0.63	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1,2-Trichloroethane	ND		3.9	0.51	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.9	0.89	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1-Dichloroethane	ND		3.9	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,1-Dichloroethene	ND		3.9	0.48	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2,4-Trichlorobenzene	ND		3.9	0.24	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dibromo-3-Chloropropane	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dichloroethane	ND		3.9	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dichloropropane	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,3-Dichlorobenzene	ND		3.9	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,4-Dichlorobenzene	ND		3.9	0.54	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
2-Butanone (MEK)	ND		19	1.4	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
2-Hexanone	ND		19	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
4-Methyl-2-pentanone (MIBK)	ND		19	1.3	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Acetone	**6.3**	**J**	19	3.3	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Benzene	ND		3.9	0.19	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Bromodichloromethane	ND		3.9	0.52	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Bromoform	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Bromomethane	ND		3.9	0.35	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Carbon disulfide	ND		3.9	1.9	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Carbon tetrachloride	ND		3.9	0.38	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chlorobenzene	ND		3.9	0.51	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Dibromochloromethane	ND		3.9	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chloroethane	ND		3.9	0.88	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chloroform	ND		3.9	0.24	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Chloromethane	ND		3.9	0.23	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
cis-1,2-Dichloroethene	ND		3.9	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
cis-1,3-Dichloropropene	ND		3.9	0.56	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Cyclohexane	ND		3.9	0.54	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Dichlorodifluoromethane	ND		3.9	0.32	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Ethylbenzene	ND		3.9	0.27	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
1,2-Dibromoethane	ND		3.9	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Isopropylbenzene	ND		3.9	0.59	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methyl acetate	ND		19	2.3	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methyl tert-butyl ether	ND		3.9	0.38	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methylcyclohexane	ND		3.9	0.59	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Methylene Chloride	ND		3.9	1.8	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Styrene	ND		3.9	0.19	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Tetrachloroethene	ND		3.9	0.52	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Toluene	ND		3.9	0.29	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
trans-1,2-Dichloroethene	ND		3.9	0.40	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
trans-1,3-Dichloropropene	ND		3.9	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Trichloroethene	ND		3.9	0.86	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Trichlorofluoromethane	ND		3.9	0.37	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Vinyl chloride	ND		3.9	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1
Xylenes, Total	ND		7.8	0.65	ug/Kg	☼	08/31/23 12:00	09/01/23 01:49	1

Client Sample ID: MW-7 35`-40`
Lab Sample ID: 480-212302-1

Date Collected: 08/30/23 12:30
Matrix: Solid

Date Received: 08/31/23 10:45
Percent Solids: 88.2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*71 - 125*	*08/31/23 12:00*	*09/01/23 01:49*	*1*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 126*	*08/31/23 12:00*	*09/01/23 01:49*	*1*
4-Bromofluorobenzene (Surr)	*94*		*72 - 126*	*08/31/23 12:00*	*09/01/23 01:49*	*1*
Dibromofluoromethane (Surr)	*104*		*60 - 140*	*08/31/23 12:00*	*09/01/23 01:49*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**21.2**		2.2	0.43	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Barium	**75.4**		0.54	0.12	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Cadmium	**0.043**	**J B**	0.22	0.033	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Chromium	**15.9**		0.54	0.22	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Copper	**22.8**		1.1	0.23	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Lead	**11.4**		1.1	0.26	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Nickel	**24.9**		5.4	0.25	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Selenium	ND		4.3	0.43	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Silver	**0.36**	**J**	0.65	0.22	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1
Zinc	**55.1**	**B**	2.2	0.69	mg/Kg	☼	08/31/23 14:52	09/01/23 17:49	1

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.032**		0.023	0.0054	mg/Kg	☼	09/11/23 10:18	09/11/23 13:02	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.3	0.96	mg/Kg	☼	09/13/23 07:00	09/13/23 16:50	1

Client Sample ID: MW-7 35`-40` DUP
Lab Sample ID: 480-212302-2

Date Collected: 08/30/23 12:45
Matrix: Solid

Date Received: 08/31/23 10:45
Percent Solids: 89.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		3.3	0.24	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dichlorobenzene	ND		3.3	0.26	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1,2,2-Tetrachloroethane	ND		3.3	0.54	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1,2-Trichloroethane	ND		3.3	0.44	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		3.3	0.76	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1-Dichloroethane	ND		3.3	0.41	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,1-Dichloroethene	ND		3.3	0.41	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2,4-Trichlorobenzene	ND		3.3	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dibromo-3-Chloropropane	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dichloroethane	ND		3.3	0.17	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dichloropropane	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,3-Dichlorobenzene	ND		3.3	0.17	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,4-Dichlorobenzene	ND		3.3	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
2-Butanone (MEK)	ND		17	1.2	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
2-Hexanone	ND		17	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
4-Methyl-2-pentanone (MIBK)	ND		17	1.1	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Acetone	**3.5**	**J**	17	2.8	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Benzene	ND		3.3	0.16	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Bromodichloromethane	ND		3.3	0.45	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1

Client Sample ID: MW-7 35`-40` DUP

Lab Sample ID: 480-212302-2

Date Collected: 08/30/23 12:45
Matrix: Solid
Date Received: 08/31/23 10:45
Percent Solids: 89.6

Method: SW846 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Bromomethane	ND		3.3	0.30	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Carbon disulfide	ND		3.3	1.7	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Carbon tetrachloride	ND		3.3	0.32	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chlorobenzene	ND		3.3	0.44	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Dibromochloromethane	ND		3.3	0.43	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chloroethane	ND		3.3	0.76	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chloroform	ND		3.3	0.21	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Chloromethane	ND		3.3	0.20	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
cis-1,2-Dichloroethene	ND		3.3	0.43	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
cis-1,3-Dichloropropene	ND		3.3	0.48	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Cyclohexane	ND		3.3	0.47	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Dichlorodifluoromethane	ND		3.3	0.28	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Ethylbenzene	ND		3.3	0.23	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
1,2-Dibromoethane	ND		3.3	0.43	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Isopropylbenzene	ND		3.3	0.50	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methyl acetate	ND		17	2.0	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methyl tert-butyl ether	ND		3.3	0.33	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methylcyclohexane	ND		3.3	0.51	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Methylene Chloride	ND		3.3	1.5	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Styrene	ND		3.3	0.17	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Tetrachloroethene	ND		3.3	0.45	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Toluene	ND		3.3	0.25	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
trans-1,2-Dichloroethene	ND		3.3	0.35	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
trans-1,3-Dichloropropene	ND		3.3	1.5	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Trichloroethene	ND		3.3	0.74	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Trichlorofluoromethane	ND		3.3	0.32	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Vinyl chloride	ND		3.3	0.41	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1
Xylenes, Total	ND		6.7	0.56	ug/Kg	☼	08/31/23 12:00	09/01/23 02:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*101*		*71 - 125*	*08/31/23 12:00*	*09/01/23 02:13*	*1*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 126*	*08/31/23 12:00*	*09/01/23 02:13*	*1*
4-Bromofluorobenzene (Surr)	*93*		*72 - 126*	*08/31/23 12:00*	*09/01/23 02:13*	*1*
Dibromofluoromethane (Surr)	*101*		*60 - 140*	*08/31/23 12:00*	*09/01/23 02:13*	*1*

Method: SW846 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.1**		2.3	0.47	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Barium	**91.8**		0.58	0.13	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Cadmium	**0.077**	**J B**	0.23	0.035	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Chromium	**22.1**		0.58	0.23	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Copper	**21.4**		1.2	0.25	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Lead	**12.6**		1.2	0.28	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Nickel	**26.5**		5.8	0.27	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Selenium	ND		4.7	0.47	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Silver	**0.41**	**J**	0.70	0.23	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1
Zinc	**59.1**	**B**	2.3	0.75	mg/Kg	☼	08/31/23 14:52	09/01/23 17:53	1

Client Sample ID: MW-7 35`-40` DUP
Lab Sample ID: 480-212302-2

Date Collected: 08/30/23 12:45
Matrix: Solid

Date Received: 08/31/23 10:45
Percent Solids: 89.6

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.016**	**J**	0.021	0.0048	mg/Kg	☼	09/11/23 10:18	09/11/23 13:03	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		2.2	0.92	mg/Kg	☼	09/13/23 07:00	09/13/23 16:50	1

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-212302-1

SDG No.:

ICV Source: MEI_10_CCVL_00502 Concentration Units: mg/L

CCV Source: MEI_10_CCVL_00502

Analyte	ICVL 480-682354/7 09/01/2023 13:29				CCVL 480-682354/20 09/01/2023 16:41				CCVL 480-682354/32 09/01/2023 17:26			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0146	J	0.0150	97	0.0169		0.0150	113	0.0156		0.0150	104
Barium	0.00211		0.00200	106	0.00216		0.00200	108	0.00221		0.00200	111
Cadmium	0.00206		0.00200	103	0.00196	J	0.00200	98	0.00216		0.00200	108
Chromium	0.00337	J	0.00400	84	0.00351	J	0.00400	88	0.00353	J	0.00400	88
Copper	0.00984	J	0.0100	98	0.00945	J	0.0100	95	0.00954	J	0.0100	95
Lead	0.0111		0.0100	111	0.0101		0.0100	101	0.0100		0.0100	100
Nickel	0.00902	J	0.0100	90	0.0102		0.0100	102	0.0100		0.0100	100
Selenium	0.0241	J	0.0250	96	0.0246	J	0.0250	98	0.0256		0.0250	102
Silver	0.00670		0.00600	112	0.00556	J	0.00600	93	0.00661		0.00600	110
Zinc	0.0101		0.0100	101	0.00963	J	0.0100	96	0.0101		0.0100	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: Eurofins Buffalo Job No.: 480-212302-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 480-682354/6 09/01/2023 13:26		CCB 480-682354/19 09/01/2023 16:38		CCB 480-682354/31 09/01/2023 17:22		CCB 480-682354/43 09/01/2023 18:08	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.015	ND		ND		ND		ND	
Barium	0.0020	ND		ND		ND		ND	
Cadmium	0.0020	ND		ND		ND		ND	
Chromium	0.0040	ND		ND		ND		ND	
Copper	0.010	ND		ND		ND		ND	
Lead	0.010	ND		ND		ND		ND	
Nickel	0.010	ND		0.00142	J	0.00131	J	ND	
Selenium	0.025	ND		ND		ND		ND	
Silver	0.0060	ND		ND		ND		ND	
Zinc	0.010	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: Eurofins Buffalo Job No.: 480-212302-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 480-681996/1-A

Instrument Code: ICAP2 Batch No.: 682354

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	ND			6010C
7440-39-3	Barium	ND			6010C
7440-43-9	Cadmium	0.0557	J		6010C
7440-47-3	Chromium	ND			6010C
7440-50-8	Copper	ND			6010C
7439-92-1	Lead	ND			6010C
7440-02-0	Nickel	ND			6010C
7782-49-2	Selenium	ND			6010C
7440-22-4	Silver	ND			6010C
7440-66-6	Zinc	0.747	J		6010C

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 480-682975/2-A ^10

Lab Name: Eurofins Buffalo Job No.: 480-212302-1

Sample Matrix: Solid LCS Source: MED_SRM_D087_00039

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	17.1	9.94		58.2	36.0	109.9		7471B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LCSD - CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCDSRM 480-682975/3-A ^10

Lab Name: Eurofins Buffalo Job No.: 480-212302-1

Sample Matrix: Solid LCS Source: MED_SRM_D087_00039

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	9.57		17.1	56.0	0-109.9	4	20		7471B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Project #215042
Pace Analytical SDG#30337003
Reissued; March 1, 2020
February 28, 2020
Sampling date: 11/20/2019

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data package(reissued, March 1, 2020) for Geologic NY, PC, project #215042, Pace Analytical SDG #30337003 submitted to Vali-Data of WNY, LLC on February 13, 2020. This DUSR has been prepared in general compliance with NYSDEC Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA method Volatile Organics (8260C), Inorganics (6010C) and Mercury (7470A).

The concentrations of the target analytes in all of the analyses were recorded to the reporting limits.

VOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

-Data Completeness
-Narrative and Data Reporting Forms
-Chain of Custody and Traffic Reports
-Holding Times
-Internal Standard (IS) Area Performance
-Surrogate Spike Recoveries
-Method Blank
-Field Duplicate Sample Precision
-Laboratory Control Samples
-MS/MSD
-Compound Quantitation
-Initial Calibration
-Continuing Calibration
-GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES

The data are acceptable for use except where qualified below in MS/MSD and Compound Quantitation.

DATA COMPLETENESS

All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.
Data was not reported to 3 significant figures. This does not affect the usability of the data.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met except 1,2-Dichloroethane was detected in DUPLICATE but not in MW-05 and Methylene Chloride was detected in MW-05 but not the DUPLICATE.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met except the %Rec of Trichloroethene was outside QC limits, high in 1811547MS/1811548MSD. This target analyte should be qualified as estimated high in MW-04, if detected.
The %Rec of 2-Chloroethyl vinyl ether was 0% in 1811547MS/1811548MSD. This target analyte should be qualified as estimated low in MW-04, if detected, or unusable, if not detected.
Several target analytes were outside QC limits in 1811548MSD but were within limits in 1811547MS, so no further action is required.
Samples: MS and MSD were not analyzed unspiked. The results for these samples should be qualified as estimated, since the actual amounts of target analytes in them are unknown.

COMPOUND QUANTITATION
All criteria were met except Methylene Chloride was detected in Trip Blank by Pace. This target analyte should be qualified as undetected at the reporting limit in associated samples in which it was detected below the reporting limit. This target analyte should be qualified as undetected at the blank concentration in samples in which it was detected above the reporting limit but below the blank concentration. This target analyte should be qualified as estimated high in samples in which it was detected above the blank concentration.

INITIAL CALIBRATION
All criteria were met.
Alternate forms of regression were performed on all target analytes whose %RSD >20%, with acceptable results, in the initial calibrations.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

METALS

The following items/criteria were reviewed for this analytical suite:

- -Data Completeness
- -Narrative and Data Reporting Forms
- -Chain of Custody and Traffic Reports
- -Holding Times
- -Blanks
- -Laboratory Control Sample
- -MS/MSD
- -Field Duplicate
- -Serial Dilution
- -Compound Quantitation
- -Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use but are qualified below in Blanks.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met.

BLANKS
All criteria were met except Hg was detected above the MDL, below the reporting limit and is qualified as estimated in ICB and all of the CCBs for batch#MERP 11343. This target analyte should be qualified as undetected at the reporting limit in the samples in which it was detected below the reporting limit. This target analyte should be qualified as estimated high in the samples in which it was detected above the reporting limit.

LABORATORY CONTROL SAMPLE
All criteria were met.

MS/MSD
All criteria were met.

FIELD DUPLICATE
All criteria were met.

SERIAL DILUTION
No Serial dilution was performed.

COMPOUND QUANTITATION
All criteria were met.

CALIBRATION
All criteria were met.

Data Usability Summary Report

Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

Emerging Contaminants #215042
Eurofins
SDG#480-163109-1 & 480-163227-1
February 28, 2020
Sampling date: 11/19, 20/2019

Prepared by:
Jodi Zimmerman
Vali-Data of WNY, LLC
1514 Davis Rd.
West Falls, NY 14170

DELIVERABLES

This Data Usability Summary Report (DUSR) was prepared by evaluating the analytical data packages by Eurofins SDG#480-163109-1 & 480-163227-1, for Geologic NY Inc., submitted to Vali-Data of WNY, LLC on February 11, 2020. This DUSR has been prepared in general compliance in general compliance with NYSDEC; 'Guidelines for Sampling and Analysis of PFAS'(1/2020), Analytical Services Protocols and USEPA National Functional Guidelines. The laboratory performed the analyses using USEPA methods; Semi-Volatile Organics (8270D SIM ID) and Fluorinated Alkyl Substances (537 modified).

SEMIVOLATILE ORGANIC COMPOUNDS

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Internal Standard (IS) Area Performance
- Surrogate Spike Recoveries
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration
- GC/MS Performance Check

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below in MS/MSD and Compound Quantitation.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met except the temperature of the samples was outside QC limits, low but was above 0^{o}C, so no further action is required.

INTERNAL STANDARD (IS)
All criteria were met.

SURROGATE SPIKE RECOVERIES
All criteria were met.

METHOD BLANK
All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All the criteria were met.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met except the concentration of 1,4-Dioxane exceeded the calibration limits and is qualified with an 'E' in MW-05MS/MSD.

COMPOUND QUANTITATION
All criteria were met except the concentration of 1,4-Dioxane exceeded the calibration limits and is qualified with an 'E' in MW-05 and DUP.

INITIAL CALIBRATION
All criteria were met.

CONTINUING CALIBRATION
All criteria were met.

GC/MS PERFORMANCE CHECK
All criteria were met.

PFC IDA

The following items/criteria were reviewed for this analytical suite:

- Data Completeness
- Narrative and Data Reporting Forms
- Chain of Custody and Traffic Reports
- Holding Times
- Surrogate Recoveries
- Internal Standard
- Method Blank
- Laboratory Control Samples
- MS/MSD
- Compound Quantitation
- Initial Calibration
- Continuing Calibration

The items listed above were technically in compliance with the method and SOP criteria with the exceptions discussed in the text below. The data have been reviewed according to the procedures outlined above and qualified accordingly.

OVERALL EVALUATION OF DATA AND POTENTIAL USABILITY ISSUES
The data are acceptable for use except where qualified below in Compound Quantitation.

DATA COMPLETENESS
All criteria were met.

NARRATIVE AND DATA REPORTING FORMS
All criteria were met.

CHAIN OF CUSTODY AND TRAFFIC REPORTS
All criteria were met.

HOLDING TIMES
All holding times were met except the temperature of the samples was outside QC limits, low but was above 0^{o}C, so no further action is required.

SURROGATE RECOVERIES
All criteria were met.

INTERNAL STANDARD
All criteria were met.

METHOD BLANK
All the criteria were met.

FIELD DUPLICATE SAMPLE PRECISION
All criteria were met except PFDA, PFUnA, PFDoA, PFTriA, PFTeA, PFDS, NMeFOSAA and NEtFOSAA were detected in DUP but was not detected in MW-05.

LABORATORY CONTROL SAMPLES
All criteria were met.

MS/MSD
All criteria were met.

COMPOUND QUANTITATION
All the criteria were met except The ion ratio associated with PFHpS failed in MW-05. This target analyte should be qualified as estimated in the associated sample.

INITIAL CALIBRATION
All criteria were met.
Alternate forms of regression were used on PFHxDA, with acceptable results.

CONTINUING CALIBRATION
All criteria were met.